FACTORS INFLUENCING THE PERFORMANCE OF AGRICULTURAL PROJECTS FUNDED BY EASTERN COMMUNITY DEVELOPMENT PROGRAMME (ECDP) IN MACHAKOS COUNTY, KENYA

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ABSTRACT

Over the last three decades, many agricultural projects have been developed in the country to try and address the food challenge in the country. As a result, a lot of money has been invested in those projects some from the tax payers' money and other from donors. In spite of this, majority of the projects have failed even before they run for five years. In the light of this, the current study sought to establish the factors influencing the performance of agricultural projects funded by Eastern Community Development Programme (ECDP) in Machakos County. Specifically, the study sought to establish the Influence of Farmers' Education Level, Monitoring and Evaluation (M&E) Practices and Stakeholders' Involvement On Performance of Agricultural Projects Funded by Eastern Community Development Programme in Machakos County. Theoretically, the study as founded on Human Capital Theory, Stakeholder Theory and Resource Based Theory. A descriptive research design was utilized to conduct the study. The target population was 261 respondents comprising of Machakos County officials, project managers, community leaders and Ministry of Agriculture officers in the 106 agricultural projects that are funded by Eastern Community Development Programme (ECDP) in Machakos County. A sample of 78 people was selected from the population using stratified sampling technique that was random in nature. Self-administered questionnaires that were administered by researcher were utilized to collect primary data. Quantitatively, the data was analyzed using descriptive statistics and multiple regressions whereas qualitatively the open-ended questions were analyzed using conceptual content analysis method. The multiple regressions established the link between variables. The data was presented inform of tables. The study found that it was to a great extent that literacy levels of project stakeholders led to better participation in the project activities. The study also recommends that stakeholders should be involved in management of the projects to enhance performance of the agricultural projects. It further recommends that the project team should monitor and manage most of the activities of agricultural projects field staff on yearly basis. In addition, it recommends that people who management projects should support project team adequately by offering them clear job designations and allocations that are expert-led, training them when necessary and supporting them in different ways. Furthermore, comparative studies should be carried out in other parts of the country to determine whether these findings could be generalized to other parts of the country.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Studies indicate that about half of the population in the world works in the agriculture sector. While 40 percent of them are in salaried form of employment, the rest of them are independent farmers who employ themselves. In Africa, about 70 percent of the people work in agriculture industry. This accounts for over 25 percent of GDP for most of the countries. In spite of this, the larger part of agriculture industry remains largely traditional and in the hands of small-scale farmers. Smallholders generally rely on labor-intensive methods to plough their lands. Most of this labor comes from family members even though some of them are able to hire additional labor where necessary. Nonetheless, the hired labor is always in poor conditions, a challenge that has prompted farmers to join cooperatives to enhance their production and marketing practices (Birner & Resnick, 2010).

Overall, farming has been an important avenue because it allows farmers to access market and even to acquire farm inputs through credit and even new farming technologies. In addition, it forms part of the mechanism that is utilized to mobilize farmers around common goals especially in service delivery and formulation of policies aimed at supporting agriculture development. In Ghana and Tanzania, for instance, there are centers that support farmers with a view of enabling them to reduce poverty, market their products and even acquire extension services (Salami, Kamara & Brixiova, 2010).

In Kenya, agriculture is considered to be a backbone for national development because it contributes 23.9 percent of the Kenyan Gross Domestic Product (GDP) and 60% of the total export earnings. In this respect, Burke (2008) claims that sustainable development projects in the country aimed at reducing poverty can only occur through major developments in the agriculture industry because the industry is a source of food security and stimulate of employment in other sectors. This simply means that industrial development may not be sustainable so long as demand at local level, which can only be improved through agricultural developments, is not improved. In this respect, the development of agriculture sector will be critical in the success of industrial development in the country. The colonial government in Kenya encouraged the provision of farming subsidies to farmers and this trend created a dependency syndrome. After independence the same policies were entrenched and through the

Agricultural Financial Corporation (AFC) agricultural credit was extended to farmers for twenty years but corruption coupled with mismanagement made lending to farmers unsustainable hence its collapse (Salami et al., 2010).

Globally, India, has in the last few taken measures aimed at improving its national land productivity. For instance, the northern part of the country that used to grow wheat before has now turned into producing high-yield wheat and rice. Wheat is thereby harvested first so that rice can be planted. This helps in feeding the populous nation because the agricultural practices have turned into commercial by combining the commercial products such as coffee, tea and cotton and other products with food crops such s whet, pulse and rice. While this has made the country food secure, it has also improved the performance of the agricultural sector (Barker, Herdt & Rose, 2014).

