

**TECHNICAL ASSISTANCE, COMMUNITY PARTICIPATION,
SOCIO-ECONOMIC ENVIRONMENT AND SUSTAINABILITY OF
SELECTED DONOR FUNDED PROJECTS IN SAMBURU COUNTY,
KENYA**

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Requirements for the Award of the Degree of Doctor of Philosophy in
Project Planning and Management of the University of Nairobi**

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DECLARATION AND APPROVAL

This Research Thesis is my original work and has not been presented for examination in any University or any other institution of higher learning.

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DEDICATION

This work is dedicated to my family, my wife, Maseina Letiwa, without whose care and support it would not have been possible, and to my children Meseiyeki, Lerionka and Saning'o who have continually filled my life with joy.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACTED	Agency for Technical Cooperation and Development
AMREF	African Medical and Research Foundation
AMURT	Ananda Marga Universal Relief Team
ASALs	Arid and Semi-Arid Lands
ASDSP	Agricultural Sector Development Support Project
AWF	African Wildlife Foundation
CA	Capabilities Approach
CARITAS	Catholic Agency for Justice, Peace and Development
CBOs	Community Based Organizations
CCSDO	County Coordinator, Social Development Officer
CDP	County Director of Planning
CDTF	Community Development Trust Fund
CGAP	Consultative Groups to Assist the Poorest
CIDA	Canadian International Development Agency
CORDAID	Catholic Organization for Relief and Development Aid
CPRC	Chronic Poverty Research Centre
DAC	Development Assistance Committee
DANIDA	Danish International Development Agency
DDOs	District Development officers
DFID	Department for International Development
DFPs	Donor Funded Projects
DRSLP	Drought Resilience and Sustainable livelihoods Support
FAO	Food and Agricultural Organization of the United Nations
FBOs	Faith Based Organizations
GoK	Government of Kenya
HIV/AIDS	Human Immune Virus/Acquired Immune Deficiency Syndrome
IEC	Information, Education and Communication
IFIs	International Financial Institutions
IIRR	International Institute for Rural reconstruction
IMC	International Medical Corps

JICA	Japan International Cooperation Agency
KNBS	Kenya National Bureau of Statistics
M&E	Monitoring and Evaluation
NACOSTI	National Commission for Science, Technology and Innovation
NDMA	National Drought Management Authority
NERCORMP	North Eastern Region Community Resource Management Project for Upland Areas
NGOs	Non-governmental organizations
OECD	Organization for Economic Co-operation and Development
PGDP	Pastoralist Governance Development Project
PLA	Participatory Learning and Action
PM&E	Participatory Monitoring and Evaluation theory
RID	Republican Institute of Democracy
RPLRP	Regional Pastoral Livelihoods Resilience Project
SAIDIA	Samburu Aid in Africa
SAPs	Structural Adjustment Programs
SCHS&IP	Samburu County Health Strategic and Investment Plan
SEED	Samburu Empowerment through Education and Development
SHERP	Samburu Handicap Education and Rehabilitation Programme
SIDA	Swedish International Development Cooperation Agency
SIDEP	Samburu Integrated Development Programme
SNV	Netherlands Development Organization
SPHE	Society of Public Health Education
TA	Technical Assistance
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations, Education, Science and Culture Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
USAID	United State of America International Development
WB	World Bank

WFP	World Food Program
WHO	World Health Organizations
WRP	World Relief Program
WWII	World War II

ABSTRACT

Donor funded projects continue to complement government socio-economic developmental initiatives in Samburu Country aimed at empowering the locals. With budgetary pressures globally, however, the continued support towards the projects in the County is in doubt. This raises concerns with cases of many beneficiaries becoming more vulnerable and marginalized. The purpose of this study was to investigate the influence of technical assistance on sustainability of selected donor funded projects (DFPs) in Samburu County. It also sought to establish the moderating influence of community participation and socioeconomic environment on the relationship between technical assistance and the sustainability of selected DFPS in Samburu County. To realize this, six specific objectives were evaluated guided by equal number of research questions and hypotheses. A review of literature was done and established that although there are numerous studies on the sustainability of donor funded projects, there are few empirical studies conducted showing the influence of technical assistance on sustainability of the projects and how this is moderated by community participation and socio-economic environment. The study was guided by pragmatism paradigm. Both correlational and cross sectional research designs were applied in the study. Using stratified random sampling the study obtained a sample of 137 from a population of 213. A structured questionnaire with Likert-type interval scale anchored on a five-point scale was used to collect primary data. Interview guide and document review techniques were used to triangulate the results. Tests for statistical assumptions showed all the variable had a normal distribution of the data, with the W statistic value, above 0.8 for each variable. The scatter diagram showed that the data was linearly distributed. The tests also confirmed that the variables had no multicollinearity, with Pearson's Product Moment Correlation used to test the direction and strength of the relationships between the variables. Using F-tests, the hypotheses were tested at 0.05 level of significance. The results showed that technical assistance ($R^2 = 26.1$, $F=18.722$, $P = 0.000 < 0.05$), community participation ($R^2 = 23.8$, $F= 14.984$, $p = 0.000 < 0.05$) independently influenced sustainability of donor funded project significantly and that technical assistance, community participation and socio-economic environment jointly influenced ($R^2 = 53.40$, $F = 17.92$, $p = 0.000 < 0.05$) sustainability of donor funded projects significantly. The study however, established that community participation ($R^2 = 30.1$, $F = 6.276$, $p = 0.069 > 0.05$) and socio-economic environment ($R^2 = 23.2$, $F = 0.492$, $p = 0.486 > 0.05$) separately insignificantly moderated the relationship between technical assistance and sustainability of donor funded projects. The study recommends sustained technical assistance towards the project staff and the community aimed at enhancing organizational processes by paying attention to organizational structure, policies and procedures. The study also recommends empowering project staff and community with project management skills ranging from proposal and grant writing, formulation of project idea, planning and budgeting and monitoring and evaluation. Further, mentorship which must be looked at as a component for effective capacity building is recommended as well as adoption of a business model aimed at sustainability through partnerships to bring on board a range of other applicable skills that may benefit the project in the long-term. The study recommends a comparative analysis of sustainability of donor funded projects across counties to examine which counties in the country are more vulnerable while documenting the best practices and also sector specific analysis.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Over the years, developing countries world-wide have continued to benefit from donor-funded projects (DFPs). The projects have been implemented in various sectors including health, education, agriculture, community development, community conflict resolution and management, environmental conservation and protection and infrastructural development (Mujabi, Samson, Kasekende and Ntayi, 2015). The projects are conceived as developmental projects to complement government developmental initiatives (Delmon, 2011). They reach the communities through various institutions including government departments and agencies, International Financial Institutions (IFIs), United Nations (UN) Agencies, Non-governmental organizations (NGOs), Community Based Organizations (CBOs) and Faith Based Organizations (FBOs). Others are initiated through Consultative Groups to Assist the Poorest (CGAP) where funds flow from global headquarters to individual grassroots institutions as grants, and finally public philanthropic foundations (Delmon, 2011; Lelegwe and Okech, 2016).

The funding may be given bilaterally or multilaterally to an international organization, who, on their part, distribute them to implementers (WHO, 2011). These projects are considered the backbone of substantial economic empowerment in uplifting many people in developing countries out of dire social and developmental stagnation. In their socio-economic roles accompanied with sustainable development as their shared common objectives, they have different mechanisms at their disposal to attain this. These comprise a wide impact as pertaining to scale involvement, capacity building of the locals commonly referred to as technical assistance (TA), community empowerment for purpose of effective community participation, environmental conservation, socio-political advancement or development and agro-ecological methods.

There is ongoing argument on the future funding for the projects in the recipient countries. For instance, with tough budgetary constraints in many industrialized countries, cash flow of funds to support the continuous provision of the goods and

services under the projects by donors was in doubt (Steen, Mogasale, Wi, Singh, Das, and Daly, 2006; USAID, 2011). Many development agencies continue to consider the most appropriate methods to utilize resources efficiently with various agencies graduating more countries from the list of aid recipients (USAID, 2011). In practice, considerable interest has emerged on the most suitable way to plan and implement the transition of DFPs as a component of sustainability. This is informed by the fact that although donors have interest in uplifting the socio-economic well-being of a group of persons, the support is considered short term in nature. Additionally, they might not factor in long term sustainability of the funded projects at the community level.

1.1.1 Sustainability of Donor Funded Projects

The term sustainability in development literature is perceived as having a wide and broader scope over the years. The concept came into being as a response to the models of economic growth that characterized the approaches to development over the past half a century (Tango International, 2009). It was finally acknowledged that those models did not sufficiently address the social inequalities which in the process contributed towards environmental degradation. The concept achieved vast usage after the world commission on Environment and Development published the report entitled “Our Common Future” (also referred to as Brundtland Commission). The commission described sustainability as a means of fulfilling the needs of the present without compromising the ability of the emerging generations to satisfy their own needs (Keeble, 1988).

Sustainability is also defined as the possibility of extension in the stream of advantage accrued by the project at the end of external support (William, 2003). Mulwa (2010) described sustainability as the protraction of a project till it achieves its set goals. Mezo (2004) defines sustainability as continuity of gains after significant assistance by the donor or after withdrawal of the support in the society. In all these definitions what is certain is that sustainability is about continuity of the project beyond the donor support. Sustainability is also defined as interest on projects at communal level which combines various dimensions including one, economic which means ability of the local people to identify, procure and utilize available resources whether material or human and have no or minimal dependency on external. Two, social referring to ability of a project to

command peoples' confidence of worthiness, dignity and self-belief, and three, environmental which is the sustainable utilization of resources and conservation of the environment – useful in water projects as people will preserve water catchment regions. Others include organizational and structural an effort of dominant organizations to manage projects to be more responsive and sensible to the local aspirations and needs, and finally, technology which serves as an effort to diverse the most desired technology and promote the usage of indigenous knowledge (Mulwa, 2004).

Four interlinked dimensions of sustainability have been identified (Tango International, 2009). The first dimension is institutional sustainability where institutions supported by donors are expected to function beyond the donor support so that the beneficiaries can continue receiving the benefits. The second is specific household and community resilience in situations where households and communities adopt intentional action to accelerate personal and joint capacity of their members and organizations in order to respond to and influence change. The third dimension is environmental sustainability where sustainable environmental system must ensure a reliable resource base, devoid of overexploitation of renewable resources and conserve biodiversity. The fourth and final dimension is structural change in which the structural dimensions of poverty are focused through empowering the marginalized rural households and the poor (Tango International, 2008; 2009). These dimensions are summarized in Figure 1.1.

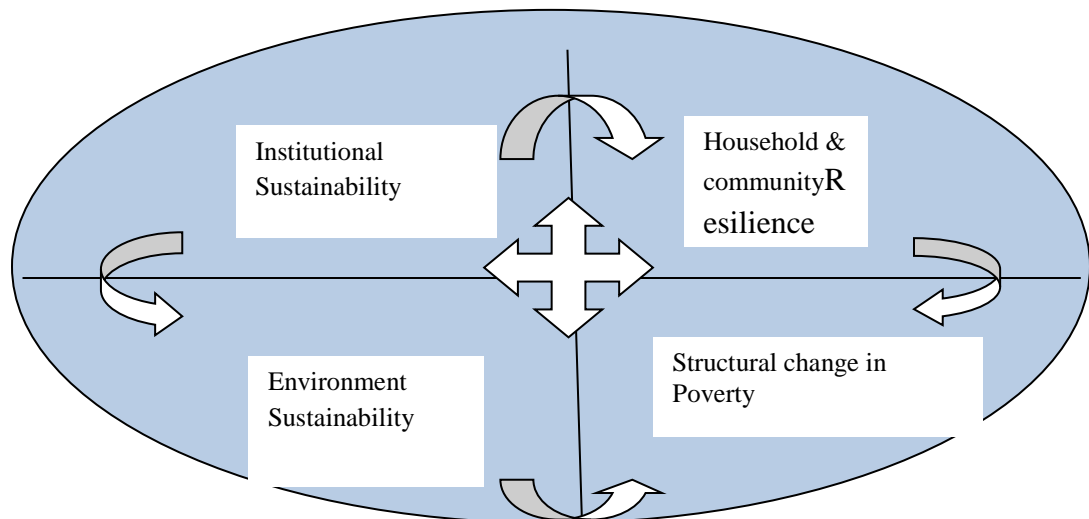


Figure 1.1: Dimensions of Sustainability Adopted from Tango International, 2008

In DFPs, sustainability aims at leaving a legacy of functional institutions that will be self-sustaining once the project ends and that the community would still continue realizing the benefits. This is realized through various steps that include promotion of institutional ownership of project activities, supporting the capability of existing institutions and securing successful transfer of decision-making to low administrative levels. Others include building sufficient follow-up through mentoring and capacity building of key institutions including the community (Elhaut 2007). This dimension has dominated the focus of most DFPs through technical assistance with the aim of sustaining the provision of the benefits to the beneficiaries.

The focus of this study was institutional sustainability as a proxy for sustainability of DFPs. A DFP is sustainable when it is able to deliver an appropriate level of benefits for an extended period of time after major financial, managerial through technical assistance from an external donor is terminated (CPRC, 2007). Technical assistance continues to play an important role in DFPs wherein capacity building towards the local community continues to be provided in an effort to enhance community participation. The socio-economic environment within which the projects are implemented has a role in the sustainability of the projects. Sustainability of DFPs is a major concern in Kenya and in marginalized areas including Samburu County which has over the years continued to rely on donor support in the provision of key services.

1.1.2 Technical Assistance in Donor Funded Projects

Technical assistance entails both institutional strengthening and enhancing skills and knowledge of the personnel involved in the implementation and the management of technical cooperation (European Commission, 2008). It encompasses capacity development of organizations and individuals, provision of policy or expert advice on projects, and strengthening implementation and execution of projects. The concept dates back to the 19th century when Japan sought after overseas countries for ideas on how best to achieve economic and social development (Action Aid, 2005). It was, however, until the period after World War II to 1960s, which also coincided with the period when many world economies, especially in Africa were emerging from colonialism that most technical assistance was experienced worldwide. In addition, following the socio-

economic aftermath, the western world decided to show compassion in support of recovery programs by providing technical assistance.

Around this time, there was uneasiness from European countries on colonialism and the conditions which they subjected countries into granting them independence. The concern was to ensure the grip to pursue capitalistic as opposed to communist ideologies was successful. It was in this period that majority of the UN agencies especially UNESCO, UNICEF and international donor agencies such as Save the Children and Oxfam emerged as development organizations focusing on community developments which in the process bred Community Based Organizations (CBOs) and Non-Governmental Organizational (NGOs) {Lelegwe and Okech, 2016}.

Before then, several theorists and donors posited that ‘under-development’ was as a result of fundamental ‘gaps’ in poor countries. These gaps include: saving gap, whereby there is little domestic savings and low investment; import gap, wherein minimum exports curtailed poor countries from importing enough to meet their needs and capacity gap whereby the poor countries are devoid of the essential skills and technical know-how to accelerate growth of their economies (Action Aid, 2005). By donors providing finance to fill the savings and import gaps, they equally supplied expatriate experts to bridge the capacity gap (Lopes, 2002; Action Aid, 2005). In terms of technical assistance and financial support this is viewed as a relatively mechanistic process, the experts provided by donors imparted knowledge to a community that was actually presumed to have had limited prior knowledge or expertise to enhance their performance (Morgan, 2002).

Fundamental change has however, been witnessed in the past in the thinking within the development of technical assistance, as a result of mostly the failure of ‘blueprint’ approaches that is absent in local ownership and solutions that are locally formulated with no long-term change. There is now a prominent emphasis on participation, locally formulated solutions and local ownership. The drift was, however, considered to be incomplete since many donors continued to adopt financing mechanisms that restricted, rather than encouraged, the ability of poor countries and their impoverished people to formulate their independent policy choices (Morgan, 2002).With some donors, this

particular shift has resulted to fundamental changes in their means of aid provision. Donor practices have continued to increase incentives to offer donor-led technical assistance. Certain that actually aid works better in 'sound' environmental policies, technical advisers have been used by donors to strive and shift priorities of the government in means they find appropriate, resulting to the contradictory position in which donor consultants have drawn supposedly 'country owned' strategies as in Uganda or Cambodia (Morgan, 2002; Action Aid, 2005).

Technical assistance is a core element of the development dimension as part of enhancing human and institutional capacities of beneficiaries to take full advantage of the project in the event the project comes to an end (WHO, 2012). This is considered an important way for maintaining future gains in the flow of projects by focusing on policy, structure, and training of staff. Four major indicators of technical assistance have been singled out by WHO (2012) as necessary in project sustainability. These include financial assistance (loans and grants), provision of goods/commodities, technical transfer, study tours and fellowship and finally, research funding.

Technical transfer which is the focus of this study entails provision of funds to obtain managerial or technical expertise required for project execution in both short term and long term in the management of the project before it is handed over to the local community. Under this arrangement, the work is carried out with the in-country of local personnel to transfer technical competence to the recipient for purpose of sustaining provision of the goods and services beyond the donor, while at the same time minimize on dependence (WHO, 2012). This according to WHO is in recognition that such projects are sophisticated and need multifaceted technical and management skills.

WHO (2012) avers that, organizations and management concerned with project implementation to the national or international level from the community level required to be really empowered. This could be realized through provision of skills and competences, information and resources (human and capital) for efficient operations of its activities beyond the donor (Wanjohi, 2010). In the process, this is expected to facilitate project sustainability beyond the donor support. This research study sought to

examine how the conglomerate of technical assistance influence sustainability of selected donor funded projects with specific focus on Samburu County. Key areas of interest in the study included technical assistance in terms of management and leadership, training in technical skills, mentoring and supervision, financial support and organizational processes such as putting in place necessary governance structures and policies and how these influence sustainability of donor funded projects.

1.1.3 Community Participation and Donor Funded Projects

The practice and discourse of international development depends on the presumption that participation is important in fostering sustainable livelihoods, promotion of sound governance and poverty alleviation across the world (DFID, 2002; Evans, 2002). Participation is also described as a process in which stakeholders influence and share control over growth and development activities, and the resources combined with appropriate decisions that affect them (World Bank, 1994).

Community participation on the other hand, is the involvement of key stakeholders in the projects that may impact on them (AfDB, 2001). Wiebe (2011) defined community participation as the incorporation of targeted beneficiaries in the formulation, design and development projects implementation This comprises the application of measures to share information with them; identify relevant stakeholders; listen to their opinions and incorporate their views in the processes of development planning and decision making. Others include measures to contribute in their capacity building and ultimately, empower them in project involvement, control and manage self-development (AfDB, 2001).

The idea of community participation owes its origin to the late colonial era in parts of Asia and Africa some 40 years ago, through the community development movement. Over the years, community participation has substantially been embraced as a doctrine in the international community development arena. Weibe (2011) affirms that the form and level of this involvement varies enormously and that the term is applied from perfunctory consultation with target groups at the continuum end, to projects started and managed by people's organizations at the other end (Weibe, 2011). Such participation, Theron (2005) observed is best done through local associations dubbed community participation.

Community participation is considered most successful when the community participates more responsibly, in comparison to incidents in which key public agencies assess consumer preferences through meetings or surveys.

Community participation is also viewed as a means by which the residents of a community are allowed a choice to express their opinions and also participate in issues that affect their day to day lives (Theron, 2005). For community participation to work perfectly, projects must incorporate special components that focus on it directly. For example, villagers may be hired to assist in all spheres of formulating, designing, implementing, controlling, managing, and evaluating a new water supply and sanitation system, only in the cases where effort, time, resources and funds are utilized appropriately. Specific focus must be emphasized to the local communities' development and structures of governance to sufficiently oversee local participation. These particular local structures of governance are responsible for directing and executing development projects but not just receiving a share of the project gains (Thwala, 2009).

The purposes of community participation as a volatile process involve forming beneficiary capacity, residents' empowerment, accelerating effectiveness of projects, improvement of project efficiency, and project costs sharing. The framework comprises four levels of information sharing namely intensity level of participation, consulting, decision making and initiation action (Abbott, 1991; Thwala, 2009). Community participation encompasses the involvement of all members of a community or organization in the project implementation cycle. This empowers them to participate in making decisions related to development projects activities that affect them (USAID, 2011). Over the years, the idea of community participation in socio-economic development has become prominent in the implementation of donor funded projects (Delmon, 2011). Quoting OECD, Saxby (2003) contends that for sustainable development, projects must be owned locally and a model of partnership adopted with donors' programs, and functions operating within development strategies should be owned locally. Equally, the donors should respect and strongly advocate for local community's commitments, capacity development, participation and ownership.

For a full approach to development acceleration, developing countries have been urged to be in the driver's seat and set the basis, possessing and the implementation of their strategies of development as the beneficiaries of the projects. Local ownership has also been singled out by CIDA (2002) as one of the components of effective development. CIDA posits that strategies must be formulated by the recipient countries (their governments and the local community) to depict the actual priorities of the recipients not only relying on those of the donors. This, CIDA noted, could be supported by the formation of community groups in the affected communities to enable them play pivotal role in service provision and in the sustainability of projects while holding donors accountable to commitment in services provision (Bennett *et al.*, 2011). This according to Bennett *et al* however, requires capacity building of the local community to enhance their effective involvement. These views support participatory theory whereby stakeholder participation has been emphasized as one of the methods of increasing effectiveness of project development.

Interference in development will ensure that the purpose is attained if the local community is actively involved (Karl, 2000). This is necessary since the local community clearly understand their challenges better and they can utilize their resources and skills to arrive at solutions that are flexible and well suited to their specific needs, which if well considered will enhance sustainability of the project. Community participation in projects facilitates development programs which are indigenously derived and have relevancy to the local community. Oakley *et al* (1998) observes that in order for development efforts to reap sustainable changes in the lives of the poor people, they must take into consideration the values of the locals. Similar views were shared by Rudqvist & Woodford-Berger (1996) who noted that the community will assist in detecting the challenges at the early implementing phase before they escalate into greater sources of wastefulness and conflict. Similarly, Katz and Sara (1997) posit that a strong linkage exists between projects sustainability and community members' participation, and eventually the community must be able to curve their own desired destiny.

In the project cycle, participation by the community should be systematically followed to assure that the community members volunteer what they know, learn and share what they

believe they know and hence improve their capabilities (Katz & Sara, 1997; Oino, Geoffrey, Kirui & Cyrillah, 2015). This according to Oino *et al* (2015), include components such as acceptance, community ownership, provision of resources, involvement of community as well as their ability to participate actively in the project planning and budgeting, designing, project control and implementation, monitoring and finally evaluation.

1.1.4 Socio-Economic Environment and Donor Funded Projects

Socio-economic environment refers to the combination of economic and external social factors that positively influence the operations and performance of a firm. The socio-economic environment is a portion of the overall firm environment which results in both positive and negative impacts of a project. Key factors include culture, demographics and economic indicators in which the projects are implemented. In the implementation of the projects, those responsible need to be attuned to the project environment within which they operate (Wideman, 2001). In Matthews and Herbert (2004), it was noted that community-based projects that take into consideration culture and social practices become sustainable.

On economic front, ILO (1990) affirmed that the long-term economic viability of project results is dependent on a favourable economic environment. In this case, projects aim to upgrade the institutional capacity of agencies providing general and specific services to small industries. Effective demand for products generated by small industries depend on the incomes of rural producers which in turn, depend on the rate of agricultural growth. This requires reliable markets and infrastructural systems, technological preferences adaptable to the social and economic situations which can be utilized and protected in the resource base. Projects initiated at the community level need to give necessary focus to the socio-cultural issues in any identified project at the design and implementation stage (Roseland *et al.*, 2005).

In the process of implementing these projects, there is need to recognize diversity within the community and the environment, which determines the resultant outcomes which comprises of attributes such as technology, politics, economic and society needs to be

identified (Ingle, 2005). Further interceptions in development may not necessarily deliver sustainable gains as a result of lack of proper attention to parameters such as gender, social and culturally practices. To apply desirable new technologies and inventions, involvement and the incorporation of the locals in matters of decision making, division of labour by gender and cultural preferences is critical (Hayuma, 2011). Projects should be respectful and accommodative of community's cultural attributes such as religion, norms and beliefs.

It is perceived that any project activity that contradicts the socio-cultural norms of a community will always be strongly resisted and its sustainability chance hampered, and may be dismal. It is therefore, imperative to consider the socio-economic environment in the initial phase of project initiation to avoid brushing shoulders with a community's socio-cultural system during the implementation phase (Matthews & Herbert, 2004). For instance, in the anti-campaign to Female Genital Mutilation (FGM) projects in Kenya, donors had to withdraw mid-stream (Hayuma, 2011). Similarly, a project must be considerate of the actual community's values, norms, religion and beliefs and one that negates community's socio-cultural practices is met with full force resistance and its sustainability chance becomes minimal (Oino *et al.*, 2015). Given the role socio-economic environment is expected to play in the sustainability of donor funded projects, the study included this in order to establish the moderating effect of socio-economic environment on donor funded projects. Key variables included were culture, demographics as well as, economic indicators such as level of income and health outcomes.

1.1.5 Donor Funded Projects in Samburu County

Samburu is a semi-arid county in the former Rift Valley Province. It borders Turkana to the north-west, Laikipia to the south, Isiolo to the east and Marsabit to the north-east. The county covers an area of 20,182.50 Km² with a population of 223,947 accounting for 0.6 percent of the national population. Population growth rate in the county is estimated at 4.45 percent compared to the national growth rate of 3 percent, while total fertility rate (TFR) is estimated at 6.7 percent. A significant portion of the county's population estimated at over 80 percent is however, youthful. The county's population density is

413.2 slightly higher than the national population density which is 401.1 per square kilometre (GoK, 2015).

It is estimated that 80 percent of the population comprises of the Samburu ethnic community, 20 percent comprises of other tribes mainly Turkana, Kikuyu, Meru, Somalia amongst others (CRECO, 2012). Christianity is the main religion in the county. The Samburu language which is similar to the Masai dialect, is the main local language with Swahili language common especially, among the younger people (CRECO, 2012). The primary economic activity of the county is nomadic pastoralism with some minimal agricultural farming and some prospects of mineral resources like precious stones (CRA, 2012).

In the county, livestock production contributes 85 percent of income in pastoral livelihood zones and 60 percent in agro pastoral zones. Residents have adopted various coping mechanisms including borrowing from friends, sharing food, reduction in number of meals, and buying food on credit with the coping strategy index of 23.4 (LRA, 2013). Other sources of livelihoods include charcoal burning, livestock keeping and crop cultivation in the catchment areas and wetlands. These activities have over the years contributed greatly to the destruction of the environment, which in the process has partially accounted for ethnic conflicts and border clashes.

Samburu County is classified as one of the poorest counties in the nation with a poverty rate of 73.5 percent, higher than the national poverty rate of 45.9 percent. Wage earning population in the county is paltry estimated at 3,700 representing 1.5 percent of the county's population (CRESCO, 2012; GoK, 2015). Health status in the county remains sub-optimal level with only less than 50% of the population accessing healthcare. Health indicators remain poor, with HIV/AIDS, pneumonia, diarrhoea, gunshots, and poor housing considered as the leading cause of mortality. Respiratory tract infection (RTI), malaria, diarrheal, and pneumonia are considered the main cause of morbidity. Maternal mortality rate is estimated at about 50 deaths per 1,000, while under-five mortality rate is

estimated at 56 deaths per 1000 births with neonatal mortality rate approximated at 31/1000 births (GoK, 2012; GoK, 2015; SCHS & IP, 2016).

Nutrition remains a big challenge in the county with the prevalence of stunting being 20.8%, wasting is 8.2 percent, while underweight is at 17.2 percent. Although these indicators show improvements, they fall far below the then Millennium Development Goals (MDGs) and the country average (GoK, 2015). The county's disabled person's percentage is lower than the national disability population estimated at 3.46 percent with 1 percent having visual disability, 0.84 percent hearing, 0.5 percent speech, 1.17 percent physical/self-care, and 0.31 percent with mental disability (KNBS, 2009). Donor projects have continued to be implemented in the county aimed at improving these indicators.

On literacy, the school dropout rate stands at 45 percent for boys, 50 percent for girls and 25 percent in pre-school with low transition rate from early childhood development (ECD) to primary to secondary. These are majorly attributed to poverty, insecurity and cultural practices. Enrolment levels in the county exhibit gender disparities with girls' enrolment lower than boys by 17 percent. In the county, majority of the population estimated at about 63.6 percent have primary education, 6.5 percent secondary education, while only 28.9 percent can read and write, ranking the county at position 43 out of the 47 counties (CRA, 2011; LRA, 2013). Early girl child marriages and pregnancies as a result of culture and traditions continue to be experienced in the county. The boy child is charged with the provision of security against cattle rustling, as well as looking after livestock which continue to affect their ability to pursue education. Against these statistics, donors have initiated various projects aimed at improving access to education and literacy levels.

In terms of water, the main water sources in Samburu County are boreholes, water pans, springs and small dams which are seasonal in nature (SRA, 2013). Trekking distance to water sources is about 0.5 – 8 kilometres although in pastoral zones the distance is estimated at between 10 and 20 kilometres. Water fetching waiting time in the county is

less than five minutes in agro pastoral zones and around thirty minutes to three hours in pastoral zones.

The cost of water per 20 litre can is estimated at between 2-5 shillings with consumption rate in pastoral areas estimated at 5-8 litres per person per day, while in agro pastoral areas it is estimated at between 10-15 litres per person per day (SRA, 2013). This situation has from time to time contributed towards conflicts among neighbouring communities. It is also estimated that only 33.6 percent of county population has access to safe water as compared to 54.1 percent of the national population, while only 26.5 percent of the population have managed to improve their sanitation (KNBS, 2009; CRA, 2011; SRA, 2013). In an attempt to mitigate this situation, donors have initiated projects to facilitate access to safe water both for domestic use and livestock consumption.

The situational analysis provided shows that the county's population is disadvantaged economically, socially and environmentally. The socio-economic indicators result in negative economic and social consequences including household's descent into poverty, food insecurity in rural households and absorption substantial financial resources which could lead to catastrophic spending (Muyanga, Jayne and Burke, 2013; Haacker, 2015). The marginalization has in the process continued to attract donors to initiate projects for purposes of socio-economic empowering. A number of the projects have been initiated in the county in agriculture, health, education, environment conservation and conflict management. The projects are implemented both on the budget and off-budget with on-budget projects implemented through the government budgetary mechanisms, while off-budget are implemented directly or through NGOs and CBOs.

Following the devolution of the governance system, the county government of Samburu with support from various development partners has equally initiated various projects aimed at improving the poor socio-economic indicators (Stover, 2014; SCHS & IP, 2016). The importance of external financing, however, continues to decline hence, raising sustainability concerns of these projects which may further marginalize the residents. Given poverty levels and the living conditions in the counties, if policy debate and

dialogue is not sustained, poor households in the county who unfortunately are the majority, are likely to continue suffering from catastrophic spending which in the process may worsen the economic, social and environmental indicators in the county. This study was thus deemed to contribute to the process of donor funding from an informed perspective.

1.2 Statement of the Problem

Worldwide, DFPs continue to complement government socio-economic developmental initiatives aimed at empowering the locals. With budgetary pressures in many industrialized countries, the continued support towards these initiatives by donors is in doubt (USAID, 2011). This has in the process attracted debate and dialogue about sustainability of the projects in many recipient countries (Steen, Mogasale, Singh, Das and Daly, 2006; Kabanda, 2011). For a project to remain sustainable, beneficiaries must be able to manage the project on their own without the assistance of the funding agency depending on the looming problem. Technical assistance provided by donors in the implementation process to the community and project staff has been identified to impact on the sustainability of the projects (USAID, 2011). Similarly, the discourse and practice of the projects over a period of time, rest on the participation of the local community (AfDB, 2001).

