

**FACTORS INFLUENCING THE IMPLEMENTATION OF DONOR FUNDED  
AGRICULTURAL RESEARCH PROJECTS IN KENYA. A CASE OF KENYA  
AGRICULTURAL & LIVESTOCK RESEARCH ORGANIZATION,  
NAIROBI COUNTY**

**By**

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**DECLARATION**

This research project is my original work and has not been presented for award of a degree in this University or any other institution of higher learning

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This research project has been submitted for examination with my approval as the University Supervisor.

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## **DEDICATION**

I dedicate this project to my parents Mr. & Mrs. Murithi who gave me immense support and encouragement, therefore igniting in me the desire to excel.

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## **LIST OF ACCRONYMS AND ABBREVIATIONS**

<b>CT:</b>	Complexity Theory
<b>ICT:</b>	Information and Communications Technology
<b>KALRO:</b>	Kenya Agricultural & Livestock Research Organization
<b>M&amp;E:</b>	Monitoring and Evaluation
<b>MDGs:</b>	Millennium Development Goals
<b>NGOs:</b>	Non-Governmental Organisations
<b>ODA:</b>	Official Development Assistance
<b>OECD:</b>	Organisation for Economic Co-operation and Development
<b>PME:</b>	Project Management Experts
<b>R&amp;D:</b>	Research and Development
<b>RBT:</b>	Resource Based Theory
<b>RTD:</b>	Resource Dependence Theory
<b>SPSS:</b>	Statistical Package for the Social Science
<b>UNDP:</b>	United Nations Development Programme

## ABSTRACT

During the past 50 years, agricultural science in many developing countries has benefited greatly from support from industrialized countries. Unfortunately, the funds provided by most of these donors are project-driven short-term funds. The purpose of this study was therefore to analyse the factors influencing the implementation of donor funded agricultural research projects in Kenya. A case of Kenya Agricultural & Livestock Research Institute (KALRO).The study was guided by the following specific objectives; to assess the extent to which modern technology influences the implementation of donor funded agricultural research projects; to analyse the influence of funds utilization on implementation of donor funded agricultural research projects; to find out the role of technical expertise in the implementation of donor funded agricultural research projects; to assess the influence of monitoring and evaluation in the implementation of donor funded agricultural research projects.The research might be important to the donors as it points out the factors that may have influence on the various projects they carry out in the country and will enable them plan effectively before initiating projects.This study was guided by Resource Based Theory, Resource Dependence Theory and Complexity Theory. This study adopted a descriptive survey research design. The target population for this study included five projects with 138 staff working in donor funded projects under KALRO umbrella. The researcher used stratified random sampling technique and focused on a sample of 70 key personnel who included: the project manager, finance staff, technical field staff and other field staff. The researcher used questionnaires to collect the data required for this study. The questionnaire consisted of both closed and open-ended questions. Open ended questions were restrictive to the respondents. The researcher analyzed the data using SPSS and findings presented in terms of mean and standard deviations for easy interpretation of the study. The data from the open-ended questions was analyzed through content analysis by presenting data in themes as per the research objectives. Frequencies and percentages were used to summarize information. Based on the research findings, the study revealed that modern technology adoption promoted the implementation of donor funded agricultural research projects, ICT adoption in project implementation improved control over project requests and workload, enhanced control over project changes. The study further revealed funds utilization influenced the implementation of donor funded agricultural projects to great extent. Findings further revealed that M&E enables one to communicate project progress and changes to team members, stakeholders, superiors and customers, M&E helps identify and solve programme related problems thereby strengthening active participation in programme implementation. The study concluded that proper funds utilization enhanced the implementation of donor funded agricultural research projects and for donor funded agricultural projects to be financially sustainable, they require a sound financial base arising from reliable sources of funding, financial systems to facilitate accountability and cash flow projections. This study recommended that all process of projects implementation should be supported with the modern technology, which promotes the success chances via proper utilization of resources, accountability, focus and quality. Project implementation committee should ensure that all research projects have a reliable financial base. This will help to evade staling of projects while under course. Project implementation team should be periodically in-serviced to equip them with knowledge on emerging issues in project management as well as redress measures. The management team should adopt M&E throughout the implementation stages. This will help to rectify the deviations that occur during implementation and keep the project in line with the initial set goals.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Projects world over, are conceived and designed to initiate, promote change and innovation in the society (Mwangi, 2012). The anticipated change mostly is based on social and economic parameters. Both donor funded and government financed projects or programmes are aimed at improving the living standards of people, consequently lowering the levels of poverty. To achieve this critical obligation, government embarks on various initiatives by itself or in collaboration with multilateral or bilateral development partners (Okun, 2012).

In response to the challenges posed by the Millennium Development Goals, the key stakeholders in international development set out a new agenda to improve the effectiveness of aid. This agenda, embodied in the Paris Declaration on Aid Effectiveness, articulates a series of commitments reflected by the following tenets: ownership, alignment, harmonization, managing for results, and mutual accountability. The donor funded development projects are involved in various activities which includes: integrated food security programmes, transportation, marketing and processing of agricultural and livestock production. Availability of safe drinking water for human and livestock, plus conservation of soil, water, wildlife and the environment form part and parcel of the integrated rural development programmes implemented by donor agencies at the community level (Parker & Skytta, 2010).

Donor funding is the provision of direct or indirect finance for goods or services at costs that are less than would be charged in the normal 'open market', and provided by an external source. Donor Aid Effectiveness remains a top priority for the international development community.

According to Acharya (2013), whether tackling the global Millennium Development Goals (MDGs) or working collaboratively on Poverty Reduction Strategies at the country level, donor agencies must improve their effectiveness to achieve concrete development outcomes and eliminate poverty. Easterly (2012) argued that in looking at the history of aid, one might wonder if Official Development Assistance (ODA) is truly meant to promote economic growth and reduce poverty. Mosley and Marion (2010) declared that issues of financial administration and inadequate usage of improvement help have extended from poor or no counsel with the proposed recipients; absence of coordination between different government organizations; the inability to blend strategies; projects and methods harmonization and arrangement; poor venture configuration; to poor checking of remote supported activities and thus obligation and destitution (Goebel, 2012).

The World Bank's private arm, the International Finance Corporation, found that only half of its Africa projects succeed (Associated Press, 2010). Many other donors have not done much better. Some of these projects are as follows. The World Bank initiated a \$4.2 billion project dubbed Chad-Cameroon oil pipeline to the Atlantic Ocean in Chad. The pipeline was the biggest development project in Africa when it was completed in 2003. It was funded on condition that the money be spent with international supervision to develop Chad. However, President Idris Deby's government announced in 2005 that oil money would go toward the general budget and the purchase of weapons, or else oil companies would be expelled (Turton, 2010).

In Lesotho, the World Bank, European Investment Bank and African Development Bank initiated a project dubbed Lesotho Highlands water project at a cost of \$3.5 billion. The project to divert fresh water from the mountains for sale to South Africa and for electricity began in

1986. But the electricity proved too expensive for most people, and the diversion of so much water caused environmental and economic havoc downstream. The development fund raised from selling the water was shut down in 2003. The courts convicted three of the world's largest construction firms on corruption charges and the project's chief executive was jailed. Tens of thousands of people whose lives were ruined by the diversion are still waiting for compensation (Williams, 2013).

In Mali the goal in 1932 was to irrigate 2.47 million acres to grow cotton and rice and develop hydropower in the Mali desert. A project dubbed Office du Niger was funded by France at a cost of more than \$300 million over 50 years. More than 30,000 people were forced to move to the desert to work on the largest aid project attempted by French colonial authorities. The African workers largely ignored French attempts to change traditional agricultural practices. By 1982, only 6 percent of the region was developed and the infrastructure was falling apart. The World Bank took over the project in 1985 and has shown limited success with rice farming (Peet, 2014).

A project called Roll Back Malaria across Africa was funded by multiple agencies at a cost of about \$500 million. Roll Back Malaria, established in 1998, aimed to halve malaria incidence by 2010. The program said Africa needed \$1.9 billion a year to slow the disease, but by 2002 donors had only come up with \$200 million a year. By 2004 the infection rate had risen 12 percent. Experts say donors rarely followed through with pledges and some programs were subject to political considerations, such as what kinds of insecticides to use, whether to buy cheap generic drugs or how much poor people should pay for mosquito nets.

The Lake Turkana fish processing plant was initiated by the Norwegian Government at a cost of \$22 million in Kenya. The project was designed in 1971 to provide jobs to the Turkana people through fishing and fish processing for export. However, the Turkana are nomads with no history of fishing or eating fish. The plant was completed and operated for a few days, but was quickly shut down. The cost to operate the freezers and the demand for clean water in the desert were too high.

Amid the previous 50 years, horticultural science in many creating nations has profited enormously from help from industrialized nations (Peet, 2014). Contributors have given money related help to national horticultural research frameworks, upheld logical preparing at outside colleges, sorted out in-nation preparing programs, assigned staff to help with preparing and examine, and built up a universal engineering that encourages the development of information and materials for agrarian innovative work (R&D).

Along these lines it is astounding that contributor subsidizing for farming R&D in creating nations started to decrease drastically in the mid-1980s. This downturn in multilateral and reciprocal giver financing that continued for about two decades prompted observable interruptions out in the open spending on agrarian R&D in numerous African nations. In different nations, benefactors looked to use economies of scale and degree among little nations with comparative R&D needs by reallocating assets to local, instead of national, inquire about frameworks (Pardey and Pingali, 2010).

In still different nations, benefactor bolster stopped after the fulfillment of expansive scale, contributor supported ventures regularly including the development of labs and research offices (Beintema and Stads, 2011). All the more by and large, and all through the creating scene, benefactors basically pulled back from agrarian R&D in view of rivalry for financing with

wellbeing, instruction, and other social-part speculations, and as a result of lack of concern over high worldwide sustenance surpluses and low ware costs (World Bank 2012).

The Kenya Agricultural & Livestock Research Organization (KALRO) is a premier national institution bringing together research programmes in food crops, horticultural and industrial crops, livestock and range management, land and water management, and socio-economics. KALRO promotes sound agricultural research, technology generation and dissemination to ensure food security through improved productivity and environmental conservation. KALRO's fundamental role has been research and knowledge generation in agriculture. This fundamental role has been distinctively separated into research and non-research/service functions. The research role aims at generating technologies that addresses the needs of farmers among other stakeholders while at the same time impressing on innovativeness. The technologies that are generated are categorised into hard (physical/tangible products such as seed varieties) and soft technologies (information or knowledge). In terms of non-research/service functions, KALRO provides a range of services to the public which need to be recognised adequately as they are time and resource intensive.

Some of the projects that KALRO has been undertaking from 2015 includes, Arid and Semi-arid lands Agricultural Productivity Research Project, development of an aflatoxin biological control product known as aflasafe KE01, data extrapolation and crop grouping project, Creating awareness to the general public on all aspects of safety, storage and handling and safe use of pest control products.



## **1.2 Statement of the Problem**

In spite of the fact that giver subsidizing has kept on assuming an essential part in creating nations, particularly sub-Sahara Africa, it is fascinating to take note that after 50 years of directing assets to the Third World, little advancement has occurred. In all of sub-Saharan Africa there is a high level of obligation, high joblessness, supreme destitution and poor financial execution. The normal per capita pay in the locale has fallen since 1970 regardless of the high guide streams. This situation has incited help giver offices and specialists to return to the prior exchanges on the adequacy of remote guide.

Donors usually have the objectives of helping to improve the livelihood of the locals either through direct participation or providing funding to supplement government's budgetary allocation to various sectors. Unfortunately, the funds provided by most of these donors are project-driven short-term funds, which do not factor into the whole funding mechanism policies that will ensure that such projects are fully implemented after donors have withdrawn. The presence of a well thought out strategy that not only looks at how a donor funded the project is completed, but also the means to continue with the project after the donor's funds have been withdrawn is critical to the project's successful implementation.

A reports from the Auditor General office indicate that agricultural research projects financed by donors are commonly bedeviled with lapses in procurement, poor financial management and weak staff levels especially Auditors (Auditor General, 2013). Empirical studies done by Agevi (2010), Muttagi (2011), Cedric (2012) widely linked poor management of projects to the increase in the cycle of poverty and failure of many donors funded projects in developing countries like Kenya. Despite this problem, little has been done to establish the cause of poor

implementation and even termination of these donor funded projects especially on agricultural research.