Regionally, the Nigerian agricultural sector has for a long performed dismally. Nonetheless, the dismal performance prompted the government to intervene so that it can improve the performance of the sector. This involved developing and disseminating about 57 various types of Improved Rice Varieties (IRVs) that were distributed to local farmers (Nduta, 2008). This effort was aimed at enhancing rice production in the country so that the country could be food secure.

According to Newton (2009), about 70% of the farmers in Tanzania financed their agricultural projects fully by borrowing from the National Bank for Agriculture and Rural Development (NABARD). The bank focuses on expanding financial services so that it can reach farmers who work in the agriculture sector that has been neglected for a long time. This has enabled the banking sector in the country to expand greatly to levels that cannot be compared to other parts of the world. Credit through micro financing institutions (MFI) has to this extent been regarded as a cure for rural poverty alleviation. This has led to the emergence of financial services geared towards supporting the poor people. Currently agricultural projects are performing very well (Omache, 2016).

In Kenya, the agriculture sector is always considered to be the backbone of the national economy. This is in relation to the fact that about 20% of the national land is fertile and it receives sufficient rainfall. Nonetheless, even though majority of the people in the country rely on farming, most of them produce for own consumption. This is irrespective of the fact that the sector is able to earn the country about 25% of GDP and employ almost 75% of the national

population. The Vision 2030 claims that the sector needs to be considered greatly in promoting national development (Mutua, 2014).

Governments and NGO's are determined to develop and improve the agricultural sector to alleviate poverty and hunger through empowering small-scale farmers who are organized in to groups. Though the approach, empowered farmers in Mwala that is still tormented of hunger, children sleep hungry and rampant relief food as time lapses. Contrary to these, there are countries in the world that receive less rainfall and have land patched with poor and uninhabitable climate and are less organized yet their large populations do not depend on food relief or die of hunger (Okun, 2009).

In Kenya, the poor road infrastructures at rural areas affect agriculture sector by increasing the costs of farm inputs. This has really interfered with performance of agricultural projects in the Country. It also contributes significantly to spoiling perishable farm outputs even before they get to the market. This increases loss among farmers thereby discourages them from engaging in effective farming practices. While these are some of the challenges that Kenyan farmers face, the list of those challenges is long and endless. In spite of this, majority of the challenges can be addressed if only farmers would receive advises from extension officers. While local governments can solve some of these challenges, the national government has a bigger role because it is responsible for improving some of the major infrastructures in the country. In addition, it a critical role in strengthening research, training and extension services at local levels and even ensuring that farmers are able to access credit and farm inputs at reasonable prices. Even though this is the case, some of the challenges are amplified by lack of information among farmers (Omache, 2016).

1.1.1 Performance of Agricultural Projects

Development in rural areas particularly in agricultural projects financing can be impacted by a variety of factors one of them being access to credit. This may be affected by farm productivity because constrained farmers might opt to use inputs of lower levels than their counterparts who are not constrained by anything (Nduta, 2008). In this respect, access to credit can enable farmers to use high quality products in their farming practices thereby improve the productivity of their farms. This is so because availability of credit addresses cash needs that are necessary in the production process. According to Newton (2009), productivity can be defined as the ability of a person to produce effectively and economically. The current study defines

agricultural productivity as the ratio of output that a farmer gets out of farm inputs utilized in the farming exercise.

The importance of regional agricultural projects financing ranges from providing more food to enhancing the process of migrating labor from one region to the other. An increase in agricultural productivity in one area implies that the scarce resources in that area are distributed in the right way. As the adoption of new farming practices increase in different regions, farmers who are more productive are able to increase their yields whereas the least productive ones exit the farming exercise to try their luck elsewhere (Okun, 2009).

1.1.1.1 Farmers Level of education

The level of education among farmers is one of the independent variables in the current study and it is measured by technical expertise, training on the best agricultural practices, resource management skills, level of knowledge and skills and skills in irrigation technologies. Accessibility to modern equipment another factor that has a remarkable influence on implementation of projects since challenges in literacy skills hampers the management of the ventures.

According to Wambugu (2010), education attainment of the heads of families is likely to contribute significantly in modernizing food production by means of technology utilization hence enhancing food supply. Policies designed to reduce income inequality, such as hunger, and malnutrition have had mixed results but income inequality and household food insecurity research to study the complex concepts of adequacy, stability and access to food especially in low income countries (Omwega, 2009).

1.1.1.2 Monitoring and Evaluation

This is another independent variable that is assessed by use of frequency of Field days, feedback sessions, participation of stakeholder in M&E activities, and monitoring implementation strategy. Monitoring in this case is considered to be a continuous process that is undertaken to ensure that a project is implemented in the right way and as per the laid out instructions. It provides managers and other people who are involved in managing projects with information that enable them to identify areas of success or even possible challenges ahead so that timely adjustments can be undertaken to ensure that a project is successful. For this reason, projects need to be monitored on continuous basis so that the necessary corrective measures can be taken at the right time.