Capacity building earmarked towards empowering the locals to start, manage, plan and control their own initiated development together with promotion of good governance is important (AfDB, 2001; DFID, 2002). Identification of project stakeholders and sharing of information together, while listening to their opinions is crucial in project sustainability (Wiebe, 2011). The overall socio-economic environment within which projects are implemented impact on the project both negatively and positively. For instance, in the management of projects, those responsible need to be attuned to the project environment within which they operate for purposes of sustainability.

Sustainability of donor funded projects in marginalized communities continues to raise concerns with cases of many beneficiaries becoming more vulnerable and marginalized

(GoK, 2009; GoK, 2012; Lelegwe and Okech, 2016). For instance, following the reduction in support by Clinton Foundation, PEPFAR, and Global Fund, many beneficiaries were left more vulnerable (Lelegwe and Okech, 2016). With sustainable strategies, the situation would have however, been contained and the gains expanded to other deserving cases. In some cases, donors have had to exit before fully implementing the project activities and later coming back in a different form with majority citing sustainability as a major issue of their discontinuity. In the end, the intended beneficiaries become more vulnerable than before. Limited studies on sustainability of donor funded projects if any have been undertaken to examine the joint influence of technical assistance, community participation and socio-economic environment notwithstanding the number of DFPs in Samburu County. Whereas in some cases efforts have been directed towards enhancing the capacity of employees through mentorship and training in project management, very limited empirical and statistically examined evidence exist to show whether the donors actually continue to provide these services towards the recipient and how these impact on the sustainability of the projects.

Although a few studies like Oino *et al* (2015), Lelegwe and Okech (2016) have attempted to link community participation and sustainability of projects in general, they are not only limited in scope but also in methodology. The studies simply document community participation without necessarily examining the significance of technical assistance, community participation and socio-economic environment on the sustainability of the projects especially amongst the marginalized in the arid and semi-arid lands (ASALs) in general and Samburu County in particular. There is, therefore, need to empirically investigate how technical assistance moderated by community participation and socio-economic environment factors influence sustainability of DFPs in Samburu County.

This would give evidence necessary for strategic direction in enhancing sustainability of DFPs in the county given that most of the projects are short term in nature despite their significant role at the community level. Similarly, there seems to be a missing link between the moderating influence of community participation and technical assistance on donor funded projects. Against this background, it was necessary to examine the

influence of technical assistance on the sustainability of DFPs in Samburu County, whilst focusing on the influence of technical assistance, and at the same time examine the moderating influence of community participation and socio-economic environment on the sustainability of donor funded projects.

1.3 Purpose of the Study

The purpose of the study was to investigate the influence of technical assistance on sustainability of selected DFPs in Samburu County. The study also sought to establish the moderating influence of community participation and socio-economic environment on the relationship between technical assistance and the sustainability of selected DFPs in Samburu County.

1.4 Specific Objectives of the Study

The study was guided by the following objectives.

- i. Establish the influence of technical assistance on sustainability of selected DFPs in Samburu County.
- ii. Assess the influence of community participation on sustainability of selected DFPs in Samburu County.
- iii. Assess the influence of socio-economic environment on sustainability of selected DFPs in Samburu County.
- iv. Examine the influence of technical assistance, community participation and socio-economic environment on sustainability of selected DFPs in Samburu County
- v. Establish the moderating influence of community participation on the relationship between technical assistance and sustainability of selected DFPs in Samburu County.
- vi. Examine the moderating influence of socio-economic environment on the relationship between technical assistance and sustainability of selected DFPs in Samburu County.

1.5 Research Questions

The following questions were answered by the study

- i. In what way does technical assistance influence sustainability of selected DFPs in Samburu County?
- ii. How does community participation influence sustainability of selected DFPs in Samburu County?
- iii. What is the influence of socio-economic environment on the sustainability of selected DFPs in Samburu County?
- iv. What is the influence of technical assistance, community participation and socio-economic environment on the sustainability of selected DFPs in Samburu County?
- v. What is the moderating influence of community participation on the relationship between technical assistance and sustainability of selected DFPs in Samburu County?
- vi. What is the moderating influence of socio-economic environment on the relationship between technical assistance and sustainability of selected DFPs in Samburu County?

1.6 Hypothesis of the Study

The following hypothesis explains the possible relationships of the variables as perceived in the study.

- i. H₁; Technical assistance has a significant influence on sustainability of selected DFPs in Samburu County.
- ii. H₁; Community participation has a significant influence on sustainability selected DFPs in Samburu County.
- iii. H₁; Socio-economic environment has a significant influence on sustainability of selected DFPs in Samburu County.
- iv. H₁; Technical assistance, community participation and socioeconomic environment have influence on sustainability of selected DFPs in Samburu County.

- v. H₁; The relationship between technical assistance and sustainability of selected DFPs in Samburu County is significantly moderated by community participation.
- vi. H₁; The relationship between technical assistance and sustainability of selected DFPs in Samburu County is significantly moderated by socio-economic environment.

1.7 Significance of the Study

The findings of this study are expected to be relevant to various stakeholders including the government, NGOs, local community, donor funding agencies, local leaders among others in the project management cycle with regard to sustainability. The government in and other key stakeholders may access current literature and hence, facilitate in the review of policies and regulations on donor funded projects in terms of technical assistance especially with regard to financing, capacity building, among others aimed at sustainability of projects. Donor funding agencies that support community based projects would benefit from the study through the documented lessons on the influence of technical assistance, community participation and socio-economic environment factors on the sustainability of DFPs.

Similarly, the findings may be a reference tool and a guide to development actors like, donor funding agencies in implementation of socio-economic developmental projects that may lead towards the adoption of best practices that impact on sustainability of the donor funded projects. It is hoped that project management staff and implementers would use these study results as a tool to influence community participation in ensuring sustainability of donor funded projects. The community may as well benefit in terms of understanding how their varied effective participation may influence sustainability of donor funded projects. Equally likely to benefit are researchers and scholars who may access current literature relating to sustainability of donor funded projects that will continue to inform policy, debate and dialogue.

1.8 Limitations of the Study

In the process of undertaking the study, various limitations were encountered. First, there were differences in the understanding of sustainability of DFPs by various stakeholders in the county with some respondents considering the subject very sensitive. To overcome this, sustainability concepts relating to DFPs were broken into understandable concepts and questions presented as prescribed by any sustainability framework. It was time consuming for the researcher to undertake the geo-mapping of the respondents given the topography of the study area. The area of coverage was also wide and with employees mobile since the projects covers a vast area thereby affecting timely responses. At the time of data collection, cases of insecurity were reported in most parts of the county which affected accessing some respondents. The researcher had to seek the services of local administration to access the respondents which in addition made the process of data collection lengthy. Finally, the study was only conducted in one county even though DFPs are implemented in all counties in the country.

1.9 Delimitations of the Study

There are many variables that can influence sustainability of DFPs, however, the study was confined to sustainability of DFPs in terms of technical assistance and the moderating influence of community participation and socio-economic environment. Although there are many frameworks and models relating to sustainability of DFPs, the study was guided by the conceptual framework that provided the interrelationships between sustainability of DFPs and technical assistance moderated by community participation and socio-economic environment. The DFPs operate in many counties, however, the study only examined the projects implemented in Samburu County. Given the nature of the study only those involved in the implementation of the projects were targeted.

1.10 Assumptions of the Study

This study made a number of assumptions, one, that in Samburu County, stakeholders in the county are actively involved in the implementation of DFPs and were willing to provide data on the problem under investigation. This is consistent with constructivism

learning theory, which asserts that learning is an active, constructive process where people construct or create their own representations of reality. In the process new information is linked to prior knowledge creating mental representations (Duffy and Cunningham, 1996; Fosnot, 1996). Similarly, project stakeholders were assumed to be available and willing to provide necessary data. It was also assumed that respondents could communicate in English and or Swahili to facilitate data collection. Finally, it was also assumed that security situation would be friendly and therefore access to respondents would not be affected.

1.11 Definitions of significant terms used in the Study

The following terms are defined as were used in the study. It is acknowledged that they may be used elsewhere to mean different things.

Technical Assistance: Refers to institutional strengthening and enhancing the skills and knowledge of the personnel engaged in the DFPs with key indicators of being financial assistance (loans and grants), provision of commodities, technical transfer, study tours training in managerial and technical skills, supervision, mentoring, supervision, governance structures, among others.

Community Participation: Entails the involvement of all members of a community in the project implementation cycle so that they can provide support relating to development project activities that will affect them. The indicators included ownership by the community, provision of resources, capacity in planning and budgeting, level of involvement, among others.

Sustainability of Donor Funded Projects: Is a situation where institutions supported by donors are expected to function beyond the donor support so that the beneficiaries can continue providing the benefits to the community. The indicators included continuation in the stream of benefits, recorded growth in the number of beneficiaries, among others.

Socio-Economic Environment: Comprised of the behaviour of the environs where the project is undertaken and it includes social, political and economic environment both within and outside the project. The variables included were beliefs, norms, gender, religion, income, health indicators and social harmony, among others.

Donor Funded Projects: These are socio-economic projects meant to complement government developmental initiatives to its populace in improving their socio-economic like health indicators, economic status, access to water, improved economic welfare, literacy levels, among others.

1.12 Organization of the Study

The Thesis is organized in five chapters where Chapter one provides Introduction which has the Background to the Study, Statement of the Problem, Purpose of the Study, Specific Objectives, Research Questions and Hypotheses, Significance of the Study, Assumptions, Limitations, Delimitation and Definition of Significant Terms. Chapter Two reviews Literature, Conceptual Framework and the Summary of the Literature and Gaps established. In Chapter Three, various Research Design and Methodological issues are described including Research philosophy, Target Population, Sampling Technique and Sample Size, Data Collection Procedures, Analysis and Operationalization of the variables. Chapter Four provides data analysis, interpretation and discussion, followed by Chapter Five in which the Summary, Conclusions and Recommendations are provided in that order. Finally, followed by References and Appendices.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature concerning sustainability of DFPs and how they are influenced by technical assistance, community participation and social-economic environment. This is drawn from published articles, organizational reports and empirical research in an effort to present different views and arguments concerning the variables under consideration. The chapter explores the dependent variable in this case sustainability of DFPs first, followed by the relationship between donor funded projects and technical assistance, and the moderating influence of community participation and socio-economic environment. In the chapter theories that informed the study are reviewed followed by a conceptual framework which pictorially depicts the different variables and their ensuing relationship. Lastly, research gaps on the basis of the reviewed literature and chapter summary are presented in that order.

2.2 Sustainability of Donor Funded Projects

Project sustainability is regarded as the potentiality of a project to begin a process whereby gains are assured beyond the intended financing period. Okun (2000) defines project sustainability as the extension of gains after significant assistance from a donor has been accomplished, key in these definitions is maintaining the actual flow of benefits into the foreseen future rather than on projects and programs sustainability. Literature shows existence of four interlinked features of project sustainability. These are household and community resilience, institutional sustainability, environmental sustainability and structural change in poverty (Tango International, 2008; 2009).

In donor funded projects, institutional sustainability aims at leaving an upshot of functional organizations that will be able to sustain themselves independently at the end of the project and that the community would still continue realizing benefits. This is realized through various steps that include promotion of ownership of the project activities by the organization; supporting able existing organization and fastening

successful transfer of decision-making to administrative staff on lower hierarchy. Others include building sufficient follow-up through mentoring and capacity building of key institutions including the community.

This dimension has been the focus of most donor funded projects mainly achieved through technical assistance aimed at sustaining the provision of the goods and services (Tango International, 2008, 2009). The second dimension of sustainability involves building household and community resilience (IFAD, 2007; Cascio, 2007). In addition to encouraging interference that ensure increased household income and assets, donors focus at creating instances whereby households and communities are capable of handling vigorous and sudden changes without collapsing after adversity or hard times such as climate change, natural disaster, and market volatility, among others (Cascio 2007). These are achieved by a well-defined decision-making routine, collaboration, and externally of the community. This is in agreement with majority of the donors, in their aspiration to strengthen the sustainability and capacity of rural organizations to be able to keep the benefits of the sponsored donor projects.

The third feature of sustainability requires the establishment of systems that ensure environmental sustainable production, which has equally not been given sufficient attention like in the case of household and community resilience dimension. Given the dependence of most rural communities on a limited natural resource base, environmental sustainability is critical to the maintenance of household income and asset streams. Furthermore, environmental sustainability is not likely to be achieved without well-functioning institutions involved in collective action. An environmentally sustainable system must avoid over exploitation of renewable resources and preserve biodiversity (Tango International, 2008, 2009). This diversity is necessary to ecologically resilient systems that can respond effectively to climatic disturbances. Changes relating to this could take many years and are not likely to be achieved in the first cycle of a project.

The fourth and final dimension of sustainability, involves addressing the structural dimensions of poverty that perpetuate social inequality. This dimension involves

empowering poor individuals and marginalized rural households to overcome poverty through the use of marketable skills and access to social services. In order to overcome the structural dimensions of poverty, donor organizations provide focused capacity and confidence building measures. These measures are aimed at empowering vulnerable individuals and groups while at the same time encourage effective participation in planning and decision-making processes (IFAD 2007). Changes in this dimension could take decades and are not likely to be achieved in the first or second cycle of a project (Tango International, 2009).

Although donors aim at improving the socio-economic status of a select group in the society either directly or indirectly, the long term continuity is a concern. This according to Heeks and Baark (1998) is because the funds provided by most of these donors are project-driven and short-term term in nature with minimal consideration for sustainability after the funding period. While concurring with this view, Oino *et al* (2015) notes that short-term cycles for funding, conflict in duration required to stimulate social change and reasonable worthwhile sensible interventions might not be always financially viable once donor funding ceases. In citing World Bank, Bamberger and Cheema (1990) contends that a development program is actually sustainable when it is able to yield an adequate level of gains for an extensive period of time after reasonable financial, managerial and other technical assistance from an external sponsor is stopped (USAID, 2011).

As donors continue to fund development activities through direct government funding, international agencies, NGOs, CBOs, FBOs, among other initiatives, sustainability continue to raise concerns (CPRC, 2007; Barbie, 2008; Heeks, 2004; Okun, 2000). The funds provided by donors could either be project-driven or short-term in nature and do not necessarily consider the entire funding mechanism policies which target project continuity beyond the funding period which in the process leave the beneficiary more marginalized (Heeks, 2004). Similarly a project is viewed as sustainable if it continuously yields high benefits after the particular donor terminates significant technical support, financial and marginal assistance (CPRC, 2007).

Donor project continue to experience sustainability related challenges thereby affecting the continued provision of intended socio-economic services and goods with many beneficiaries becoming more vulnerable and marginalized (Haacker, 2014). In supporting this view, Oino *et al* (2015), while quoting Ingle (2005), posits that in order for a specific project to realize sustainability, it requires a strategic approach for its implementation which combines four major parts namely future oriented that is subject oriented; external where there is likelihood of diversity in the project environment; environmental fit and finally, process orientation in terms of planning and management of project.

2.3 Technical Assistance and Sustainability of Donor Funded Projects

Technical assistance encompasses capacity development of organizations and individuals; provision of policy or expert advice on projects; strengthening implementation (of services, investments, regulatory activities and finally preparation and facilitation of cooperation in the project execution (European Commission, 2008). Straussman (2001) considered technical assistance as an acceptable means for facilitating local entities comprising government, CBOs, NGOs and the local community through capacity building meant to ensure continuity in service delivery. Capacity building comprises of several strategies, techniques and methods that are geared towards accelerated organizational performance by improving their efficiency and effectiveness.

The aim of capacity building is usually on information technology, planning and financial management, human resources and manpower, budgeting, and organizational processes which includes government (Straussman, 2001). Donor institutions usually apply technical assistance to assist the locals in capacity development and effective governance. World Bank (2010) notes that accelerating individual's capacity or groups to choose and to transform these choices into appropriate actions and results is presumed to be quite vital. Central to these process are practices which build both individual and collective assets, taking into consideration improvement in efficiency and management fairness, as well as institutional context that governs the utilization of these assets and good management (McDade, 2004; World Bank, 2010).

Good management extends beyond expertise and technical skills needed for successful implementation of projects. While supporting this, Little (1993) avers that organizational and capacity management is an ingredient for effective project implementation which in the process enhance continued delivery of desired results. People empowered have a freedom of choice and action, which results in a reasonable course of influence in their lives, and appropriate decisions that impact positively in their welfare (Little, 1993). In a study by Hoclgkin (1994) on sustainability of Donor-Assisted Rural Water Supply Projects, various factors were found to affect sustainability of water projects. These included institutions, development processes, technologies, contextual factors and forces, project organization and process. Despite the findings, the significance of these variables was not clearly highlighted in the study.

Projects and programs that combine, and construct on management of local structures, have better chances for encouraging project sustainability (Mulwa, 2010). The capability of the local agencies to manage or absorb systems, new structures, notions and funds is often not sufficiently assessed, and over-optimistic presumptions are usually made and in the process affect the future of the project. Having the management structure right needs an appropriate organizational analysis at the project formulation stage (Mulwa, 2010).

Sufficient and effective staffing is equally a vital aspect for sustainability of community-based projects. The staff involved in implementation needs not only to have the necessary skills but also commitment to project goals, and the utilization of indigenous staff in community based projects. This is in recognition of the fact that lack of adequately trained personnel has been found to negatively impact on the sustainability of community-based projects (Bamberger and Cheema, 1990). This could be realized through provision of adequate staff training for effective project delivery as part of capacity building.

In examining the importance of a well-organized system of internal control in regard with the bank sector, Palfi and Muresan (2009) revealed that the continuous collaboration, based on periodical meetings, between all structures of bank, characterizes an effective internal control. This study however failed to disclose whether the same effective internal

control system can improve the sustainability of community based projects. Similarly, Ekanayakage and Halwatura (2013) examined success factors in donor funded projects on internal estate roads and revealed that more site visits by the management staff, budget to be suit to the site location and the conditions affect success of the projects. The study seems to have concentrated more on financial related issues without explaining how issues of capacity building may affect sustainability. In the examination of factors influencing sustainability of donor funded projects the case of Wenje water projects in Tana River County, Nthenge (2014) concluded that all donor funded water projects were not sustainably managed. The findings notwithstanding, the analysis was purely descriptive. These findings compares with Wang *et al* (2010) who examined sustainability-centered assessment approach, to identify critical factors for sustainable project management and found that leadership, process control and communication play the most important roles in the suitability of project management.

Sustainability of donor funded projects, according to Khan and Hare (2005) requires the development of firm institutional base, powerful programmatic approach, and adequate funds. At the organizational level, the funded organizations requires to establish structures, internal systems, and work culture that facilitate firm leadership and positive organizational image, enhance the belief on people's willingness to promote services and products they deem valuable, and contribute the development plans for sustenance. Oswald and Ruedin (2012) opine that donors have responsibilities when funding development interventions to relate capacity building as part of the technical assistance at the community level. This is in realization that donors withdraw their assistance at a country level which may impact negatively to the beneficiaries.

Phasing out consists of a carefully-considered approach to assuring a long-term sustainability of a project or programme so that the community may be able to ensure the continuity (Heldgaar, 2008; Oswald and Ruedin, 2012). While supporting this, SDC (2010) noted that a community needs to be prepared to manage the project upon the exit of the donor by enhancing their skills as a form of technical assistance. Other studies also support the view that capacity building is a vital step for preparing of a community, government and NGOs for development sustainability (Bennett, Agyepong, Sheikh,

Hanson, Ssenooba and Gilson, 2011; Oino *et al.*, 2015). This could be in terms of accelerating the managerial and technical skills of government employees through mentoring and appropriate training. Other support comprise of encouraging quasi-government structures and the necessary systems for those structures to effectively operate, and encouraging appropriate training materials development and production together with sound government guidelines and norms.

Supporting community projects could also be in terms of capacity development provision to support implementing partners in their preparation for transition in their take-over of functions in analytical and management. Finally, supporting community capacity by strengthening governance structures and management by building networks of the organizations that implement the projects is important (Bennett *et al.*, 2011). Organizations can build the capacity and the experience of the community on how to manage community-based projects after donors exit. Such trainings can also be done by other stakeholders such as government, universities, research centers, and other private organizations. It was contended that community members need more knowledge and skills to cooperate and assist in setting priorities so that they can deal with the project for sustainability purposes (Bennett *et al.*, 2011). This way the community will be able to manage challenges on their own, rather than depending on the help of the organizations or donor.

2.4 Community Participation and Sustainability of Donor Funded Projects

Community participation in project implementation and development has become important prominence and its variants have taken on particular prominence in the policies of bilateral and multilateral development agencies earmarked towards sustainability (OECD, 1996). The Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) assert that for sustainability, projects must be locally owned and that development co-operation have to be shifted to a partnership model, where donors' programs and activities operate within locally-owned development strategies (Saxby, 2003).

Donors in this case have to respect and encourage strong local commitment, participation, capacity development and ownership of the project activities. This would take into cognizant their needs and in the process is expected to stimulate their participation a key ingredient in the continuity. While favouring a holistic approach to development, Wolfensohn (1999) posits that developing countries must be in the driver's seat and set the course, owning and implementing their development strategies. Elsewhere, genuine involvement of local people as active participants and equal partners whose concerns and experience are intrinsic to the project's success was identified as an important factor in project sustainability (Admassu, Kumie and Fantahun, 2002). In a study of the development sustainability through community participation, Joaguin (1994) linked project failure to weak institutional linkages, scarcity of resources and low workforce motivation. The study did not clearly show how community participation affect sustainability of donor funded projects.

In Tanzania, community participation has been a central feature of development in over the years since the postcolonial era. For instance, Tanzania's first president, Julius Nyerere, maintained that if development is to benefit the people, the people must participate in considering, planning and implementing their development plans and that leaders and experts role was to implement the plans that have been agreed upon by the people themselves (Dill, 2009). The development initiatives according to Olukotun (2008) should come from the bottom or rather it is important to feel the pulse of the average person in the community and in that spirit, elicit from his/her vision of development and how the development can be sustained. Put differently, it is not only enough to identify their vision of development, it is also important to get views of their plans to achieve their dreams or vision.

Non-participatory factors such as macro-economic issues, market issues and infrastructure issues are also determinants of project success (Kumwenda, 1998). Additionally, factors such as the institutional, social, political, cultural and economic affect the success of development projects. Hofisi and Chizimba (2013) in a study of sustainability of Donor Funded Projects in Malawi, reported that sustainability was determined by how much the implementation process empowered the communities to

sustain the development initiatives after the projects have been phased out. Despite the findings, the study relied mostly on secondary sources of data namely project documents, evaluation reports. Viravaidya (2016) in the examination of sustainability of community development initiatives in Thailand and Southern Asia, shows that a number of community development initiatives have failed to succeed primarily due lack of basic knowledge and skills, among the targeted beneficiaries. Despite the findings, the study looked at skills among the beneficiaries without considering other factors like community participation.

People will change only if they participate in the decision about the change. Olukotun (2008) contended that communities who are the beneficiaries of the projects should not be seen as targets of poverty reduction efforts but should be seen as assets and partners in the development process. The potential benefits of increased community participation as part of stakeholder participation in projects include improved project design by drawing on local knowledge and expertise to ensure that designs accurately reflects stakeholder priorities and needs; means of verifying the relevance and appropriateness of proposed interventions; strengthened stakeholder commitment to, and ownership of, policies and projects--leading to increased uptake of project services and greater willingness to share costs; enhanced sustainability as a result of increased stakeholder ownership.

Other benefits include opportunity to foresee and/or resolve potential obstacles, constraints and conflicts; means to identify and address potential negative social and environmental impacts; opportunity to generate social learning and innovations based on field experience; capacity-building of stakeholders and local institutions (including their capacity to analyze problems and initiate other development activities); means of ensuring that project benefits are distributed equitably and strengthened working relations between stakeholders, government and the Bank (AfDB, 2001). Similarly, engaging communities in local development is cost effective as well as more sustainable. Community participation is also a means to improve the local ownership among members of welfare services organization as well as in community (Nelson and Prilleltensky, 2005).

The level of community support determines whether a project becomes established, how quickly and successfully it consolidates, and how it responds and adapts to meet changing needs (USAID, 2011). Failure by communities and other stakeholders to take up ownership of projects have plunged community projects into immense financial huddles threatening the sustainability and hence threatening them to seize operations daily (Williams, 2003). It is therefore important that involving local communities, starts at the planning stage, when decisions are being made about what type of project is required. On the other hand, implementation of a project by embracing strategic approach was considered important (Ingle, 2005).

Involving local communities, at the planning stage, when decisions are being made about what type of project is necessary, is important since these are the people who know what they need and their willingness to continue participating in the project through strategic approach (Guijt, 2009). Similarly, for sustainability purposes, development strategies must be developed by recipient in this case the receptive governments and the targeted persons and that the support must reflect the priorities of the recipients rather than those of donors (CIDA, 2002). To realize this, CIDA emphasized participatory approach where for instance, the civil society and the beneficiaries of aid are continuously engaged to establish locally owned priorities for development co-operation.

Participatory approaches to project development and implementation, should seek to involve people who will take part in and will be affected by a project throughout the entire process of the project cycle that range from defining the goal to evaluating the project's impact at the end (Oakley, 1991). This approach was in contrast to a conventional approach, where donor representatives or external consultants, who are not part of the community, are primarily responsible for identifying needs, developing a general project concept, providing money and other resources, then undertaking monitoring and evaluating project activities. The external consultants and donor representatives may not be able to understand community dynamics and hence make the desirable decision that meets the community needs. In contrast, however, Mitchell and Ashley (2010) notes that the question that arises in developments projects by donors is

how the community can ensure sustainability and ownership of the projects when the donors eventually leave.

While studying the influence of community participation on successful implementation of CDF projects, Nyaguthii and Oyugi (2013) shows that there was low community members' participation in identification, implementation, evaluation and monitoring of the projects which impacted on the project's sustainability. Commitment of resources, particularly financial resources, by beneficiary was however singled out by Hodgkin (1994) as an important indicator of the expected value of the project to the communities. Similarly, Shediac-Rizkallah and Bone (1998) add that allocating adequate time and resources for participatory analysis and responding to demand-led approaches are important ways to improve participation.

Community support increases project efficiency, which impacts positively on project sustainability. Further, community support increases project effectiveness by ensuring that the project achieves its objectives and that the benefits go to the intended groups (Chappel, 2005). In contrast, community ownership in project implementation was however identified as a very important asset in the whole process of project planning and implementation (DeFilippis, Fisher and Shragge, 2010). This requires giving the community energy such as teaching them project management skills to take action in project activities. Enhancing the capacity at the community level to take part in the development initiative was thus emphasized.

The fundamental goal of any community ownership program should be to foster community confidence and self-reliance achieved through the development of self-sustaining projects, effective mechanisms for community decision making and leadership renewal (DeFilippis, Fisher and Shragge, 2010; Falk, Wallace and Ndoen, 2011). Where project ownership is exclusive, those in control are less likely to respond positively to the needs and ideas of the wider group with long-term impact on project sustainability.

Community acceptance and project ownership promote project support by all stakeholders involved in the project which in the process mitigates against community

resistance in project implementation of the project activities which in the end promote sustainability (Akerlund, 2000). Through this, community members feel part and parcel of every aspect and process of community-based projects that is from needs assessment through evaluation (Racino, 1999). Chappel (2005) and Akerlund (2000) both support this view by noting that community support increases project efficiency and effectiveness which impacts positively on project sustainability. Community acceptance and project ownership promote project support by all stakeholders involved in the project, hence reducing community resistance in participation in project activities. Participation provides an opportunity to establish new habits of control, reporting and shared responsibility in development interventions.

Another aspect of community participation is community involvement which is considered an important factor for the sustainability of projects. This guarantees genuine involvement of local people as active participants and equal partners whose concerns and experience are intrinsic to the project's success (Bamberger and Cheema, 1990). Community awareness and involvement in project planning and implementation are important elements in the sustainability of a project. Involving all relevant community leaders and agencies facilitates sustaining programs (Bamberger and Cheema, 1990; Shediak-Rizkallah and Bone, 1998). In the study, involvement of local community was considered important if it was initiated at the project identification phase, when decisions are made about what type of project is required to address their priority need and that sustainability cannot be achieved without their involvement and support.

Community involvement is considered an important ingredient in the sustainability of donor funded project in the Arnstein's ladder with three ingredients identified as key towards the enhancement of community involvement in donor funded projects (Bell, 2010). These include empowerment of local communities to take command of the projects, co-opting community members to take part in existing programs, and finally as a masquerading public relations exercise, justifying a predetermined donor project. Community mobilization and empowerment are important ingredients in donor funded projects for sustainability purposes.

When the community is fully engaged, it serves to expand the feeling of community ownership of any given project which may contribute towards positive project outcomes. In the process, this motivates the participants to put in extra effort and in the end will impact positively on the project outcome and its future. This kind of participation can only be attained when the community is included in decisions pertaining to planning and allowed in assuming some responsibility on implementation (Anderson and McFarlane, 2010; Sirgy, Phillips and Rahtz, 2011).

In rural community water supply, most national policies require a capital contribution from the users, either in-kind (labour and local materials) or, if in cash, in the average of five percent of the capital cost (Kanyanya, Dorothy, Angeline and Phylisters, 2014). This is rarely recovered however, and so improved services are by default a gift (albeit often with some community participation in construction) from the government or NGO to the community. There is disagreement among practitioners about whether user cash contributions to capital costs help to cement community ownership of rural water supply systems and so contribute to sustainability. They noted that there are cases in which a cash contribution to capital cost is raised but then ring-fenced for the water supply, for instance by putting it into an operation and maintenance account on behalf of the community. In decision making the stakeholders endorsed the project budgetary allocations, vetted the employees to work in the project, proposed the policies to be implemented.

In the sharing of development activities the stakeholders approached strategic personalities and institutions to aid in management of the project, and in lobbying for support from the government and private sector. In their support, the community participates in the community projects and therefore saves the projects resources which can later be channelled to produce more benefits to the project beyond the donor support (Soliman and Omer, 2015). Community participation in projects ensures that the development activities are based upon indigenous knowledge and are more relevant to locals. This according to Karl (2000) is due to the fact that local people understand their problems better and can therefore use their skills and resources to find flexible solutions that are tailored to suit their unique needs.

Oakley, Pratt and Clayton (1998) noted that for the development efforts to have sustainable changes in the poor people's lives, they must take into account local values. This supports Rudqvist and Woodford-Berger (1996) who noted that the community will help to detect problems during implementation at early stages before they escalate into major sources of conflict and wastefulness. Local people's judgments of what constitutes success, give a more pragmatic view about what works and what does not work. Consequently, interventions will be successful and sustainable when people have a voice in determining their objectives, to support their implementation, to evaluate their outcomes, and to make indigenous knowledge available.

For rural communities to participate meaningfully in projects initiated with the goal of improving quality of life, Wignaraja, Hussain, Sethi and Wignaraja (1991) notes that it is imperative that they are empowered. The principle of empowerment states that people participate because it is their democratic right to do so and participation also means having power (Tacconi and Tisdell, 1993). According to this concept, participation is the natural result of empowerment. Empowerment is not a means to an end but is the objective of development. In addition to having the power to make decisions, it demands the knowledge and understanding necessary to make correct decisions.