### **1.3 Purpose of the Study**

The purpose of the study was to analyze the factors influencing the implementation of donor funded agricultural research projects in Kenya. A case of Kenya Agricultural & Livestock Research Organization (KALRO).

### **1.4 Objectives of the Study**

The study was guided by the following specific objectives;

- i. To assess the extent to which modern technology influences the implementation of donor funded agricultural research projects.
- ii. To analyze the influence of funds utilization on implementation of donor funded agricultural research projects.
- iii. To find out the role of technical expertise in the implementation of donor funded agricultural research projects.
- iv. To assess the influence of monitoring and evaluation in the implementation of donor funded agricultural research projects.

### **1.5 Research Questions**

- i. To what extent does modern technology influence implementation of donor funded agricultural research projects?

- ii. To what extent does funds utilization influence implementation of donor funded agricultural research projects?
- iii. What is the role of technical expertise in the implementation of donor funded agricultural research projects?
- iv. To what extent does monitoring and evaluation influence the implementation of donor funded agricultural research projects?

### **1.6 Significance of the Study**

The discoveries uncover the variables that obstruct the adequacy of contributor supported tasks in Kenya and particularly in KALRO and offers bits of knowledge into what should be done to make the subsidizing powerful. The exploration is additionally critical to the donors as it calls attention to the elements that may have impact on the different tasks they do in the nation and will empower them design viably before starting activities. The beneficiaries of various donor funded projects will also find the results of this study useful as it points out the important role stakeholders play in establishing effective donor funded agricultural projects in Kenya.

### **1.7 Limitations of the Study**

The researcher faced some limitations during the study including uncooperative respondents, financial constraints and time spent. Most of the respondents were not willing to give the true position on issues addressed on the questionnaires. To counter this, the researcher made it clear that anything gathered was solely for academic works. For the financial constraints and time spent for the study analyst utilized research assistants to aid in questionnaires pick and drop.

## **1.8 Delimitations of the Study**

Review was delimited to analyzing factors influencing implementation of donor funded agricultural research projects in Kenya. A case of Kenya Agricultural Research & Livestock Research Organization (KALRO). The study was further delimited to four specific variables; modern technology, funds utilization, technical expertise and monitoring and evaluation as the researcher aimed at the implementation aspects of the projects. The study was also delimited to 138 staff working on various research projects in Nairobi County. The study was also delimited to specific agriculture research projects at KALRO which is a government agricultural research organ which in the past has received research funding from donors to conduct agricultural research.

## **1.9 Basic Assumptions of the Study**

Review assumed responders would give accurate and reliable information on the research topic on which valid conclusions would be drawn. The realization of factors affecting implementation of the projects might lead to proper implementation of the projects leading to realization of the objectives. The sample population which was chosen represented the population of the Agricultural Research Institutions. The instruments which was chosen was valid and would measure the required construct.

## **1.10 Definition of Significant Terms**

**Donor funded projects:** These are projects run by fund administered by a third party. The receiving organisation writes a proposal and finances are wired to facilitate in the running of the suggested project.

**Funds utilization:** This is the efficient and effective management of money, equipment or facilities for the sole purpose of furthering organizational goals and objectives.

- Implementation:** Project implementation is the phase where visions and plans become reality. This is the logical conclusion, after evaluating, deciding, visioning, planning, applying for funds and finding the financial resources of a project.
- Modern technology:** Technology is the knowledge of techniques, processes, etc. or it can be embedded in machines, computers, devices and factories, which can be operated by individuals without detailed knowledge of the workings of such things.
- Monitoring and evaluation:** Monitoring and evaluation is a process that helps improving performance and achieving results. Its goal is to improve current and future management of outputs, outcomes and impact.
- Project Performance:** This is the extent to which a project achieves the intended objectives on prescribed metrics. In this study project performance is expressed in terms of time, cost, quality, safety, site disputes and environmental impact.
- Technical expertise:** Technical expertise refers to a series of underlying knowledge and skills that are necessary for one to undertake a given task with acceptable quality.

### **1.11 Organization of the Study**

Chapter one has study background, problem statement, study purpose, objectives and many more utilized in review. Chapter Two covers introduction and body of study where specific themes have been discussed. Chapter Three research methodology and procedures. In Chapter Four, the areas of focus was: data analysis and interpretation and presentation while Chapter Five presented study summary, conclusions and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction to Literature Review**

It looked at previous literature on factors influencing implementation of donor funded agricultural research projects in Kenya. The chapter also discussed the theoretical framework, empirical review and research gaps of the study.

#### **2.2 Implementation of Projects**

On the idea of manageability Eckman (2014) expressed that venture usage has come to be viewed both as an objective being developed in projects and as a way to deal with approach and programming. It was additionally embraced that there are numerous meanings of venture execution in writing, and in exact use among improvement laborers in light of the fact that; the term is firmly reliant upon the setting in which it is utilized.

It was therefore Nikkhan and Redzuan (2010) who presumed that manageable improvement has risen in the course of recent decades as an essential worldview for group advancement. In any case, Bradshaw and Winn (2014) declare that, extend usage has been established to a great extent in an ecological approach, especially in the industrialized nations. Be that as it may, the objective of practical advancement is to discover a harmony between three columns social, financial and ecological parts of groups (Sneddon, 2016).

Study done by Hibbard and Tang (2014) fought that venture execution is process-arranged, and it requires broad group cooperation and depends on system to share assets, learning and ability. As the concentration of this examination is at the operational NGO extend level, supportable

improvement ventures are characterized by Eckman (2013) as those with valuable effects persevering past the first time period of the venture, and that might be diffused past the first spatial points of confinement of the venture. Such exercises get their very own existence, and are autonomously received or adjusted by neighborhood individuals without critical contributions from outer sources as the official project closes.

On development initiative, Hossain (2011) suggests that venture activity is viewed as feasible when it is monetarily and fiscally ready to look after development, capital upkeep, and effective utilization of assets and ventures. Such a program ought to have the capacity to convey fitting level of advantages for a broadened period after the exit of improvement help. From these definitions, it is understood that there is presently a reorientation of project implementation as essentially a biological worry to one that accentuates the monetary, social and political parts of improvement.

### **2.3 Modern Technology and Implementation of Agricultural Research Projects**

Technology is the application of technical means to solve environmental problems to improve the surroundings, to ensure productions of goods or services to satisfy human needs. This involves the use of tools, knowledge, and systems to make life easier and better. Technology involves the application of knowledge, tools and skills to solve problems and extend human capacity (Johnson, 2010).

World over, there has been a remarkable significance in using Information and Communication Technologies in facilitating and accelerating the process of development and as a way of reducing poverty across the globe. In fact, as a common adage today without the usage of ICTs, a society will fall behind in the path of development (Mulira 2006). This has prompted

Governments, donors, NGOs and other stakeholders alike, to further the impact of different ICTs given their ability to be used for policy advocacy, local governance and educational development, civic studies, etc and in Kenya; several of such initiatives have cropped up both in urban, semi-urban and in rural settings (UNDP, 2010).

In pre-PC time, the way toward gathering the Rural-based project design from improvement designs is probably going to be a tedious, however basically straightforward exercise (IFAD, 2011). In the modern time, planning of project design in organizations is a substantially more muddled exercise, including the expansive measure of information, their preparing, rounds of alterations, amendments and affectability investigation (Mundy et al, 2001). The successful utilization of spreadsheet displaying encourages affectability investigation. In the venture design show the affectability examination, investigation of dangers and probabilities (doubtlessly, hopeful, and negative) are utilized to give a more adjusted perspective without bounds (Clinton, 2009). As indicated by Harindranath et al, (2007), right now, the venture design show is an arrangement of spreadsheets with numerous free modules, which are facilitated through email, LAN, Intranet, Groupware Environment.

The control of project execution, the venture design and spending usage must be of major worry to the Board of Directors. Resource scheduling and allocation requires a gifted group of experts, coordinated technique administration process, apparatuses, advancements and support (Harindranath, 2007). The project design is the corner stone of the monetary and administration control by giving an instrument to research any deviation between real outcomes and conjectures, so as to keep project in track with its key introductions and to achieve destinations, which is vital for system centered associations (Mulira, 2006).



Organizational Strategic Plans are long-term plans, but they are interconnected with short-term plans and provide a framework for preparation of the project budget which allocates and schedules resources required for implementation and performance of rural based projects that revolves around cost, time and human capital (McCarthy, 2008). The best administration examines the holes between arranged esteems contained in the venture designs and real esteems in the execution reports of the spending cycle, toward the finish of every examination period. The reason for this is to have a responsive administrative framework skilled to respond accurately to guarantee suitable choices at the correct time and at the ideal place. For extend usage and execution, it is imperative to have exact, important and convenient data (Harindranath, 2007). The utilization of broad correspondences systems, open conveyed databases help to give, store and send data all the more dependably, rapidly and monetarily, and in addition to have execution reports precisely and in time. ICT helps in: the lessening of manual and paper serious structures; more successful work forms; more prominent straightforwardness; powerful administration methodology to guarantee the ideal utilization of accessible venture general assets (Mulira, 2006).

As indicated by Mulira, (2006), the monetary measurement of ICTs in provincial venture improvement is frequently found as far as capital speculations, continuous support costs, consistent expenses of network, and preparing costs. Some of these expenses might be hard to assess ahead of time, including the cost of doing M&E without use of ICT (Madland, 2015). The shortage of subsidizing for a venture activity implies, be that as it may, that its potential cost-visibility will be considered as a basic factor. At the point when ICTs are associated with any activity, the discernment that they are expensive further intensifies the

Necessity for clear planning for M&E as a part of the expenses of 'working together. In nations that are in danger of neglecting to achieve Millennium Development Goal (MDG) focuses on, the issue of cost is particularly intense (UNDP, 2010). Considering costs in M&E is not basic, as there are numerous and fluctuated immediate and circuitous expenses relying upon the level of information social affair and examination required, adoption of JCT remains the best option to level down this costs associated with monitoring and evaluation of rural based projects for quality output (Harindranath, 2007).

#### **2.4 Funds Utilization and Implementation of Agricultural Research Projects**

The sources and synthesis of venture activity is another key factor that may impact the achievement of venture usage. Investigation on various inquires about has demonstrated that wellsprings of back impact ventures. In his investigation, Kasoo (2010) repeated in his discoveries that other than group cooperation, sources and sythesis of venture back has an orientation on extend accomplishment too. This was affirmed by Ayodele (2011) when he announced that one noteworthy reason for deserting of development extends in Nigeria was because of lacking subsidizing and back. His examination report additionally underlines the significance of budgetary assets in extend execution.

Project financial frameworks allude to bookkeeping systems, records and money related articulations indicating execution and income proclamations, projections that decide budgetary supportability of contributor subsidized tasks (Arndt, 2010). Emerton, (2006) states that for an improvement venture to be fiscally supportable, it requires a sound budgetary base emerging from dependable wellsprings of subsidizing, money related frameworks to encourage responsibility and income projections and advancement of attractive items to create

overabundance salary over the use of the venture (Camisón, 2005). Venture money related investigation ought to be embraced in conjunction with the project monetary examination.

Financial costs help decide the level of interest for extend yields and the level of supply of ventures inputs (Easterly, 2012). Costs or client charges, request, and the size of speculation all should be considered at the same time. Budgetary costs give the motivation to venture. For instance, the degree to which activity will occupy to another road, and the arrival to the interstate financial specialist, will differ with the anticipated level of toll. The outcomes of these reactions for the economy all in all are computed in monetary costs (Francis, 2011).

For a project to move towards reasonable ways to deal with benefit conveyance, new models and models should be created, tried, acknowledged and executed (Francis, 2011). Monetary and financial examination is critical for usage of any venture (Goebel, 2012). On the off chance that a program or venture does not convey clear and fair money related or financial advantages which are evident to the partners, it is well on the way to be maintained after benefactor subsidizing wraps up. For instance, wellbeing administrations clients won't pay for government wellbeing administrations (either straightforwardly or through different charges) if the administrations are poor or their desires of advantages are to a great degree restricted. Better budgetary investigation is frequently required, especially in the definition of projects and ventures' exercises (Johnson, 2010).

Ditshwanelo (2005) equally notes the major threats to financed projects implementation is the diminished subsidizing which may constrain them to downsize their exercises. Viravaidya (2005) detailed that absence of assets constrains the amount and nature of NGO work subsequently, reliance on gifts and gifts from benefactors are acknowledged. This contributor reserves were

noted to convey confinements which restrain the self-governance of NGOs to pick which program exercises to attempt and to choose the best intercession procedures to accomplish feasible program objectives (Howells, 2008).