While the above is the case, an effective monitoring process requires adequate planning, practical mechanisms within implementation process, baseline data and performance indicators. This necessitates for regular field visits, stakeholders' meetings, regular reporting and an efficient process that is able to document activities within a project. Swallow and Goddard (2013) claim that monitoring can be generally utilized to describe the systematic method that is utilized to collect and analyze events and information with a view to improving the process of managing projects.

1.1.1.3 Stakeholders' Involvement

The term stakeholder is all inclusive because it includes the direct beneficiaries of a project together with other people who are not influenced by project directly. These include the people who manage project, community people who are affected directly or indirectly by the project, people who work in the project by either supplying labor or other products that are needed in the project among others (Chepkirui, 2012). According to Duer and Christensen (2010), most of team building sessions focus on identify the most important people in projects without disregarding others. Hope (2011) claims that identification of the role played by different actors in a project plays a critical role in promoting the success of projects.

Normally, each of the above people who form part of stakeholders influences the outcomes of a project in one way or the other. This might include a right or even an interest in the ownership of the project. Rights in this case could either be legal or even moral; as such, the way projects are initiated helps in determining whether they will be successful or not (Duer & Christensen, 2010).

1.1.2 Agricultural Projects in Machakos County

The Machakos County is a governmental organ within eastern part of the country and it consists of 8 constituencies that include Matungulu, Yatta, Mwala, Kathiani, Machakos town, Mavoko, Kangundo and Masinga. In total, the county covers an area of about 6,208 square kms with a total of about 1,098,584 people as per the 2009 census. The county is largely semi-arid meaning that it does it does not receive sufficient rainfall. This affects the farming practices in the county to the extent that it is almost difficult for the region to be food secure without intensive irrigation practices (Ngwili, Maina & Irungu, 2015).

In spite of the above, the county has identified agriculture as one of the main apparatus to increase income, employment and productivity within the county. Emphasis by the county has

been to increase the area under agriculture and irrigation and providing subsidized fertilizer to farmers. According to a study conducted by Drylands Development Program on extension services within the county, one Sub-county Agricultural Officer and 16 extension officers provide extension services on the various aspects of farming within Yatta Sub-County. Some of the crops grown in Yatta Sub-County include beans, maize, sorghum, green grams, vegetables, pumpkins and cassava and the area is characterized by crop failure as a result of frequent drought seasons. There are different projects being funded by Eastern Community Development Programme (ECDP) (Kibet, 2011).

Eastern Community Development Programme is an NGO in Kenya, Africa. Eastern Community Development Programme (ECDP) is situated in Machakos Town along Machakos Nairobi Road, Near Kenya Medical Training College (Manza campus). It operates in Machakos and Kitui counties as non-profit organization and it focuses on enabling the vulnerable and deprived children to improve their lives. Its mission thereby is to promote a society whose people and institutions engage in protecting, advancing and valuing the rights of the children (Chepkirui, 2012).

1.2 Statement of the Problem

For a period of about three decades, many agricultural projects have been developed in the country. While most of these projects have not been successful, they have spent a lot of tax payers' and donor money (FAO, 2012). This is in spite of the fact that agriculture remains a critical sector in national development. It has particularly dropped from 4.7% to only below 2% in the last five years. This has been attributed to lack of accountability to clientele, farmers are not empowered and involved in the projects and that access to institutional services such as extension and training has been minimal and these affect agricultural projects put in place in Kenya. The NGO funded agricultural projects have not been an exception, they have not been performing well, where they don't meet the budget and their deadline, this is because communities are not involved in the management of those projects right from their initiation where the community end up not supporting them (Mutua, 2014).

In Machakos County, out of the 110 projects initiated in the year 2012 and 2015, among them livestock farming, horticultural farming, bee keeping and home economics, 32 of the projects were terminated due to issues related to project management such as project team, stakeholders' participation, financing, monitoring and evaluation and top management support. In spite of the agricultural projects being funded by ECDP, most of the population still suffers

under the yoke of poverty and starvation not just because the rain does not come in its season, but because there is poor planning and evaluation and lack of farmer's unity. Although Machakos County has got an agricultural research system that is well-developed, there is still limited use of new technology and modern science in farming practices. As a result, most of the farmers do not access information relating to the right types of inputs that should be utilized in farming and further farmers do not participate much in the implementation of the projects (Indeche, 2015). This contributes significantly in reducing farm yields. Post-harvest losses are also a problem in agricultural projects carried out by NGOs in Machakos County which are caused mainly by storage facilities and poor handling of farm outputs due to farmers' incompetence and hence this has been a challenge to the performance of agricultural projects.