Participation is viewed as synonymous with empowerment of citizen-beneficiaries in developing themselves and their society (Khaldoun and Trent, 2012). Thwala (2009) equally notes that communities cannot make wise decisions if they do not have the required information. Support organisations are required to be sources as well as channels of information to the communities so that they will be able to make informed decisions. Thwala (2009) contends that if participation is pursued, there will be greater possibilities for self-reliance, which will lead to self-perpetuation of initiating projects. In addition, participation facilitates services can be provided at a lower cost. Therefore, community participation should be promoted, especially for poor communities that have little to offer but their labour.

Strong participation privileges voice for the poor and builds citizen and community capacities through learning and skills development, fostering citizen agency and

challenges traditional power relations (Khaldoun and Trent (2012). Strong participation further leads to social mobilization and inclusivity; it buffers and absorbs local opposition or dismay, builds social capital through bridging between groups, generating a sense of unity and ownership and, at least, implying greater mutual trust through dialogue and interaction (Thomas 1999; Mohan and Stokke 2000; Brinkerhoff and Goldsmith 2003).

Human capacity development through specialized training of project managers, staff, community members and the whole project team has been noted to be important for project success and sustainability. Campos (2008) as quoted by Kanyanya, Dorothy, Angeline and Phylisters (2014) notes that in an intervention model introduced in Peru for water supply, considered community training as an important component in which the project used various methods of training such as audio-visuals. He argues that training on issues like operation and maintenance, empower the communities to look after water supply systems thus aiding sustainability. Lack of community education is cited as one of the factors which could lead to breakdown and non-sustainability of water supply projects in developing countries (Ademiluyi and Odugbesan, 2008). They further point out that even where full community participation or management is planned from the start, community-level committees and care takers may lose interest or trained individuals may relocate (Kanyanya *et al.*, 2014).

Operation and maintenance of water services worldwide costs money therefore, insufficient funds limits the purchase of plant and equipment as well as spare parts (Kanyanya *et al.*, 2014). External agencies have been reluctant to finance operation and maintenance activities. On the other hand, Governments often accord it less priority yet the service users (community water users) who are the potential source of finance on the same, do not typically see water as a commodity for sale and therefore, unwilling to pay for it. Community capital contributions could be in terms of community levies whereby individuals or households in the community agree to contribute a given fee toward running and maintenance of the water system (Kanyanya *et al.*, 2014).

The foregoing literature has demonstrated that community participation is important in the project sustainability of donor funded projects. This has been identified as a factor

which influence donor funded projects and will be included in the study to examine its moderating influence on the sustainability of donor funded projects. The variables to be included are community involvement in the project cycle, community involvement through provision of resources in terms of human capital and other resources. Others include the capacity of the local community, involvement in the management of the project as members of the management committees or acceptance of the project and ownership of the project.

2.5 Socio-Economic Environment and Sustainability of Donor Funded Projects

Socio-economic environment factors are diverse and have influence on project sustainability. These factors include ethnic and language differences, religion, social stratification, intergroup relations, and the status of women, economic status and political institutions. All these factors have a bearing on the shape and scope of a project and cannot be ignored, particularly cultural practices, demographics and economic status (Hodgkin, 1994). Attitudes related to, for instance conservation and preservation of natural resources vary among communities and their practices.

Whereas in some societies, this is colored by consumerism stemming from expectations of improved living standards it is also fuelled by commercial advertising. Hodgkin (1994) noted that mass communications have created an almost universal awareness of the differences in living standards between countries, regions, or between urban and rural populations. Respect for the environment requires significant mass supporters, which is regrettably lacking in many settings. In most cases projects will need to consider the environmental ethics of the population as a contextual factor and adapt to the conditions it imposes. It may be possible to influence this ethics if it is included as a project objective and approached as a developmental process in training and communication (Hodgkin, 1994).

In the study of improving the livelihood of vulnerable groups in a sustainable manner through improved management of their natural resource base in India, Sanjoy, Amod, Sahu and Nakhro (2017) pointed out that, in the project various strategies were employed

which enhanced sustainability among them, following all steps of project management cycle by involving communities in need identification and prioritization to the project evaluation. The study was however, purely qualitative and mainly focused on the community without necessarily considering other factors like societal factors such as culture, beliefs and norms

A number of socio-cultural, economic, and environmental factors affect sustainability (Victor and Bakare, 2004). According to Victor and Bakare (2004), many people participate in afforestation activities if they gain from the forests. Other studies indicate that factors such as socio-economic benefits, age and education influence people's participation in afforestation projects. More importantly, households participate in afforestation activities if they are able to get important livelihood sustaining products from the forests for example, fuel wood and fodder. Chowdhury (2004) argues that majority of farmers participate in afforestation projects because of anticipated economic benefits, environmental benefits and/or because of social status. He observed that poor socio-economic backgrounds of farmers in terms of occupation and level of income influences the extent of their participation in afforestation projects. He also observes that people's level of education influences their participation in afforestation projects.

Age is also one of the factors that have been observed to determine community participation in afforestation activities. While Victor and Bakare (2004) observe that most young farmers participate in afforestation activities because they are able to plant trees and harvest them within their lifetime, Maskey, Gebremedhin and Dalton (2003) argue that older people tend to participate more in afforestation activities than younger people because they are retired and have free time to participate in educative meetings. Maskey *et al* (2003) further observed that landholding significantly determines community participation in forestry activities.

The hypothesis being that wealthier people are more likely to participate in higher levels of environmental management and the assumption that they have to maintain their influential status and perceive higher benefit with less opportunity cost of participation. For instance, whereas people from better-off social classes have the means to acquire

resources for innovations, they are basically conservative in their thinking, because social change could damage their advantaged positions (Wiebe, 2011). On the other hand, the poor people in the society may have nothing to lose through social change since their margin of survival is often narrow that they avoid even small risks. Soliman and Omer (2015) on a study of factors affecting project sustainability beyond donor's support, notes that despite the withdrawal of the foreign assistance, the project existed and performed some activities. The study does not indicate how the program continued to operate and what mechanisms were put in place to realize this. Similarly, the results seem not to consider how for instance societal factors may have impacted on the projects.

The most receptive people seem to be those who are in-between; they have enough to be able to take some risks that are not unduly threatening to their well-being. Wiebe (2011) concluded that socio-economic class was one of the primary determinants of participation in social development projects. Economic and social powerlessness and the relative lack of mobility during childbearing and rearing periods, often combine to exclude poor, rural women from both the process and the benefits of participatory projects (Bergdall, 1993). In addition, other factors within the community, such as religious and political affiliations, business interests, and social and family networks contribute significantly to a diversity of needs and interests (Cernea, 1985).

There has been considerable research on the existence of conflicts of interest at the household level as well as at the community level. The most common tension in the household comes from gender conflicts in roles and responsibilities: women's participation in community projects is often controlled by men - household heads - who have different interests and agendas than women (Eade and Williams 1995). In addition, generational differences can result in different interests and potentials for participation. The political culture within the community may also influence which members of a community can participate and how they participate.

Certain cultural settings are better suited to local participation and collective action than others, and participatory approaches work best when they harmonize with, rather than oppose, existing organizations. For example, in north-eastern Brazil, regional traditions

and existing socio-economic and political cultures, such as the reliance on patron-client relationships, pose strong challenges to horizontal social organization and thus to popular mobilization and participatory development (Costa, Kottak and Prado, 1997). In this case, pragmatic individualism, rather than a belief in the potential of collective community action, motivates people to join participatory projects. In contrast, in the Philippines, the tradition of the barangay, the smallest traditional socio-political unit in both rural and urban settings, provides the foundation for community participation and action (Freeman, 1995).

Individual values, as well as, community organization were identified as significant factors of participation in Nepal (Stone, 1989). Stone argues that community participation approaches focus on independence and equality, while the Nepalese rural society is based on principles of hierarchy and human interdependence. Collective action is a foreign concept in a society where individuals act through leveraging personal relationships and social networks, and negotiating exchanges. In some societies' misuse of natural resources is driven by necessity, as there appear to be no other alternatives this could be compounded by search for livelihood a case similar to the pastoral communities.

Poor people are often unwilling to invest significant percentages of their income for connection to a sewer system, or even, for example, construction or use of a modern latrine. For instance, the indiscriminate dumping of wastes is often viewed as an acceptable procedure by individuals because, they reason, others are doing it (Hodgkin, 1994). On the other hand, demographic factors, such as population size, growth, and distribution, as well as health indicators like infant mortality and morbidity from water-related diseases, are crucial in project planning and eventually their sustainability.

Political and economic conditions have been examined as factors in sustainability. The stability of the national government, the strength of government institutions at all levels, and the extent to which government services have been decentralized is important (Bossert, 1990). The commitment of the national government to the democratic process and decentralization makes a significant difference. Bossert (1990) argues that the health of a country's economy is measured by such yardstick as the growth rate, the rate of

inflation, employment opportunities, income generation, and foreign exchange reserves. These have an indirect effect on sustainability of W S & S systems as on any economic activity. Of more direct significance for the projects is the history of donor support for development efforts, government policies for raising and allocating revenues, and the economic conditions in beneficiary communities. Although at the project level little, if anything, can be done to influence these factors, foresight and flexibility may mitigate changes which may otherwise spell an end to project benefits.

Any community-based project must give much consideration to socio-cultural aspects in any given project during pre and post-implementation by being respectful and considerate of the community's beliefs, norms, and religion. Any project activity that undermines a community's socio-cultural orientation will be met with strong resistance and its sustainability will be minimal. The case of anti-Female Genital Mutilation (FGM) projects in some communities in Kenya is cited as a living testimony of donor funded projects that has lacked sustainability. Thus, it is imperative to involve the community adequately before you begin a project that is likely to conflict with their socio-cultural system. Sustained projects will always become points of reference for other people or communities that need to undertake similar projects and thus become case studies for learning (Matthews and Herbert, 2004). In a study of a project to persuade people to boil drinking water in the Peruvian highlands, Wellin (1955) demonstrated the extent to which cultural and social factors influenced people's acceptance of advice to boil contaminated water.

A multi-sectorial approach and planning is necessary in rural development (Wunsch, 1991). For instance, social partnerships as a working arrangement where various development agencies focus on addressing a particular social phenomenon while maintaining their independence is important. This in the process calls for coordination and collaboration. In Malaysia, where CBO successes are common, donors, the state, CBOs and cooperatives formed a well-linked working arrangement that served the survival of all institutions and thus, reinforcing their knowledge base. Social partnership falls within the political model for sustainability of CBOs as it involves recognizing various influences on different institutions.

As a model, social partnerships encourage governments to accept that donors may not have all the resources to support an array of duplicated activities spread across various departments. As these departments pool resources through coordination, the resources are put to better use (Conyers 1986; Wunsch, 1991). The grassroots must apply similar imperatives of social partnerships so that they do not spread out but crystallize their efforts. The CBO and related networks can provide a working arrangement with the donor community that will avoid duplication of activities through horizontal grassroots networking. The literature reviewed in the sub-section show that socio-economic environment influence sustainability of donor funded projects. Key socio-economic variables identified include cultural values (such as beliefs, norms and practices), demographics and finally economic factors. These variables will be included in this study to examine their moderating influence on sustainability of donor funded projects in Samburu County.

2.6 Theoretical Framework

In the sub-section various theories of sustainability have been reviewed while linking them to donor funded projects. The theories reviewed include power relations theory, participatory monitoring and evaluation theory, Arnstein's ladder of participation, systems theory and management control theory. An attempt has been made to link the theories to the study.

2.6.1 Power Relations Theory

This theory was developed by Michael Foucault in 1976. The theory is about monitoring and evaluation of project activities during the project implementation. In terms of monitoring, the theory holds that project monitoring is constant and intermittent aimed at directing the venture to guarantee that information conveyance, work routines, target yield and other required activities continue as directed by task arrangement. Evaluation tests decisions that are methodically and unbiased as would be expected under the circumstances the value or centrality of an intercession, system or strategy. It is further argued in the theory that assessment discoveries ought to be dependable, and have the capacity to impact decision making by system accomplices on the premise of lessons

learnt from scholarly researchers. In this study, organizational processes including monitoring of donor funded projects is considered to examine how this influences sustainability of selected DFPs in Samburu County.

For the assessment procedure to be objective, it needs to accomplish an adjusted investigation, perceive predisposition and accommodate viewpoints of diverse partners through the utilization of distinctive sources and routines (Guijt & Hilhorst, 2006). This entails surveying genuine change against expressed goals, and trying a judgment on whether adjustments are required for the purposes of realizing the intended objectives. In a nutshell, it facilitates in making necessary decision on the progress made and incorporating necessary adjustments towards the realization of the set goals and future sustainability.

Given the role of monitoring and evaluation, this variable was included in the study under technical assistance in order to examine how monitoring and evaluation affect sustainability of donor funded projects. This was informed by the fact that projects that are not monitored during implementation may raise issues during the evaluation stage hence, affect future support from the donor. In the end, this will impact negatively on their sustainability.

2.6.2 The Systems Theory

This theory was developed by Ludwig von Bertalanffy, William Ross and Ashby between 1940 and 1970s. The theory was initially based on principles of physics, biology and engineering and later extended to other fields such as management, organizational theory, economics and psychotherapy, among others (Weinberg, 1975). As reported in Anthony (1965), all systems except the smallest have subsystems and all but the largest have supra systems, which are their environment. Each system or subsystem conceptualized as having a boundary. The boundary of a system is the component that separates the system from its environment and filters the inputs to and the output from the system.

This applies to an organization where interrelated units or sub systems work together to achieve its desired goal. The theory postulates that to fully comprehend the function of the entire system, the interrelationships among different components/individual units have to be understood by the constituents. This should thus cover all relevant areas of an entity and help in creating a properly organized and controlled unit more so in safeguarding the resources required for the accomplishment of the organization activities. In an organization, controlling and safeguarding project resources are considered an organizational wide activity that requires every unit, department or section to actively participate.

As propounded in the theory, each department or unit has a unique set of responsibilities and tasks that may be viewed as independent while collectively contributing towards the overall organization goal. In a donor project, there exist various sub-systems working on different components of the project activities which are in a way interrelated. Consequently, this facilitate the realization of the goal of the task managers. This theory relates to donor funded projects in which there are various constituents namely financers, implementers and beneficiaries who play diverse roles in the project cycle. Thus none of the constituents may be ignored in the design, implementation and evaluation of the project. In this study these constituents were considered to examine how they influence sustainability of selected DFPs in Samburu County.

2.6.3 Management Control Theory

Developed by Antony in 1965, the theory is relatively considered a new body of knowledge in management. The theory derives most of its foundation from the concept of management control which incorporates a wide range of formal and informal approaches. This approaches aim at regulating the behaviour of members of an organization and assures that resources are obtained and used effectively to achieve that organization's objectives (Anthony, 1965). It is viewed as a process from where managers influence other members of an organization to implement the organization's strategies. Management control is a process by which managers at all levels ensure that the subordinate staff implements their intended strategies (Anthony and Govindarajan, 1998).

The main task of the management control system is to ensure that all sectors and plants conform to the organization's objectives and allow sharing of information in order for the management to correct any deviations from set goals (Whitley, 1999). In project management, control is centralized not only in directing the course of the project, but also managing the scarce resources. Through this, it is possible to sustain the project. In the study, governance issues through the management of the project will be considered in terms of the technical assistance provided in enhancing the management of the project. For instance, through technical assistance, managerial and leadership skills are provided for purpose of enhancing the skills of those involved in the implementation of these critical projects.

Though management is a wide subject, it is important in project implementation since it not only ensures wise utilization of resources but also align organization to achieve objectives. These issues were considered in the study in terms of organizational processes in terms of internal systems, policies and procedures, organization structure, as well as, the management of the resources with regard to how managers influence/motivate employees and other stakeholders to implement the organization's strategy and sustainability. In this study, management in terms of organization structure, capacity building, mentorship, training in technical, financial and management were considered to examine how these influence sustainability of DFPs.

2.6.4 Ladder of Participation Theory

This theory was developed by Douglas McGregor in 1950s and is about community involvement. In this theory, community involvement was singled as an important ingredient likely to achieve results of any donor funded project in terms of sustainability (Bell, 2010). Bell identified three key ingredients necessary for community involvement in DFPs. These include empowerment of local communities to take command of the projects, the practice of co-opting community members to take part in existing programs, and finally as a masquerading public relations exercise, justifying a predetermined donor project. This is a pointer that community mobilization and empowerment are important in donor funded projects.

The theory also considers the significance of including the views of the locals in the project implementation. According to Gitonga (2012), nearby individuals, group associations and different partners choose together how to gauge results and what activities ought to take place after data has been gathered and examined. Participation in a project could be varied ranging from generating project ideas, planning, designing, and finally implementation. When the stakeholders are adequately involved, they are able to identify themselves with the project and therefore participate accordingly. In the event of donor dwindling, there is possibility of the stakeholders contributing accordingly towards sustainability. Thus in DFPs just like other projects participation of key stakeholders is necessary.

In this study, various facets of community participation were incorporated in the study to examine how they influence sustainability of selected DFPs in Samburu County. These were in terms of participation through provision of resources such as land, labour, finance, security as well as participation in the project design and implementation by the community. It was expected that community participation would enhance sustainability of the projects. This is because the community assumes to own the project and therefore it is expected to devise mechanisms and strategies aimed at enhancing its sustainability.

Similarly, community mobilization is a process through which the communities, individuals or groups implement and evaluate donor funded projects, influences ownership in those actions regarding the project which are organized around specific community issues of concern. Community empowerment on the other hand involves a goal in itself since the community takes responsibility of the actions related to any project and that empowerment gives the community opportunity to demand transparency and accountability of all the parties involved in the donor funded project (Henderson and Vercseg, 2010). This theory recognizes the role played by community involvement, community empowerment and community mobilization. Like in the case of participation theory, these three ingredients are important in project sustainability and therefore were incorporated in this study to examine their significance influence on the sustainability of selected DFPs.

2.7 Conceptual Framework

A conceptual framework derived from the literature reviewed was developed. It provides a summary of the interrelationship between the factors influencing sustainability of donor funded projects. It shows the linkage between the independent (technical assistance) and dependent variable (sustainability of donor funded projects) as well as moderating variables (community participation and socio-economic environment) as indicated in figure 2.1.

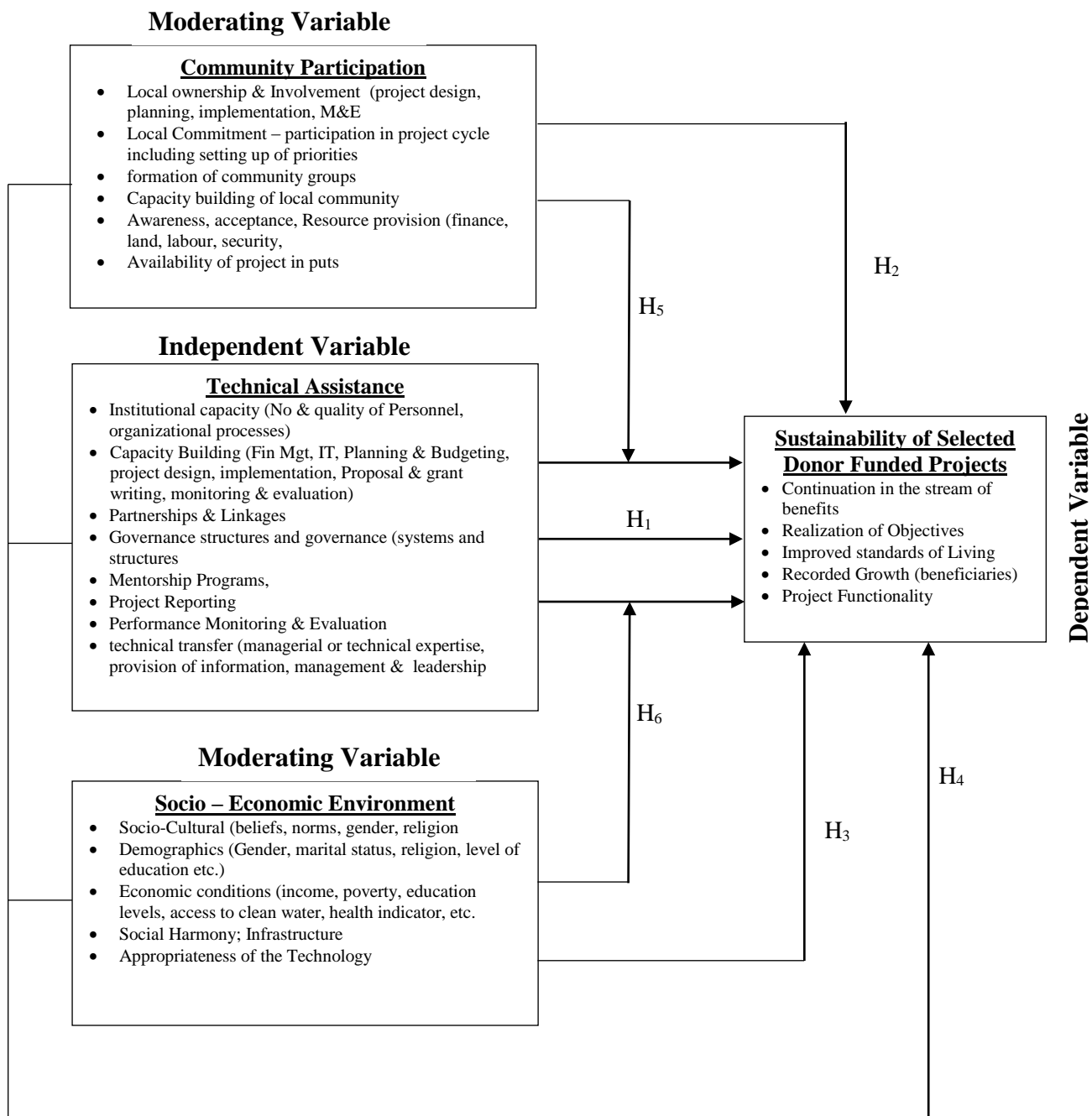


Figure 2.1: Conceptual Framework showing relationship between Variables

In the figure, the dependent variable was sustainability of selected DFPs with technical assistance as the independent variable, moderated by community participation and socio-economic environment. Technical assistance entails strengthening and enhancing capacity of local staff and community for purposes of project continuity beyond the donor support. In project implementation, paying attention to structure, policy, and staff

training as noted by Edwards (1988), is assumed to promote institutional change and may affect sustainability of the project in the future. This is expected to influence sustainability of donor funded projects. To this end, hypothesis number one (1) was tested to establish how technical assistance in terms of organizational processes, training in project management and technical skills, mentoring and supervision influence sustainability of selected DFPs in Samburu County.

Community participation like involvement of all members of a community or organization through their effective participation in the project implementation cycle may influence project sustainability beyond support (USAID, 2011). Community participation as reviewed in the literature influence sustainability of donor funded projects through the constituent variables such as community involvement in the project cycle, community ownership as well as community support in terms of provision of resources. This was verified in the study by testing hypothesis number two (2). In the project execution, the project needs to be attuned to the socio-economic environment in which the project is implemented (Wideman, 2001). This in turn is expected to influence project sustainability. For instance, socio-cultural factors such as beliefs, norms, religion, language issues, come in handy. Similarly, economic indicators such as level of education, income, poverty, and health indicators may influence sustainability. For this reason, hypothesis number three (3) was tested.

As indicated in the background and literature review, technical assistance, community participation and socio-economic environment are core elements in the sustainability of donor funded projects. For this reason, hypothesis number four (4) was tested to examine if it holds. Community management structures that may be formed as part of technical assistance may play a key role not only in delivering services but also in sustaining the demand for services and holding the donors accountable to its commitment to provide such services. Technical assistance also shapes the socio-economic environment within which the project operates. For instance, with technical assistance, the community's attitudes, practices and economic status are likely to change which in the process may influence the sustainability of DFPs. Considering these, hypothesis number five (5) was tested in order to examine its viability.

Finally, for sustainable development, projects must be locally owned with partnership models embraced in the programs and activities operating within locally-owned development strategies (Saxby, 2003). The effectiveness of community participation could be shaped by the socio-economic project environment, where for instance socio-cultural and economic factors are critical. These could, however, be influenced by technical assistance provided for in the project. Enhancing the capacity of the community through the creation of community management structures, management skill, planning and budgeting skills may influence project sustainability. For this reason, hypothesis number six (6) was tested to examine whether it holds.

2.8 Gaps Established in the Literature

Sustainability of DFPs incorporates a set of ideals about the way the world should work that derive from participatory approaches to donor that have been in fashion for several decades. Literature reviewed shows that one ideal is local ownership whereby the project should belong to the local community otherwise referred to as the local stakeholders. Studies have shown that a project should arise out of their needs and interests, rather than those of the donors, and that the locals should take responsibility for it. This is an important variable that donor funded projects should consider. Despite this revelation, from literature reviewed, it is not clear how the stakeholders should participate and who in particular should participate. The study endeavoured to capture this aspect to examine its influence on project sustainability.

Similarly, participation is a wide subject, which should be clearly identified. For instance, the community could participate in terms of resource contribution, provision of input factors such as land, labour and capital. Additionally, although project planning and design have been identified as areas of participation, the studies reviewed have not determined the significance of these on sustainability of the projects in question and whether the communities have the necessary skills to provide the same. Further, whereas capacity in the community has been identified, none of the studies identified the significance of technical assistance in terms of organization structures, governance, skills development, management and technical, among others.

Other gaps identified relate to theories of sustainability that future research might address. First, many theories exist in terms of sustainability which need to be tested to establish how they affect sustainability of donor funded projects. For instance, leadership and project management are critical in project planning and implementation as well as, determination of the future of the projects as literature suggests. In the recent past, there have been cases of many projects and programs collapsing due to poor leadership and management. Therefore, there is need for a rigorous study that considers elements of leadership and management as institutional factors influencing sustainability of donor projects.

Another area for future research relate to integrating project planning and budgeting with sustainability. These include staff involvement, building partnerships, community participation and involvement. Others include funding, capacity level at the community level, socio-cultural acceptability, community acceptance and project ownership as well as institutional and management capacity. Others include but not limited to legal and policy environment, partnerships, socio-economic and political environment including the demographics of the recipients such as level of education, culture, among other socio-cultural issues.

Others sustainable issues from the theory include viewing the project as a system with the various existing components working towards the common good. Involvement of various stakeholders who pursues different sets of objectives need to be addressed objectively because they may be pursuing conflicting interests. More specifically Table 2.1 shows a summary of all the gaps and how this study sought to bridge them.

Table 2.1: Summary of Knowledge Gaps Established in the Literature

Author & Year	Study Title	Focus of the Study	Study Findings	Research Gaps
Nthenge (2014)	Factors influencing sustainability of donor Funded projects: a case of Wenje water Projects in Tana River county, Kenya	This study specifically examined how technical assistance affect sustainability of donor funded projects without necessarily focusing on projects in a specific sector by applying both descriptive and inferential statistics	The study concluded that all donor funded water projects were not sustainably managed.	In this study, data collected was analysed using purely descriptive statistics where relative frequency distribution tables as well as mean and standard deviations values were calculated with the help of Likert scale
Wang <i>et al</i> (2010)	Examination of sustainability-centered assessment approach to identify critical factors for sustainable project management	This study not only assessed the influence of the three vector variables but also statistically examined the joint influence of the three vector variables. This were preceded by first undertaking various statistical tests before estimating the significance of the variables	It was found that leadership, process control and communication play the most important roles in the suitability of project management, while centrally the team management and innovation was found to be less significant	The study ignored the fact that each project sustainability is determined by factors diverse from those affecting other similar projects and such factors are unique to the project surrounding internal and external environment. Therefore the sustainability of each project should be assessed in isolation from other similar ones established in other localities.
Hofisi & Chizimba (2013)	The Sustainability of Donor Funded Projects in Malawi	This study utilized both primary and secondary data, while at the same time apply both descriptive and inferential statistics to examine the significance of the variables identified	Sustainability was determined by how much the implementation process empowered the communities to sustain the development initiatives after the projects have been phased out.	Despite the findings, the study relied mostly on secondary sources of data namely project documents, evaluation reports etc.

Author & Year	Study Title	Focus of the Study	Study Findings	Research Gaps
Palfi & Muresan (2009)	Examined the importance of a well-organized system of internal control in regard with the bank sector.	This study is wide in scope as opposed to Palfi & Muresan (2009) which was limited in scope. This study focused on both internal and external environment factors to examine their influence on the sustainability of DFPs	The study revealed that the continuous collaboration, based on periodical meetings, between all structures of bank, characterizes an effective internal control.	The study failed to disclose whether the same effective internal control system can improve the sustainability of community based projects
Kumwenda (1998)	Scanning the boundary and Sustainability	This study employed various statistical techniques to examine the influence of various variables on sustainability of DFPs. In addition, the study incorporated various factors compared to the few that were considered by Kumwenda (1998).	The study revealed that non-participatory factors such as macro-economic issues, market issues and infrastructure issues are also determinants of project success; Factors such as the institutional, social, political, cultural and economic affect the success of development projects.	The study does not explain how the variables identified do affect the organizations and how these may impact on Sustainability
Bartze (1998)	Factors affecting Future sustainability of irrigation project	Bartze (1998) was very specific by focusing on irrigation project and workmanship in project. This study was not only broad in scope but also examined key sustainability variables such as community participation and technical assistance which were however omitted by Bartze (1998).	Bartze (1998) noted that project's future success is as much a function of how the project has been designed.	In this study, sustainability was based on the quality of workmanship involved in the project without necessarily addressing how workmanship may be effected.

Author & Year	Study Title	Focus of the Study	Study Findings	Research Gaps
Viravaidya (2016)	The study was about examining sustainability of Community Development Initiatives in Thailand and Southern Asia	Viravaidya (2014) only looked at skills among the beneficiaries without necessary identifying which specific skills as well as how the skills significantly influenced sustainability of DFPs. This study not only addressed these gaps but also incorporated other variables as specified in the conceptual framework	The study shows that a number of community development initiatives have failed to succeed primarily due lack of basic knowledge and skills, among the targeted beneficiaries	The study on looked at skills among the beneficiaries without considering other factors like community participation
Mazibuko (2009)	Enhancing project sustainability beyond donor support. An analysis of grassroots democratisation as a possible alternative	This study examined the joint influence of technical assistance, community participation and socio-economic environment on sustainability of DFPs by applying both statistical techniques	The results of the survey reveal that sustainability cannot be predicted due to the uncertainties and ambiguities associated with project success.	The study seem to be limited in scope with minimal consideration on capacity building of the locals by the donor
Oinoet al (2015)	The dilemma in sustainability of community-based projects in Kenya	Although the study identified various factors influencing sustainability of DFPs, their significance was not ascertained. In this study, statistical tests were undertaken before examining the significance of the variables	The study concludes that lack of stakeholder ownership and commitment leads to project failure.	Although the study aimed at looking at the effect of socio-cultural, political, economic and technical factors on sustainability of community-based projects, in the end their significance was not accounted for

Author & Year	Study Title	Focus of the Study	Study Findings	Research Gaps
Soliman & Omer (2015)	Factors affecting project sustainability beyond donor's support. The case of area development scheme in Umkadada Locality, North Darfur state, Western Sudan	This study employed both qualitative and quantitative techniques to examine the influence of technical assistance moderated by community participation and socio-economic environment in influencing sustainability	The results revealed that despite the withdrawal of the foreign assistance, the project existed and performed some activities	The study does not indicate how the program continued to operate and what mechanisms were put in place to realize this. Similarly, the results seem not to consider how for instance societal factors may have impacted on the projects
Ekanayakage & Halwatura (2013)	Success factors in donor funded projects: case study on internal estate roads	Like other studies mentioned above, Ekanayakage & Halwatura (2013) was limited in scope. This study employed various statistical techniques to examine how various identified factors influence sustainability of DFPs	The study reveals that more site visits by the management staff, budget to be suited to the site location and the conditions affect success of the projects	The study seem to concentrate more on financial related issues without explaining how issues of capacity building may affect sustainability
Hoclgkin (1994)	The Sustainability of Donor-Assisted Rural Water Supply Projects	The study made use of statistical tests to identify the factors to estimate in influencing sustainability of DFPs in Samburu County	Various factors were found to affect sustainability of water projects namely institutions, development processes, technologies, Contextual factors and forces, Project organization and process	Despite the findings the significance of these variables was not clearly highlighted in the study.