Ndaruhutse (2006) contend that there can be low retention limit of existing assets bringing about slower than anticipated payment. Frequently, the issue of assimilation limit by recipient associations is raised by contributors and this might be because of powerless acquisition frameworks in the beneficiary nation. ADB (2009) affirms that there are acquisition delays mostly because of use of GOK obtainment methods which are at times conflicting with giver manages and delays in reacting to bank request. Ndaruhutse (2006) bring up that frail obtainment frameworks prompt deferral in payment of assets and venture plans for East and Central Africa particularly in Ethiopia and Zambia.

## **2.5 Technical Expertise and Implementation of Agricultural Research Projects**

Capable administrative authority ought to be urged to manage adjustments and accomplish practical ventures results. Contributor upheld projects and activities must be planned and overseen with the goal that they allow some adaptability in execution. Designs should infrequently be staged and permitted to advance as lessons are learnt, field level directors should thusly b ready to react rapidly to changing needs and needs, and managerial or money related administration methods must not be made difficult (OECD, 2009).

Program and project plans must assess the limit of neighborhood regulatory frameworks to help staff and administration conveyance (Lewis, 2012). For instance: if nearby staff are not getting paid routinely, are not paid a living compensation, travel stipends are not accessible, and their execution is not remunerated at all, at that point their capacity and eagerness to take a shot at

program/extend exercises must be evaluated likewise. Projects and tasks can just set reasonable goals in light of such useful limitations (Major, 2010).

Achievement of staff competencies through training need to be encouraged in all the donor projects (Martens, 2012). Powerful training ought "teach" as well as rouse; students must be chosen on justify, incorporate the two men and ladies, and be of direct pertinence to their work. Learners should likewise be given the chance to apply recently gained aptitudes on culmination of preparing. In situations where partners are exchanged or leave after some time, preparing must likewise be rehashed and refresher courses given if the required ability base is to be supported all through (Mosley, 2010).

Frances, (2011) During recruitment and selection of the project staff, it is important to select the ones with right experience and skills since it's a vital aspect to project success. However project purpose, type and budget size available shall determine recruitment (Mulira, 2006).. It is of importance that this should be done using the widest possible network of contacts to identify the candidates. Staff ought to have projects experience and understanding of work project involved, and at least good knowledge of the country. Nahyan., Moza T.Al,Amrik s. sohal, Brian N.Fides,(2014) for project success, improved human resource strategies that emphasize recruitment, training and development of personnel needs to be developed and implemented.

Training of staff alone is not adequate to improve hierarchical viability to a more prominent level on the grounds that not all learning got from the preparation is appropriately exchanged and connected to the association. As such exchange of information (gainful utilization of procured learning and abilities obtained amid preparing must happen successfully to acknowledge full

advantages) Dirani (2012) (Maina & Waweru, 2011) argues that effective internal and external communication has a significant relationship with effective strategy implementation hence good performance of projects. Vera Ogeh, Fiador (2013) most NGO's in Africa generally depends on voluntary staff to run their activities and programmes and therefore don't have control over the quality of the staff they recruit. They argued that lack of well trained and experienced staff limit the extent to which they can manage their daily affairs and their capacity effectively, plan, appraise, implement and monitor their activities.

Afande, (2013) found out the degree of accomplishment of giver subsidized undertakings is dictated by both specialized and administration limit of HR of the actualizing organizations. He contended that the officers in the giver stores extend chain may do not have the formal preparing in remote guide administration, planning and bookkeeping. These powerless aptitudes may prompt poor comprehension of the giver consumption conventions coming about into ineligible use, which prompt dismissal for additionally financing by the contributor. Dr.xavier ,Harold Goodwin, Walton, (2012) found that “despite the conventional wisdom that the competence of the project designers, planners and the project.

Management team is most related to success”, the empirical evidence shows that effective consultations are far more important in influencing the project success, at least for the international development projects (Mwangi, 2012). Staff competence is dependent on the managerial skills of the staff. The skills are not industry specific, industry related or firm specific. The skills are a source of differential levels of efficiency and thus generate ricardian rents. Managerial skills are very crucial in the performance of any project. In project management, the manager is supposed to have the four-factor typology of the managerial skills

consisting of technical skills, human skills, administrative skills and citizenship skills (Nuguti, 2014).

Technical skills refer to managers proficiency in specific methods or techniques related to that of manager's function area (Okun, 2012). Administrative skills subsume areas such as planning, organization, delegating and coordinating if he lacks these skills, the project will completely fail due to poor planning of the scope. Human skills concern with their ability to interact and work effectively with the team members. Abraham, (2009). (Jack & Samuel, 2010) reported that project performance depends on the managerial skills and competence of the project manager. An important, but always overlooked aspect of the implementation process concerns the nature of personnel involved. Many a times, the staff for the project is selected with less than the required skills necessary to make the project a success. It is important to develop a project team that has the requisite skills to perform their functions and also to understand the project well.

## **2.6 Monitoring and Evaluation and Implementation of Agricultural Research Projects**

Chicati, (2009) defines monitoring as “an internal project activity designed to provide constant feedback on progress of a project, the problems it is facing and the efficiency with which it is being implemented. It tracks the performance against what was planned or expected according to predetermined standards.

Chicati, (2009) suggested that there is need to use PME approaches where the stakeholder participation is very crucial. This helps the stakeholders to identify and solve programme related problems themselves thereby strengthening their capacity to be active participants in programme implementation, rather than remaining passive recipients of development assistance. It also ensures public accountability in that the programme participants and local citizens themselves

monitor and evaluate the performance of donor and government institutions. For instance legal reforms that decentralize decision- making often encourage elected representatives at District or Municipal levels to be more proactive in monitoring implementation of local development plans hat .However community participation in M&E may be constrained by: lack of literacy skills, insufficient time and the intensity of analytical work to be carried during the evaluation, and the fact that many of the issues covered during the evaluation are not directly relevant to the community members (Nuguti, 2014).

It is progressively perceived that monitoring and evaluation are imperative administration capacities and they are along these lines set by contributor organizations as preconditions for the assignment of assets to the NGOs (Hunter, 2009). He further argues that there is a developing enthusiasm inside the International Community in participatory ways to deal with monitoring and evaluation. It has been discovered that the cooperation of partners enhances the nature of undertakings on the planet and in addition expanding the feeling of national and nearby possession in them; there is more prominent probability that the venture exercises and their effects will be reasonable. Partner cooperation in M&E can reinforce organization and collaboration at all levels and phases of venture usage.

Monitoring is a continuous management processes which seeks to provide programme managers and key stakeholders with regular feedback and early indications of progress or lack thereof in the achievement of the intended results (Turton, 2010). (M&E) of advancement ventures is progressively perceived as crucial administration capacities. Assessment as indicated by American Evaluation Association is the way toward surveying the qualities and shortcomings of the projects arrangements, faculty, items and associations (Williams, 2013).



For many years, M&E of development projects in Africa have been given little attention. This has been due to insufficient technical resources, limited funds allocation to M&E work by donors, limited training opportunities in evaluation, and shortage of trained staff among others. Andy Bruce, (2007) contends that project should be monitored from the start to the end. In this stage, there progress report giving, organizing team meetings, and identifying progress milestones. Effective monitoring allows information gathering so as to measure and adjust progress towards project goals. Project progress and changes communications is made to the project team (Parker, 2010). As per Lewis, (2012), M&E of an organisation's programs entails collecting and analyzing project data and their activities. M&E also appraises an institution's overall performance towards the achievement of the goals and objectives (Smoke, 2008). Evaluation uses the information obtained from monitoring (Ogeh Fiador, 2013).

Evaluation represents a systematic and objective of ongoing or completed projects in terms of their design, implementation and results (Ogeh Fiador, 2013). It deals with efficiency and effectiveness as well as project impact and sustainability. Periodic evaluation of ongoing projects is usually carried out for the purpose of reviewing the progress of the implementation process. Particularly lacking are methodologies that take into account the impacts as perceived by the beneficiaries of the funded projects which can often show how the positive impacts promoted are actually offset by negative impacts that go unrecorded and are suffered by the more vulnerable members of the community (Williams, 2013).

Frances, (2010) in the event of subsidized work, it will be critical to recognize checking and assessment that are inside to the association of the venture, and that which identifies with the desires or concurrences with the funders or backers. An assessment may have more than one

reason, yet it is vital for partners to concur on the need purposes (Parker, 2010). Distinguishing partners, and ensuring that they concur about the fundamental reason for an assessment, is basic with a specific end goal to settle on the approach and strategies to be utilized as a part of really doing it. He contends that a funder has a part in an assessment. The interests of the funder may command the assessment procedure, given its relative power. Monitoring and evaluation is conducted in order to generate detailed information about the project implementation process and also to improve the results in terms of why activities failed or succeeded (Mishra, et al 2006). Subsequently, through nonstop checking and assessment of contributor supported ventures, administration can plan, timetable and control all exercises in the venture and in this manner finish it inside the planned time and cost (Peet, 2014).

## **2.7 Theoretical Framework**

Part shows review is based on theories which have much links with implementation of donor funded agricultural research projects. The most outstanding ones that have found much application in implementation of donor funded agricultural research projects include (RBT), (RTD) and (CT). Despite fact that donor funded agricultural research projects are named non-benefit making associations, despite everything they stay monetary establishments in that they utilize society's rare assets (land, work and capital) to create merchandise and enterprises of significant worth. These associations have working expenses, force costs on society to the degree that they utilize commitments and deliberate administrations to give better an incentive than culture and need a dependable stream of income to back their central goal and be monetarily economical.

### **2.7.1 Resource Based Theory**

Barney (2011) states that a firm is said to have an upper hand when it is executing an esteem making methodology not at the same time being actualized by any present or potential contenders". From asset based view, assets are imperative unit of examination to comprehend a firm 's procedure. These assets create authoritative abilities; heterogeneity and fixed status of these assets characterize an association 's upper hand in an industry; managed upper hand remunerate predominant monetary and money related execution. This perspective of technique has a lucidness and integrative part that spots it well in front of different components of vital basic leadership (Kay, 2013). The (RBV) offers critical and fundamental insights into why firms with valuable, rare, inimitable, and well organized resources may enjoy superior performance (Barney, 2011).

The RBV utilizes firms' interior qualities to clarify firms' heterogeneity in procedure and execution. A firm is a sorted out, one of a kind arrangement of variables known as assets and capacities, and RBV hypothesis refers to two related wellsprings of points of interest: assets and abilities. Assets are an association's collected resources, including anything the firm can use to make, create, or potentially offer its items to a market. Assets are qualified for lawful assurance (all things considered, firms can practice property rights over them; Amit and Schoemaker, 2008); can work freely of firm individuals (Camisón, 2005); and mediate as components in the creation procedure to change over contribution to yield that fulfills needs (Grant, 2001).

In review, since assets create hierarchical capacities; heterogeneity and stability of these assets characterize an association's upper hand in an industry; maintained upper hand remunerate predominant monetary and money related execution, the specialists tries to set up whether the

giver supported horticultural research ventures had enough assets that will offer them smooth implementation. This theory reinforced the first and the second variable which were modern technology and funds utilization.

### **2.7.2 Resource Dependence Theory (RDT)**

(Pfeffer and Salancik, 2001) denoted a watershed in authoritative research by situating power at the center of hierarchical talk. (RDT) is the investigation of how the outer assets of associations influence the conduct of the association. (RDT) depends on how the outer asset of associations influences the conduct of the association. The hypothesis depends on the accompanying fundamentals: Organizations are reliant on assets, these assets at last begin from the earth of associations, the earth to a significant degree contains different associations, the assets one association needs are subsequently regularly in the hand of the associations, assets are a premise of energy, lawfully free associations can in this way be subject to each other (Pfeffer & Salancik, 2001).

In as much as associations are between subordinate, the hypothesis of Resource Dependence needs a nearer examination. It's extremely shortcoming lies in its exceptionally statements of reliance. As per this hypothesis, association relies upon assets for their survival; along these lines, for any association to accomplish supportability, assets are basic. For rural activities to accomplish extend destinations assets are critical. This hypothesis strengthened the third factor which was specialized skill.

### **2.7.3 Complexity Theory (CT)**

It is the investigation of nonlinear dynamic frameworks guarantees to be a helpful reasonable structure that accommodates the fundamental unusualness of ventures with the development of

particular examples. Notwithstanding the way that the hypothesis was initially created with regards to physical and organic sciences, today it has discovered applications in social, biological and financial frameworks which likewise have a tendency to be portrayed by nonlinear connections and complex communications that advance powerfully after some time (Kiel & Elliott, 2006).

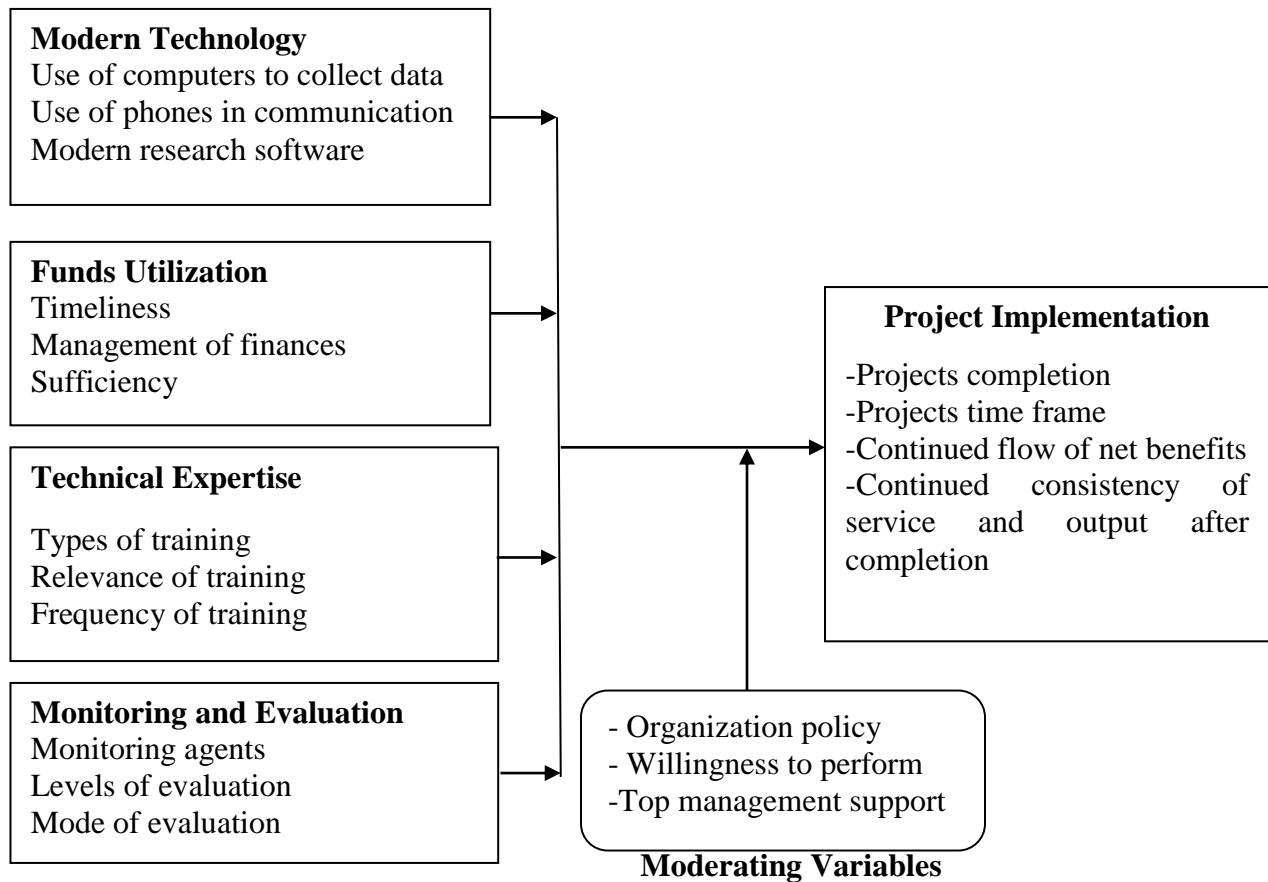
Amid the 1990s, there was a blast of enthusiasm for intricacy as it identifies with associations and system. The hypothesis recommends that straightforward deterministic capacities can offer ascent to profoundly mind boggling and frequently unusual conduct. Accordingly, applying this hypothesis in key arranging assumes adaptability with respect to an association. Accordingly, associations would rely upon others as well as gadgets elective systems to counter the unforeseen. Contributor subsidized agrarian research ventures require a merger of these speculations in vital money related arranging keeping in mind the end goal to have smooth execution process. This hypothesis strengthens the last factor which was checking and assessment.

## **2.8 Conceptual Framework**

Diagram below shows framework of review. A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. Strong conceptual frameworks capture something real and do this in a way that is easy to remember and apply. The relationship between the variables is indicated in figure 1.

## Independent variables

## Dependent variable



**Figure 1:Conceptual Framework**

Shown above is relation between review variables. The dependent variable is projects implementation which is influenced by four independent variables. The first independent variable is modern technology. The second independent variable is fund utilization whose parameters includes timelines, management of finances and sufficiency. The third variable is technical expertise while the last variable is monitoring and evaluation. The study moderating variables includes the organisation policies, willingness to perform and top management support.

## 2.9 Summary and Knowledge Gap

The Esonu and Kavanamur, (2011) in Papua New Guinea did not find out whether the expedited implementation of agricultural projects in Morobe provincial government improved agricultural productivity in the province. The Lennox *et al.*, (2011) study in New Zealand both researchers did not also find out whether the embracing of ICT influenced the implementation process of agricultural projects. This research study sought to fill this gap.

The Smoke and Morrison, (2008) study in Cambodia only looks at how late disbursement of water projects' funds influences the implementation of water infrastructure it does not look at how this influences this leads to a decline in water borne diseases. The Ahmad and Mercedes, (2011) study in Peru only looks at how late disbursement of funds delays the implementation of donor funded agricultural but doesn't look at how sponsors raise their own sources of project funds.

Research also seeks to fill a research gap on whether the same findings by Mainganye, (2006) in South Africa; Barankay and Lockwood, (2007) in Switzerland and Albiacet *al.*, (2006) in Spain can be replicated in Kenya. Most of these studies have been done in far off countries and regions; through this study the researcher sought to fill a research study gap on factors influencing the implementation of donor funded agricultural research projects in Kenya. A case of Kenya Agricultural & Livestock Research Institute.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Part shows design research utilized in review, populace target, data collection methods and procedures. It also contains the operationalization's table of variables and objectives under study and methods of data analysis plus ethical considerations to be observed.

#### **3.2 Research Design**

Sapsford,(2015) defined it as the format guiding research method implementation. It provides evidence framework for research question in which the investigator is interested. Review utilized descriptive survey research design to investigate the factors influencing the implementation of agricultural research projects which are donor funded in Kenya Babbie, (2010) noticed descriptive research design is utilized when data is describing for example persons. Descriptive survey research design was ideal for review because it facilitated gathering of both qualitative and quantitative data on how study variables such as; modern technology, funds utilization, technical expertise and monitoring and evaluation implementation of donor funded agricultural research projects. Further, through this design the study would establish the link between study variables and study problem.

#### **3.3 Target Population**

Mugenda, and Mugenda, (2005) defines target populace as the total collection of elements about which we wish to make some references. The target population for this study included five projects with 138 staff working in donor funded projects under KALRO umbrella. There are various agricultural projects namely; like Food security Agri-projects, Bee Keeping Project,



Agri-water project, Soil Conservation and Fish Farming among others. Respondents were sampled from the staff working in the projects who gave the information required. A total of 138 respondents formed the study target population in all the five projects mentioned.

### 3.4 Sample size and sampling Procedure

Analyst utilized stratified random sampling techniques. Stratified random sampling was utilized because of non-homogeneity of the donor funded projects, in terms of the management sizes, number of staff in each project and the nature of the services and products offered by the different projects. From each stratum, a sampling fraction of 50% will be selected. Selection of the sample size was based Kothari (2012) recommendation for sample size which indicate that 10% to 20% of the accessible population is adequate enough for a sample size. A 50% sample size was therefore even better. The researcher focused on the 70 key personnel who included: the project manager, finance staff, technical field staff and other field staff as in the table below.

**Table 1: Target population**

<b>Donor Funded Agricultural Projects</b>	<b>Manager</b>	<b>Field Coordinators</b>	<b>Finance Staff</b>	<b>Others staffs</b>	<b>Target Population</b>	<b>Sample Size</b>
Food security Agri-projects	2	12	2	12	28	14
Agri-Water Project	3	14	2	16	35	18
Bee Keeping	2	12	2	12	28	14
Fish Farming	1	12	5	10	28	14
Soil Conservation	1	8	2	8	19	10
<b>Total</b>	<b>9</b>	<b>58</b>	<b>13</b>	<b>58</b>	<b>138</b>	<b>70</b>

### **3.5 Research Instrument**

The researcher used questionnaires to collect the data required for this study. According to Saris, (2007) a questionnaire is a self-report data collection research tool that each research participant fills out as part of a research study. Analyst utilized this method because questionnaires are free from the bias of the interviewee and respondents would have adequate time to give well thought out answers. Questionnaires provided relatively straight forward information to analyze (Saris, 2007). The researcher used structured questionnaires because they are easy to administer as each item is accompanied by choice answers and they will be economical in terms of time and money.

Questionnaire had closed and open-ended questions. Open ended questions were not restrictive to respondents. Open ended questions provided respondents with opportunities to reveal information in a naturalistic way. The questionnaire was divided in 5 sector. Sector one requested respondent to fill in his or her background information, whereas the reaming 4 sections consisted of variables which the researcher intended to research on. The sections comprised of; modern technology, Financial Resources, technical expertise, monitoring and evaluation and the implementation of donor sponsored agricultural research projects. The researcher administered the questionnaires in person through drop and pick later method. A register of questionnaires was maintained to facilitate tracking of the research collection instrument.

### **3.6 Validity of Research Instruments**

Somekh and Cathy,(2005) define validity as a means of assessing that the research instruments used in a study collect the data they attempt to gather. Review utilized content validity which is a measure of the degree to which data collected using the study's instruments represents a specific domain or content of concepts in this study. To ensure validity, the researcher sought experts'

opinion to comment on the representativeness and appropriateness of questions and gave suggestions of corrections to be made to the structure of the research tools. The validity of research instruments was established by holding discussion and seeking counsel with the researcher's supervisor and modification of the instrument was implemented after supervisor's approval.

### **3.7 Reliability of Research Instrument**

A reliable instrument is one that gives consistent results. It is these consistent results that gave the researcher confidence that the results actually represent what will be measured (Graziano, and Raulin, 2013). Reliability was established by using more than one instrument to the group of individuals during the same time. Further, to check reliability of the research instruments and address any deficiencies in the research instruments, a pilot study was conducted using 10–20% of the main sample size as recommended by (Neuman, 2011). Therefore, this study's pilot was conducted on 14 respondents from the target population. Internal consistency techniques using Cronbach's Alpha was applied. The alpha was calculated using SPSS. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Coefficient of 0.6-0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicated good reliability (Mugenda & Mugenda, 2008).

**Table 3.2: Reliability Test of Constructs**

<b>Firm level Characteristics</b>	<b>Reliability Cronbach's Alpha</b>	<b>Comments</b>
Modern technology	0.797	Accepted
Funds Utilization	0.827	Accepted
Technical Expertise	0.819	Accepted
Monitoring and evaluation	0.913	Accepted

The findings indicated that Monitoring and evaluation had a coefficient of 0.913; Funds Utilization had a coefficient of 0.827, Technical Expertise 0.819, and Modern technology 0.797 the value of Cronbach's Alpha for variables depicted was above value of 0.6 thus the study was reliable.

### **3.8 Data Collection Methods**

After receiving an introductory letter from university and research permit from NACOSTI, analyst wrote a letter to KALRO. Once permission was obtained, the researcher, with the help of research assistants administered the survey questionnaire. Each questionnaire was accompanied by a covering letter in which the purpose of the research was explained to the prospective respondent.

General instructions on completing the questionnaire was given. Covering letter also explained to the respondents the importance of answering all the questions and assurance of confidentiality was given. A lead contact person in each of the selected project was identified. The lead contact person's responsibility was to constantly remind the respondents to complete the questionnaire and to collect the same. From time to time, the researcher called the lead contact person to remind the respondents to complete the questionnaire.