Author & Year	Study Title	Focus of the Study	Study Findings	Research Gaps
Sanjoy, Amod, Sahu and Nakhro (2017)	Improving the livelihood of vulnerable groups in a sustainable manner through improved management of their natural resource base in India	As indicated in column three, the study by NERCORMP (1999) was purely qualitative. This study combined both qualitative and quantitative tools to examine the influence of technical assistance, community participation and socio-economic environment independently and jointly	The study revealed that in the project various strategies were employed which enhanced sustainability among them following all steps of project management cycle by involving communities in need identification and prioritization to the project evaluation	The study was purely qualitative and mainly focused on the community without necessary considering other factors like societal factors such as culture, beliefs and norms

2.9 Chapter Summary

In this chapter, literature has been reviewed on the dependent variable (sustainability of donor funded projects) followed by independent variables technical assistance. This was followed by literature on the moderating variables (community participation and socio-economic environment). Other sub-sections in the chapter include Theoretical Framework where various theories relating to sustainability have been reviewed, Conceptual Framework providing interrelationships between the variables, and finally, a Summary of Literature and Research Gaps that the study intended to bridge have been provided in that order. In chapter three, the Research Methodology is provided starting with research paradigm, design followed by the target population, sampling design, data collection and analysis in that order. Chapter Four provides Data Analysis, Interpretation and Discussion of the findings. Chapter Five provides the Summary, Conclusions, Recommendations, contributions to knowledge and suggestion for further study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research methodology that was used in the study to establish influence of technical assistance on sustainability of selected donor funded projects in Samburu County. The chapter provides the research paradigm and design, target population, sample size and sampling procedure, data collection and data analysis technique. Others include ethical issues and operationalization of the variables.

3.2 Research Paradigm

The philosophical direction of this study was pragmatism as opposed to positivism and constructivism paradigms. Positivist paradigm is a paradigm where a single reality exists and proposes that a study should be conducted using scientific method involving systematic observation and description of phenomena contextualized within a model or theory, the presentation of hypotheses. Others include the execution of tightly controlled experimental study, the use of inferential statistics to test hypotheses, and, finally, the interpretation of the statistical results in the light of the original theory (Ponterotto, 2005).

In contrast, constructivists hold that reality is constructed in the mind of the individual, rather than it being an externally singular entity, suggesting that reality is socially constructed (Hansen, 2004). The constructivist researcher tends to rely upon the views of the participants on the situation being studied (Ponterotto, 2005). Therefore constructivist paradigm provides the primary foundation and anchor for qualitative research methods. Pragmatism views knowledge as being both constructed and based on the reality of the world (Johnson & Onwuegbuzie, 2004). This philosophical thinking holds that knowledge arises out of actions, situations, and consequences. It is concerned with applications (what works) and solutions to problems thus putting the problem as most important instead of methods (Creswell, 2013).

Pragmatic paradigm places the research problem as central and applies all approaches to understanding the problem. These means that data collection and analysis methods are chosen as those most likely to provide insights into the problem with no philosophical loyalty to any alternative paradigm, thus it provides the underlying philosophical framework for mixed-methods research (Mackenzie and Knipe, 2006). Pragmatism also helps to shed light on how research approaches can be used in ways that offer the best opportunities for answering important research questions (Johnson and Onwuegbuzie, 2004; Kithinji, Gakuu and Kidombo, 2017).

This study was anchored on pragmatism paradigm because the nature of programs and projects being undertaken in the area are diverse with different purposes that need different capacity and approaches in evaluations. All of them have community contribution aspect, which makes them rather dynamic. This dynamism could easily be accommodated by pragmatism, which offers bases for use of different tools such as interview, questionnaire, document analysis, focus group discussions and observation in data collection. The way sustainability of DFPs is viewed also varies from one organization to another, based on the various factors.

3.2.1 Research Design

Research design is defined as a general framework that outlines how the researcher would go about answering the research questions (Cooper and Schindler, 2006). There are various types of research design namely, descriptive cross sectional, exploratory, observational, correlational and explanatory research designs. The study combined cross sectional descriptive and correlational research designs. Cross sectional descriptive survey design is concerned with describing, recording, analysing and interpreting conditions that exist. Application of cross-sectional survey means information is collected from a predetermined population at just one point in time (Fraenkel and Wallen, 2008). Kothari (2004) argued that surveys are only concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident or trends that are developing. This design is the most appropriate for this study

because of its ability to elicit a diverse range of information. It also has the ability to minimize bias and maximize reliability (Mburugu, Mulwa and Kyalo, 2015).

Correlational research design on the other hand allows the use of inferential statistics for measurement of two or more variables to determine the extent to which they are related or influence each other (Fraenkel and Wallen, 2008; Kinyanjui, Gakuu and Kidombo, 2015). Considering that in this study the influence of the independent variable and the joint influence of all the independent variables on the dependent would be determined, Correlational research design was considered the most suited. It also enabled the testing of the moderating influence by use of multiple and stepwise regressions. Therefore, a combination of the two research designs enabled the researcher to conduct both descriptive and inferential analysis effectively. The use of the two designs was suitable because the study used both descriptive and inferential analysis of data.

3.3 Target Population

Population constitutes all the elements of interest that necessary conclusion are based (Cooper and Schindler, 2006). The unit of analysis in the study was DFPs in Samburu County as presented in the appendices (Appendix ix). In the County, whereas some projects are implemented directly under government ministries and agencies, others are implemented by international NGOs, national NGOs and community based organizations (CBOs). The target population comprise donor funded projects in Samburu County including with respondents consisting of government officers, employees, local leaders, opinion leaders, among others. The main area of focus of these institutions were in health, education, water and sanitation, housing, social protection, agriculture and livestock, culture food security, economic empowerment, environmental conservation and protection among others. Table 3.1 provides a summary of the population of interest (multi/bi-lateral donors, NGOs and CBOs) in the county.

Table 3.1: Organizations Implementing DFPs in Samburu County

Category of Organizations	Number of Projects in Samburu County	Respondents	Number of Respondents	Total
Donors	15	Activity/Program Managers	15	15
Non-Governmental Organizations	20	Program Directors/Managers	20	60
		Project administrators	20	
		M&E Officers/Grant Writers	20	
Community Based Organizations	69	Chairpersons	69	138
		Secretaries/ Treasurers	69	
Total	104			213

Source: Samburu County Integrated Development Plan, 2013-2017

As noted earlier, the choice of the respondents in NGOs and donor organizations, was informed by the fact that they are in charge of the project either in terms of policy or implementation and management of the project activities, therefore they are considered to have all information in terms of sustainability of DFPs. Finally, the chairpersons and the secretaries/treasurers are key office bearers in the management of the CBOs and the respective activities and are expected to have necessary information in the sustainability of the projects.

3.4 Sampling Procedures and Sample Size

This is the process of selecting respondents in the selected donor funded projects who would provide necessary information to test the hypotheses in order to realize the research objectives. From these it would be possible to make generalizations of the findings applicable to the entire population. A number of procedures were applied as explained in the next sub-section.

3.4.1 Sample size

The size of a study sample is always critical in producing meaningful results. The sample size of respondents from the projects was calculated using the formula suggested by Krejcie and Morgan (1970). This method gives a sample size that is sufficient to provide

reliable and valid data that can be triangulated for purposes making necessary inferences as discussed under sub-section 3.4.2. This formula is specified as shown:

$$S = \frac{X^2 NP (1 - P)}{d^2 (N - 1) + (X^2 P (1 - P))}$$

Where: S = required sample size; d = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.84); N = the population size (195) P = the population proportion (assumed to be .50 since this would provide the maximum sample size); d = the degree of accuracy expressed as a proportion (.05).

3.4.2 Sampling Procedures

Two-step sampling technique was applied starting with stratified sampling followed by simple random sampling. Stratified random sampling was used to categorise projects based on the implementing institution. This ensured that the target population was appropriately represented in the sample and to increase the efficiency of the study (Kothari, 2009; Kithinji, Gakuu and Kidombo, 2017). Thereafter proportional allocation procedure was used to ensure that each element in each stratum had equal probability of being included in the study. In order to select respondents in each stratum, simple random sampling was applied using computer random numbers for each category as shown in the appendices (appendix x). Based on the formula, the sample was selected as follows.

$$\begin{aligned} S &= \frac{3.84 (213) (0.5) (1 - 0.5)}{0.0025(213 - 1) + (3.84) (0.5) (1 - 0.5)} \\ &= 187.2/1.445 = 136.91 \end{aligned}$$

This sample size was considered adequate to undertake necessary statistical analyses including correlation and regression analyses (Krejcie and Morgan, 1970; Cohen, 1988; Chuan, 2006). With the sample size determined, the sample size selected among the strata was as summarized in Table 3.2.

Table 3.2: Sample Size

Category of Organization	Target Population	Sample
Donors	15	10
Non-Governmental Organizations	60	39
Community Based Organizations	138	88
Total	213	137

3.5 Research Instruments

Given the nature of the study objectives, both primary and secondary data were collected by adopting pragmatism approach in which various instruments were used. The combination of different tools in the study was guided by the need for obtaining valid and objective data aimed at maximizing the appropriateness and utility of the instruments, and the researchers' interpretations of data (Onwuegbuzie and Leech, 2006). Similarly, this was informed by the fact that both qualitative and quantitative data were collected in an effort to realize the study objectives. In the study, three tools were used, with primary data collected using questionnaire and interview guide, while secondary data was collected through document analysis.

3.5.1 Questionnaire

Questionnaire was the main tool for collecting primary data that was both qualitative and quantitative. The instrument offers an objective means of collecting information whether qualitative or quantitative (Boynton and Greenhalgh, 2004). Besides, questionnaires are considered easier to administer, analyze and economical to use in terms of time and money (Kothari, 2009; Miller and Salkind, 2002). The questionnaire had a set of questions designed to collect data mostly on opinion of the respondents concerning their perspectives on the various issues as indicated in the objectives, hypothesis and summarized in the conceptual framework and hypothesis testing. Questions in the tool were both closed ended and open ended with the latter being a set of Likert-scale type of questions ranging from 1-5.

3.5.2 Interview Schedule

Though questionnaire was the main instrument for collecting data, supplementary data was collected using a structured interview schedule. This tool allows for flexibility and probing as an opportunity to obtain additional data to fill in the gaps that might not have been filled using questionnaire. The interview targeted key informants ranging from projects' technical advisors, project directors/managers, monitoring and evaluation officers, project accountants/administrators, and opinion leaders, project committee members, with an aim of getting data that were used to verify and add meaning to the data collected using questionnaires. The interview was face to face which is advantageous since the interviewer would probe and note non-verbal signs that may add meaning to the process.

3.5.3 Document Analysis

This is the use of data which has already been collected and analysed by someone else (Kothari, 2009). In this study, materials that were considered were project documents, project plans, M&E plans and reports and other project reports such as quarterly reports, strategic plans, minutes, mid-term and close-out evaluation, among others. From project plans and evaluation reports, one would single out other sustainability issues such as resource allocation, stakeholder engagement, organizational processes, partnerships and linkages with others departments and stakeholders, among others. Content analysis of these reports was done to pick documented evidence for sustainability of the projects (Kithinji, Gakuu and Kidombo, 2017).

3.5.4 Pilot Testing

Testing of the research instruments on a pilot sample was done. This process allowed the researcher to identify whether respondents understood the questions and instructions, and whether the meanings of questions were the same for all respondents. A total of twenty respondents with similar characteristics exhibited by the target population were used to answer the questionnaire, while an in-depth interview was conducted on a similar number. Documents from one DFP were reviewed to check if the themes developed for document analysis were appropriate using test-retest method. In the first round, the

researcher undertook detailed notes on how participants reacted to the format of the instruments, how long the respondents took in responding to the questions, with questions that perceived not clear clarified. Answers to all the questions were studied to check whether they represent the data intended to be collected. The researcher identified and modified the tools based on the results of the pilot. Thereafter further retest and discussions with the supervisors were done to further refine the tools. Appendix xii in the appendices provides the linearity tests.

3.5.5 Validity of Instruments

Validity refers to the appropriateness, meaningfulness and usefulness of data a researcher collects using a research instrument. The questions of concern here were the interpretation of the test results and the determination of whether the measurements picked the expected variables without contamination from other characteristics. To ensure content validity, this study considered the variables and their dimensions as searched in the literature (Hogan, Greenfield and Schmidt, 2001). Thereafter, the opinion of the supervisors as experts was sought to review the appropriate indicators of the variables and verify consistencies of the questionnaire with the content area.

3.5.6 Reliability of Instruments

The reliability of a research instrument concerns the extent to which the instrument yields the same results on repeated trials (Darr, 2005). It has been argued that there can be no validity without reliability and a demonstration of validity is sufficient to establish reliability (Lincoln and Guba, 1985; Patton, 2001). Since the suitability of the instruments were assessed by experts, this increased reliability. All the instruments were checked on how well they fit with the concepts in the area of study before piloting was done.

After piloting, it was necessary to calculate and report Cronbach's alpha coefficient for internal consistency reliability for all the scales used (Gliem and Gliem, 2003). Cronbach's alpha coefficient lies between 0 and 1 and was calculated for each of the composite variable to avoid inflating the value of alpha by including larger number of

questions (Tavakol and Dennick 2011). The closer Cronbach's alpha coefficient is to 1.0 the greater the reliability of the tools. There seems to be general agreement that an alpha coefficient of 0.7 and above is an acceptable reliability coefficient (Nunnaly, 1978; Santos, 1999; Gliem and Gliem, 2003; George and Mallery, 2003; Kithinji, Gakuu and Kidombo, 2017). These tests are reported in Table 3.3.

Table 3.3: Results of Reliability Test

Variable	Cronbach's alpha	Number of Items in the scale
Sustainability of Donor Funded projects	.834	13
Technical Assistance	.978	11
Community Participation	.841	8
Socio-economic Environment	.823	13

As shown in Table 3.3, Alpha was greater than point seven (0.7) with technical assistance reporting the highest value of 0.978, followed by community participation, sustainability of donor funded projects and socio-economic environment, with 0.841, 0.834 and 0.823 respectively. This therefore suggests that the questions as contained in the tools would yield information that was reliable and acceptable. Detailed analysis are shown in appendix xi in the appendices.

3.6 Data Collection Procedures

Various data collection procedures were utilized. First letters of support were obtained from the university starting with the supervisors, followed by department, and the School of Extra Mural and Graduate school. Secondly, a research permit was obtained from NACOSTI and authorization letters from Samburu County Director of Education and County Commissioner. Thereafter, research assistants (RAs) were recruited and trained on how to administer the research instruments. Given the nature of information required the researcher conducted the focus group discussions and interviews with key informants. The RAs were however involved in the distribution and collection of the filled questionnaires.

3.7 Data Analysis Technique

Data generated was first edited to detect errors and omissions, while documents were read through to determine the data which would be chunked into smaller meaningful parts. Similarly, coding was done by developing a code book where numerals were assigned to ensure that data is put into a limited number of categories or classes. Correlation analysis was conducted to examine the direction and strength of the correlation between variables. Given the large volume of data collected, classification was done to reduce the data into homogeneous groups to enable the researcher to get meaningful relationships and interpretation qualitatively.

In the study, descriptive analysis in terms of frequencies, means and standard deviation were computed to provide distribution of variables as they presented themselves. Correlation analysis was conducted to study the direction and strength of the variables to determine the amount of correlation between them. To test the significance of the influence the independent and moderating variables had on the dependent variable. Hypotheses were tested at 0.05 level of significance with simple linear, multiple and step wise regression analyses conducted appropriately.

3.8 Ethical Issues

When conducting research, the researcher must give attention to ethical issues of research (Kombo and Tromp 2006). Prior to commencing the field data collection exercise, the researcher sought approval through a letter of recognition from the University and subsequently obtained a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The data collection instrument were developed and designed in such a way that the study procedures do not cause any harm or emotional distress to the respondents. Given the sensitivity of some information, the researcher holds moral obligation of treating the information with utmost confidentiality. Respondents were presumed to be reluctant to disclose some information, the researcher reassured the respondents of confidentiality of the information given. The research was based on voluntary participation and the respondents were not under any form of duress to respond to any questions they felt uncomfortable.

Respondents were fully informed about the procedures involved in the research and their consent sought before commencing. The research assistants explained to the respondent the scope and purpose of the study and confidentiality of the information sought. Items in the instruments for data collection were designed to make them clear, simple and ensure there are no misleading questions. This was reaffirmed through pilot testing of the instruments.

3.9 Operationalization of the Variables

There was need for making the variables clear by showing the indicators that were measured. The variables per research objective were identified with corresponding indicators, measurement scales and type of analysis as summarized in Table 3.4.

Table 3.4: Operationalization of Variables

Variables	Variable Indicators	Measurement scales	Nature of Data	Tools of analysis
Sustainability of DFPs	<ul style="list-style-type: none"> Continuation in the stream of benefits Growth in the no. of beneficiaries 	<ul style="list-style-type: none"> Ordinal/Nominal scale Interval Scale (Likert scale) 	<ul style="list-style-type: none"> Qualitative & Quantitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
Technical Assistance	<ul style="list-style-type: none"> Organizational Processes (quality of staff, organization structure, etc.) 	<ul style="list-style-type: none"> Ordinal/nominal scale; Interval Scale (Likert scale) 	<ul style="list-style-type: none"> Qualitative 	Mean, Std Deviation, Percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> Capacity building in terms of project, financial mgt, etc. 	<ul style="list-style-type: none"> Ordinal/nominal scale; Interval Scale (Likert scale) 	<ul style="list-style-type: none"> Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> Technical Training of staff (Skills & knowledge) 	<ul style="list-style-type: none"> Ordinal/nominal scale; Interval Scale (Likert scale) 	<ul style="list-style-type: none"> Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis

Variables	Variable Indicators	Measurement scales	Nature of Data	Tools of analysis
	<ul style="list-style-type: none"> • Training in Grant & Proposal Writing 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Training of staff in project planning & budgeting; 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative & Quantitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Establishment of inclusive governance structures 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative 	Means, Std Deviation/percentages Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Mentoring programs 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Training in Monitoring & Evaluation 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Likert scale/ Interval 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
Community Participation	<ul style="list-style-type: none"> • Community involvement 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert scale/ Interval 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Community Acceptance 	<ul style="list-style-type: none"> • Ordinal/nominal scale Likert scale/ Interval 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Community Assistance in terms of land, labor, capital, security, etc. 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert/ Interval scale 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Capacity of Local community in Project Management 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert/ Interval scale 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Community Awareness 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert/ Interval scale 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis

Variables	Variable Indicators	Measurement scales	Nature of Data	Tools of analysis
	<ul style="list-style-type: none"> • Formation of community social groups 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert/ Interval scale 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Community ownership 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert/ Interval scale 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
Socio-economic Environment	<ul style="list-style-type: none"> • Key health & education indicators 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Quantitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Economic indicators (level of income, poverty levels, access to water etc.) 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Quantitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Infrastructure 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Social Harmony 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Demographics (age, gender, marital status, level of education etc.) 	<ul style="list-style-type: none"> • Ordinal/nominal scale • Likert scale/ Interval 	<ul style="list-style-type: none"> • Qualitative & Quantitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis
	<ul style="list-style-type: none"> • Cultural values (beliefs, norms, religion etc.) 	<ul style="list-style-type: none"> • Ordinal/nominal scale; • Interval Scale (Likert scale) 	<ul style="list-style-type: none"> • Qualitative 	Mean, Std Deviation, percentages, Correlation & Regression Analysis

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the results based on the study objectives. The first sub-section provides the response rate and the profile of the respondents. This is followed by results in terms of Technical Assistance and Sustainability of DFPs, Community participation and Sustainability of DFPs, Socio-economic Environment and Sustainability of DFPs. Other sub-sections include the joint influence of Technical assistance, community participation, socio-economic environment and sustainability of DFPs; moderating influence of community participation and socio-economic environment on the relationship between Technical Assistance and Sustainability of DFPs.

4.2 Response Rate and Profile of the Respondents

In this sub-section, the response rate and the profile of the respondents is provided starting with the response rate followed by the profile of the respondents.

4.2.1 Response Return Rate

This represents the level of achievement in terms of collecting data from the respondents targeted in the study. Questionnaire and interview schedules were used in collecting data from the respondent with the respondents who comprised of project directors, managers, officers, administrators, monitoring and evaluation officers, and community committee leaders. A total of 137 respondents were conducted through the use of questionnaires and interview guide, with 125 responding. This represented 91.2% response rate, a value considered adequate for the study as described by Richardson (2005). In the work of Richardson (2005), a response rate of 60 and above is both desirable and achievable in social sciences though in some cases it could go lower. Face to face discussions were conducted guided by an interview schedule for the purpose of triangulating the results from the questionnaires. Further, document analysis was used to collect secondary data from strategic plans, monthly and quarterly reports, project documents, work plans, training manuals, minutes, monitoring and evaluation reports.

4.2.2 Profile of the Respondents

The profile of the respondents included the background information, wherein information on gender, age, level of education and experience in implementing DFPs, among others is provided. Majority of the respondents (81%) were male, while the remaining 19% were female. This is an indication that the female gender was dominated by the male gender in the implementation of DFPs in the County. Gender considerations were a concern since in the community male chauvinism still exist whereby women are expected to stay at home and take care of the family and look after livestock as opposed to actively engaged in salaried employment.

In terms of age, 49% of the respondents were aged between 18 – 24 years followed by 43% between 25 – 44 years, with the remaining 8% reporting 45 years and above. This is an indication that DFPs in the County are implemented by employees who are in the youthful stage. This finding could have a bearing on experience of employees engaged in the implementation of donor funded projects. Triangulating the results in terms of gender and the age bracket, the results show that majority of the male respondents 92.2% were aged between 25 – 44 years, with 2.6 % aged between 18 – 24 years, while the remaining 5.2% were above 45 years, of age. Among the female respondents, 49.8% were aged between 25 – 34 years, followed by 37.5% and 12.7% in the age brackets of between 35 – 44 and 18 – 24 years, respectively an indication that only younger women were involved in the implementation of DFPs in Samburu country. This could imply that few women were available for formal employment which could be traced back to cultural beliefs where girls were married off at a tender age without necessary acquiring formal education.

4.2.3 Designation and Experience in Donor Funded Projects

There was a mix of respondents in terms of designation and experience with 7.8% of the respondent at the position of project director, 43.1% project managers/officers, 41.2% implementing staff, mainly field officers, while 5.9% and 2%, were data officers and communication officers, respectively. The study shows that 38% of the respondents had less than 10 years of experience in the implementation of donor funded projects, with

32% reporting over ten years of experience, 22% reported experience ranging between 11 – 15 years, 6%, had experience of between 16 – 20 years of experience, while the remaining 2% of the respondent reported over 20 years of experience. This finding resonates with the age of the respondents where majority were youthful employees.

A comparison was also made between level of education and position in the organization. The result showed that 48% of the project directors had bachelor degree, while the remaining had master degree. Among the project managers/officers, 19% reported having a diploma, 38.1% bachelor degree, while 38.1% and 4.8% reported master and doctorate degrees, respectively. In the position of implementation staff, 5% had a secondary school qualification, 30% diploma, 50% had bachelor degree, while 15% had a master's degree with none of the responded reporting doctorate qualifications. In the position of data officer, 33.3% of the respondent had acquired diploma, 66.7% had bachelors, with none reporting qualifications beyond bachelor's degree. Finally, in the position of communication officer, all the respondents reported diploma level of education. The qualifications and position held by the respondents, indicate that majority of the technical staff who are expected to be at the level of manager/officer are university graduates with either bachelors' or master's degree.

In terms of beneficiaries, 18% of the projects were supporting less than 10,000 beneficiaries, with 5% and 2% reported supporting between 10,001 – 20,000, and 20,001 – 30,000 beneficiaries, respectively. Similarly, 26% and 42% were supporting between 30,001 – 40,000 and 40,001 – 50,000 beneficiaries, respectively, with the remaining 7% supporting more than 50,000 beneficiaries. The results on the number of beneficiaries are an indication that a large population in Samburu County is supported by the donor funded projects. Cases where beneficiaries were supported towards economic empowerment were reported with a number reporting initiating income generating activities (IGAs) such as selling of beads, livestock and retail businesses. Other included access to clean and quality water and improved sanitation which have contributed towards reduction in incidences of water borne diseases, enhanced productivity and improved storage facilities, improved enrolment levels.

The study sought to examine how the respondents were fluent in the major languages in the county. An estimated 63.5% of the respondents were fluent in English to an excellent level, 30.7% to a great extent, and 5.8% reported moderate. On the other hand, 61.5% of the respondents reported excellent in Kiswahili, 32.7% a great extent, while 5.8% reported moderate. In terms of Samburu language, 44.2% reported excellent, 13.5% great extent, with 9.6% and 11.5% reported moderate and a less extent, respectively while the remaining 21.2% reported inability to speak the language. A large percentage of respondents 67.3% could, however, not communicate in Turkana language with only 7.7%, 5.8% and 19.2 reporting excellent, moderate and to less extent, respectively. The results imply that in the county a large majority of the respondents could speak English language and the national language (Kiswahili) as well as local languages, especially Samburu and Turkana.

4.2.4 Availability of resources within the community

In Table 4.1, results of the availability of resource within the community are reported. The composite mean for availability of resources within the community was 3.36 with most of the variables reporting higher scores. Availability of qualified technical personnel scored the highest mean score of 4.10 out of the maximum of 5, followed by the availability of technical equipment with a mean score of 3.44, raw materials for the project with a mean of 3.22. Others were availability of financial resources, availability of land, and availability of necessary supplies which had mean of 3.16, 2.97 and 1.18, respectively.

Table 4.1: Availability of Project Resources to Implement the DFPs

	Not at all	Small extent	Moderate Extent	Great extent	Very great extend	Missing	Total	Mean	Std. Devi ation
Qualified Technical Personnel	0	0	19	75	31	0	125	4.10	0.63
Raw Materials	5	5	46	44	15	10	125	3.22	1.33
Financial Resources	5	12	48	40	12	8	125	3.16	1.23
Technical Equipment	2	7	38	63	10	5	125	3.44	1.07
Land	34	15	15	42	19	0	125	2.97	1.49
Supplies	19	8	26	64	8	0	125	3.27	1.18
Composit e Value								3.36	1.15

The results are an indication that the community had been contributing resources in the implementation of the donor funded projects. For instance, community members were assisting in awareness creation and also acting as volunteer in health programs, fencing of schools, financial contribution, and volunteer labour services. This continued to create sense of ownership of the project by members of the community in the process. The results show that the community in Samburu County values the projects given the benefits they continue to derive from the projects.

As noted by Akerlund (2000), community acceptance and project ownership help in mitigating against community resistance in project implementation which in the end promote sustainability. Through community participation, there is likelihood of project success since the community is likely to identify with the project and therefore work towards its success and continuity. This kind of participation can only be attained when the community is included in decisions pertaining to planning and allowed in assuming some responsibility on implementation (Chapel, 2005; Anderson and McFarlane, 2010, Sirgy, Phillips and Rahtz, 2011).

4.3 Likert Scale as an Interval Measure

Likert scale types of questions were used in the study ranging from 1-5 and differentiated as Likert item wherein an item is used to measure a single variable and Likert scale (Brown, 2011). Boone and Boone (2012) argued that Likert scale data can be analysed as an interval measurement scale. These scales are created by the researcher by calculating a composite score (sum or mean) from four or more Likert-type items. Thereafter, the composite score for Likert scales was analysed as an interval measurement scale. Various data analysis procedures for interval scale items were applied.

Descriptive statistics recommended for interval scale items include the mean for central tendency and standard deviations for variability. Additional data analysis procedures appropriate for interval scale items included the Pearson's r, t-test, ANOVA, and regression procedures. In this study, composite score was used in analysis and decision rules after analysis of mean scores guided by the logical equal levels of the score approximated in line with equidistance arguments as proposed by Carifio and Perla (2007).

4.4 Diagnostic Tests

A number of statistical tests were conducted before the testing the hypotheses as discussed herein. These included normality, multicollinearity and linearity. In this subsection, the results are reported starting with multicollinearity followed by normality and finally linearity.

4.4.1 Multicollinearity Diagnosis

Due to the relative homogeneity nature of DFPs, a common management approach typified in the uniformly applied performance based management, the finite research population was anticipated to be normally distributed and data is expected to cluster around statistical averages. Although there are various measures of dispersion, standard deviation is selected in this study because it is often regarded by statisticians as the best measure of statistical dispersion. Besides expressing the variability of a given population, standard deviation also measures confidence for statistical conclusions (Ghahramani, 2000; Murei, Kidombo and Gakuu, 2017). Pearson's Product Moment Correlation is

widely used in social sciences as a measure of the strength of linear dependence between two variables (Huber, 2004). Table 4.2 presents the multicollinearity results for technical assistance.

Table 4.2: Multicollinearity Analysis of Technical Assistance

		Technical training of personnel	Organizational Processes	Training in Project management	Training in project planning and budgeting	Mentoring in project management
Technical training of personnel	Pearson Correlation	1	.363**	.290*	.272	.412**
	Sig. (2-tailed)		.008	.039	.051	.002
Organizational Processes	Pearson Correlation	.363**	1	.366**	.539**	.334*
	Sig. (2-tailed)	.008		.008	.000	.016
Training in Project Reporting	Pearson Correlation	.290*	.366**	1	.519**	.535**
	Sig. (2-tailed)	.039	.008		.000	.000
Training in project planning and budgeting	Pearson Correlation	.272	.539**	.519**	1	.478**
	Sig. (2-tailed)	.051	.000	.000		.000
Mentoring in project management	Pearson Correlation	.412**	.334*	.535**	.478**	1
	Sig. (2-tailed)	.002	.016	.000	.000	

*. Correlation is significant at 0.05 level (2-tailed)

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

As shown in the table, there was no evidence of multicollinearity as none of the relationships between the technical assistance variables was strong ($r < 0.7$). Initially training in leadership and management as well as training in financial management exhibited some multicollinearity and therefore removed from the table. Thereafter, as indicated in Table 4.2 the problem was solved. It is also necessary to impute that

financial management as well as leadership and management are part of organizational processes and adequately addressed in project management. Table 4.3 presents a summary of the correlation matrix for community participation variables.