### **3.9 Data Analysis Techniques**

Questionnaires that were completed were edited and data was coded hence descriptive statistics analysed data. (SPSS software) and MS Excel was used to analyze closed-ended questions. Qualitative data was analysed through content analysis and presented in prose form. To quantify the strength of the relationship between the variables the researcher conducted correlation analysis and a multiple regression analysis. The regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby  $Y$  = Implementation of donor funded agricultural research projects

$X_1$  = Modern technology

$X_2$  = Funds utilization

$X_3$  = Technical expertise

$X_4$  = Monitoring and evaluation

$\beta_1, \beta_2, \beta_3, \beta_4$ , = Coefficients of determination

$\varepsilon$  = Error term

### **3.10 Ethical Considerations**

Responders had to be asked about filling questionnaire. Researcher ensured that information sought was used for research purposes only (Sandelowsk, 2015).

### 3.11 Operation Definition of Variables

<b>Objective</b>	<b>Indicators</b>	<b>Research approach</b>	<b>Data collection tool</b>	<b>Type of Analysis</b>
To assess the extent to which modern technology influences the implementation of donor funded agricultural research projects	Use of computers Use of phones Modern research software	Qualitative and quantitative	Questionnaire	Descriptive
To analyse the influence of funds utilization on implementation of donor funded agricultural research projects	Timeliness of Management finances	Qualitative and quantitative	Questionnaire	Descriptive
To find out the role of technical expertise in the implementation of donor funded agricultural research projects	Types of training Relevance of training Frequency of training	Qualitative and quantitative	Questionnaire	Descriptive
To assess the influence of monitoring and evaluation in the implementation of donor funded agricultural research projects	Monitoring agents Levels of evaluation Mode of evaluation	Qualitative and quantitative	Questionnaire	Descriptive
Implementation of donor funded agricultural research projects	Projects completion Projects time frame Continued flow of net benefits Continued consistency of service and output after completion	Qualitative and quantitative	Questionnaire	Descriptive

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

Part presents empirical findings and results. Data is also presented and interpreted.

#### 4.2 Response Rate

62 out of 70 questionnaires were filled and returned, representing 88 % rate response.

**Table 4.3: Response Rate**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Response	62	88
Non-Response	8	12
<b>Total</b>	<b>70</b>	<b>100</b>

Although this study anticipated for 100% response rate, 88 % respondents filled and returned the research instrument while 12% never filled the questionnaires. Some respondents felt that the information was confidential and were not willing to fill. Mugenda and Mugenda (2003) saw 50% response rate is adequate, 60% good, while 70% very good. The recorded high response rate can be attributed to the data collection procedures, where responders were notified by researcher about survey and filling of questionnaires.

#### 4.4 Background Information

This sub section investigates the respondent's background information. Specifically, this section sought information on; gender distribution, period which the respondents have been working with KALRO, age distribution and Level of education.

##### 4.4.1 Gender Distribution

Research established responders gender distribution. This was sought in view of ensuring fair engagement of male and female respondents. Findings are below

**Table 4.4: Gender Distribution**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	27	43.5
Female	35	56.5
<b>Total</b>	<b>62</b>	<b>100.0</b>

Findings show many responders as shown by 56.5% were females while 43.5% were male. This shows fair engagement of male and female respondents in this research therefore implying the results of this study were not subject of gender biasness.

#### **4.4.2 Period of Service**

Is associated with continued growth in organisational operations knowledge. In gauge to gauge employee's suitability in answering factors influencing the implementation of donor funded agricultural research projects in Kenya, respondents were requested to indicate their periods of survive with KALRO.

**Table 4.5 Period of Service**

<b>Period</b>	<b>Frequency</b>	<b>Percentage</b>
Below 3 years	4	6.5
4 to 7 years	15	24.2
7 to 10 years	19	30.6
More than 10 years	24	38.7
<b>Total</b>	<b>62</b>	<b>100.0</b>

From the results Table 4.5, many employees depicted by 38.7% indicated they served organisation for more than 10 years, 30.6% indicated that they had served 7 to 10 years, 24.2% indicated they served organisation for 4 to 7 years while 6.5% indicated that they had served the organisation for not more than 3 years. This showed good number of employees served the organisation for quite some time hence giving accurate information about review.



### 4.4.3 Age Distribution

People of different age categories are perceiving to hold various opinions on deferent matters. To ensure that various opinions were well captures in this research, respondents were requested to indicate their age category.

**Table 4.6: Age Distribution**

<b>Age Distribution</b>	<b>Frequency</b>	<b>Percentage</b>
Between 25 to 30 years	6	9.7
Between 31 to 40 years	24	38.7
Between 41 to 50 years	20	32.3
Above 50 years	12	19.4
<b>Total</b>	<b>62</b>	<b>100.0</b>

Results in Table 4.6 obtained show that 38.7% were between 31 to 40 yrs, 32.3% between 41 to 50 yrs, while 19.4% above 50 years. This showed responders of different age groups were well engaged for the study

**Table 4.7: Level of Education**

<b>Education level</b>	<b>Frequency</b>	<b>Percentage</b>
College diploma	8	12.9
Degree	27	43.5
Masters	27	43.5
<b>Total</b>	<b>62</b>	<b>100.0</b>

Findings above show many responders as shown by 43.5% held masters or degree education while 12.9 % held college diploma education. This implies responders had good education.

### 4.5 Influence of Modern Technology on Implementation of Donor Funded Agricultural research Projects

This sub section investigates the effect of modern technology on implementing agricultural research projects which are donor funded

#### 4.5.1 Role of technology on implementation of donor funded agricultural Research projects

Research sought to determine whether modern technology influenced the implementation of donor funded agricultural research projects. Results are analysed in Table 4.8

**Table 4.8: Role of technology on implementation of donor funded agricultural projects**

<b>Technology role</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	54	87.1
No	8	12.9
<b>Total</b>	<b>62</b>	<b>100.0</b>

From findings above, many responders as shown by 87.1% agreed that modern technology influenced the implementation of donor funded agricultural research projects while 12.9% were of the contrary opinion. This implies that modern technology influenced the implementation of donor funded agricultural research projects in Kenya.

#### 4.5.1 Role of ICT in project implementation of Research Projects

The research sought to determine whether ICT adoption promoted resource allocation and scheduling in implementation of donor funded agricultural research projects.

**Table 4.9: Role of ICT in project implementation**

<b>Statement</b>	<b>Opinion</b>	<b>Frequency</b>	<b>Percentage</b>
Is ICT adoption worthy in resource allocation and scheduling while undertaking your donor funded agricultural research projects	Yes	54	87.1
	No	8	12.9
	<b>Total</b>	<b>62</b>	<b>100</b>

From the results in Table 4.9, majority of the respondents as shown by 87.1% agreed that ICT adoption is worthy in resource allocation and scheduling while undertaking of donor funded agricultural research projects while 12.9% were of the contrary opinion. This implies that ICT adoption plays a critical role in resource allocation and scheduling while undertaking of donor funded agricultural research projects

**Table 4.10: Reasons for adopting ICT in resource allocation and scheduling projects**

<b>Statement</b>	<b>Opinion</b>	<b>Frequency</b>	<b>Percentage</b>
High level of Accuracy in resource allocation	Yes	46	85.2
	No	8	14.8
	<b>Total</b>	<b>54</b>	<b>100</b>
Easy to track project activities and their associate costs	Yes	45	83.3
	No	9	16.7
	<b>Total</b>	<b>54</b>	<b>100.0</b>
Monitors any project deviation and possible anomalies	Yes	49	90.7
	No	5	9.3
	<b>Total</b>	<b>54</b>	<b>100.0</b>
Facilitates remedial measures	Yes	34	63.0
	No	20	37.0
	<b>Total</b>	<b>54</b>	<b>100.0</b>

From the analysis in Table in 4.10, many responders agreed ICT adoption helps to monitor any project deviation and possible anomalies (90.7%), ICT adoption promotes high level of Accuracy in resource allocation (85.2%), ICT adoption makes it easy to track project activities and their associate costs (83.3%), ICT adoption facilitates remedial measures (63.0%). This implies that ICT adoption facilitates remedial measures, helps to monitor any project deviation and possible anomalies, makes it easy to easy to track project activities and their associate costs and promotes high level of accuracy in resource allocation. This concurs with Natasha, (2003) who argues that ICT adoption in project implementation improves control over project requests and workload, enhances control over project changes and “scope creep” and ensured that projects are aligned with the business objective.

#### **4.5.2 Influence of Modern Technology on Implementation of Donor Funded Research Projects**

The research determined degree to which responders agreed with following statements relating to influence modern technology on implementation of donor funded agricultural research projects.

Findings are below

**Table 4.11: Influence modern technology on implementation of donor funded projects**

Statement	Strongly Disagree	Disagree	Moderate	agree	Strongly agree	Mean	Std deviation
ICT based resource allocation systems simplifies implementation of rural agricultural based projects	0%	0%	0%	77.4%	22.6%	4.23	0.42
Most organizations use none ICT based systems in Resource allocation and scheduling due to insufficient funds.	0%	0%	0%	69.4%	30.6%	4.31	0.46
Insufficient knowledge regarding ICT based Resource allocation systems prohibit its adoption.	0%	0%	0%	67.7%	32.3%	4.32	0.47

From above, many responders agreed that ICT based resource allocation systems simplifies implementation of rural agricultural based projects (mean = 4.23, std deviation = 0.42) most organizations use none ICT based systems in resource allocation and scheduling due to insufficient funds (mean = 4.31, std deviation =0.46) and that ICT based resource allocation systems simplifies implementation of rural agricultural based projects (mean = 4.23, std deviation =0.42). The findings concur with the research by Edwards (2008) that ICT adoption in project implementation improved project deliverables quality.

#### **4.6 Influence of Funds Utilization on Implementation of Donor Funded Agricultural Research Projects**

This sub section shows funds utilization impact on implementation of donor funded agricultural research projects.

#### 4.6.1 Influence of Funds Utilization on Implementation of Donor Funded Agricultural Research Projects

Study research to determine whether funds utilization influenced the implementation of donor funded agricultural projects.

**Table 4.12 Funds Utilization and implementation of donor funded agricultural projects**

<b>Fund Utilization</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	47	75.8
No	15	24.2
<b>Total</b>	<b>62</b>	<b>100.0</b>

From above, many responders as shown by 75.8% agreed that funds utilization influenced the implementing of agricultural projects which are donor funded while 24.2% were of the contrary opinion. This shows modern funds utilization influenced the implementation of donor funded agricultural research projects in Kenya.

#### 4.6.2 Funds Utilization and Implementation of Donor Funded Agricultural Research Projects

Review determined degree to which funds utilization influence implementation of donor funded agricultural projects. Findings are below

**Table 4.13 Funds utilization and implementation of donor funded agricultural projects**

<b>Extent</b>	<b>Frequency</b>	<b>Percentage</b>
Very great extent	10	16.1
great extent	37	59.7
Moderate extent	14	22.6
Little extent	1	1.6
No extent at all	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

From above, many responders depicted by 59.7% opinionated that funds utilization influence implementation of donor funded agricultural research projects greatly, 22.6% indicated largely, 16.1% very great, while 1.6% indicate moderate. This shows funds utilization influenced the implementation of donor funded agricultural research projects to great extent.

### 4.6.3 Funds Utilization on Implementation of Donor Funded Research Projects

Review determined degree which responders concurred with following statements relating to influence Funds Utilization on implementation of donor funded agricultural research projects.

**Table 4.14: Funds Utilization on implementation of donor funded research projects**

Statement	Strongly Disagree	Disagree	Moderate	agree	Strongly agree	Mean	Std deviation
Most of the donor funded agricultural projects collapse following the phase out of funders support	0%	0%	0%	40.3%	59.7%	4.50	0.49
Given subsidized agricultural projects have neglected to wind up plainly confident and have neglected to keep pursuing them financing associations pull back their help	0%	0%	0%	82.3%	17.7%	4.18	0.39
Smooth implementation of donor funded agricultural projects relies on financial systems that facilitates accountability and cash flow projections	0%	0%	0%	61.3%	38.7%	4.39	0.49
Donor funded agricultural projects based projects, should have sound financial base arising from reliable sources of funding	0%	0%	0%	66.1%	33.9%	4.34	0.48
Unpredictable changes in economic/ market trends have a an adverse effect of implementation processes of donor funded agricultural projects which also affects its future sustainability	0%	0%	0%	54.8%	45.2%	4.45	0.50

From above, many responders accepted most of the donor funded agricultural projects collapse following the phase out of funders support (mean = 4.50, std deviation = 0.49), unpredictable changes in economic/ market trends have a an adverse effect of implementation processes of donor funded agricultural projects which also affects its future sustainability (mean = 4.45, std

deviation = 0.50), smooth implementation of donor funded agricultural projects relies on financial systems that facilitates accountability and cash flow projections (mean = 4.39, std deviation =0.49). Above findings concur with findings by Bourne, (2005) that Market fluctuations trickle down the normal operation of community based projects.