Table 4.3: Multicollinearity Analysis of Community Participation

		Formulation of the project	Proposal writing	Project planning & budgeting	Monitoring & evaluation	Project implementation	Project report writing	Resource Provision
Formulation of the project	Pearson Correlation	1	.459**	.556**	0.15	0.14	0.158	0.242
	Sig. (2-tailed)		0.001	0	0.293	0.329	0.27	0.094
Proposal writing	Pearson Correlation	.459**	1	.506**	0.268	0.137	.502**	0.281
	Sig. (2-tailed)	0.001		0	0.057	0.338	0	0.05
Project planning & budgeting	Pearson Correlation	.556**	.506**	1	.336*	0.128	0.272	0.046
	Sig. (2-tailed)	0	0		0.017	0.377	0.056	0.755
Monitoring & evaluation	Pearson Correlation	0.15	0.268	.336*	1	.635**	0.128	0.23
	Sig. (2-tailed)	0.293	0.057	0.017		0	0.37	0.112
Project implementation	Pearson Correlation	0.14	0.137	0.128	.635**	1	0.15	.399**
	Sig. (2-tailed)	0.329	0.338	0.377	0		0.292	0.005
Project report writing	Pearson Correlation	0.158	.502**	0.272	0.128	0.15	1	.292*
	Sig. (2-tailed)	0.27	0	0.056	0.37	0.292		0.042
Resource Provision	Pearson Correlation	0.242	0.281	0.046	0.23	.399**	.292*	1
	Sig. (2-tailed)	0.094	0.05	0.755	0.112	0.005	0.042	

**Correlation is significant at 0.01 level (2 tailed)

*. Correlation is significant at 0.05 level (2-tailed)

The table show that there was no evidence of multicollinearity as none of the relationships between the community participation variables was strong ($r < 0.7$). Table 4.4 provides the results for the correlation matrix for socio-economic environment.

Table 4.4: Multicollinearity Analysis of Socio-Economic Environment

		Commu nity beliefs	Commu nity norms	level of educati on	Mari tal statu s	gend er	Religi on	Politi cs	Leve l of inco me	Social harmo ny	Pover ty levels	Health indicat ors	Clani sm
Commu nity beliefs	Pearson Correlat ion	1	.353*	.273	.201	.305*	.305*	.380*	.316*	.039	.252	.185	.272
	Sig. (2- tailed)		.011	.053	.156	.029	.030	.006	.024	.787	.077	.199	.053
Commu nity norms	Pearson Correlat ion	.353*	1	.555**	.201	.246	.331*	.611*	.381*	.292*	.333*	.213	.391**
	Sig. (2- tailed)	.011		.000	.157	.081	.018	.000	.006	.038	.018	.137	.005
Level of education	Pearson Correlat ion	.273	.555**	1	.132	.366*	-.013	.410*	.422*	.250	.378**	.035	.176
	Sig. (2- tailed)	.053	.000		.356	.008	.926	.003	.002	.077	.007	.811	.217
Marital status	Pearson Correlat ion	.201	.201	.132	1	.383*	.582**	.407*	.162	-.045	.313*	.242	.020
	Sig. (2- tailed)	.156	.157	.356		.006	.000	.003	.257	.751	.027	.091	.892
gender	Pearson Correlat ion	.305*	.246	.366**	.383**	1	.225	.287*	.313*	.011	.485**	.360*	.401**
	Sig. (2- tailed)	.029	.081	.008	.006		.113	.041	.025	.936	.000	.010	.004
Religion	Pearson Correlat ion	.305*	.331*	-.013	.582**	.225	1	.449*	.250	.040	.141	.341*	.353*

		Commu nity beliefs	Commu nity norms	level of educati on	Mari tal statu s	gend er	Religi on	Politi cs	Leve l of inco me	Social harmo ny	Pover ty levels	Health indicat ors	Clani sm
	Sig. (2- tailed)	.030	.018	.926	.000	.113		.001	.077	.782	.330	.015	.011
Politics	Pearson Correlat ion	.380**	.611**	.410**	.407**	.287*	.449**	1	.348*	.220	.368**	.267	.504**
	Sig. (2- tailed)	.006	.000	.003	.003	.041	.001		.012	.122	.008	.060	.000
Level of income	Pearson Correlat ion	.316*	.381**	.422**	.162	.313*	.250	.348*	1	.521**	.546**	.536**	.602**
	Sig. (2- tailed)	.024	.006	.002	.257	.025	.077	.012		.000	.000	.000	.000
Social harmony	Pearson Correlat ion	.039	.292*	.250	-.045	.011	.040	.220	.521*	1	.228	.304*	.355*
	Sig. (2- tailed)	.787	.038	.077	.751	.936	.782	.122	.000		.111	.032	.011
Poverty levels	Pearson Correlat ion	.252	.333*	.378**	.313*	.485*	.141	.368*	.546*	.228	1	.436**	.402**
	Sig. (2- tailed)	.077	.018	.007	.027	.000	.330	.008	.000	.111		.002	.004
Health indicator s	Pearson Correlat ion	.185	.213	.035	.242	.360*	.341*	.267	.536*	.304*	.436**	1	.565**
	Sig. (2- tailed)	.199	.137	.811	.091	.010	.015	.060	.000	.032	.002		.000
Clanism	Pearson Correlat ion	.272	.391**	.176	.020	.401*	.353*	.504*	.602*	.355*	.402**	.565**	1
	Sig. (2- tailed)	.053	.005	.217	.892	.004	.011	.000	.000	.011	.004	.000	

*. Correlation is significant at the 0.05 level (2-tailed).

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

From the information summarized in Table 4.4 the correlation values were less than 0.7. This therefore shows that there was no evidence of multicollinearity among the socio-economic variables.

4.4.2 Normality Test

Normality test compares the scores in the sample to a normally distributed set of scores with the same mean and standard deviation. For small sample sizes (less than 40), these tests have little power to test normality thus they most often pass the test. For large samples, normality test are important so as to give credibility to the hypothesis testing. This study used Shapiro-Wilk W-test which is based on the correlation between the data and the corresponding normal scores and provides better power as suggested by Peat and Barton (2008) mathematically as: $W = \frac{(\sum a_i x_{(i)})^2}{\sum (x_i - \bar{x})^2} \dots \dots \dots 4.1$

The statistic is normally a positive value which could be less than or equal to one with a value closer to one considered to indicate normality. The judgment follows Ghasemi and Zahediasl (2012) guidelines where: W is insignificant if the variable's distribution is not different from normal. W statistics = 1 when a sample variable data is perfectly normal. When W is significantly smaller than 1, then the distribution is non-normal. SPSS software tests for both Shapiro Wilks and Kolmogorov-Smirnov. The choice of which between the two follows recommendations that for test that have a small sample of between 3 - 2000, use Shapiro Wilks and for sample greater than 2000 use Kolmogorov-Smirnov. In the study, the sample size was 125 therefore Shapiro Willk was adopted

The results in table 4.5 were obtained using sustainability of selected DFPs as the dependent variable and technical assistance, community participation and socio-economic environment as the independent variables.

Table 4.5: Normality Tests

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sustainability of Donor funded projects	.126	124	.038	.931	85	.005
Technical Assistance	.206	124	.000	.845	85	.000
Community Participation	.146	124	.009	.940	85	.013
Socio-economic Environment	.071	123	.200*	.977	85	.434

a. Lilliefors Significance Correction

As summarized in the table, W statistics were above 0.8 with a high of and low of 0.977 and 0.845, respectively. This confirmed the normality of the data. Although, none of the variables had W statistics equal to 1, this is acceptable given the nature of data which was in the form of Likert scale and the fact that perfectly normal distribution is rarely achievable. The variables, sustainability of DFPs, technical assistance and community participation had a statistically significant p values, however socio-economic environment had an insignificant p value.

4.4.3 Linearity Test

The linear relationship of the variables was explored using scatter diagram. Sustainability of selected DFPs was used as the dependent variable to test its relationship with technical assistance, community participation and socio-economic environment. Linearity test results show that data was relatively linear as reflected in the scatter diagram in the appendices (Appendix xii).

4.4.4 Correlation Analysis of Variables

Using Pearson Product Moment Correlation, a correlation analysis was conducted to explore the direction of the relationships between each composite of the independent and moderating variables. This was determined by checking the positive or negative value before the (r) value. The strength of these relationships was considered by looking at the correlation value (r). A correlation of 0 indicates no relationship at all, while a correlation

of 1.0 indicates a perfect positive correlation and finally, a value of -1.0 indicates a perfect negative correlation.

The judgment rule on the strength of the correlation was guided by the guidelines suggested by Cohen (1988) who indicated that r value of between 0.10 to 0.29 means small or weak correlation; r value of between 0.30 to 0.49 means medium or moderate correlation and r value of 0.50 to 1.0 means large or strong correlation. Shirley *et al* (2005) used the terms weak, moderate and strong for the same ranges instead of small, medium and large respectively. These guidelines were applied irrespective of the sign of the r value. This is because the sign refers only to the direction and not the strength of the relationship. Given the variable measurement, Pearson Product Moment Correlation were determined at a 95% level of confidence, meaning that the sample proportion (p) was less than or equal to 0.05. Table 4.6 provides the correlation between technical assistance, community participation and socioeconomic environment.

Table 4.6: Correlation between Technical Assistance, Community Participation, Socio-Economic Environment

		Technical Assistance	Community participation	Socioeconomic environment
Technical assistance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	125		
Community Participation	Pearson Correlation	.529**	1	
	Sig. (2-tailed)	.000		
	N	125	125	
Socioeconomic Environment	Pearson Correlation	.415**	.505**	1
	Sig. (2-tailed)	.000	.000	
	N	125	125	125

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

The result of correlation analyses between technical assistance, community participation and socio-economic environment was varied. As shown in table 4.6, correlation between

the variables was positive with correlation between socio-economic environment and community participation, technical assistance and community participation were strong.

4.5 Descriptive Analysis

In this sub-section, descriptive analyses are provided starting with sustainability of donor funded projects followed by technical assistance. Other areas included are community participation and socio-economic environment in relation to sustainability of donor funded projects.

4.5.1 Sustainability of Donor Funded Projects

Sustainability of DFPs is reflected in the capacity of the project community to cope with change and adapt to new situations in case donors withdraw or reduce their support to the projects. It could also be considered in terms of the likelihood of a continuation in the stream of benefits provided for by the project at the end of external support. Alternatively, this could be looked into as the continuity of a project until it attains its set objectives. This also entails the continuation of benefits after major assistance or after withdrawal of the support in the society by the donor. In all these explanations, what is certain is that sustainability is about continuity of the project beyond the donor support.

The study sought to examine the sustainability of selected DFPs in Samburu County measured using a number of factors on a Likert scale of 1 strongly disagree, 2 disagree, 3 neutral, 4 agree and finally 5 strongly agree. The results show varying levels of agreement/disagreement among the respondents on the various aspects of sustainability of the projects in terms of means and standard deviation. Table 4.7 presents the summary of the respondents' perception on the extent to which they agreed/disagreed on the various aspects of sustainability of selected DFPs in Samburu County.

Table 4.7: Sustainability of Donor Funded Projects

	Strongly Disagree	Disagree	Neutral	Agree	Strong Agree	Missing	Total	Mean	Std. Deviation
Continued flow of stream of benefits	0	2	7	38	78	0	125	4.52	0.71
Continued realization of the project objectives	0	0	5	36	84	0	125	4.63	0.56
Contribution towards the improvement of standards of living of the people	0	2	3	31	89	0	125	4.65	0.62
Increase in number of beneficiaries since its inception	2	0	2	27	94	0	125	4.67	0.71
Existence of monitoring & evaluation mechanism to verify benchmarks of progress	2	0	2	39	82	0	125	4.58	0.72
Suitability of selected technologies in terms of affordability, maintainability and the level of service desired	2	0	26	46	51	0	125	4.13	0.89
Existence of measures to facilitate continuation of activities beyond funding cycle	5	0	12	60	48	0	125	4.21	0.78
Continued donor interest in sustainability prior to & during the course of project implementation and support for the transition to operational status	0	2	7	34	82	0	125	4.56	0.70
Project design document spell out sustainability as an objective to be attained	0	5	7	46	65	2	125	4.31	0.98
Existence of evidence of flexibility in adapting to problems related to sustainability during the course of implementation of the project	0	0	17	55	53	0	125	4.29	0.70
Contextual factors have adversely affected the benefit stream	0	12	24	43	46	0	125	3.98	0.98
Existence of linkage between the projects operating in the same area	0	2	5	48	70	0	125	4.48	0.67
Composite values								4.42	0.75

The composite mean value for sustainability of selected DFPs was 4.42 with standard deviation of 0.75 with most of the factors reporting higher mean. Specifically, the mean score for continued flow of stream of benefits from the projects was 4.52 with standard

deviation of 0.71. Through focus group discussions, respondents were of the view that there has been continuous flow of benefits supported by the commercialization of agriculture which has enabled the community to sale the products thereby earning some income. Others observed that existence of farmers training centres had seen improved livestock breed and improved farming technologies. The mean score for the continued realization of the project objectives was 4.63 with a standard deviation of 0.56, while the mean score for contributing towards the improvement of the standards of living of the people was 4.65 with a corresponding standard deviation of 0.62.

Through interviews and focus group discussions, respondents noted that many projects had been initiated in the county which continued to uplift the standard of living of the community. These included income generating activities such as tree seedlings whereby trees were sold after they mature, greenhouses for growing of tomatoes, high breed goats (Gala goats), drilling of boreholes and water puns for the community. Respondents agreed that projects had increased the number of beneficiaries since their inception with a mean score of 4.67 and standard deviation of 0.71, while the mean score for monitoring and evaluation was 4.58 and standard deviation of 0.72 implying that projects had mechanism to verify benchmarks of progress. Respondents further pointed out that project staff were actively involved in the monitoring of the projects for purposes of identifying deviations from the intended benefits.

The appropriateness of the selected methodologies had a mean score of 4.13 and standard deviation of 0.89, while the mean score for the establishment of measures aimed at facilitating the continuation of activities beyond funding cycle was 4.21 and a standard deviation of 0.78. As part of sustainability strategy, respondents noted that within the projects, there have been concerted efforts aimed at facilitating formation of community centers such as pastoral field schools, water resource users associations, natural resource management groups, marketing groups, income generating groups among others for implementation of project activities. In the process, trainings and sensitizations programs are conducted on areas relating to group dynamics, governance, accountability, organization capacity, problem solving, advocacy, communication leadership, among

other training, identified during project implementation jointly by the donors and the community.

Respondents also noted that as part of sustainability initiatives, some projects had initiated programs such as loaning and saving scheme to the community and that there has been continued donor interest in the sustainability, with donor support scoring a mean score of 4.56 and a standard deviation of 0.70. Respondents were optimistic that the projects would continue receiving funding and that the community and project staff had periodically received training on sustainability. The community had also been linked to the government line ministries and the local administration on the project.

Similarly, capacity building support continued to be received from various donors aimed at sustaining the projects beyond the donors. In a number of projects, project design documents had been developed spelling out sustainability with a mean score of 4.31 and a standard deviation of 0.98. Flexibility in the projects was evidenced in adapting to problems related to sustainability in the course of implementation of the projects with a mean score of 4.29 and a standard deviation of 0.70.

Respondent were however, indifferent on whether contextual factors, such as droughts, high inflation rates, political upheavals, among others, adversely affected the flow of benefit stream. Finally, the mean score for the existence of linkage between a project and other projects operating in the same area and sector was 4.48 with a standard deviation of 0.67. This was operationalized through partnerships with respective county government departments to facilitate the training of the local community on project management. This according to the respondents was aimed at implementing the projects after the project cycle. Table 4.8 provides a summary of respondents' perception on sustainability of DFPs.

Table 4.8: Respondents' Perception on Sustainability of DFPs

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Total	Mean	Std. Deviation
The project would continue beyond post-implementation without subsidy	8	21	21	29	46	0	125	3.67	1.29
Projects benefits are greater than costs	0	3	12	32	78	0	125	4.49	0.76
The project has identified various levels of review mechanisms for monitoring progress	0	0	10	44	71	0	125	4.49	0.64
The project has developed all the success indicators	0	0	5	55	65	0	125	4.48	0.58
There are sufficient funds to implement the project	0	19	36	24	46	0	125	3.77	1.11
The project has a cost recovery plan	5	13	35	30	40	2	125	3.64	1.26
Other funding sources for the project have been identified	7	17	36	31	34	0	125	3.54	1.2
Engagement of professional project leader, contributes to successful project implementation	0	0	5	41	79	0	125	4.6	0.57
Training have helped improve the quality of products	0	0	5	32	88	0	125	4.67	0.55
Technical support provided improved overall project performance	0	0	2	53	70	0	125	4.54	0.54
Project products and services are relevant to our project beneficiaries	0	0	2	46	77	0	125	4.6	0.53
Project products and services impact positively on beneficiaries	0	0	2	34	89	0	125	4.69	0.51
Project beneficiaries are satisfied with services provided by the project	0	0	7	51	67	0	125	4.48	0.61
Project staff are satisfied with the performance of the project	53	25	9	9	29	0	125	4.19	1.05
Project staff satisfaction leads to high project performance	0	0	3	55	67	0	125	4.52	0.54
Majority of staff are happy to work for the project	0	0	2	58	65	0	125	4.5	0.54
High staff turnover in our project has affected performance of our project	22	19	9	34	41	0	125	3.42	1.51
Retention of staff in our project has contributed to high performance	0	0	0	55	70	0	125	4.56	0.5
Composite Value								4.27	0.71

As indicated in the table, the composite mean was 4.27 with most of the factors recording higher mean score. In terms of benefits and costs, benefits were greater than their costs with a mean score of 4.49 higher than the composite mean and standard deviation of 0.76.

It was also established that projects had identified various levels of review mechanisms for monitoring their progress with a mean score of 4.49 that was higher than the composite mean and standard deviation of 0.64. Respondents, however, seemed to have been indifferent on whether there were sufficient funds as shown with a mean score of 3.77 and a standard deviation of 1.11. The indifference could imply that a number of respondents had no access to important financial reports and documents of the project and there not able to affirm their position.

Another area of indifferent was existence of a cost recovery plan and other funding sources as reflected in their respective means and standard deviations of 3.64, 3.54 and 1.26, 1.20, respectively. This could be an indication that respondents either had minimal access to financial status of the projects or that they were not actively involved in the administration of the projects. The engagement of professional project leaders in the implementation of the project had a mean greater than the composite mean of 4.60 and standard deviation of 0.57. This supports the finding under the profile of the respondents where majority had a university degree.

The respondents further agreed that training had facilitated the improvement of the quality of produce of the project given the mean score of 4.67 and standard deviation of 0.55. The men score for technical support provided towards the project implementation was 4.54 with standard deviation of 0.54. This it could be argued was an indication that technical support by the donors improved the overall project performance. Respondents noted that donors have continued to offer training, while at the same time enhanced monitoring and evaluation activities meant to assess the impact of the project, while ensuring that project activities are implemented as required in the project documents and implementation plans.

The projects' products were found to be relevant to the project beneficiaries given the mean score of 4.60 and standard deviation of 0.53. Projects were also found to continue impacting positively on the respondents with a mean of 4.69 and standard deviation of 0.51 with majority indicating improved standards of living. Project staff satisfaction had a

mean score of 4.19 and standard deviation of 1.05. This supports the high project performance ranked by the staff with a mean score of 4.52 and standard deviation of 0.54. Majority of the project staff were equally satisfied in working in the current projects with mean score of 4.50 and standard deviation of 0.54. The findings relates positively with the power theory which is about monitoring and evaluation of project activities during the project implementation.

In terms of monitoring, the theory holds that project monitoring is constant and intermittent, aimed at directing the venture to guarantee that information conveyance, work routines, target yield and other required activities continues as directed by task arrangement. Evaluation endeavours decisions that are methodically and unbiased as could be expected under the circumstances of the value or centrality of an intercession, system or strategy. For the assessment procedure to be objective, it needs to accomplish an adjusted investigation, perceive predisposition and accommodate viewpoints of diverse partners through the utilization of distinctive sources and routines (Guijt and Hilhorst, 2006). This therefore entails surveying genuine change against expressed goals, and trying a judgment on whether adjustments are required for purposes of realizing the intended objectives. Arguably, it facilitates in making necessary decision on the progress made and incorporating necessary adjustments towards the realization of the set goals and future sustainability.

4.5.2 Analysis of Technical Assistance and Sustainability of DFPs

Technical assistance is a core element of the development dimension as part of enhancing human and institutional capacities of beneficiaries to take full advantage of the project in the event the project comes to an end. Institutional capacity is an essential condition for maintaining the flow of project benefits in the future. In the study various aspects of technical assistance were considered including management and leadership, technical training, organizational processes (internal systems, governance structures, policies, among others), mentoring and supervision.

In this sub-section results in terms of mean and standard deviation relating to technical assistance and how it influences sustainability of selected donor funded projects are reported. Technical assistance was measured using a number of factors on a Likert scale of 1 strongly disagree, 2 disagree, 3 neutral, 4 agree and finally 5 strongly agree. Table 4.9 presents the findings on the extent to which the respondents agreed/disagreed on the influence of various aspects of technical assistance on the sustainability of donor funded projects.

Table 4.9: Technical Assistance and Sustainability of DFPs

	not at all	less extent	moderate extent	great extent	excellent	Missing	Total	Mean	Std. Deviation
Management and leadership training	5	2	10	62	46	0	125	4.10	1.07
Technical training	2	7	15	71	25	5	125	3.75	1.15
Planning and Budgeting	0	7	2	70	44	2	125	4.13	0.95
Project design	0	2	12	56	53	2	125	4.21	0.94
Organizational processes	0	5	26	55	34	5	125	4.10	1.18
Monitoring & evaluation	0	2	2	65	51	5	125	4.19	1.05
Proposal & grant writing	5	7	15	61	32	5	125	3.75	1.25
Mentoring	8	10	35	40	32	0	125	4.13	1.04
Financial management	2	2	10	53	53	5	125	4.10	1.18
Project implementation	0	2	7	48	63	5	125	4.25	1.10
Project reporting	0	2	7	51	60	5	125	4.23	1.10
Composite value								4.08	1.09

Technical assistance had a composite mean score of 4.08 and a standard deviation of 1.09 with respondents agreeing that technical assistance was important in the sustainability of donor funded projects. Similarly, most of the factors under technical assistance had a mean score of more than the composite mean, meaning that these factors influence sustainability of donor funded projects. Project design had the highest mean score of 4.21 and standard deviation of 1.18 followed by planning and budgeting with a mean score of 4.13 and standard deviation of 0.95, management and leadership training, organizational

processes and financial management each had a mean score of 4.10 with varying levels of variability as reflected in the values of standard deviation. Through the interviews and focus group discussions, respondents observed that they were receiving training on project management, report writing, grant and proposal writing from the donors as part of project delivery. Respondents noted further that donors continue to provide capacity building on the technical maintenance of the project, training on disaster management as part of solution towards conflict management.

As indicated, planning and budgeting had a mean score of 4.13 with a standard deviation of 0.95, while the design of the project assisted by donors had a great effect on the sustainability of the projects with a mean score of 4.21 and a standard deviation of 0.94. Respondents were of the opinion that members of the community are allowed to participate in the budgeting and planning for the projects as part of prioritization given the resource constraints. Assistance from the donors in organizational processes had a mean score of 4.10 and a standard deviation of 1.18, while monitoring and evaluation had a mean of 4.19 and a standard deviation of 1.05.

The importance of organizational processes, monitoring and evaluation are core in donor funded projects, whereby the donors start by putting in place necessary processes including organization structure, systems, policies and procedures, financial and project reporting as well as monitoring the project process. The results also show that the assistance received from the donor in enhancing capacity towards project proposal and grant writing moderately affected sustainability of the project with a mean score of 3.75 and a standard deviation of 1.25, however, the value was less than the composite mean. Mentoring had a mean score of 4.12 and a standard deviation of 1.04. This according to the respondents was in terms of technical backstopping, guidelines for project implementation, monitoring and evaluation. This findings supports the views held by Ndege (2003), whereby mentoring was considered critical with the donors backstopping the project through technical advisory which is part of mentoring

Financial management support had a mean score higher than the composite mean implying that financial management as part of technical assistance plays a key role in the sustainability of DFPs. In general, the results show that the implementation of donor funded projects in the County is characterized by technical assistance in terms of mentoring, technical support in the implementation process as well as project reporting. This is important as noted by Heldgaar (2008); Oswald and Ruedin (2012) that in the process of phasing out a project, care has to be exercised to ensure long-term sustainability of a programme or project so that the community may continue beyond donor support.

4.5.3 Community Participation and Sustainability of DFPs

Community participation in project implementation and development has become of prominence and its variants have taken on particular prominence in the policies of bilateral and multilateral development agencies earmarked towards sustainability (OECD, 1996). OECD noted that donors have to respect and encourage strong local commitment, participation, capacity development and ownership of the project activities. This according to OECD (1996) would take cognizant the community needs which in the process is expected to encourage their participation.

The study sought to examine the level of community participation in terms of community ownership, provision of resources, awareness, commitment, availability of input factor, project implementation, among other attributes. Like in the case of technical assistance and sustainability of donor funded projects, the responses were presented in Likert scale of 1 strongly disagree, 2 disagree, 3 neutral, 4 agree and finally 5 strongly agree and analysed in terms of means and standard deviation as summarized in Table 4.10.

Table 4.10: Community Participation on Sustainability of DFPs

	not at all	little extent	moderate extent	great extent	excellent	Missing	Total	Mean	Std. Deviation
Formulation of the project	3	17	17	50	38	0	125	4.18	1.05
Proposal and grant writing	25	22	28	45	5	0	125	3.04	1.31
Project design	15	22	30	28	30	0	125	3.32	1.22
Project planning & budgeting	7	30	25	43	20	0	125	3.44	1.16
Monitoring & evaluation	0	15	30	40	40	0	125	4.10	0.90
Project implementation	2	8	15	46	54	0	125	4.33	0.82
Project report writing	18	36	20	33	15	3	125	2.96	1.25
Resource Provision	8	16	32	34	32	3	125	3.45	1.42
Community relation with the project	7	7	54	42	15	0	125	3.99	0.94
Composite Value								3.65	0.96

The composite mean score for community participation was 3.65 with standard deviation of 0.96. As shown in Table 4.10, the community seem to have been greatly involved in formulation of the project idea with a mean score of 4.18 and a standard deviation of 1.05. This according to the respondents, based on the interviews and focus group discussions was informed by baseline surveys in which the community was actively involved through the opinion leaders, elders, women and youth groups committees at the community level. The mean score for project proposal and grant writing was 3.04 with a standard deviation of 1.31, while community participation in project design was less than the composite mean. The findings could imply that respondents were either not involved in these processes or that they had no idea what these entailed. Respondents however, opined that the community had embraced the project given their continued participation in meetings and also in implementation process. To ensure effective participation, interview results showed that community empowering were routinely conducted through trainings and capacity building programs.

Community participation in project planning and budgeting was moderate with a mean score of 3.44, which was less than the composite mean with a standard deviation of 1.16 that was higher than the composite value. Key areas according to respondents included

membership in the procurement committee - although they acknowledged lack of technical expertise. This could imply that though the community was involved, there could have been capacity gap which affected their effective involvement. Community participation in monitoring and evaluation of the project had a mean score of 4.10 and a standard deviation of 0.90, while community involvement in project implementation had a mean score of 4.33 and standard deviation of 0.82.

Involvement in writing project reports had a mean score of 2.96 with standard deviation of 1.25 implying that community participation in this activity was to a less extent. This could be an indication of lack of capacity in the community to actively engage in the activity. The approach taken by donors while initiating projects in a community is vital to the success of that project. This findings equally supports Ndege (2003) who noted that projects must be redesigned to incorporate as much participation as can be possible to ensure productive beneficiary participation, control and ownership for long term benefits.

In line with Ladder of Participation Theory, community involvement is an important ingredient in donor funded projects for purposes of the sustainability of the projects (Bell, 2010). Bell identified three key ingredients necessary for community involvement in donor funded projects including empowerment of local communities to take command of the projects, the practice of co-opting community members to take part in existing programs, and finally as a masquerading public relations exercise, justifying a predetermined donor project.

Provision of resources to the project by the community was to a moderate extent, as depicted with a mean score of 3.45 and a standard deviation of 1.42, while community relation with the project measured in terms of awareness, acceptability, attitude among other attributes had a mean score of 3.99 and standard deviation of 0.94. Face to face discussions revealed that a number of organizations had programs in place wherein community continued to provide resources. This finding supports Hodgkin (1994) who noted that commitment of resources, particularly financial resources, by beneficiary is an important indicator of the expected value of the project to the communities. Similar views

were echoed by Shediac-Rizkallah and Bone (1998) who observed that allocating adequate time and resources for participatory analysis and responding to demand-led approaches are important ways to improve participation.

4.5.4 Socio-Economic Environment and Sustainability of DFPs

Socio-economic environment is considered part of the overall organization environment within which the project operates. This may impact on the project both negatively and positively. These variables include culture, demographics as well as economic indicators within which the projects are implemented. In the management of projects, those responsible need to be attuned to the project environment within which they operate (Wideman, 2001). This section provides findings on the respondents' perception of the influence of socio-economic environment on sustainability of donor funded projects in terms of means and standard deviation. Table 4.11 presents the findings on respondents' level of agreement/disagreement on Likert scale of 1 strongly disagree, 2 disagree, 3 neutral, 4 agree and finally 5 strongly agree.

Table 4.11: Socio-Economic Environment and Sustainability of DFPs

Socio-Economic Environment Attributes	not at all	less extent	moderate extent	great extent	excellent	Missing	Total	Mean	Std. Deviation
Community beliefs affect the project positively	5	29	37	27	17	0	125	3.33	1.09
Community beliefs affect the project negatively	17	27	37	29	15	0	125	2.98	1.22
Community norms affect the project	12	17	61	30	5		125	2.98	0.97
Community's level of education affect implementation activities	7	7	54	42	15	0	125	3.39	0.98
Marital status of the people in the community affect the project	42	19	42	20	2	0	125	2.37	1.17
The gender of the members of the community affect their participation	12	25	39	32	17	0	125	3.14	1.18
Religion of the members of the community affect their participation	54	15	44	10	2		125	2.14	1.13
Politics of the members of the community affect their participation	25	17	29	27	27	0	125	3.12	1.42
Level of income of the members of the community affect their participation	10	27	44	27	17	0	125	3.12	1.14
Social harmony among the members of the community affect their participation	17	15	49	25	17	2	125	3.02	1.27
Poverty levels of the members of the community affect their participation	8	10	35	40	32	0	125	3.64	1.14
Health indicators of the members of the community affect their participation	22	13	38	25	22	5	125	2.98	1.46
Clanism of the members of the community affect their participation	20	22	34	27	22	0	125	3.08	1.32
Composite mean								3.02	1.19

The composite mean score on the relationship between socio-economic environment and sustainability of selected DFPs was 3.02 with a number of the factors considered reporting slightly higher mean score which was however moderate. Community beliefs was moderate with a mean score of 3.33 and standard deviation of 1.09, while

community beliefs had less negative effect to projects with a mean score of 2.98 and high a standard deviation of 1.22. Respondents noted that the community believed that some project like bee keeping was for poor people, hunters and ancient activity which should be discarded in the modern world.

Community norms affected the project to a less extent given the mean score of 2.98 and a standard deviation of 0.97. Some members of the community felt that changing of livestock breeds and reducing the number of livestock was against their cultural beliefs. This in the process affected their ability to embrace farming as opposed to livestock keeping. As noted by Oino *et al* (2015), a project should be respectful and considerate of the community's beliefs, norms, and religion. Any project activity that undermines community's socio-cultural orientation is expected to be met with resistance and the chance of its sustainability may be limited.