The study also revealed that donor funded agricultural projects based projects, should have sound financial base arising from reliable sources of funding (mean =,4.34 std deviation = 0.48), donor funded agricultural projects have failed to become self-reliant and have failed to continue running after funding organizations withdraw their support (mean = 4.18, std deviation =0.39). The findings concur with the research by Kasoo, (2010), the findings by Nturibi (2004) that for an improvement venture to be monetarily supportable, it requires a sound money related base emerging from dependable wellsprings of subsidizing, budgetary frameworks to encourage responsibility and income projections and advancement of attractive items to produce overabundance wage over the consumption of project.

#### **4.7 Influence of Technical Expertise on Implementation of Donor Funded Agricultural Research Projects**

This sub section intestates the effect of technical Expertise on implementation of donor funded agricultural research projects.

##### **4.7.1 Technical Expertise and Implementation of Donor Funded Agricultural research Projects**

The study research to determine whether technical expertise influenced the implementation of donor funded agricultural research projects.

**Table 4.15 Technical expertise and implementation of donor funded agricultural research projects**

<b>Technical expertise</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	44	71.0
No	18	29.0
<b>Total</b>	<b>62</b>	<b>100.0</b>

From the results in Table 4.15, many responders depicted by 71.0% agreed that technical expertise influenced the implementation of donor funded agricultural research projects while 29.0% were of the contrary opinion. This shows modern technical expertise influenced the implementation of donor funded agricultural research projects in Kenya. Review determined degree which technical expertise influenced implementation of donor funded agricultural research projects.

**Table 4.16 Technical expertise and implementation of donor funded agricultural Research projects**

<b>Extent</b>	<b>Frequency</b>	<b>Percentage</b>
Very great extent	24	38.7
Great extent	28	45.2
Moderate extent	10	16.1
Little extent	0	0
No extent at all	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

From above, many responders as shown by 45.2% were opinion that technical expertise influence implementation of donor funded agricultural projects greatly, 38.7% very great while 16.1% indicates to a moderate extent. This implies that technical expertise influenced the implementation of donor funded agricultural research projects to a great extent.



### 4.7.2 Training Adequacy

The research sought to establish whether employees possessed adequate training that enabled them adequately and effectively execute project tasks.

**Table 4.17 Training adequacy**

<b>Opinion</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	49	79.0
No	13	21.0
<b>Total</b>	<b>62</b>	<b>100.0</b>

Results obtained in Table 4.17 show that majority of the employees as shown by 79.0% trusted that it is the possessed adequate training that enabled them adequately and effectively execute project tasks while 21.0% were of high doubts. This implies that employees possessed adequate training that enabled them adequately and effectively execute project tasks.

### 4.7.3 Competency of the Staff Working in the Project

Responders rated overall competency level of the staff working in project. Results are analysed in Table 4.18

**Table 4.18 Competency of the staff working in the project**

<b>Staff competency</b>	<b>Frequency</b>	<b>Percentage</b>
Very competent	15	24.2
Competent	47	75.8
Incompetent	0	0
Not able to rate	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

From the research findings in Table 4.18, 75.8% indicated that the staff was competent whereas very competent 24.2% indicated that the staff working in the project was very competent. This implies that staff working with donor funded the project were competent.

#### 4.7.4 Role of Technical Expertise on Implementation of Donor Funded Agricultural Research Projects

Review determined degree which responders agreed with following statements relating to influence of technical expertise on implementation of donor funded agricultural research projects. Findings are below

**Table 4.19: Role of Technical expertise on implementation of donor funded agricultural research projects**

Statement	Strongly Disagree	Disagree	Moderate	Agree	Strongly agree	Mean	Std deviation
The project administration's capability and sense of duty regarding the key bearing itself is the most essential factor on the performance and sustainability of community based projects.	1.6%	3.2%	8.1%	45.2%	41.9%	4.23	0.86
To perform management functions and assume multiple roles, managers must be competence enough	11.3%	8.1%	8.1%	50.0%	22.6%	3.65	1.24
conceptually-skilled competent managers can keep the implementation process on the right track and make minor tweaks in strategy and tasks as needed	11.3%	6.5%	6.5%	37.1%	38.7%	3.85	0.32
The success of any project implementation relies on the ability of the project manager to successfully lead different teams and help them buy-in into a common goal of completing the objectives of the project	1.6%	1.6%	9.7%	43.5%	43.5%	4.26	0.83
To ensure smooth implementation donor funded project, project manager must have a good technical understanding of the project and its objectives.	11.3%	6.5%	12.9%	38.7%	30.6%	3.71	0.29
Project managers must demonstrate their eagerness to give vitality and devotion to the usage procedure to succeed	3.2%	9.7%	9.7%	35.5%	41.9%	4.03	0.10

From discoveries above, many responders accepted project chiefs must show their readiness to give vitality and dependability to the usage procedure to succeed (mean = 4.30, std deviation =0.10), the success of any project implementation relies on the ability of the project manager to successfully lead different teams and help them buy-in into a common goal of completing the objectives of the project (mean = 4.26, std deviation =0.83), the project management's competence and responsibility regarding the key course itself is the most imperative factor on the performance and sustainability of community based projects(mean =4.23, std deviation = 0.86), reasonably gifted competent chiefs can keep implementation process destined for success and make minor changes in methodology and assignments as required (mean =3.85, std deviation =0.32). The findings concur with the research by Authority (2009), that the project manager has a responsibility to ensure that risks are identified and managed appropriately; objectives and benefits are achieved within budget and time, and to the required quality.

Study also established that to ensure smooth implementation of donor funded projects, the project manager must have a good technical understanding of the project and its objectives, (mean = 3.75, std deviation = 0.29), perform management functions and assume multiple roles, managers must be competent enough (mean =3.65, std deviation = 1.24).

#### **4.8 Influence of Monitoring and Evaluation on Implementation of Donor Funded Agricultural Research Projects**

This section investigates the role of monitoring and evaluation on implementation of donor funded agricultural research projects.

#### 4.8.1 Effect of Monitoring and Evaluation on Implementation of Donor Funded Agricultural Research Projects

Research determined whether M&E influenced the implementation of donor funded agricultural research projects. Results are analyzed in Table 4.20

**Table 4.20: Monitoring and evaluation and implementation of donor funded agricultural research projects**

<b>Monitoring</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	52	83.9
No	10	16.1
<b>Total</b>	<b>62</b>	<b>100.0</b>

From above, many respondents depicted 83.9% agreed M&E influenced implementation of donor funded agricultural research projects while 16.1% were of the contrary opinion. This shows modern M&E influenced implementation of donor funded agricultural research projects in Kenya.

#### 4.8.2 Monitoring and evaluation and Implementation of Donor Funded Agricultural Projects.

Research determined degree which monitoring and evaluation influence implementation of donor funded agricultural research projects. Results are analysed in Table 4.21

**Table 4.21: Monitoring and evaluation and implementation of donor funded agricultural research projects**

<b>Extent</b>	<b>Frequency</b>	<b>Percentage</b>
Very great extent	18	29.0
Great extent	43	69.4
Moderate extent	1	1.6
Little extent	0	0
No extent at all	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

From above, many responders as shown by 69.4% were of the opinion that monitoring and evaluation influences implementation of donor funded agricultural research projects greatly, 29.0% indicated very great while 1.6% indicated moderate extent. This shows monitoring and evaluation influenced implementation of donor funded agricultural projects to a great extent.

#### 4.8.3 Role of M&E on Implementation of Donor Funded Agricultural Research Projects

The review determined degree which responders accepted following statements relating to influence M&E on implementation of donor funded agricultural research projects.

**Table 4.22: Role of M&E on implementation of donor funded agricultural research projects**

Statement	Strongly Disagree	Disagree	Moderate	agree	Strongly agree	Mean	Std deviation
M&E helps project chiefs and contributors to know the degree to which their undertakings are meeting their destinations.	4.8%	8.1%	8.1%	45.2%	33.9%	3.95	1.09
M&E provides greater transparency and accountability in terms of use of project resources	4.8%	8.1%	1.6%	45.2%	40.3%	4.08	1.09
M&E helps identify and solve programme related problems thereby strengthening active participation in programme implementation	0%	0%	8.1%	58.1%	33.9%	4.26	0.60
Effective M&E allows project to gather information and adjust progress towards the project goals.	0%	6.5%	9.7%	53.2%	30.6%	4.08	0.82
M&E empowers one to impart extend advance and changes to colleagues, partners, bosses and clients	0%	0%	1.6%	67.7%	30.6%	4.29	0.49
M&E gives management the justification for making any necessary adjustments to the plan	4.8%	1.6%	9.7%	58.1%	25.8%	3.98	0.93

From above, many responders accepted M&E empowers one to impart extend advance and changes to colleagues, partners, bosses and clients (Mean = 4.29, std deviation = 0.49), M&E helps identify and solve programme related problems thereby strengthening active participation in programme implementation (Mean = 4.26, std deviation = 0.60). Effective M&E allows project to gather information and adjust progress towards the project goals. (Mean = 4.08, std deviation = 0.82). M&E gives management the justification for making any necessary adjustments to the plan (Mean =3.98, std deviation =0.93), M&E helps the project managers and donors to know the extent to which their projects are meeting their objectives and leading to their desired effects, (Mean = 3.95, std deviation = 1.09).

#### 4.9 Project Implementation

This subsection investigates the performance of donor funded agricultural research projects.

##### 4.9.1 Project Performance

Respondents were requested to rate their performance as a result of effective monitoring and evaluation. Results are analysed in table 4.23

**Table 4.23: Project performance**

<b>Performance</b>	<b>Frequency</b>	<b>Percentage</b>
Very High	4	6.5
High	18	29.0
Average	37	59.7
Low	3	4.8
Very low	0	0
<b>Total</b>	<b>62</b>	<b>100.0</b>

From the research findings in Table 4.23, majority of the respondents as shown by 59.7% rated the project performance at average level, 29.0% of the respondents indicated high, 6.5% of the respondents indicated very high, while 4.8% of the respondents indicated low. This implies that most of the donor project funded projects performed up to average level.

## 4.9.2 Statement Relating to Project Implementation

The review determined degree which responders accepted following statements relating to project implementation. Results are analyzed in Table 4.24

**Table 4.24: Statement relating to Project implementation**

Statement	Strongly Disagree	Disagree	Moderate	Agree	Strongly Agree	Mean	Std Deviation
ICT adoption plays a pivotal role (efficiency, effectiveness, accountability, info-gathering) in implementation of donor funded agricultural projects	0%	0%	1.6%	59.7%	38.7%	4.37	0.52
Managers of donor funded agricultural projects must poses sufficient technical expertise to manage the project effectively	4.8%	9.7%	1.6%	51.6%	32.3%	3.97	1.09
For donor funded agricultural projects be implemented smoothly the community must be satisfied with the overall management of the project	0%	1.6%	1.6%	64.5%	32.3%	4.27	0.58
Success in implementation of donor funded agricultural projects is depended on reliable financial resource	0%	0%	0%	61.3%	38.7%	4.39	0.49
M&E has helped to track implementation schedules and activities towards the fulfillment of the institutional objectives and mandates	14.5%	46.8%	29.0%	90.3%	9.7%	4.16	0.68

From above, many responders accepted; Success in implementation of donor funded agricultural projects is dependent on reliable financial resource (mean = 4.39, std deviation = 0.49), ICT adoption plays a pivotal role (efficiency, effectiveness, accountability, info-gathering) in implementation of donor funded agricultural projects (mean = 4.37, std deviation = 1.09), for

donor funded agricultural projects to be implemented smoothly the community must be satisfied with the overall management of the project (mean = 4.27, std deviation = 0.58).