Level of education of community members affected the implementation activities of the project on a moderate extent as shown by a mean score of 3.39 and a standard deviation of 0.98, while marital status had minimal effect on the projects with a mean score of 2.37 and standard deviation of 1.17. Respondents attributed this to high illiteracy levels in the community which in a way impacted negatively on their ability to participate in projects. Gender moderately affected the participation of the community in the project with a mean of 3.14 and a standard deviation of 1.18 with respondents noting that male chauvinism was impacting negatively on the ability of women in participating in the projects. Religion of the members of the community had less effect on their participation to the project with a mean score of 2.14 and a standard deviation of 1.13.

Politics in the community moderately affected the community's participation in the donor projects given the mean score of 3.12 and a standard deviation of 1.42. According to those interviewed, if project beneficiaries are perceived to be from one clan, it will be difficult to convince other community members to support it. Income and poverty levels of the members of community moderately affected their participation to the project with mean scores of 3.12 and 3.64, respectively and standard deviation of 1.14. High poverty

level in the county inhibited the community's capacity to participate in the project development, while other members valued their livestock making it difficult to convince them to sell them and engage in more viable economic activities or even reduce their stock.

Social harmony of the members of the community also moderately affected their participation in the project as shown with a mean score of 3.02 and standard deviation of 1.27. Conflict in the community was perceived to be a major challenge triggered by cattle rustling and resources usage, which in the process impacted negatively on the project since people are from time to time are fighting, which also creates other emergencies that would have otherwise been avoided. Health indicators in the community were perceived to have minimal effects on the community's participation in projects, while, clanism affected their participation in the project on a moderate extent. Like in the case of conflict, insecurity is another hazard encountered which affects even the ability of the community to engage in certain project activities.

4.6 Hypotheses Testing

Regression models were used to test the strength of the independent and moderating variables as far as their relationship with the dependent variable is concerned. The contribution of each of the variable to sustainability of DFPs was determined using the coefficient of determination, while F-statistics was used to test hypothesis at 95% confidence levels with a margin error of 5% in lieu of the sample size. Also computed were the beta values, R-values and t-tests.

The R-value shows the strength of the relationship between the variables, while the coefficient of determination shows the extent to which variations in independent indicators explain indicators of the dependent variable (goodness of fit or explanatory power). F-value shows the statistical significance of the overall model, while t-values represent the significance of individual variables. Beta values show the effect of the independent variable on the dependent variable (positive or negative). The p-values represents the confidence level at 95% or 0.05 significant level at which point a decision

to confirm the hypothesis was made at values of F-ratio where $p < 0.05$. For a sample greater than thirty that is $n > 30$, which was the case in this study, F-tests are used to test the hypotheses (Moriya, 2008).

The general rule is if $F\text{-calculated} < F\text{-critical}$, you should accept the null hypothesis because then $p > .05$ and when $F\text{-calculated} > F\text{-critical}$, you should reject the null hypothesis because $p < .05$. SPSS software provides p values for each tested difference. Thus, instead of applying $F\text{-calculated}$ and $F\text{-critical}$ in either accepting or rejecting the hypothesis, the p-value was used at 95% level of confidence. The decision rule provides that if $p\text{-value} < \alpha$, reject the null hypothesis and accept alternative hypothesis and if $p\text{-value} > \alpha$, accept the null hypothesis and reject the alternative hypothesis (Erdfelder, Faul and Buchner, 1996). Table 4.12 provides the summary of the objective and the corresponding hypothesis and the summary of the results.

Table 4.12: Relationship between study objectives, hypotheses and statistical model

Objective	Hypothesis	Model
To establish the influence of technical assistance on sustainability of selected DFPs in Samburu County	H₁ ; Technical assistance has a significant influence on sustainability of donor funded projects in Samburu County.	$Y = \beta_0 + \beta_1 X_1 + \varepsilon$ where: Y = Composite of sustainability of DFPs β_0 = Constant β_1 = Beta coefficient X_1 = Composite for Technical Assistance ε = Error term
To determine the influence of community participation on sustainability of selected DFPs in Samburu County.	H₁ ; community participation has a significant influence on sustainability of donor funded projects in Samburu County	$Y = \beta_0 + \beta_2 X_2 + \varepsilon$ where: Y = Composite for Sustainability of DFPs β_0 = constant β_2 = Beta coefficient X_2 = Composite for community participation ε = error term
To assess the influence of socio-economic environment on sustainability of selected DFPs in Samburu County.	H₁ ; socio-economic environment has a significant influence on sustainability of donor funded projects in Samburu County	$Y = \beta_0 + \beta_3 X_3 + \varepsilon$ where: Y = composite for sustainability of DFPs β_0 = constant β_3 = Beta coefficient X_3 = a composite for socio-economic environment ε = error term
To examine the joint influence of technical assistance, community participation and socio-economic environment on sustainability of selected DFPs in Samburu County	H₁ ; Technical assistance, community participation and socio-economic environment have a joint influence on project sustainability	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$ where: Y = Composite for sustainability of DFPs β_0 = constant β_4 = Beta coefficients X_1 = Composite for Technical Assistance X_3 = Composite for Socio-economic environment X_2 = Composite for Community Participation ε = error term
To establish the moderating influence of community participation on the relationship between technical assistance and sustainability of selected DFPs in Samburu County	H₁ ; The relationship between technical assistance and sustainability of donor funded projects in Samburu County is significantly moderated by community participation	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 X_2) + \varepsilon_1$ where: Y = Sustainability of DFPs β = Coefficient X_1 = Technical assistance X_2 = Community participation $(X_1 X_2)$ = Interaction term ε_1 = Error term
To determine the influence of socio-economic environment on the relationship between technical assistance and sustainability of selected DFPs in Samburu County	H₁ ; The relationship between technical assistance and sustainability of donor funded projects in Samburu County is significantly moderated by socio-economic environment	$y = \beta_0 + \beta_1 X_1 + \beta_2 X_3 + \beta_3 (X_1 X_3) + \varepsilon_1$ where: y = Sustainability of DFPs β = Coefficient X_1 = Technical assistance X_3 = Socio-economic environment $(X_1 X_3)$ = Interaction term ε_1 = Error term

Table 4.12 depicts the relationship between study objectives, hypotheses and the statistical model. As shown in the table, the six objectives and the corresponding hypotheses and the statistical models that were tested are provided. The models were estimated and hypotheses tested to establish the statistical significance in respect of the study objectives. These were done by obtaining the values of R, R², F ratio, t-values and p values.

4.6.1 Hypothesis One: Technical assistance has a significant influence on Sustainability of selected DFPs in Samburu County

This hypothesis aimed at establishing the influence of technical assistance on sustainability of selected DFPs in Samburu County. The model that was used to test the hypothesis was specified as: $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ where:

Y = Composite of sustainability of DFPs

B₀ = Constant

β₁ = Beta coefficient

X₁ = Composite for Technical Assistance

ε = Error term.

The results are presented in Table 4.13 with technical assistance as the independent variable and sustainability of selected DFPs as dependent variable.

Table 4.13: Model Summary on Technical Assistance Influence on Sustainability of DFPs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.522 ^a	.261	.266	.40269	.272	16.940	1	124	.000

a. Predictors: (Constant), Technical Assistance

As indicated in Table 4.13, the strength of the correlation between technical assistance and sustainability of selected DFPs was 0.522 and the coefficient of determination estimated at 0.261 which was significant (Sig F. change of 0.000). The F change was

16.940, while standard error of the estimate was 0.40269. The results show that 26.1% of sustainability of selected DFPs is accounted for by technical assistance provided for by the donors. This could be in terms of putting in place organizational processes such as internal operating systems, organization structures, qualified personnel, reporting lines and financial management structures, monitoring and evaluation.

Others could include capacity building in terms of management and leadership training, technical training, mentoring as well as monitoring and evaluation skills. This supports World Health Organization (2012) views, which emphasized the importance of institutional capacity in maintaining the flow of project benefits in the future by paying attention to structure, policy, and staff training. This also supports Ndege (2003) who noted that donors needs to have continuous monitoring and evaluation programmes and develop long lasting interventions in collaboration with other stakeholders. Through continuous capacity building, the community members and project staff will learn to appreciate the project and identify with the project.

The results indicate a statistically significant relationship between sustainability of selected DFPs and technical assistance with F-value of 16.940, $p < .000$ at 95% level of significance. This shows that the model estimated was statistically significant, an indication that provision of technical assistance during the project cycle significantly influences sustainability of the projects in the study area. Table 4.14 and 4.15 provides summary statistics of the ANOVA and coefficient results between technical assistance and sustainability of donor funded projects, respectively at 95% level of significance.

Table 4.14: ANOVA on Technical Assistance Influence on Sustainability of DFPs

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.036	1	3.036	18.722	.000 ^b
	Residual	8.108	124	.162		
	Total	11.144	125			

a. Dependent Variable: Sustainability of Donor Funded Projects

b. Independent Variable: Technical Assistance

Table 4.15: Coefficients on Technical Assistance Influence on Sustainability of DFPs

Model		Unstandardized		Standardized	Collinearity			
		Coefficients		Coefficients	Statistics			
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	2.695	.402		6.706	.000		
	Technical Assistance	.389	.090	.522	4.327	.000	1.000	1.000

a. Dependent Variable: Sustainability of Donor Funded projects

b. Independent Variable: Technical Assistance

The results presented in Table 4.14 and 4.15 shows statistically significant positive regression coefficients of technical assistance on sustainability of selected DFPs of 0.522. This indicates that there is a significant positive relationship between technical assistance and sustainability of selected DFPs such that if technical assistance is provided in the process of the project cycle, sustainability of the projects under consideration is likely to continue such that with a unit increase in technical assistance, there would be 0.522 chance of increase in sustainability of DFPs.

The results confirm that technical assistance is core in the development dimension as part of enhancing human and institutional capacities of beneficiaries to take full advantage of the project in the event that the project comes to an end. This could be realized by paying attention to structure and policy which entails putting in place necessary organization processes, staff training in terms of leadership and management skills, proposal and grant writing. Others relate to establishment of internal systems, structure, and work culture that promote strong leadership and positive organizational image, foster the belief that people are willing to support products and services they find valuable, and facilitate the development plans for sustainability. This supports the World Bank report of 2010 where it was noted that enhancing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes is important.

The findings validate the arguments in a report by Bamberger and Cheema (1990) which suggested that lack of adequately trained personnel negatively impact on the sustainability of community-based projects. This could be realized through provision of adequate staff training for effective project delivery as part of capacity building. This also supports Little (1993) whereby it was noted that institutional and management capacity is a recipe for effective project implementation as it encourages participation and involvement of the community in all the processes of project implementation, which in the process enhance continued delivery of desired outcomes. Empowered people have freedom of choice and action, which in turn enables them to influence the course of their lives and the decisions which affect them (Kinyanjui, Gakuu and Kidombo, 2017).

Given the results, the hypothesis that technical assistance has a significant influence on sustainability of donor funded projects in Samburu County is accepted. The results thus agrees with Khan and Hare (2005) who suggested that at the institutional level, the funded institutions need to establish the internal systems, structure, and work culture that promote strong leadership and positive organizational image, while fostering belief that people are willing to support products and services they find valuable, and hence facilitate the development plans for sustainability. Donors have responsibilities when funding development interventions, to enhance the capacity of the implementing staff and the community as part of the technical assistance at the community level (Oswald and Ruedin, 2012; Murei, Kidombo and Gakuu, 2017).

Theoretically, it is necessary to ensure that the work activities and sub-units conform to the management objectives and to supply the information to enable the managerial hierarchy to correct any deviations from set plans. In project management, control is central in not only directing the course of the project, but also managing the limited and scarce resources. Through this, it is possible to sustain the project.

4.6.2 Hypothesis Two: Community participation has a significant influence on sustainability of selected DFPs in Samburu County

In order to determine the level of influence of community participation on sustainability of donor funded projects in Samburu County, linear regression analysis was estimated with community participation as the independent variable and sustainability as the dependent variable. Community participation was considered as a composite of formulation of the project, proposal & grant writing, planning and budgeting, monitoring and evaluation, provision of resources and project reporting. The estimated model was:

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon \text{ where:}$$

Y = a composite for Sustainability of DFPs

β_0 =constant

β_2 = Beta coefficient

X_2 = Composite for community participation

ε = error term

Table 4.16 presents the summary statistics of the relationship between community participation and sustainability of donor funded projects. The predictor variable is community participation and dependent variable is sustainability of selected DFPs.

Table 4.16: Model Summary on Community Participation Influence on Sustainability of DFPs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.488 ^a	.238	.222	.41347	.238	14.984	1	124	.000

a. Predictors: Community Participation

As shown in Table 4.16, the model seem to fit the data as reflected by the strength of the correlation between community participation and sustainability of selected DFPs estimated at 0.488 with coefficient of determination of 0.238, while F-value was 14.984 and p-value = 0.000. This implies that 23.8% of sustainability of DFPs is accounted for

by community participation in the projects, while the remaining percentage in the sustainability of DFPs is influenced by other variables besides a composite of community participation.

Community participation, which could be viewed in terms of involvement of members of a community in the project implementation cycle, so that they could have a say on decisions related to development project activities that will affect them, is important. Their participation could be in terms of level of ownership by the community, provision of resources, involvement in planning and budgeting. To achieve a well-managed and sustainable project, as noted by Ndege (2003), people need to make their own decisions and take responsibility for their own welfare. Individuals and community participation in the decision making, project design and implementation process is more significant than any other factor in achieving sustainable development, while ensuring optimal use of resources for it creates a feeling of ownership.

With the participation of the community, residents of a community are given a voice and a choice to participate in issues affecting their lives which in the process impacts on the project. This finding supports Saxby (2003) who emphasized that for sustainable development, projects must be locally owned and a partnership model embraced with donors' programs and activities operating within locally-owned development strategies. OECD (2007) notes that donors should respect and encourage strong local commitment, participation, while promoting capacity development and ownership. The results shown in Table 4.17 show a statistically significant relationship between sustainability of selected DFPs and community participation with F value of 14.984 and p-value of 0.000 which is less than 0.05. This shows stakeholders perceived community participation to significantly influence sustainability of donor funded projects.

Table 4.17: ANOVA on Community Participation Influence on Sustainability of DFPs

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.562	1	2.562	14.984	.000 ^b
	Residual	8.206	124	.171		
	Total	10.767	125			

a. Dependent Variable: Sustainability of Donor Funded Projects

b. Predictors: Community Participation

The finding validates the postulations of the theory of participation by McGregor (1950) where active involvement of stakeholders in the implementation cycle of the project was considered very important. The theory holds that when key stakeholders are part of the project all through from the conceptualization to planning and eventually execution, when left to deal with the project they are expected to positively impact on the project. The theory also considers the significance of considering neighbourhood individuals' point of view and giving them a more noteworthy say in arranging and dealing with the assessment process of the project. As noted by Gitonga (2012), nearby individuals, group associations and different partners choose together how to gauge results and what activities ought to take after, once this data has been gathered and examined. This is because good project returns could be realized if communities participate more and more in the day-to-day activities of the projects.

In terms of coefficients analysis, the beta value was a positive of 0.488 and statistically significant ($\beta=0.488$, $p\text{-value}=0.000$), this shows a positive relationship between community participation and sustainability of DFPs. The positive relationship shows that active participation of the community in the project cycle is perceived to influence continuation of the project even after the withdrawal of the donor support. Table 4.18 provides the summary of the regression results of the coefficient.

Table 4.18: Coefficients on Community Participation Influence on Sustainability of DFPs

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	3.490	.251		13.922	.000		
	Community Participation	.254	.066	.488	3.871	.000	1.000	1.000

a. Dependent Variable: Sustainability of Donor Funded Projects

Community mobilization and empowerment are important ingredients in donor funded projects for sustainability purposes. When the community is fully engaged, it serves to expand the feeling of community ownership of any given project which may contribute towards positive project outcomes. In the process, this motivates the participants to put in extra effort and in the end will impact positively on the project outcome and its future. This finding agrees with Anderson and McFarlane (2010); Sirgy, Phillips and Rahtz (2011) who separately noted that sustainability can be realized when the community is included in decisions pertaining to planning and allowed in assuming some responsibility on implementation.

Based on the results, the hypothesis that community participation has a significant influence on sustainability of donor funded projects in Samburu County is accepted. The findings also validate the arguments advanced in a report by Stone (1989) where it was observed that individual values and community organization were identified as critical factors in participation. This finding supports a report by Soliman and Omer (2015) that with community participation, project resources are saved and could be ploughed into the projects to produce additional benefits beyond the donor support. Similar views were anchored by Karl (2000) that community participation in donor funded projects ensures that the development activities are based upon indigenous knowledge and are more relevant to locals, which in the process assures for continuity beyond donor support. This

is because local people understand their problems better and can therefore use their skills and resources to find flexible solutions that are tailored to suit their unique needs and hence their active involvement.

4.6.3 Hypothesis Three: Socio-economic environment has a significant influence on sustainability of selected DFPs in Samburu County

Linear regression analysis was conducted to determine the significance of the influence of socio-economic environment on sustainability of donor funded projects at 95% level of significance. These variables were treated as a composite with various indicators comprising socio-economic environment. The indicators included community norms, politics, religion, social harmony, level of income, health indicators and clanism. The estimated model was $y = \beta_0 + \beta_3 X_3 + \epsilon$ where:

Y = was a composite for sustainability of DFPs

β_0 =constant

β_3 = Beta coefficient

X_3 = a composite for socio-economic environment

ϵ = error term.

The results of the model are presented in Table 4.19 with socio-economic environment as the predictor on sustainability of donor funded projects.

Table 4.19: Model Summary on Socio-Economic Environment Influence on Sustainability of DFPs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.056 ^a	.003	-.017	.47066	.003	.152	1	49	.699

The regression results for socio-economic environment and sustainability of donor funded projects was $r=0.056$, while coefficient of determination was 0.003 with Sig F Change of 0.152 and p-value of 0.699 . These results reveal an insignificant relationship between socio-economic environment and sustainability of DFPs. ANOVA tests were also conducted to further determine the influence of socio-economic environment on sustainability of selected DFPs. Table 4.20 presents a summary of the ANOVA estimation results.

Table 4.20: ANOVA on Socio-economic environment Influence on Sustainability of DFPs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.034	1	.034	.152	.699 ^b
	Residual	10.854	124	.222		
Total		10.888	125			

a. Dependent Variable: Sustainability of donor funded projects

b. Predictors: (Constant), Socio-economic Environment

The results show that there was insignificant relationship between socio-economic environment and sustainability of DFPs, however, with a negative beta value ($\beta = -0.035$; p-value of 0.699) which imply a negative relationship. The negative relationship between socio-economic environment and DFPs show that if there adverse changes in the socio-economic environment for instance social disharmony within the society, there is likelihood interventions. Some of the interventions could include rapid deployment of resources by donors aimed at resolving conflicts which are however common in Samburu County.

Table 4.21: Coefficients on Socio-economic Environment Influence on Sustainability of DFPs

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.533	.280		16.168	.000
Socio-economic Environment	-.035	.091	-.056	-.390	.699

a. Dependent Variable: Sustainability of DFPs

Socio-economic environment as part of the overall organization environment within which projects are implemented may impact on the project both negatively and positively. This findings resonates with Wideman (2001), Matthews and Herbert (2004) who noted that in the management of projects, those responsible need to be attuned to the project environment within which they operate. From the foregoing analysis, socio-economic environment does not significantly influence sustainability of donor funded project in Samburu County. The recognition of diversity of the project environment in terms of technology, economics, social and politics are necessary in project sustainability. Further, development interventions may fail to deliver sustainable benefit due to lack of attention to social, gender and cultural issues. Thus the stated hypothesis that socio-economic environment has statistical significant influence on sustainability of selected DFPs in Samburu County is rejected.

4.6.4 Hypothesis Four: Technical assistance, community participation and socio-economic environment have a joint influence on sustainability of selected DFPs in Samburu County.

In order to examine the influence of technical assistance, community participation and socio-economic environment on sustainability of selected donor funded projects in Samburu County, multiple regression analysis was conducted. Sustainability was the dependent variable, while technical assistance, community participation and socio-economic environment were treated as independent variables. The multiple regression

equation used to estimate the influence of technical assistance, community participation and socio-economic environment on sustainability of donor funded project was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \text{ where}$$

y = Composite for sustainability of DFPs

β_0 = constant

β_4 = Beta coefficients

X_1 = Composite for Technical Assistance

X_3 = Composite for Socio-economic environment

X_2 = Composite for Community Participation

ε = error term

The results are summarized in table 4.22.

Table 4.22: Model Summary on Technical Assistance, Community Participation and Socio-economic Environment Influence on Sustainability of DFPs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.784 ^a	.534	.497	.39180	.540	17.916	3	121	.000

a. Predictors: Community Participation , Socio-economic, Technical Assistance

b. Dependent Variable: Sustainability of Donor Funded projects

The strength of the correlation between technical assistance, community participation and socio-economic environment on the sustainability of selected donor funded projects in Samburu County was .784, while coefficient of determination was .5340 with Sig F Change $p < 0.000$ of 17.916. This implied that 53.4% of sustainability of selected donor funded projects in Samburu County was explained by the joint influence of technical assistance, community participation and socio-economic environment. The remaining 46.6% of the variations in the sustainability of the donor funded projects was influenced by other factors besides these three. The results as shown in Table 4.22, show a statistically significant relationship between technical assistance, community participation and socio-economic environment and sustainability of the selected donor

funded projects with $F=7.916$, $p \text{ value} < 0.000$. The significance was also tested using ANOVA tests with results summarized in table 4.23.

Table 4.23: ANOVA on Technical Assistance, Community Participation and Socio-economic Environment Influence on Sustainability of DFPs

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.645	3	1.215	7.916	.000 ^b
	Residual	7.061	121	.154		
Total		10.707	124			

a. Dependent Variable: Sustainability of DFPs

The three variables had a statistical significant influence on the sustainability of the selected DFPs. The values of each item representing indicators of each independent variable of the study were aggregated to get a composite mean. The new variable was used to run multicollinearity diagnosis and the resulting VIF and tolerance values were ranging between 1.088 - 1.498, and 0.919 - 0.868, respectively. The low values of VIF indicate absence of multicollinearity between technical assistance, community participation and socio-economic environment.

Table 4.24: Coefficients on Technical Assistance, Community Participation and Socio-Economic Environment Influence on Sustainability of DFPs

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	t		Tolerance	VIF
1 (Constant)	2.563	.418		6.128	.000		
Socio-economic	.039	.062	.080	0.642	.004	.919	1.088
Technical Assistance	.254	.109	.341	2.328	.024	.868	1.498
Community Participation	.164	.075	.315	2.173	.035	.883	1.465

a. Dependent Variable: Sustainability of Donor Funded Projects

The tolerance value as an indicator of how much of variability of the specified independent variable is not explained by the other independent variables in the model was very high indicating absence of multicollinearity. The joint influence of technical assistance, socio-economic and community participation had positive beta values of 0.80, 0.341 and 0.315, respectively. This implies that jointly, the variables influence sustainability of donor funded projects positively. Specifically, a unit change in socio-economic environment will lead to 0.080 change in sustainability of DFPs, while a unit change in technical assistance influence positive change in sustainability of DFPs by 0.341. Similarly, a unit change in community participation positively influence change in sustainability of DFPs by 0.315. The table further show that the beta values for the three variables were statistically significant. As postulated, technical assistance, community participation and socioeconomic environment have influence on sustainability of selected donor funded projects in Samburu County therefore the hypothesis is accepted at 95% level of significance.

In donor funded projects, sustainability aims at leaving a legacy of functional institutions that will be self-sustaining once the project ends and that the community would still continue realizing the benefits. This finding agrees with Elhaut (2007) who reported that sustainability of donor funded projects is realized through various steps that include promotion of ownership of project activities, supporting the capability of existing institutions, and securing successful transfer of decision-making to low administrative levels. Building sufficient follow-up, through mentoring and capacity building of key institutions including the community was also identified while taking cognizant of the environment where the project is implemented.

The findings support CPRC (2007) where it was opined that donor funded project is sustainable when it is able to deliver an appropriate level of benefits for an extended period of time after major financial, managerial and technical assistance from an external donor is terminated while involving the community and taking into consideration the environment which the project is implemented. Similar views were also held by USAID (2011) that a project is sustainable if the beneficiaries are capable of managing the project

on their own without the assistance of outside development partners for as long as their problem still exists once provided with necessary technical assistance.

4.6.5 Hypothesis Five: Community participation significantly moderates the relationship between technical assistance and sustainability of selected DFPs in Samburu County

The hypothesis sought to establish the moderating influence of community participation on technical assistance towards sustainability of donor funded projects. Moderated influence in a regression model shows the influence of an independent variable on the dependent variable as a function of a third variable. The aim is to examine how the influence of the explanatory variables changes when the moderator variable is introduced in the model. The moderator variable in the case of this study was community participation. The moderating influence was measured in terms of how the influence of the explanatory variables changes when the moderator variable is introduced. Sustainability was used as the criterion and the composite index of technical assistance as the independent variable and community participation as the moderator. The model was expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 X_2) + \epsilon_1 \text{ where:}$$

y= Sustainability of donor funded projects

β =Coefficient

X_1 =Technical assistance

X_2 =Community participation

$(X_1 X_2)$ = Interaction term (Product of X_1 and X_2)

ϵ_1 =Error term

Stepwise regression technique, consisting of three models, was used in order to test the moderating influence of community participation on the relationship between technical assistance and sustainability of donor funded project. Table 4.25 presents the result of the stepwise regression generated models using SPSS namely 1, 2, and 3. The variables in Regression model 1 were technical assistance as the predictor variable and sustainability as the repressor, labelled A in the legend below the model. In the second model, technical

assistance and community participation as the independent variable aimed at explaining their joint influence on sustainability. This is shown in the legend below the model indicated as B. Finally, in the third model, technical assistance, community participation and the interaction term (representing both technical and community participation) were introduced to capture the moderating influence of community participation on the relationship between technical assistance and sustainability. This is shown in the legend below the model indicated as C. The interaction term is the product of the independent variables, for this case the product of technical assistance and community participation.

Step One: Influence of Technical Assistance on Sustainability of DFPs

In the first model, technical assistance influence on sustainability of donor funded project was tested, with the equation adopted as: $y = \beta_0 + \beta_1 X_1 + \varepsilon_1$ where:

y= Sustainability of donor funded projects

β =Coefficient

X_1 =Technical assistance

ε_1 =Error term

As illustrated in Table 4.25 of the model summary, model 1 fits the data, meaning that the strength of the correlation between technical assistance and project sustainability of 0.511 and coefficient of determination of 0.261 with Sig F Change $p < 0.05$ of 16.940. Based on the model, 26.1% of sustainability of the selected donor funded projects in Samburu County can be accounted for by technical assistance extended to the projects, while the remaining 73.9% of project sustainability are influenced by other variables outside the model.

Step Two: Joint Influence of Technical Assistance and Community Participation on Sustainability

In the second model, community participation was introduced to the model, with the equation adopted as: $y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon_1$ where:

y= Sustainability of donor funded projects

β =Coefficient

X_1 =Technical assistance

X₂=Community participation

ε₁=Error term

The change statistics in the model as illustrated in Table 4.25 show an increase in R² by 16.6%, from 26.1% to 42.7%. The increase of 16.6% is accounted by the moderating variable introduced in the second model, which also shows a statistically significant figure with p< 0.05.

Step Three: Influence of Technical Assistance, Community Participation and interactive term on Sustainability of DFPS

In the third model, the interaction term was introduced in the model and specified as y= β₀ + β₁X₁ +β₂X₂+ β₂ (X₁X₂) + ε₁

y= Sustainability of donor funded projects

β=Coefficient

X₁=Technical assistance

X₂=Community participation

(X₁X₂) = Interaction term (Product of X₁and X₂)

ε₁=Error term

With the introduction of the interactive term, there was some improvement in the value of R² of 3.3%, which was statistically insignificant [p=0.069>0.05]. The model demonstrates that community participation does not moderate the relationship between technical assistance and sustainability of DFPS and the change statistics indicate that this influence was statistically insignificant.

Table 4.25: Model Summary on Community Participation Moderating Influence on the Relationship between Technical Assistance and Sustainability of DFPS

Model	R	R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df 1	df2	Sig. F Change
1	.511 ^a	.261	.40719	.301	16.940	1	120	.000
2	.671 ^b	.427	.39279	.166	4.584	1	119	.037
3	.704 ^c	.460	.39624	.033	.185	1	118	.069

The coefficient of the moderating influence of community participation on technical assistance and sustainability are presented in Table 4.26. The results show a positive beta value (0.461) that was however statistically insignificant. This show that community participation is insignificant in moderating the relationship between technical assistance and sustainability of donor funded projects.

Table 4.26: Coefficients on Community Participation, Moderating Influence on the Relationship between Technical Assistance and Sustainability of DFPs

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.756	0.412		6.691	0
	Technical assistance	0.378	0.092	0.511	4.116	0
2	(Constant)	2.697	0.398		6.771	0
	Technical assistance, Community Participation	0.26	0.104	0.351	2.487	0.016
3	(Constant)	2.152	1.327		1.622	0.013
	Technical assistance	0.387	0.314	0.523	1.233	0.014
	Community Participation, Community Participation x Technical assistance	0.336	0.422	0.645	0.796	0.042
		-0.041	0.095	0.461	-0.43	0.069

a. Dependent Variable: Sustainability

The results however show that community participation does not significantly moderate the relationship between technical assistance and sustainability of donor funded projects ($p = 0.069$). The relationship was however positive providing an indication that a valuable method of making lasting impact on community projects is to involve the recipients in the interventions and seek their active participation, while incorporating their input for sustainability. This finding supports Ndege (2003) who reported that it is necessary to have a few community members in the task force group or organizing committee who will be able to justify the major needs of the community instead of

making assumptions about the communities. This will ensure that the community recognizes existence of a problem which they need to be involved in order to provide long term solutions.

This finding agrees with Shikwati (2003) when he opined that many community interventions often fail for the members do not even realize the magnitude of the problems they are facing for it has been in their midst for a very long time. The effectiveness of the community to participate in projects requires technical assistance. This could be provided for by the donors in terms of capacity building meant to enhance their skills in problem identification, design and finally implementation. This therefore shows that community participation and technical assistance are intertwined and therefore jointly affect sustainability of donor funded projects.

4.6.6 Hypothesis Six: The relationship between technical assistance and sustainability of selected DFPs in Samburu County is significantly moderated by socio-economic environment

This hypothesis sought to establish the moderating influence of socio-economic environment on technical assistance and sustainability at 95% level of significance. Moderated influence in a regression model shows the influence of an independent variable on the dependent variable as a function of a third variable. The aim is to examine how the influence of the explanatory variables changes when a moderator variable is introduced in the model. The moderator variable in this study was socio-economic environment in Samburu County. The aim was to find out how the relationship between technical assistance and sustainability would be moderated by community participation. This moderating influence was measured in terms of how the influence of the explanatory variables changes when the moderator variable is introduced and was expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_3 + \beta_3 (X_1 X_3) + \varepsilon_1 \text{ where:}$$

Y= Sustainability of donor funded projects

β =Coefficient

X_1 =Technical assistance

X_3 =Socio-economic environment

(X_1X_3) = Interaction term (Product of X_1 and X_3)

ϵ_1 =Error term

Stepwise regression technique, consisting of three models was used in order to test the moderating influence of socio-economic environment on the relationship between technical assistance and sustainability of donor funded project. Table 4.27 represent the result of the stepwise regression as was generated in three models namely 1, 2, and 3 where 1 is the first model with only technical assistance included as the predictor variable and sustainability as the repressor (this is shown in the legend as A). In the second model, technical assistance and socio-economic environment were included as the predictor to examine their joint influence on sustainability (see legend B).