M&E has helped execution timetables and exercises towards the satisfaction of the institutional targets and orders (mean = 4.16, std deviation = 0.68), managers of donor funded agricultural projects must poses sufficient technical expertise to manage the project effectively (mean = 3.9, std deviation = 0.58). The findings concurs with the research by Franks and Curswoth, (2003) findings who discovered strong positive correlation between manager's capacity and project success.

#### **4.10 Correlation Analysis**

A correlation is a solitary number that depicts the level of relationship between two factors. In this study relationship, correlation analysis will be utilized to survey a conceivable two-way straight relationship between two consistent factors of the study. Correlation is measured by a measurement called the relationship coefficient, which speaks to the quality of the positive direct relationship between the factors being referred to.



**Table 4.25: Correlations Coefficient**

<b>Correlation</b>		<b>Implementation of research projects</b>	<b>Modern technology</b>	<b>Funds utilization</b>	<b>Technical expertise</b>	<b>Monitoring and evaluation</b>
Implementation of research projects	Pearson Correlation	1	0.920	0.952	0.999*	0.472
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	62	62	62	62	62
Modern technology	Pearson Correlation	0.920	1	0.218	0.139	0.921
	Sig. (2-tailed)	0.000		0.00	0.000	0.000
	N	62	62	62	62	62
Funds utilization	Pearson Correlation	0.952	0.218	1	0.936	0.18
	Sig. (2-tailed)	0.000	0.000		0.000	0.000
	N	62	62	62	62	62
Technical expertise	Pearson Correlation	0.999	0.139	0.936	1	0.514
	Sig. (2-tailed)	0.000	0.000	0.000		0.000
	N	62	62	62	62	62
Monitoring and evaluation	Pearson Correlation	0.472	0.921	0.18	0.514	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	62	62	62	62	62

Source: Research Data (2017)

On the connection of the study factors in Table 4.25, the researcher did a Pearson Product Moment relationship. From the discoveries on the correlation examination between the study factors, review discovered positive correlation coefficient between implementation of donor funded agricultural research projects and modern technology depicted by correlation factor of 0.920, review discovered positive correlation between implementation of donor funded agricultural research projects and funds utilization as shown by correlation coefficient of 0.952, association between implementation of donor funded agricultural research projects and technical expertise was found to have positive relationship as shown by correlation coefficient of 0.999.

Finally, it was established that implementation of donor funded agricultural research projects had a positive relationship with monitoring and evaluation as shown by a coefficient of 0.472.

#### 4.11 Regression Analysis

A multivariate regression analysis was used to determine the relationship between the dependent and the independent variables. The multivariate regression model was:

Where: Y = Implementation of donor funded agricultural research projects;  $\beta_0$  = Constant Term;  $\beta_1, \beta_2, \beta_3$  and  $\beta_4$  = Beta coefficients;  $X_1$ = Modern technology;  $X_2$ = Funds utilization;  $X_3$ = Technical expertise;  $X_4$ = Monitoring and evaluation

**Table 4.26: Model Summary**

A numerous relapse investigation was directed to test impact among indicator factors. Examination utilized (SPSS V 21.0) to code and process estimations of the numerous relapses.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 <sup>a</sup>	.811	.798	.88195

The R-Squared is the proportion of variance in the dependent variable which can be explained by the independent variables. The R-squared in this study was 0.798, which shows that the four independent variables (Modern technology; Funds utilization; Technical expertise and Monitoring and evaluation) can explain 79.8% of the dependent variable. This shows that the other factors not studied in this study explain 20.2% of the dependent variable (Implementation of donor funded agricultural research projects).

**Table 4.27: Analysis of Variance**

Review tested significance of model by utilization of Analysis of Variance (ANOVA) technique.

<b>Model</b>		<b>Sum Squares</b>	<b>of df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>1</b>	Regression	0.042	2	0.021	15.52	.018 <sup>b</sup>
	Residual	19.234	59	0.326		
	<b>Total</b>	<b>19.276</b>	<b>61</b>			

The analysis of variance in this study was used to determine whether the model is a good fit for the data. From the findings, the p-value was 0.018 which is less than 0.05 and hence the model is good in predicting how the four independent variables (Modern technology; Funds utilization; Technical expertise and Monitoring and evaluation) influence implementation of donor funded agricultural research projects. Further, the F-calculated (15.52) was more than the F-critical (3.44) which shows that the model was fit in predicting the influence of the independent variables on the dependent variable.

**Table 4.28: Regression Coefficients**

Coefficient table was utilized in review and discoveries are below.

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	0.825	0.392		2.105	0.000
Modern Technology	1.027	0.403	0.321	2.548	0.021
Funds utilization	0.972	0.323	0.642	3.009	0.000
Technical Expertise	1.432	0.524	0.401	2.733	0.002
Monitoring and Evaluation	0.564	0.434	0.321	2.650	0.000

Modern technology; Funds utilization; Technical expertise and Monitoring and evaluation

Based on this table, the equation for the regression line is:

$$Y = 0.825 + 1.027X_1 + 0.972X_2 + 1.432X_3 + 0.564 X_4$$

According to the intercept ( $\beta_0$ ), when the four independent variables are held constant, the value of implementation of donor funded agricultural research projects will be 0.825. In addition, holding all the other independent variables constant, a unit increase in modern technology would lead to a 1.027 improvement in implementation of donor funded agricultural research projects. The relationship was significant as shown by a p-value of 0.021. Further, holding on the other independent variables constant, a unit increase in funds utilization would lead to a 0.972 improvement in implementation of donor funded agricultural research projects. The relationship was significant as shown by p-value of 0.000.

In addition, holding all the other variables constant, a unit increase in technical expertise would lead to a 1.432 improvement in implementation of donor funded agricultural research projects. The relationship is significant as shown by a p-value of 0.002.

A unit increase in monitoring and evaluation by one unit would lead to an increase in implementation of donor funded agricultural research projects by 0.564.

From these findings we can infer that technical expertise was influencing implementation of donor funded agricultural research projects most, followed by modern technology, then fund utilization and finally monitoring and evaluation

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, DISCUSSIONS CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

Part summarized review findings and depicted conclusions and recommendations.

#### **5.2 Summary of Findings**

Review purpose was analyzing the factors influencing the implementation of donor funded agricultural research projects in Kenya. A case of Kenya Agricultural & Livestock Research Organization (KALRO). The study was guided by the following specific objectives; to assess the extent to which modern technology influencing the implementation of donor funded agricultural research projects; to analyze influence of funds utilization on implementation of donor funded agricultural research projects; to find out role of technical expertise in the implementation of donor funded agricultural research projects; to assess the influence of monitoring and evaluation in the implementation of donor funded agricultural research projects.

Review utilized Resource Based Theory, Resource Dependence Theory and Complexity Theory. This study adopted a descriptive survey research design. The target population for this study included five projects with 138 staff working in donor funded projects under KALRO umbrella. The researcher focused on a sample of 70 key personnel who included: the project manager, finance staff, technical field staff and other field staff. The researcher used questionnaires to collect the data required for review. Analyst analyzed data using SPSS and findings presented in terms of mean and standard deviations for easy interpretation of the study. The data from the

open-ended questions was analyzed through content analysis by presenting data in themes as per the research objectives. Frequencies and percentages were used to summarize information.

### **5.2.1 The influence of Modern Technology on Implementation of Donor Funded Agricultural Research Projects**

From the analysis, the research revealed that ICT adoption is worthy in resource allocation and scheduling while undertaking of donor funded agricultural research projects. Further the analysis showed that, ICT adoption helps to monitor any project deviation and possible anomalies, ICT adoption promotes high level of accuracy in resource allocation, ICT adoption makes it easy to track project activities and their associate costs, ICT adoption facilitates remedial measures. This concurs with Natasha, (2003) who argues that ICT adoption in project implementation improves control over project requests and workload, enhances control over project changes and “scope creep”, and ensured that projects are aligned with the business objectives.

### **5.2.2 The Influence of Funds Utilization on Implementation of Donor Funded Agricultural Research Projects**

Study revealed that proper funds utilization enhanced the implementation of donor funded agricultural research projects and for donor funded agricultural projects to be fiscally economical, they require a sound money related base emerging from solid wellsprings of subsidizing, budgetary frameworks to encourage responsibility and income projections and advancement of attractive items to create abundance wage over the consumption of the venture. Also, to ensure smooth implementation donor funded project, project manager must have a good technical understanding of the project and its objectives.

### **5.2.3 The Influence of Technical Expertise on the Implementation of Donor Funded Agricultural Research Projects**

The study revealed that technical expertise influences the implementation of donor funded agricultural research projects to a great extent. Further the study noted that employees of donor funded agricultural projects possessed adequate training that enabled them to adequately and effectively execute project tasks, and technical expertise promoted the implementation of donor funded agricultural research projects. The project management's competence and commitment to the project strategic direction itself is the most important factor on the performance and sustainability of donor funded agricultural research projects.

### **5.2.4 The Influence of Monitoring and Evaluation on Implementation of Donor Funded Agricultural Research Projects**

Research established that modern M&E influenced implementation of donor funded agricultural research projects in Kenya a great extent. M&E helps identify and solve programme related problems thereby strengthening active participation in programme implementation and it provides greater transparency and accountability in terms of use of project resources. The findings concur with the research by Franks and Curswoth, (2003) that M&E helps the project managers and donors know the extent to which their projects are meeting their objectives and leading to their desired effects.

## **5.3 Discussion of the Findings**

### **5.3.1 Modern Technology and Implementation of Donor Funded Agricultural Research Projects**

The first objective aimed to establish the influence of modern technology on implementation of donor funded agricultural research projects. Results obtained showed that modern technology

influenced the implementation of donor funded agricultural projects in Kenya. 87.1% of the participants indicated that ICT adoption is worthy in resource allocation and scheduling while undertaking of donor funded agricultural research projects. Further the analysis showed that ICT adoption helps to monitor any project deviation and possible anomalies (90.7%), ICT adoption promotes high level of accuracy in resource allocation (85.2%), ICT adoption makes it easy to track project activities and their associate costs (83.3%), ICT adoption facilitates remedial measures (63.0%). This implies that ICT adoption facilitates remedial measures, helps to monitor any project deviation and possible anomalies, makes it easy to easy to track project activities and their associate costs and promotes high level of accuracy in resource allocation. This concurs with Natasha, (2003) who argues that ICT adoption in project implementation improves control over project requests and workload, enhances control over project changes and “scope creep” and ensured that projects are aligned with the business objective

Descriptive results also depict that ICT based resource allocation systems simplifies implementation of rural agricultural based projects (mean = 4.23, std deviation = 0.42), most organizations use none ICT based systems in resource allocation and scheduling due to insufficient funds (mean = 4.31, std deviation =0.46) and that ICT based resource allocation systems simplifies implementation of rural agricultural based projects (mean = 4.23, std deviation =0.42). The findings concur with the research by Edwards (2008) that ICT adoption in project implementation improved the quality of project deliverables, increased the number of projects completed on time and within budget.



### **5.3.2 Funds Utilization and Implementation of Donor Funded Agricultural Research Projects**

The second objective aimed to establish the effect of funds utilization on the implementation of donor funded agricultural research projects. Descriptive results show that 75.8% of the participants agreed that funds utilization influenced the implementation of donor funded agricultural projects, 59.7% were opinion that funds utilization influence implementation of donor funded agricultural projects to great extent. Study also revealed that donor funded agricultural projects collapse following the phase out of funders support (mean = 4.50, std deviation =0.49), unpredictable changes in economic/ market trends have a an adverse effect of implementation processes of donor funded agricultural projects which also affects its future sustainability (mean = 4.45, std deviation = 0.50), smooth implementation of donor funded agricultural projects relies on financial systems that facilitates accountability and cash flow projections (mean = 4.39, std deviation =0.49). Above discoveries concur with the findings by Bourne, (2005) that market fluctuations trickle down the normal operation of community based projects.

The study also revealed that donor funded agricultural research projects should have sound financial base arising from reliable sources of funding (mean =,4.34 std deviation = 0.48), donor funded agricultural projects have failed to become self-reliant and have failed to continue running after funding organizations withdraw their support (mean = 4.18, std deviation =0.39). The findings by Nturibi (2004) that for an improvement venture to be fiscally feasible, it requires a sound money related base emerging from solid wellsprings of subsidizing, monetary frameworks to encourage responsibility and income projections and advancement of attractive items to create overabundance pay over the consumption of the venture.