Finally, in the third model, technical assistance, socioeconomic environment and the interaction term (representing both technical and socioeconomic environment) were included to capture the moderating influence of socioeconomic environment on the relationship between technical assistance and sustainability (this is shown in the legend as C). The interaction term is the product of the independent variables, for this case the product of technical assistance and community participation.

Step One: Influence of Technical Assistance and Sustainability of DFPs

In the first model, the influence of technical assistance influence on sustainability of donor funded project was tested, with the equation adopted specified as: $y = \beta_0 + \beta_1X_1 + \epsilon_1$

y = Sustainability of donor funded projects

β =Coefficient

X_1 =Technical assistance

ϵ_1 =Error term

As illustrated in Table 4.27 of the model summary, model 1 fits the data, meaning that the strength of the correlation between technical assistance and project sustainability was 0.511, while coefficient of determination was 0.261 with Sig F Change $p < 0.05$ of

16.940. Based on the model, 26.1% of sustainability of the selected DFPs in Samburu County can be accounted for by technical assistance extended to the projects, while the remaining 73.9% of project sustainability are influenced by other variables outside the model.

Step Two: Joint Influence of Technical Assistance and socioeconomic environment on Sustainability of DFPs

In the second model, socio-economic variable was introduced to the model, with the equation adopted as: $y = \beta_0 + \beta_1 X_1 + \beta_2 X_3 + \varepsilon_1$ where:

y = Sustainability of donor funded projects

β = Coefficient

X_1 = Technical assistance

X_3 = Socio-economic environment

ε_1 = Error term

The change statistics in the model as illustrated in Table 4.27, shows that the coefficient of determination increased marginally by 0.5% increasing from 26.1% to 26.6%, however the increment was statistically insignificant ($p = .877, > 0.05$).

Step Three: Influence of Technical Assistance, Socioeconomic environment and the interactive term on sustainability of DFPs

In the third model, the interaction term was introduced to the model with the equation estimated specified as:

$y = \beta_0 + \beta_1 X_1 + \beta_2 X_3 + \beta_3 (X_1 X_3) + \varepsilon_1$ Where:

y = Sustainability of donor funded projects

β = Coefficient

X_1 = Technical assistance

X_3 = Socio-economic environment

$(X_1 X_3)$ = Interaction term (Product of X_1 and X_3)

ε_1 = Error term

The coefficient of determined increased marginally by 0.8% from 26.6% to 27.4%. The increase like in the case of the second model was not statistically significant ($p=0.477$, >0.05). This thus demonstrates that socio-economic environment had no moderating influence on the relationship between technical assistance and sustainability of donor funded projects.

Table 4.27: Model Summary on Socio-economic Environment Moderating Influence on the Relationship between Technical Assistance and Sustainability of DFPs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.511 ^a	.261	.251	.40385	.266	17.759	1	120	.000
2	.516 ^b	.266	.236	.40793	.000	.024	1	118	.877
3	.524 ^c	.274	.228	.41001	.008	.514	1	117	.477

a. Predictors: (Constant), Technical assistance

b. Predictors: (Constant), Technical assistance, Socioeconomic environment

c. Predictors: (Constant), Technical assistance, Socioeconomic environment, Socioeconomic environment x Technical assistance

ANOVA tests were also conducted to examine the moderating influence of socioeconomic environment on the relationship between technical assistance and sustainability of selected donor funded projects in Samburu County. The results are presented in Table 4.28. The results show that the moderating influence of socioeconomic environment on the relationship between technical assistance and sustainability was statistically insignificant.

Table 4.28: ANOVA on Socio-economic Environment Moderating Influence on the Relationship between Technical Assistance and Sustainability of DFPs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.896	1	2.896	17.759	.000 ^b
	Residual	7.992	49	.163		
	Total	10.888	50			
2	Regression	2.900	2	1.450	8.715	.001 ^c
	Residual	7.988	48	.166		
	Total	10.888	50			
3	Regression	2.987	3	.996	5.922	.022 ^d
	Residual	7.901	47	.168		
	Total	10.888	50			

a. Dependent Variable: Sustainability

b. Predictors: (Constant), Technical assistance

c. Predictors: (Constant), Technical assistance, Socioeconomic environment

d. Predictors: (Constant), Technical assistance, Socioeconomic environment, Socioeconomic environment x Technical assistance

Table 4.29 presents regression results of the coefficient of the moderating influence of Socio-economic environment on the relationship between Technical Assistance and Sustainability of selected DFPs. As shown in the table, socio-economic environment seem to have insignificant moderating influence on the relationship between technical assistance and sustainability of the selected donor funded projects in Samburu County. The beta value of the moderating influence of socio-economic environment was 0.912 with a p-value of 0.477 that was however statistically insignificant.

Table 4.29: Coefficients on Socio-economic Environment Moderating Influence of on the Relationship between Technical Assistance and Sustainability of DFPs

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.734	.406		6.739	.000
Technical assistance	.382	.091	.516	4.214	.000
2 (Constant)	2.716	.426		6.371	.000
Technical assistance,	.379	.093	.512	4.079	.000
Socioeconomic environment	.010	.062	.020	.156	.877
3 (Constant)	3.997	1.839		2.174	.035
Technical assistance,	.078	.431	.105	.181	.857
Socioeconomic environment,	-.388	.559	-.789	-.695	.491
Socioeconomic environment x Technical assistance	.093	.130	.972	.717	.477

a. Dependent Variable: Sustainability

The coefficient value however, show positive relationship on the moderating influence of socio-economic environment on the relationship between technical assistance and sustainability of the projects. This implies that the socioeconomic environment within which the project operate seem to influence ability of technical assistance to influence the sustainability of the projects. Factors like the economic situation and cultural values positively influence on the long term implementation of the project although these are typically outside project control. For example, the sustainability of the project interventions is likely to be sustained in areas characterized by conflict, social disharmony, improved healthcare outcomes, or in fragile environment.

Projects must systematically identify, analyze and respond to environmental risks in a way that ensures continuation of project benefits after completion of the project. This will be realized through devising ways to strengthen the capacity of individuals, households, communities and formal and informal institutions that will help them cope with future socio-economic shocks. As reported by Brundtland (1987), projects should cause ‘no harm’ to the environment and should meet the needs of the present without

compromising the ability of the future generations to meet their own needs. In summary the test of hypothesis in this study are presented in Table 4.30.

Table 4.30: Summary of Hypothesis Testing - Results

Objective	Hypothesis	Model	Results	Remarks
To establish the influence of technical assistance on sustainability of selected donor funded projects in Samburu County	H₁ ; Technical assistance has a significant influence on sustainability of donor funded projects in Samburu County.	$y = \beta_0 + \beta_1 X_1 + \epsilon$	$R^2 = 0.261$; $F = 18.722$; $P = 0.000$	Accept the Hypothesis
To determine the influence of community participation on sustainability of selected donor funded projects in Samburu County.	H₁ ; community participation has a significant influence on sustainability of donor funded projects in Samburu County	$y = \beta_0 + \beta_2 X_2 + \epsilon$	$R^2 = 0.238$; $F = 14.984$; $p = 0.000$	Accept the Hypothesis
To assess the influence of socio-economic environment on sustainability of selected donor funded projects in Samburu County.	H₁ ; socio-economic environment has a significant influence on sustainability of donor funded projects in Samburu County	$y = \beta_0 + \beta_3 X_3 + \epsilon$	$R^2 = 0.003$; $F = 0.152$; $P = 0.699 > 0.000$	Reject the Hypothesis
To examine the joint influence of technical assistance, community participation and socio-economic environment on sustainability of selected donor funded projects	H₁ ; Technical assistance, community participation and socio-economic environment jointly influence sustainability of DFPs	$y = \beta_0 + \beta_4(X_1 + X_2) + \beta_5(X_1 + X_3) + \epsilon$	$R^2 = 0.534$; $F = 17.92$; $p < .000$	Accept the Hypothesis
To establish the moderating influence of community participation on the relationship between technical assistance and sustainability of selected donor funded projects in Samburu County	H₁ ; The relationship between technical assistance and sustainability of DFPs in Samburu County is significantly moderated by community participation	$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3(X_1 X_2) + \epsilon_1$	$R^2 = 0.460$; $F = 0.185$; $P = 0.069$	Reject the Hypothesis
To determine the influence of socio-economic environment on the relationship between technical assistance and sustainability of selected donor funded projects in Samburu County	H₁ ; The relationship between technical assistance and sustainability of donor funded projects in Samburu County is significantly moderated by socio-economic environment	$y = \beta_0 + \beta_1 X_1 + \beta_2 X_3 + \beta_3(X_1 X_3) + \epsilon_1$	$R^2 = 0.274$; $F = 0.514$; $p = 0.477 > 0.000$	Reject the Hypothesis

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, major findings are presented in summary based on the research objectives. It also draws conclusions based on the data analysed in chapter four. The chapter also state recommendations based on the evidence presented in the study. The contributions that this study has made on the body of knowledge have been indicated and it has also suggested areas for further studies.

5.2 Summary of the Findings

In this sub-section, a summary of the study findings are discussed starting with sustainability of donor funded projects.

5.2.1 Technical Assistance and Sustainability of DFPs

Technical assistance is an important element in the donor funded projects aimed at enhancing both human and institutional capacities as part of sustainability. Key areas of focus include capacity building, organizational processes and mentoring. In the study, various aspects of capacity building were considered including management and leadership, training in technical skills, mentoring and supervision, organizational processes, among others. In the regression analysis however, financial management, leadership, technical and general management training exhibited multicollinearity and consequently omitted from the analysis.

In any case, leadership and management training are assumed as embedded in project management training as well as organizational processes, while regarding technical training, it is expected that the staff recruited are technical experts notwithstanding their qualification as documented in sub-section 4.4.2. The study established that technical assistance was significant in explaining the variations in the sustainability of donor funded projects, it had a composite mean of 4.08 and standard deviation of 1.09. The influence of technical assistance on sustainability of donor funded projects could be in terms of putting in place organizational processes such as, necessary organization structures, internal systems, recruiting of competent personnel, reporting lines and

financial management structures. Others could include capacity building in terms of management and leadership training, technical training, mentoring as well as monitoring and evaluation skills embedded in project management training. Person correlation between technical assistance and sustainability was strong, positive and statistically significant [$r = 0.522$; $n = 125$; $p = .0000 < .05$]. This implies that technical assistance in terms of mentoring, organizational processes and capacity building had effect on sustainability of the selected donor funded projects in Samburu County

The study revealed existence of a statistically significant relationship between sustainability of the selected donor funded projects and technical assistance with a p-value of 0.000. This implied that provision of technical assistance during the project cycle significantly influenced sustainability of selected donor funded projects in Samburu County. This could for instance entail the establishment of internal systems, structure, and work culture that promote strong leadership and positive organizational image, foster the belief that people are willing to support products and services they find valuable, and facilitate the development plans for sustainability.

5.2.2 Community Participation and Sustainability of DFPs

In order to determine the level of influence of community participation on sustainability of donor funded projects, regression analysis was conducted and results confirmed that the model fit the data given the values of the regression analysis. Community participation in terms of involvement of members of a community in the project implementation cycle, provision of resources, and ownership of the projects could have a significant influence on decisions relating to empowerment and therefore continue to identify with the project which in the process enhances sustainability of the projects. The composite mean was 3.65 with standard deviation of 0.96, while Pearson correlation coefficient between sustainability and community participation was strong, positive and statistically significant [$r = .488$; $n = 125$; $p = .000 < .05$] meaning that community participation in the implementation of donor funded projects is perceived to moderately influence sustainability of the selected DFPs in Samburu County.

In terms of coefficients analysis, the regression results revealed positive significant relationship between community participation and sustainability of donor funded projects. The positive relationship shows that active participation of the community in the project cycle was perceived to influence continuance of the project even after the withdrawal of the donor financial support. The hypothesis that community participation has a significant influence on sustainability of donor funded projects in Samburu County was thus accepted.

5.2.3 Socio-economic Environment and Sustainability of DFPs

The study established the strength of the correlation between socio-economic environment and sustainability of donor funded projects as well as coefficient of determination which was however insignificant. The composite mean was 3.02 with a standard deviation of 1.19, while the correlation coefficient between socioeconomic environment and sustainability was moderate and positive, although insignificant [$r = 0.056$; $n = 125$; $p=0.699>.05$]. This meant that though socio-economic environment was perceived to positively influence sustainability of donor funded projects, the relationship was however insignificant. ANOVA test results also supported the insignificant relationship [$p = 0.699$].

The negative relationship between socio-economic environment and DFPs from the regression analysis shows that if for instance, there are adverse changes in the socio-economic environment, like social disharmony within the society, there was likelihood of the sustained activities by various stakeholders such as donor within the community earmarked towards enhancing social harmony. Some of the activities would include conflict management program which are common in Samburu County. Based on the revelations, that socio-economic environment does not significantly influence sustainability of donor funded project, the hypothesis that Socio-economic environment has statistical significant influence on sustainability of the selected donor funded projects in Samburu County was rejected.

5.2.4 Technical Assistance, Community Participation, Socio-Economic Environment and Sustainability of DFPs

The study established the strength of the correlation between technical assistance, community participation and socio-economic environment on the sustainability of selected donor funded projects in Samburu County, with a high level of coefficient of determination that was significant [$p = 0.000$]. This implied that sustainability of donor funded projects was jointly influenced by technical assistance, community participation and socio-economic environment. Donor funded projects are aimed at empowering communities economically and where possible sustain the provision of the project activities beyond the funding. This in the process ensures continued flow of streams of benefit beyond the donor.

To this end, donors not only put in place necessary structures but also enhance the skills of the community through relevant capacity building programs in project management such as proposal and grant writing, basic technical skills, monitoring and evaluation, planning and budgeting, among others. This is expected to impact positively on the community's socio-economic status which positively influences the sustainability of donor funded projects. The study results also revealed a statistically significant relationship between technical assistance, community participation and socio-economic environment and sustainability of the selected donor funded projects with a p-value of 0.000.

The significance was also confirmed using ANOVA tests at p-value of $0.00 < 0.05$. This implied that technical assistance, community participation and socio-economic environment were statistically significant in predicting sustainability of donor funded project in Samburu County. From the results, it was inferred that technical assistance, community participation and socio-economic environment have a joint influence on sustainability of donor funded project in Samburu County. The hypothesis: technical assistance, community participation and socio-economic environment have a joint influence on sustainability of donor funded projects was accepted.

5.2.5 Moderating Influence of Community participation on Technical Assistance and Sustainability of DFPs

The moderating influence of community participation on the relationship between technical assistance and sustainability of selected donor funded projects indicated that technical assistance accounted for variations in the sustainability of the selected donor funded projects with a positive change. The results showed a statistically insignificant relationship between technical assistance, and sustainability of the selected donor funded projects moderated by community participation ($p=0.069>0.05$).

This demonstrates that community participation had no moderating influence on the relationship between technical assistance and sustainability of DFPs. This could be attributed to the fact that with community participation in the project implementation, fewer resources could be spent on capacity building programs which in the process gives room for resources to be set aside for purposes of sustainability beyond the donor funding. Thus the relationship between technical assistance and sustainability of DFPs is insignificantly moderated by community participation.

5.2.6 Moderating Influence of Socio-Economic Environment on Technical Assistance and Sustainability of DFPs

A regression analysis was performed to examine the moderating influence of socio-economic environment on the relationship between technical assistance and sustainability of donor funded project. The study revealed that though technical assistance accounted for variation in the sustainability of the selected donor funded projects moderated by socio-economic environment the relationship was however, insignificant [$r^2= 0.274$; $P = 0.477$]. Regression analysis though showed that the coefficient for technical assistance was positive and statistically significant, the regression coefficient for the moderating influence of socio-economic environment on technical assistance and sustainability was positive though statistically insignificant [$B = 0.093$; $F = 5.922$].

Overall the model was insignificant showing that there was no significant linear dependence of sustainability of the selected donor funded projects on technical assistance as moderated by socio-economic environment ($P = 0.477$). Given the results, it could be inferred that socio-economic environment had no significantly moderating influence on the relationship between technical assistance and sustainability of donor funded project. Notwithstanding this, the moderating effect was however negative, while technical assistance had positive effect on the sustainability of donor funded projects. The positive relationship implies that a positive change in technical assistance influence sustainability of donor funded projects positively. For instance, capacity building in terms of managerial or technical expertise in the execution in both short term and long term goals and objectives in the management of the project is likely to enhance sustainability of the projects.

5.3 Conclusions

Donor funded projects continue to complement government socio-economic development initiatives earmarked towards enhancing the socio-economic status of the targeted populace. The economic meltdown in many of industrialized countries that support the initiatives has however put in doubt the continued support. This has in the process attracted continuous debate and dialogue about sustainability of the projects. A project is sustainable if the beneficiaries are capable of managing the project on their own without the assistance of outside development partners for as long as their problem still exists. The study has shown that technical assistance provided by the donors in the project cycle as well as the participation of the community and the socio-economic environment within which the project is implemented play significant role in the sustainability of the projects.

Technical assistance in terms of organization processes, institutional capacity, facilitation in the formation of community groups and capacity building of the local community, among others significantly influence sustainability of donor funded projects in Samburu Country. This could be for instance, through strengthening of the process of project implementation by not only enhancing skills and knowledge of human capital and community involved in the implementation, but as well as putting in place necessary

organizational processes earmarked towards the project. Other areas relate to mentoring of staff as well as provision of policy or expert advice on project management including monitoring and evaluation.

Community participation in terms of local ownership and involvement, commitment by the locals, awareness and acceptance by locals significantly influence sustainability of donor funded projects in Samburu County. This entails the involvement of all members of the community or organization in the project implementation cycle so that they can have a say on decisions related to development project activities that will impact on them. This way, the community will own the project and therefore expected to put in place necessary effort towards the continuity of the project in order to derive the intended stream of benefits beyond the donor(s). Finally, though socio-economic environment was established to insignificantly influence sustainability of the donor funded projects, this however influenced sustainability of the projects jointly with technical assistance and community participation. This implies that socio-cultural beliefs, religion, demographics (gender, level of education and marital status), and economic conditions jointly with the technical support and community participation have an important role to play in the sustainability of the projects.

Socio-economic environment as part of the overall organization environment within which the DFP is implemented may impact on the project both negatively and positively. These variables include culture, demographics as well as economic indicators within which the projects are implemented. The composite index was however statistically insignificant. In the management of projects, those responsible need to be attuned to the project environment within which they operate. The socio-economic analysis in Samburu shows that the county's population is disadvantaged economically, socially and environmentally thereby resulting in negative economic and social consequences including household's plunging into poverty, food insecurity in rural households and conflicts.

This marginalization has in the process continued to attract donors to initiate projects for purposes of empowering them. A number of donor projects have been initiated in the county aimed at addressing these by implementing agricultural, healthcare education as well as environment conservation and conflict management projects. These projects are implemented both on the budget and off-budget with on-budget projects implemented through the government budgetary mechanisms, while off-budget implemented directly or through NGOs and CBOs.

The study established that technical assistance, community participation and socio-economic environment jointly influence sustainability of donor funded projects significantly. This therefore implies that technical assistance in terms of mentoring, capacity building and the establishment of organization processes together with active community participation and the socio-economic environment within which the project were implemented influenced sustainability of donor funded projects in the county. Further community participation as a composite variable for community ownership, provision of resources and community relation with the project had a significant moderating influence on the ability of the technical assistance in affecting the sustainability of donor projects in the county. Finally, socio-economic environment within which the projects were implemented however had no significant moderating influence on technical assistance and sustainability of donor funded projects.

5.4 Recommendations

From the results, various recommendations are suggested for consideration by key stakeholders involved in the implementation of donor funded projects in its endeavour to contribute towards their sustainability.

5.4.1 Recommendations for Implementers of Donor Funded Projects

Implementers of projects need to encourage effective community participation initiatives towards local ownership of the projects as one of the principles of effective development. This will ensure the adoption of bottom-up planning to determine priorities that genuinely reflect community needs in project design and implementation. Strategies must be initiated and developed within the implementing community that reflects the priorities of

the beneficiaries. Formation of community social groups aimed at enabling the communities to play key role not only in delivering services but also in sustaining the demand for services and holding the project implementers accountable should be encouraged. These groups are able to protect the interests of members and also lobby for projects that benefit their constituents, and function as a source or conduit of services and credit to the individual groups which if sustained will enhance sustainability.

5.4.2 Recommendations for Policy Makers and Technical advisors

The long-term economic viability of project results is dependent on a favourable socio-economic environment. Policy makers and technical advisors need to partner in ensuring that there is institutional capacity of implementing agencies through provision of regulations, rules and norms that will secure supportive socio-economic environment devoid of politics, supported by social harmony and cultural tolerance. Technical advisors need to ensure that there is technical transfer through capacity building initiatives such as training in project management skills, like proposal and grant writing, project design, planning and budgeting, monitoring and evaluation. Others include enhancing organizational processes for example, establishing internal systems, structure, and work culture that promote strong leadership and positive organizational image, while cultivating a relationship with the community that supports the projects.

Efforts should be put towards setting up necessary organizational structures, policies and procedures and reporting mechanisms, all aimed at sustainability of the funded projects. Additionally, mentorship needs to be considered as a component for effective capacity building especially, on site programs are encouraged, since this have been found to work better. Facilitation in the formation of partnerships with other institutions should be embraced. Partnerships with other private institutions are important in order to ensure that these projects are driven by a business model and have mitigation strategies for sustainability. Partners also bring on board a range of other applicable skills that may benefit the project in the long -term.

Technical advisors must ensure that specific sector departments come on board during project implementation to provide the necessary post implementation support for

projects. Initiatives aimed at creating revolving funds should be embraced as an innovative way through which projects could become independent as opposed to continuous reliant on the donors. This is also expected to offer a counter performance strategy because beneficiaries must perform and not just accept it as donor funding where there is insignificant consequence when the project fails. Building on existing community assets and knowledge, the donors can promote positive community attitudes towards collaboration and collective decision-making, as well as support social cohesion by strengthening relationships between internal and external organizations.

5.5 Contribution to Knowledge

Table 5.1 provides a summary of the contribution of the study to the body of knowledge.

Table 5.1: Contribution to Knowledge

Objective	Findings	Conclusion	Contribution to Knowledge
Establish the influence of technical assistance on sustainability of selected DFPs in Samburu County	Technical assistance has significant influence on sustainability of donor funded projects.	Technical assistance in terms organizational process, mentoring, capacity, among others significantly influence sustainability of donor funded projects	The study has empirically proved the influence of the various attributes of technical assistance in the sustainability of donor funded projects

Objective	Findings	Conclusion	Contribution to Knowledge
Assess the influence of community participation on sustainability of selected DFPs in Samburu County	Community participation has influence on the sustainability of donor funded projects.	Active participation of the community in the project cycle, provision of resources, and ownership of the projects is significant in ensuring sustainability of projects beyond the donor.	The study has empirically established that community participation significantly influence sustainability of donor funded projects
Assess the influence of socio-economic environment on sustainability of selected DFPs in Samburu County	Socio-economic environment has no significant influence on sustainability of donor funded projects	Though socioeconomic environment has positive influence on sustainability of donor funded projects, the relationship is however insignificant.	The study has proved that socio-economic environment has no significant influence on sustainability of donor funded projects

Objective	Findings	Conclusion	Contribution to Knowledge
Examine the influence of technical assistance, community participation and socio-economic environment on sustainability of selected DFPs in Samburu County	Technical assistance, community participation and socio-economic environment jointly influence sustainability of donor funded projects	Technical support through setting of structure, capacity building, community participation in the implementation of projects and socio-economic environment within which donor projects operate together influence sustainability of donor funded projects	The study has empirically established that technical assistance, community participation and socio-economic environment jointly influence sustainability of donor funded projects
Establish the moderating influence of community participation on the relationship between technical assistance and sustainability of selected DFPs in Samburu County	The relationship between technical assistance and sustainability of donor funded projects is not significantly moderated by community participation	Community participation had no moderating influence on the relationship between technical assistance and sustainability of DFPs.	The study has proved that the relationship between technical assistance and donor funded projects is not significantly moderated by community participation

Objective	Findings	Conclusion	Contribution to Knowledge
Examine the moderating influence of socio-economic environment on the relationship between technical assistance and sustainability of selected DFPs in Samburu County		There was no significant relationship between sustainability of donor funded projects on technical assistance moderated by socio-economic environment	The study has empirically established that the relationship between technical assistance and sustainability of donor funded projects is not significantly moderated by socio-economic environment

5.6 Suggestions for Further Study

On the basis of the findings, various suggestions for further studies are made. First, a comparative analysis between DFPs in various counties with different socio-economic indicators that have continued to attract funding of these projects is inevitable. Secondly, sector specific studies such a health, water, education, conflict management, for uniformity. Thirdly, a comparative analysis of the various sector projects, is needed in order to examine which sectors are more vulnerable to sustainability concerns. Finally, the study shows that the selected variables influenced sustainability of DFPs by 53% with the remaining 47% explained by other variables not captured in the model. It is thus recommended that a study is conducted incorporating other more variables other than the three that were considered in this study.

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APPENDICES

Appendix I: University Introductory Letter



UNIVERSITY OF NAIROBI BOARD OF POSTGRADUATE STUDIES

Telephone: 3318262 ext. 28267
Fax Number: 243626
Email: bps@uonbi.ac.ke

P. O. Box 30197 - 00100
NAIROBI, KENYA

Our Ref: L83/93826/2014 October 11, 2016

TO WHOM IT MAY CONCERN

RE: MR. LTUMBESI STEVE LELEGWE

This is to confirm that the above-mentioned person is a registered Ph.D in Project Planning and Management student in the Department of Extra Mural Studies in this institution. This course will take a minimum of three years and a maximum of five years.

Any assistance accorded to him will be highly appreciated.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'AS'.

ANNE M. SIMIYU (MS.)
FOR: DIRECTOR, BOARD OF POSTGRADUATE STUDIES

AMS/gwg

Appendix II: Research Assistants Letter of Introduction

ACCESS LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH

University of Nairobi

PO Box 30197
Nairobi 00100

The Project Director
Project Manager/Administrator

October 25th, 2016

Dear Sir/Madam,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a PhD candidate in Project Planning and Management at the University of Nairobi. My supervisors are **Prof. Harriet J. Kidombo** and **Prof. Christopher M. Gakuu**.

The topic of my research is: **Technical Assistance, Community Participation, Socio-Economic Environment on the Sustainability of Donor Funded Projects in Samburu County, Kenya.**

Your organization as key stakeholder in the subject in Samburu County has been selected objectively to be part of this study. I am hereby seeking your consent to allow my research assistants **Mr. Joseph Kimotho** and **Mr. Dennick Osore** to collect data from your organization. To assist you in reaching a decision, I have attached to this letter:

- a) A copy of research permit issued by the **National Commission of Science, Technology and Innovation (NACOSTI)**
- b) A copy of the research instruments which I intend using in my research

Should you require any further information, please do not hesitate to contact me or my supervisors. Our contact details are as follows:

- | | | |
|--------------------------------------|----------------------|--|
| a) Mr. Lelegwe Ltumbesi Steve | +254721692610 | slelegwe@gmail.com |
| b) Prof. Harriet J. Kidombo | +254722734058 | harrietkidombo@yahoo.co.uk |
| c) Prof. Christopher M. Gakuu | +254722841432 | cmgakuu@yahoo.com |

The information being sought is solely meant for research purposes and will be analyzed on aggregate basis and treated with utmost confidentiality. I hereby affirm that no name of individuals or organization is required from the respondents.

Upon completion of the study, a copy of the thesis may be made available on request.

Your permission to conduct this study will be greatly appreciated.

Yours sincerely,




Lelegwe Ltumbesi Steve

B.Sc. (UoN), HND (CIC), MA (UoN), Ph.D Cand. (UoN)

Appendix III: Research Clearance Permit

THIS IS TO CERTIFY THAT:
MR. STEVE LELEGWE LTUMBESI
of UNIVERSITY OF NAIROBI, 0-20600
Maralal, has been permitted to conduct
research in Samburu County
on the topic: TECHNICAL ASSISTANCE,
COMMUNITY PARTICIPATION,
SOCIO-ECONOMIC ENVIRONMENT AND
SUSTAINABILITY OF SELECTED DONOR
FUNDED PROJECTS IN SAMBURU
COUNTY, KENYA

Permit No : NACOSTI/P/16/20321/14215
Date Of Issue : 25th October,2016
Fee Received :ksh 2000




for the period ending:
24th October,2017

[Signature]
Applicant's Signature


[Signature]
Director General
National Commission for Science,
Technology & Innovation

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.**
- 2. Government Officer will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one (1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**



REPUBLIC OF KENYA



National Commission for Science,
Technology and Innovation

RESEACH CLEARANCE
PERMIT

Serial No.A 11351

CONDITIONS: see back page

Appendix IV: Samburu County Commissioner Authorization Letter



REPUBLIC OF KENYA

MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT

Telegrams "DISTRICTER"
Telephone: (065) 62002 & 62027
Fax: (065) 62052

OFFICE OF THE COUNTY COMMISSIONER
SAMBURU COUNTY
P.O.BOX 2 – 20600
MARALAL

REF: OOP/SBU//ED/C. 12/16 VOL. I/38

31st October, 2016

TO WHOM IT MAY CONCERN

REF: RESEARCH AUTHORIZATION
MR: STEVE LELEGWE LTUMBESI
A STUDENT AT UNIVERSITY OF NAIROBI

I refer to a letter Ref. No. NACOSTI/P/16/20321/14215 dated 25th October, 2016.

The above named is a student at University of Nairobi and as part of his study he is expected to carry out research on "*Technical assistance, Community participation, Socio – economic environment and sustainability of selected donor funded projects in Samburu County , Kenya*"

Please accord him the necessary support in this endeavor.


C.M. IGIHA
FOR: COUNTY COMMISSIONER
SAMBURU COUNTY

CC: DEPUTY COUNTY COMMISSIONER
SAMBURU CENTRAL

DEPUTY COUNTY COMMISSIONER
SAMBURU NORTH

DEPUTY COUNTY COMMISSIONER
SAMBURU EAST

The County Director of Education
SAMBURU COUNTY

Appendix V: Samburu County Director of Education Authorization Letter

**MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
State Department of Education**

Telegram: "EDUCATION", Samburu
Fax No: 06562413
E-mail: cdesamburu@gmail.com
When replying please quote



COUNTY DIRECTOR OF EDUCATION OFFICE
SAMBURU COUNTY
P.O. BOX 327 - 20600
MARALAL

REF: ED/SBU/FIN30/VOL.III/188

31ST OCTOBER 2016

TO WHOM IT MAY CONCERN

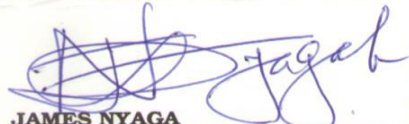
RE: RESEARCH AUTHORIZATION - STEVE LELEGWE LTUMBESI

Reference is made from your letter **Ref. No. NACOSTI/P/16/20321/14215** copied to this office dated **25th October 2016** on the above.

You are expected to carryout research on **"Technical assistance, community participation, socio-economic environment and sustainability of selected donor funded projects in Samburu County, Kenya"**.

The research will be conducted for a period ending **24th October, 2017**.

Please accord him the necessary assistance.