### **5.3.3 Technical Expertise and Implementation of Donor Funded Agricultural Research Projects**

The third objective aimed to establish the effect of technical expertise on implementation of donor funded agricultural research projects. From the results, 71.0% agreed that technical expertise influenced the implementation of donor funded agricultural projects while 29.0% were of the contrary opinion. 45.2% were opinion that technical expertise influence implementation of donor funded agricultural projects to a great extent. Further the study noted that employees of donor funded agricultural projects possessed adequate training that enable them adequately and effectively execute project tasks.

Results also revealed that project managers of donor funded agricultural projects must demonstrate loyalty to implementation process to succeed (mean = 4.30, std deviation =0.10), the success of any donor funded agricultural projects implementation relies on the ability of the project manager to successfully lead different teams and help them buy-in into a common goal of completing the objectives of the project (mean = 4.26, std deviation =0.83), the project management's competence and responsibility regarding the vital course itself is the most critical factor on the performance and sustainability of community based projects(mean =4.23, std deviation = 0.86), conceptually-skilled competent managers can keep the implementation process on the right track and make minor tweaks in strategy and tasks as needed (mean =3.85, std deviation =0.32). The findings concur with the research by Authority (2009) that the project manager has a responsibility to ensure that risks are identified and managed appropriately, objectives and benefits are achieved within budget and time, and to the required quality.

The study also established that to ensure smooth implementation of donor funded project, project manager must have a good technical understanding of the project and its objectives, (mean =

3.75, std deviation = 0.29), perform management functions and assume multiple roles, managers must be competent enough (mean =3.65, std deviation = 1.24). The findings concurs with the research by Heeks, (2008), who argues that expatriate specialized help is a typical contribution of the guide projects and ventures; how expatriate technical assistance work with their partners and associates can affect the prospects for sustainability.

#### **5.3.4 Monitoring and Evaluation and Implementation of Donor Funded Agricultural Research Projects**

Fourth objective established impact of the role of M&E on implementation of donor funded agricultural research projects. Descriptive results show that modern M&E influenced implementation of donor funded agricultural projects in Kenya to a great extent. (Mean = 4.29, std deviation = 0.49) M&E helps identify and solve programme related problems thereby strengthening active participation in programme implementation (Mean = 4.26, std deviation = 0.60). Effective M&E allows project to gather information and adjust progress towards the project goals. (Mean = 4.08, std deviation = 0.82). M&E gives management the justification for making any necessary adjustments to the plan (Mean =3.98, std deviation =0.93), The findings concurs with the research by Franks and Curswoth, (2003) that M&E helps the project managers and donors to know the extent to which their projects are meeting their objectives and leading to their desired effects.

#### **5.4 Conclusion**

Based on research discoveries, review concludes modern technology adoption promoted the implementation of donor funded agricultural research projects, ICT adoption in project implementation improved control over project requests and workload, enhanced control over project changes and scope creep, ICT adoption in project implementation improved the quality of

project deliverables, increased the number of projects completed on time and within budget and ensured that projects are aligned with the project objectives.

The study concludes that proper funds utilization enhanced the implementation of donor funded agricultural research projects and for donor funded agricultural projects to be financially sustainable, they require a sound financial base arising from reliable sources of funding.

The study concludes that technical expertise promoted the implementation of donor funded agricultural research projects. The project management's competence and commitment to the project strategic direction itself is the most important factor on the performance and sustainability of donor funded agricultural projects.

The study concludes that monitoring and evaluation promoted the implementation of donor funded agricultural research projects; M&E helps the project managers and donors to know the extent to which their projects are meeting their objectives and leading to their desired effects and that M&E provides greater transparency and accountability in terms of use of project resources.

### **5.5 Recommendations**

The findings revealed that the use of ICT promoted efficiency, timeliness and quality throughout the implementation period, therefore the study recommends that all process of projects implementation should be supported with modern technology that will promote the success chances in donor funded agricultural research projects via proper utilization of resources, accountability, focus and quality.

The findings revealed that a strong financial base was critical in successful implementation of donor funded agricultural research projects; therefore, the study recommends that the project

implementation committee should ensure the all agricultural projects have a reliable financial base. This will help to evade staling of projects while underway.

The research revealed that technical expertise promoted the implementation of donor funded agricultural research projects therefore the study recommends that project implementation team should be periodically in-serviced to equip them with knowledge on emerging issues in project management as well as redress measures.

The management team should adopt M&E throughout the implementation stages. This will help to rectify the deviations that occur during implementation and keep the project in line with the initial set goals.

#### **5.6 Suggestions for Further Study**

Review purpose is to analyze the factors influencing the implementation of donor funded agricultural research projects in Kenya. Future research may focus on effect of stakeholder's involvement on sustainability of donor funded agricultural projects in Kenya or explore the influence of clarity on project mission and goals on sustainability of donor funded agricultural projects stake holder in Kenya.

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## **APPENDICES**

### **Appendix i: Introduction Letter**

**Felistar K. Murithi**

**P.O. Box 14707-00800**

Nairobi

**Dear Respondent,**

Re: Data collection for research study

I am a student at the University of Nairobi. I am conducting an investigation on the factors influencing the implementation of donor funded agricultural research projects. A case of (KALRO), and you have been selected to contribute to it. Please answer the following questions honestly and objectively to the best of your knowledge. The information obtained will be treated with strict confidentiality. Please do not write your name on the questionnaire. Thank you for your acceptance and support.

**Yours faithfully**

**Felistar Karwitha Murithi**

**Appendix ii: Questionnaire for Project Staff**

I am a student undertaking my Master of Arts in Project Planning and Management of the University of Nairobi. This questionnaire is meant to assist me in collection of data. The information you will provide will strictly be used for this study only and confidentiality is assured. Kindly put a tick on the boxes provided.

**Section A: Background Information**

3. Indicate your gender?

Male (       )                      Female (       )

4. For how long have you been working with KALRO?

Below 3 years                      (       )

4 to 7 years                        (       )

7 to 10 years                      (       )

More than 10 years                (       )

5. Indicate Your Age?

Between 25 to 30 years            (       )

Between 31 to 40 years            (       )

Between 41 to 50 years            (       )

Above 50 years                    (       )

6. Indicate Your Level of education

College diploma                    [   ]

Degree                                [   ]

Masters                                [   ]

Other .....

**Section B: Influence of modern technology on implementation of donor funded agricultural projects**

7. In your opinion, does modern technology on implementation of donor funded agricultural projects?

Yes ( ) No ( )

If yes please explain how?

.....  
 .....

8. Is ICT adoption worthy in resource allocation and scheduling while undertaking your donor funded agricultural research projects?

Yes ( ) No ( )

9. If yes in question above, what are some of the reasons for adopting ICT in resource allocation and scheduling in your projects?

High level of Accuracy in resource allocation ( )

Easy to track project activities and their associate costs ( )

Monitors any project deviation and possible anomalies ( )

Facilitates remedial measures ( )

10. To what extent do you agree with the following statements relating to influence modern technology on implementation of donor funded agricultural projects? (5 = strongly agree, 4 agree, 3 moderate agree, 2 = disagree and 1= strongly disagree)

Statement	1	2	3	4	5
ICT based resource allocation systems simplifies implementation of rural agricultural based projects					
Most organizations use none ICT based systems in Resource allocation and scheduling due to insufficient funds.					
Insufficient knowledge regarding ICT based Resource allocation systems prohibit its adoption.					

How else does the use of modern technology influence implementation of donor does funded agricultural projects?

.....  
 .....

**Section C: Influence of Funds Utilization on implementation of donor funded agricultural projects**

11. In your opinion does Funds Utilization on implementation of donor funded agricultural projects?

Yes (     )     No (     )

If yes please explain how?

.....  
 .....

12. To what extent does Funds Utilization influence implementation of donor funded agricultural projects?

Very great extent (     )

Great extent (     )

Moderate extent (     )

Little extent (     )

No extent at all (     )

13. To what extent do you agree with the following statements relating to influence Funds Utilization on implementation of donor funded agricultural projects? (5 = strongly agree, 4 agree, 3 moderate agree, 2 = disagree and 1= strongly disagree)

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Most of the donor funded agricultural projects collapse following the phase out of funders support					
Donor funded agricultural projects have failed to become self-reliant and have failed to continue running them after funding organizations withdraw their support					
Smooth implementation of donor funded agricultural projects relies on financial systems that facilitates accountability and cash flow projections					
Donor funded agricultural projects based projects, should have sound financial base arising from reliable sources of					

funding.					
Unpredictable changes in economic/ market trends have a an adverse effect of implementation processes of donor funded agricultural projects which also affects its future sustainability					

14. How else does Funds Utilization influence implementation of donor does funded agricultural projects?

.....  
.....  
.....

**Section D: Influence of Technical Expertise on implementation of donor funded agricultural projects**

15. In your opinion does technical expertise on implementation of donor funded agricultural projects?

Yes ( ) No ( )

If yes please explain how?

.....  
.....

16. To what extent does technical expertise influence implementation of donor funded agricultural projects?

Very great extent ( )

Great extent ( )

Moderate extent ( )

Little extent ( )

No extent at all ( )

14 a. Have you undergone any training related to the job you do in this project?

Yes [ ] No [ ]

14 b. Do you think the training you have is adequate to effectively do your job?

Yes [ ] No [ ]

14 c. How would you rate the overall level of competency of the staff working in this project?

Very competent [ ]

Competent [ ]

Incompetent [ ]

Not able to rate [ ]

17. To what extent do you agree with the following statements relating to influence technical expertise on implementation of donor funded agricultural projects? (5 = strongly agree, 4 agree, 3 moderate agree, 2 = disagree and 1= strongly disagree)

Statement	1	2	3	4	5
The project management's competence and commitment to the strategic direction itself is the most important factor on the performance and sustainability of community based projects.					
To perform management functions and assume multiple roles, managers must be competence enough					
conceptually-skilled competent managers can keep the implementation process on the right track and make minor tweaks in strategy and tasks as needed					
The success of any project implementation relies on the ability of the project manager to successfully lead different teams and help them buy-in into a common goal of completing the objectives of the project					
To ensure smooth implementation donor funded project, project manager must have a good technical understanding of the project and its objectives.					
Project managers must demonstrate their willingness to give energy and loyalty to the implementation process to succeed					

18. How else does technical expertise influence implementation of donor funded agricultural projects?

.....  
 .....  
 .....

**Section E: Influence of Monitoring and Evaluation on implementation of donor funded agricultural projects**

19. In your opinion does monitoring and evaluation on implementation of donor funded agricultural projects

Yes ( ) No ( )

If yes please explain how?

.....  
 .....

20. To what extent does monitoring and evaluation influence implementation of donor funded agricultural projects?

Very great extent ( )

Great extent ( )

Moderate extent ( )

Little extent ( )

No extent at all ( )

21. To what extent do you agree with the following statements relating to influence monitoring and evaluation on implementation of donor funded agricultural projects? (5 = strongly agree, 4 agree, 3 moderate agree, 2 = disagree and 1= strongly disagree)

Statement	1	2	3	4	5
M&E helps the project managers and donors to know the extent to which their projects are meeting their objectives and leading to their desired effects,					
M&E provides greater transparency and accountability in terms of use of project resources					



M&E helps identify and solve programme related problems thereby strengthening active participation in programme implementation					
Effective M&E allows project to gather information and adjust progress towards the project goals.					
M&E enables one to communicate project progress and changes to team members, stakeholders, superiors and customers					
M&E gives management the justification for making any necessary adjustments to the plan					

22. How else does monitoring and evaluation influence implementation of donor funded agricultural projects?

.....

.....

.....

**Section F: Project Implementation**

23. How do you rate the performance of your project as a result of effective monitoring and evaluation?

- Very High (     )
- High (     )
- Average (     )
- Low (     )
- Very low (     )

24. To what extent do you agree with the following statement relating to Project implementation?

Statement					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

ICT adoption plays a pivotal role (efficiency, effectiveness, accountability, info-gathering) in implementation of donor funded agricultural projects					
Managers of donor funded agricultural projects must poses sufficient technical expertise to manage the project effectively					
For donor funded agricultural projects be implemented smoothly the community must be satisfied with the overall management of the project					
Success in implementation of donor funded agricultural projects is depended on reliable financial resource					
M&E has helped to track implementation schedules and activities towards the fulfillment of the institutional objectives and mandates					

**Thank you for your time**