JAMES NYAGA
COUNTY DIRECTOR OF EDUCATION
SAMBURU

COUNTY DIRECTOR OF
EDUCATION
SAMBURU COUNTY
P.O. BOX 327-20600
MARALAL

Appendix VI: Questionnaire

The information requested in the questionnaire is solely for academic purposes and will be analysed on aggregate basis and the responses shall be treated with utmost confidence. No name of individuals or organization is required from the respondents. Please respond to the questions objectively based on the instructions provided for each question. Thank you in advance.

SECTION A: BACKGROUND INFORMATION

1. Please fill in the information in the table below by ticking (✓) appropriately

Gender	Tick	Marital Status	Tick	Age (years)	Tick	Designation	Tick	Period
Male		Married		Between 18 – 24		Project Director		
Female		Single		Between 25 - 34		Project Mger/Officer		
		Widow		Between 35 - 44		Implementation Staff		
		Divorced		Between 45 - 54		Data Officer		
		Others (specify)		Above 54		M&E Mger/Officer		
						Communication officer		
						Others (specify)		

2. Please fill in the table below by ticking (✓) appropriately response

Highest level of Education (Tick appropriately)		Experience in donor funded projects (Tick appropriately)	
i.	Primary		>One year
ii.	Secondary		1 – 5 years
iii.	Post-Secondary Certificate		5 – 10 years
iv.	Diploma		11- 15 years
v.	Bachelors		16 – 20 years
vi.	Masters		21 – 25 years
vii.	Ph.D		25 – 30 years
viii.	Any other (specify)		31 years and above

3. Indicate the Current number of project staff and their respective qualifications

Key project staff	Number	Qualifications
i. Administrator(s)		
ii. Communication Officer		
iii. Community Mobilization officers		
iv. Grant Writer		
v. Implementing Staff		
vi. M&E Manager/Officer		

vii.	Project/Program Administrator		
iii.	Project/Program Director		
ix.	Project/Program Manager(s)		
x.	Project/Program Officer		
xi.	Others (specify)		

4. Please rate the language(s) you are fluent in the specified languages. The response ranges as follows: (Where 1=Not at all; 2= To a less extent; 3= The moderate extent; 4= Great extent, 5 = Excellent)

Language	Response				
	1	2	3	4	5
i. English					
ii. Kiswahili					
iii. Samburu					
iv. Turkana					
v. Somali					
vi. Others (specify)					

5. Please fill in the table below by ticking (✓) appropriately response

Category of Organization	Tick	Beneficiaries	Gender	Number
i. Government Ministry/Department		0-10,000	Male	
			Female	
ii. SAGA		10,001- 20,000	Male	
			Female	
iii. International NGO		20,001- 30,000	Male	
			Female	
iv. Local NGO		30,001- 40,000	Male	
			Female	
v. CBO		40,000 – 50,000	Male	
			Female	
vi. Others (specify)		Over 50,000	Male	
			Female	

6. Please provide information relating to the program activities, duration of operation, funding cycle and future funding expectations (where funding cycle is the phase of the current funding) in the table below

Project activities	Tick (√)	Years of operation (current area)	Funding cycle	Expectation about future Funding (Yes/No)
i. Adult Education				
ii. Animal Health				
iii. Capacity Building/Training				
iv. Conflict resolution				
v. Cultural Program Activities				
vi. Drought Management Programs				
vii. Early Childhood Education				
viii. Emergence Response Programs				
ix. Environmental conservation				
x. Family Planning services & commodities				
xi. Food Security				
xii. General Medical services				
xiii. Immunization				
xiv. Income generating activities				
xv. Livestock production services				
xvi. Nutrition				
xvii. Peace Building				
xviii. Provision of Water				
xix. Sanitation and Hygiene services				
xx. Veterinary Services				
xxi. Others (specify)				

7. Rate your opinion on the availability of the following resources on a scale that ranges as follows: Where 1= not at all, 2= to a less extent, 3= the moderate extent, 4=to a great extent

ITEMS	Response				
	1	2	3	4	5
i. Financial Resources					
ii. Land					
iii. Qualified technical personnel					
iv. Raw materials					
v. Supplies					
vi. Technical Equipment					
vii. Others (specify)					

SECTION B: SUSTAINABILITY OF DONOR FUNDED PROJECTS

8. Using the following table and the Likert scale ranging from strongly agree to strongly disagree please tick (√) the response that is most appropriate to your organization (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

Statement		Level of Measurement				
		1	2	3	4	5
i.	There is continuation of the flow of stream of benefits					
ii.	The project continues to realize its set objectives					
iii.	The project has contributed towards the improvement of the standards of living of the people (Health outcomes, income, education levels, etc.)					
iv.	The project has recorded an increase in no. of beneficiaries since its inception					
v.	The project has a monitoring and evaluation mechanism to verify benchmarks of progress					
vi.	Selected technologies are the most appropriate in terms of affordability, maintainability, and the level of service desired					
vii.	Measures that have been put in place to facilitate continuation of activities beyond the funding cycle					
viii.	There has been continued donor interest in sustainability prior to and during project implementation and support for the transition to operational status					
ix.	The project design document spell out sustainability as an objective to be attained? (Ask for a copy)					
x.	There is evidence of flexibility in adapting to problems related to sustainability during the course of implementation of the project					
xi.	Contextual factors (e.g., droughts, high inflation rates, political upheavals, etc.) have adversely affected the benefit stream					
xii.	There exists linkage between the project and other projects operating in the same area (probe for the nature of the relationship)					

9. Using the Likert scale provided below, please tick (√) on the following statements which best describe your opinion (Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

Statements		Level of Measurement				
		1	2	3	4	5
i.	The project would continue beyond post-implementation without subsidy					
ii.	The project benefits are greater than costs					
iii.	The project has identified various levels of review mechanisms for monitoring progress					
iv.	The project has developed all the success indicators (financial, physical and impact)					
v.	There are sufficient funds to implement the project					
vi.	The project has a cost-recovery plan					
vii.	Other funding sources for the project have been identified					
viii.	Engagement of professional project leader, contributes to successful project implementation					
ix.	Trainings have helped improve the quality of products					
x.	Technical support provided improved overall project performance					
xi.	Project products and services are relevant to our project beneficiaries					
xii.	Project products and services impact positively on beneficiaries					
xiii.	Project beneficiaries are satisfied with services provided by the project					
xiv.	Majority of the beneficiaries are dissatisfied with services provided by the project					
xv.	Project staff are satisfied with the performance of our projects					
xvi.	Project staff satisfaction leads to high project performance					
xvii.	Majority of the staff are happy to work for the project					
xviii.	High staff turnover in our project has affected performance of our projects					

xix.	Retention of staff in our project has contributed to high performance					
------	---	--	--	--	--	--

SECTION C: TECHNICAL ASSISTANCE

10. Rate your opinion on the effectiveness of the technical assistance that you ever received from the donors (Where 1= not at all, 2= to a less extent, 3= the moderate extent, 4=to a great extent, 5= Excellent)

Areas of support	Level of Measurement				
	1	2	3	4	5
i. Financial Management					
ii. Management & Leadership Training					
iii. Mentoring					
iv. Monitoring & Evaluation					
v. Organizational Processes					
vi. Planning & Budgeting					
vii. Project Design					
viii. Project Implementation					
ix. Project Reporting					
x. Proposal & Grant writing					
xi. Technical Training					
xii. Others (specify)					

11. Please tick your level of agreement with the following statements on a scale of 1-5 that ranges from Strongly agree=5, agree=4, Neutral=3, Disagree=2, strongly Disagree=1)

Statements	Level of Agreement/Disagreement				
	1	2	3	4	5
i. There exist trained personnel in the community					
ii. There exist organized community social groups					
iii. The organization has a well-structured organization structure					
iv. The Donor clearly provides for project reporting					
v. Community members are involved in project planning and Budgeting					
vi. Community is involved in project implementation and evaluation					

SECTION D: COMMUNITY PARTICIPATION

12. Are there community management committees in the project?

Yes []

No []

13. If Yes, state the composition of the committees in terms of age and gender composition

Age	Gender	Number
i. Below 18	Male	
	Female	
ii. 18 - 24	Male	
	Female	
iii. 25 – 30	Male	
	Female	
iv. 31- 35	Male	
	Female	
v. 36 – 40	Male	
	Female	
vi. Over 40		

14. Indicate the level of local community involvement in the following project activities and why they get involved (Where 1= not at all, 2= to a little extent, 3= the moderate extent, 4=to a great extent, 5= Excellent)

Areas of involvement	Level of Measurement				
	1	2	3	4	5
i. Formulation of Project idea					
ii. Monitoring & Evaluation					
iii. Project design					
iv. Project Implementation					
v. Project Planning & Budgeting					
vi. Project report writing					
vii. Proposal writing					
viii. Resource Provision (specify)					
ix. Others (specify)					

15. Please indicate your opinion in the community's ability to participate in the following project activities (Where 1= not at all, 2= to a little extent, 3= the moderate extent, 4=to a great extent, 5= Excellent)

Areas of community participation	Level of Measurement				
	1	2	3	4	5
i. Formulation of Project idea					
ii. Proposal writing					
iii. Project design					
iv. Project Planning & Budgeting					
v. Monitoring & Evaluation					
vi. Project Implementation					
vii. Project report writing					
viii. Resource Provision (specify)					
ix. Others (specify)					

16. Rate your opinion on the community's knowledge, attitude and practices regarding the project (Where 1= not at all, 2= to a less extent, 3= the moderate extent, 4=to a great extent, 5= Excellent)

Support	Rate				
	1	2	3	4	5
i. Acceptability					
ii. Attitude					
iii. Awareness					
iv. Knowledge					
v. Participation					
vi. Perception					
vii. Practices					
viii. Others (specify)					

SECTION E: PROJECT SOCIO-ECONOMIC ENVIRONMENT

17. In your opinion rate the influence of these factors on project sustainability and what do you think should be done? (Where 1= not at all, 2= to a less extent, 3= the moderate extent, 4=to a great extent, 5= Excellent)

Statements	Level of Agreement/Disagreement				
	1	2	3	4	5
i. Community beliefs affect the project positively					
ii. Community beliefs affect the project negatively					
iii. The community norms affect the project					
iv. The community's level of education affect					

	implementation of activities					
v.	Marital status of members of the community affect the project					
vi.	The gender of the members of the community affect their participation					
vii.	Religion of the members of the community affect their participation					
viii.	Politics of the members of the community affect their participation					
ix.	Level of Income of the members of the community affect their participation					
x.	Social Harmony of the members of the community affect their participation					
xi.	Poverty levels of the members of the community affect their participation					
xii.	Health Indicators of the members of the community affect their participation (specify)					
xiii.	Clanism of the members of the community affect their participation					
xiv.	Others (specify)					

SECTION F: GENERAL QUESTIONS

18. Which project documents do you prepare and why (ask for a copy)

Project Document	Tick	Reason(s)
i. Annual Report		
ii. Log frame		
iii. Monthly Report		
iv. Quarterly Report		
v. Strategic Plan		
vi. Work plan		
vii. Others (specify)		

19. For the continuity of the project, what technical assistance would you require and why (an attachment may be provided)

Technical Assistance	Reason(s)

20. For effective community participation, what support would you suggest and why?

Type of Support needed	Reason(s)

21. What socio-economic factors affect the sustainability of the project and what would you suggest to solve the problems

Socio-economic factor	Suggested Solutions

22. What challenges have you faced in the implementation of the project and what possible solutions would you suggest?

Challenges faced	Suggested Solutions

I kindly appreciate your time and cooperation in completing this questionnaire. In case you are interested in receiving a summary of the research findings you can indicate your email and postal address.

Email:

Postal address:

Thank You

Appendix VII: Interview Guide

a) How was the current project idea conceived? Who was involved in the conception of the project and how?
b) Given the funding period, where do you see this project after the funding period? How do you intend to reach there? (Seek clarification in terms of post-implementation operation and maintenance)
c) Besides funding, what other support do you receive from the donor(s) of the project and why?
d) What governance structures exist in the management of the project?
e) Which community related issues pose a challenge to the project implementation (Culture, Politics, social-economic status etc.)?
f) Describe how the community is involved in the project and why?
g) In your view, does the community have the capacity to effectively participate in project planning and budgeting
h) What linkages exist between the project and other related projects and why?
i) Which project documents do you prepare and why?
j) What procedures and policies are in place to ensure project sustainability?
k) In your view has the community embraced the project and what initiatives have you put in place to enhance effective community participation?
l) In what way is the community benefiting (income, higher standard of living, higher productivity etc.) from the project?
m) Has the project developed all the success indicators (financial, physical and impact, etc.)?

Appendix VIII: Document Checklist

Kindly indicate (by ticking against) the type of document(s) you prepare in your organization, if possible provide a copy.

Document Type	Tick (✓)
a) Policy documents that describe the policies and procedures of managing the program	
b) Strategic plans/operational plans	
c) Monitoring and Evaluation tools and reports	
d) Governance/Organization structure	
e) Work plan/activity plan/log frame	
f) Community support structure	
g) Minutes of committee meetings	
h) Funding proposals/Grant proposals	
i) Internal control systems	
j) Training programs for the stakeholders (staff, community, beneficiaries, etc.)	
k) Training and staff development reports	
l) Workshop/conference/seminar reports	
m) Stock of project resources (vehicle, machine & equipment, buildings, human, etc.)	
n) Schedule of capacity building programs	
o) Reports (monthly, quarterly, annual, etc.)	

Appendix IX: Institutions Implementing DFPS in Samburu County

	INSTITUTION	CATEGORY
1	Food and Agricultural Organization of the United Nations (FAO)	Donor - Multilateral Organization
2	United Nations International Children's Emergency Fund (UNICEF)	Donor - Multilateral Organization
3	World Food Program (WFP)	Donor - Multilateral Organization
4	World Bank	Donor - Multilateral Organization
5	European Union	Donor - Multilateral Organization
6	African Development Bank	Donor - Multilateral Organization
7	United Nations Development Programme (UNDP)	Donor - Multilateral Organization
8	Canadian International Development Agency (CIDA)	Donor - Bilateral
9	Japan International Cooperation Agency (JICA)	Donor - Bilateral
10	Swedish International Development Cooperation Agency (SIDA)	Donor - Bilateral
11	United States Agency for International Development (USAID)	Donor – Bilateral
12	Department for International Development (DFID)	Donor – Bilateral
13	German Technical Cooperation Agency (GTZ)	Donor – Bilateral
14	Danish International Development Agency (DANIDA)	Donor – Bilateral
15	Netherlands Development Organization (SNV)	Donor – Bilateral
16	Drought Resilience and Sustainable livelihoods Support (DRSLP)	Donor funded projects through national Government – NGO
17	Regional Pastoral Livelihoods Resilience Project (RPLRP)	Donor funded projects through national Government – NGO
18	National Drought Management Authority (NDMA)	Donor funded projects through national Government – NGO
19	Agricultural Sector Development Support Project (ASDSP)	Donor funded projects through national Government – NGO
20	African Medical and Research Foundation (AMREF)	NGO
21	International Medical Corps (IMC)	NGO
22	World Vision	NGO
23	Child Fund Kenya	NGO

	INSTITUTION	CATEGORY
24	Samburu Girls Foundation	NGO
25	BOMA Project	NGO
26	Agency for Technical Cooperation and Development (ACTED)	NGO
27	Catholic Organization for Relief and Development Aid (CORDAID)	NGO
28	The Catholic Agency for Justice, Peace and Development (CARITAS)	NGO
29	African Wildlife Foundation (AWF)	NGO
30	Samburu Aid in Africa (SAIDIA)	NGO
31	Ananda Marga Universal Relief Team (AMURT)	NGO
32	International Institute for Rural reconstruction (IIRR)	NGO
33	Community Development Trust Fund (CDTF)	NGO
34	Red Cross	NGO
35	Samburu Integrated Development Programme (SIDEP)	NGO
36	Milgis Trust	CBO
37	Pastoralist Community Initiative and Development Assistance (PACIDA)	CBO
38	RAMATI Development Initiatives	CBO
39	Samburu SOS	CBO
40	Communities Health Africa Trust	CBO
41	The Coexist Initiative	CBO
42	KIBA	CBO
43	SCAAP	CBO
44	The DEEP Samburu Project	CBO
45	Kenya Community Based Tourism Network (KECOBAT)	CBO
46	Barsaloi Child Care Programme	CBO
47	NYUAT Intergraded Programme	CBO
48	Elbarata Child Care and Family Programme	CBO
49	Lerrok Child and Family Programme	CBO
50	Laramatak	CBO

INSTITUTION		CATEGORY
51	Amanai Pastoralist for Initiative Development	CBO
52	Archerpost Child care	CBO
53	Naritu Girls and Women Empowerment Programme (NGAWEP)	CBO
54	Catholic Mission	CBO
55	Nainyoiye Community Development Organization (NCDO)	CBO
56	Samburu Women Trust (SWT)	CBO
57	OSILIGI	CBO
58	Convention on the Rights of the Child (CRC)	CBO
59	Shades of Africa	CBO
60	Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)	CBO
61	Samburu Integrated Development Awareness Initiative – Programme (SIDAI-P)	CBO
62	Samburu Youth and Empowerment Organization Kenya (SYWEO).	CBO
63	Samburu Wings of Mercy (SWOM)	CBO
64	Matibabu Foundation of Kenya	CBO
65	National Organization of Peer Educators (NOPE)	CBO
66	Kenya Grassroots Alliance for Community Education (G.R.A.C.E)	CBO
67	Pastoralist Governance Development Project (PGDP)	CBO
68	Community Development Services (CODES)	CBO
69	Resource Project Kenya (RPK)	CBO
70	Samburu Empowerment through Education and Development (SEED)	CBO
71	Samburu Handicap Education and Rehabilitation Programme (SHERP)	CBO
72	Samburu Foundation Community Development Program	CBO
73	Semi- Arid Members (SAMS)	CBO
74	Tenebo Ngilai Beef Value Chain	CBO

INSTITUTION		CATEGORY
75	Community First Health Initiative	CBO
76	Wongan Community Based Organization	CBO
77	Loikas Community Education Fund	CBO
78	Nawalu Farmers Organization	CBO
79	Seti Nkichu Community Based Organization	CBO
80	Nashurieki Farmers	CBO
81	Westgate Nabore	CBO
82	Mwanaca Farmers	CBO
83	St. Philomena Children of Hope	CBO
84	Naretoi Development Initiative	CBO
85	Nchula Farmers Organization	CBO
86	Emmanuel Elbarta-Gwelgwel	CBO
87	Nabulaa Community Based Organization	CBO
88	Samburu Riverside ECO Tourism Camp	CBO
89	NaloSiesi Conservancy	CBO
90	Eldartraud Foundation For Service And Love	CBO
91	Hope for Samburu	CBO
92	Pastoralist Child Foundation	CBO
93	Namunyak wildlife conservation trust	CBO
94	Meibae Conservancy	CBO
95	Kalama Conservancy	CBO
96.	Nalowuon conservation project	CBO
97	Ngilai Conservation project	CBO
98	Kalepo conservation project	CBO
99	Ltungai Conservancy	CBO
100	Westgate community wildlife Conservancy	CBO
101	Sera Wildlife Conservancy	CBO
102	Gravey Zebra project	CBO
103	Ewaso lions project	CBO
104	Reticulated Giraffe Research project	CBO

Appendix X: Generated random numbers for the respondents

10 Random Numbers for Donors																			
2	13	3	12	10	4	8	5	7	15										
<p>Specs: This table of 10 unique random numbers was produced according to the following specifications: Numbers were randomly selected from within the range of 1 to 15. This table was generated on 2/11/2016.</p>																			
39 Random Numbers for Non-Governmental Organizations																			
41	29	56	5	58	38	57	54	39	3	33	28	20	14	27	35	16	51	44	4
53	55	10	37	59	7	17	19	13	25	52	24	2	40	15	18	21	48	12	
<p>Specs: This table of 39 unique random numbers was produced according to the following specifications: Numbers were randomly selected from within the range of 1 to 60. This table was generated on 2/11/2016.</p>																			
88 Random Numbers for Community Based Organizations																			
21	132	64	39	88	91	126	108	41	119	98	129	79	125	106	10	14	62	130	107
59	13	85	55	15	137	136	121	70	22	109	80	71	57	134	113	5	61	97	122
65	29	83	135	41	29	56	5	58	38	57	54	39	3	33	28	20	14	27	35
16	51	44	4	53	86	7	54	26	116	117	45	47	99	56	2	69	124	52	40
90	131	102	127	17	50	96	100												
<p>Specs: This table of 88 unique random numbers was produced according to the following specifications: Numbers were randomly selected from within the range of 1 to 138. This table was generated on 2/11/2016.</p>																			

Appendix XI: Reliability Statistics

a) Reliability Statistics for Sustainability of Donor funded projects

	Cronbach's Alpha Based			N of Items
	Cronbach's Alpha	on Standardized Items		
	.776	.865		13
Item-Total Statistics				
	Scale	Scale		Cronbach's
	Mean if	Variance	Corrected	Squared
	Item	if Item	Item-Total	Multiple
	Deleted	Deleted	Correlation	Correlation
				Alpha if
				Item
				Deleted
There is continuation of the flow of stream of benefits	54.2000	18.743	.575	.751
The project continue to realize its objectives	54.0000	19.857	.456	.764
The project has contributed towards the improvement of standards of living	54.2000	17.600	.872	.729
The project has recorded increase in no. of beneficiaries	54.0667	19.210	.559	.756
The project has monitoring & evaluation mechanism to verify	54.1333	18.410	.710	.743

benchmarks of progress				
Selected technologies are the most appropriate	54.4000	18.400	.474	.755
Measures have been placed to facilitate continuation of activities beyond funding cycle	54.5333	19.410	.410	.763
Continued donor interest in sustainability prior to & during the course of project implementation	54.1333	18.981	.556	.754
The project design document spell out sustainability as an objective to be attained	54.5333	15.981	.364	.790
There is evidence of flexibility in adapting to problems related to sustainability during the course of implementation of the project	54.4667	18.267	.666	.743

Contextual factors have adversely affected the benefit stream	55.0000	17.143	.401	.767
Exist of linkage between the project and other projects in the area	54.2000	18.457	.647	.746
The organization implements the project jointly with other organizations	54.5333	21.124	-.084	.834

b) Reliability Statistics For Expected Sustainability

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items		N of Items		
.853	.919		19		
Item-Total Statistics					
	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The project would continue beyond post-implementation without subsidy	75.4667	63.981	.731		.832
Projects benefits are greater than costs	74.8667	72.981	.429		.849
The project has identified	75.0000	69.286	.829		.838

various levels of review mechanisms for monitoring progress				
The project has developed all the success indicators	75.0667	70.638	.650	.842
There are sufficient funds to implement the project	76.0000	67.286	.405	.849
The project has a cost recovery plan	76.0667	60.210	.689	.833
Other funding sources for the project have been identified	75.6000	68.114	.495	.844
Engagement of professional project leader, contributes to successful project implementation	75.0000	69.571	.794	.839
Training have helped improve the quality of produce	75.0000	72.000	.498	.846
Technical support provided	75.0667	73.352	.331	.850

improved overall project performance				
Project products and services are relevant to our project beneficiaries	74.8667	72.124	.541	.846
Project products and services impact positively on beneficiaries	74.8667	72.124	.541	.846
Project beneficiaries are satisfied with services provided by the project	75.1333	69.981	.729	.840
Majority of the beneficiaries are dissatisfied with services provided by the project	77.4667	69.124	.219	.866
Project staff are satisfied with the performance of the project	75.6667	76.381	-.066	.878
Project staff satisfaction leads to high	75.0667	68.638	.893	.836

project performance				
Majority of staff are happy to work for the project	75.0000	69.286	.829	.838
High staff turnover in our project has affected performance of our project	76.4000	59.543	.538	.849
Retention of staff in our project has contributed to high performance	75.2000	71.314	.580	.844

c) Reliability Statistics for Technical Assistance

Cronbach's Alpha					
Based on					
	Cronbach's Alpha	Standardized Items		N of Items	
	.978	.978		11	
Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Management and leadership training	39.2353	183.816	.942	.989	.975
Technical training	39.3529	186.493	.902	.979	.976
Planning and Budgeting	39.1765	198.279	.800	.994	.979
Project design	39.1176	197.360	.813	.992	.978
Organizational processes	39.3529	182.743	.973	.993	.974
Monitoring & evaluation	39.2353	183.316	.955	.981	.974
Proposal & grant writing	39.6471	186.243	.832	.927	.978
Mentoring	39.4118	200.007	.660	.958	.982
Financial management	39.2941	182.596	.961	.994	.974
Project implementation	39.2353	181.691	.970	.998	.974
Project reporting	39.2941	182.721	.958	.993	.974

d) Reliability Statistics for Community Participation

	Cronbach's Alpha	N of Items		
	.841	8		
Item-Total Statistics				
	Scale	Scale	Corrected	Cronbach's
	Mean if	Variance	Item-Total	Alpha if Item
	Deleted	if Item	Correlation	Deleted
	Deleted	Deleted	Deleted	Deleted
Formulation of the project	26.2667	30.210	.733	.804
Proposal writing	27.2667	27.781	.752	.796
Project design	26.7333	28.924	.730	.801
Project planning & budgeting	26.8000	30.886	.510	.831
Monitoring & evaluation	26.0000	34.857	.548	.832
Project implementation	25.8000	36.314	.365	.844
Project report writing	27.4667	28.981	.699	.805
Resource Provision	26.9333	28.924	.441	.855

e) Reliability Statistics for Community's capacity

	Cronbach's Alpha		N of Items	
	.858		8	
Item-Total Statistics				
	Scale			
	Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Formulation of project idea	24.2000	39.743	.853	.816
Proposal writing	25.5333	42.124	.543	.847
Project design	24.6667	38.667	.695	.829
Project planning & budgeting	24.8667	39.695	.628	.837
Monitoring & evaluation	24.0667	42.495	.700	.833
Project implementation	23.8000	44.886	.575	.846
Project report writing	25.8667	41.552	.539	.848
Resource Provision	24.8667	40.695	.450	.866

f) Reliability Statistics for Community Attributes

	Cronbach's Alpha			N of Items
	.966			5
Item-Total Statistics				
	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Deleted
Attitude	17.1250	8.117	.777	.976
Knowledge	17.3125	7.163	.971	.946
Practices	17.4375	7.196	.884	.960
Awareness	17.3750	6.917	.933	.953
Acceptability	17.2500	7.133	.955	.949

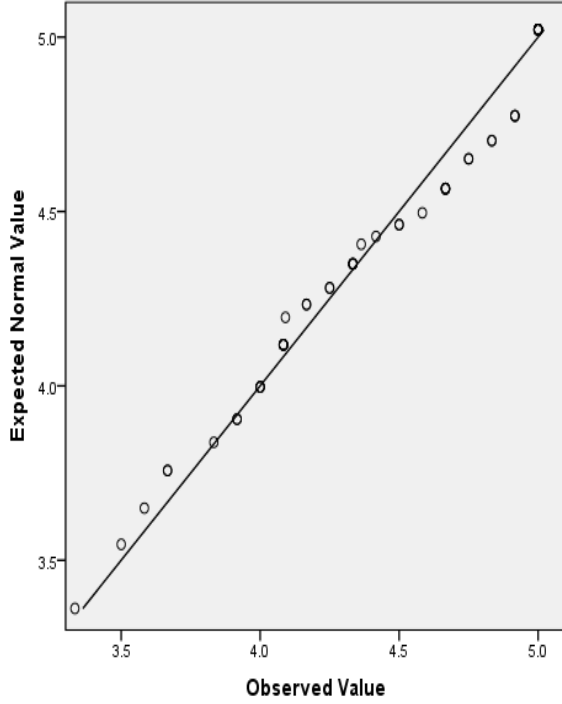
g) Reliability Statistics for Socio-economic environment

	Cronbach's Alpha			N of Items
	.823			13
Item-Total Statistics				
	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Deleted
Community beliefs affect the project positively	31.8750	81.850	.079	.837
Community beliefs affect the project negatively	32.6250	71.450	.525	.806
Community norms affect the project	32.6875	71.296	.702	.796
Community's level of education affect implementation activities	32.0625	73.263	.643	.802

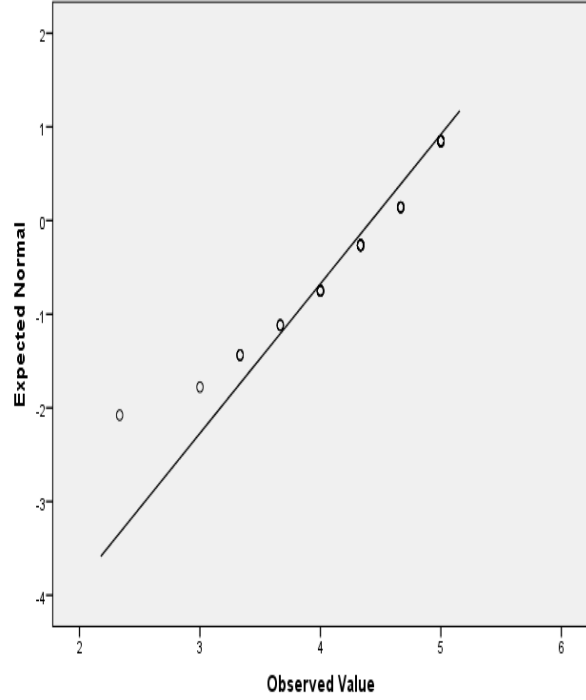
Marital status of the people in the community affect the project	33.6875	73.696	.519	.808
The gender of the members of the community affect their participation	32.7500	72.467	.485	.810
Religion of the members of the community affect their participation	33.7500	76.867	.395	.816
Politics of the members of the community affect their participation	32.5625	70.263	.497	.809
Level of income of the members of the community affect their participation	32.8125	70.829	.662	.797
Social harmony of the members of the community affect their participation	32.7500	76.733	.214	.835
Poverty levels of the members of the community affect their participation	32.5000	69.200	.665	.795
Health indicators of the members of the community affect their participation	33.0625	73.929	.293	.830
Clanism of the members of the community affect their participation	32.8750	71.317	.628	.800

Appendix XII: Linearity

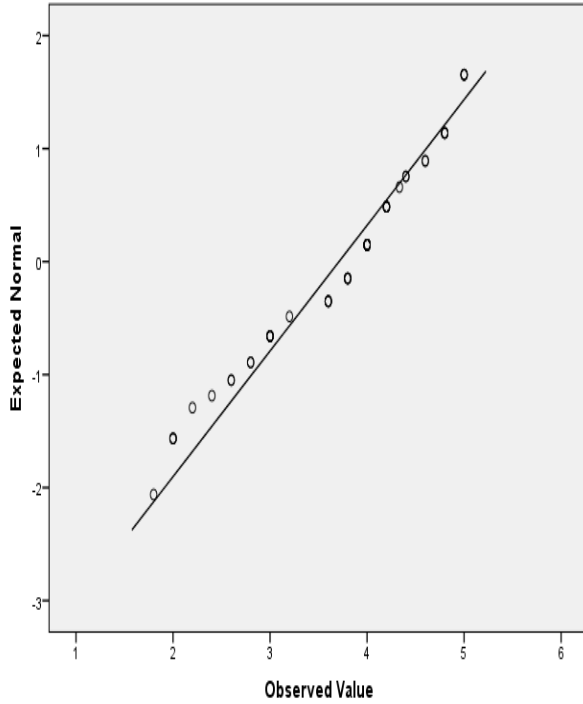
Normal Q-Q Plot of Sustainability_of_Donor_Funded_Projects



Normal Q-Q Plot of Technical_assistance



Normal Q-Q Plot of Community_Participation_2



Normal Q-Q Plot of Socio_Economic_Environment