Among the studies, Masila (2015) only focused on the effect of demographic factors, financial stability, land availability and capacity building on sustainability of fish farming projects. Further, Wangeci(2013) only focused on the effect of project planning and project initiation process on performance of agricultural projects while Omache (2016) focus was on the factors such as skilled human resource and participatory data collection. The studies did not focus on how the farmers education level, capacity to adopt new farming technology, M&E and stakeholders' involvement affect the performance of agricultural projects. Therefore, the current study fills the gap by establishing how the farmers education level, monitoring and evaluation practices and stakeholders' involvement influence performance of agricultural projects funded by Eastern Community Development Programme in Machakos County.

1.3 Purpose of the Study

The study sought to determine factors that influenced the performance of agricultural projects funded by eastern community development programme (ECDP) in Machakos County, Kenya.

1.4Objectiveof the Study

The objective of the study was: -

  i). To establish how farmers' education level influences, the performance of agricultural projects funded by eastern community development programme in Machakos County
  ii). To determine how M&E practices influence performance of agricultural projects funded by eastern community development programme in Machakos County

iii). To evaluate the influence of stakeholders' involvement on performance of agricultural projects funded by eastern community development programme in Machakos County

1.5 Research Questions

In the light of the above, the study sought answers to the following research questions:

i. What is the influence of farmer's education level on performance of agricultural projects funded by Eastern Community Development Programme in Machakos County?

ii. How does M&E influence performance of agricultural projects funded by Eastern Community Development Programme in Machakos County?

iii. To what extent does involvement of stakeholders influence performance of agricultural projects funded by Eastern Community Development Programme in Machakos County?

1.6 Hypothesis Testing

The hypotheses of the study were: -

H_a: There is a significant link between farmers education level and performance of agricultural projects funded by Eastern Community Development Programme in Machakos County

H_a: There is a significant link between M&E and performance of agricultural projects funded by Eastern Community Development Programme in Machakos County

H_a: There is a significant link between stakeholders' involvement and performance of agricultural projects funded by Eastern Community Development Programme in Machakos County

1.7 Significance of the Study

These findings on influence of farmers' education level on performance of agricultural projects would be critical in the development of governmental policies that relate to agricultural practices within Machakos County. While the findings would be critical to the national government, they would be of great importance to the county government because agriculture is a devolved function. The greatest impact would be on extension services that county government offers to its people and the manner in which they can be implemented effectively to improve farm yields from the region. This would be critical in improving farm productivity.

The findings on M&E practices would enable the relevant government bodies to develop the policies that would impact agricultural practices within the county positively as far as performance of most of agricultural projects is concerned. It would particularly help extension officers in coming up with best practices that can be utilized to disseminate information to farmers in the county as they focus on improving agricultural practices.

This study was of great importance to NGOs especially ECDP as it clearly outlines the factors that influence in one way or the other the performance of agricultural projects funded by Eastern Community Development Programme in Machakos County, Kenya. This would enable ECDP management to work on coming up with key success factors to ensure that the projects they will fund next will be successful.

1.8 Delimitation of the Study

This study was to establish the factors influencing performance of agricultural projects funded by Eastern Community Development Programme (ECDP) in Machakos County, Kenya. The study focused mainly on the influence of farmers' competences, adoption to new farming technologies, M&E and involvement of stakeholders in performance of agricultural projects funded by Eastern Community Development Programme (ECDP) in Machakos County. The respondents composed of Machakos County ministry of agriculture officials, project managers, ministry of agriculture officers and community leaders. The study was conducted with a period of three months.

1.9 Limitations of the Study

The study encountered a number of hindrances that limited it in one way or the other. For instance, some of the respondents were unwilling to provide information that was sought because they thought that the information they provided would affect them negatively in one way or the other. This was in spite of the fact that the necessary measures were put in place to guarantee them that the information they provided would not be shared by other people. Besides, since majority of the data that was collected was self-reported then it was not possible to determine the accuracy and even the reliability of the data they provided. This was in spite of the fact that the consistency of such data was evaluated through pilot testing.

1.10 Basic Assumptions of the Study

The study presumed that the target population would not change significantly to the extent that such change would influence negatively the effectiveness of the sample in representing the population. Also, it presumed that respondents would cooperate throughout the data collection

process and that they would provide accurate information. Furthermore, it presumed that authorities within the county would grant researcher permission to collect data from various stakeholders.

1.11 Definition of Significant Terms used in the Study

Project performance: The way a project performs in terms of achieving desired outcomes and stipulated budget and time.

Farmers Level of education: This is the ability of the farmers to undertake project activities successfully or efficiently.

Monitoring and Evaluation: A systematic process utilized to collect, analyze and use information obtained from the process to track the progress of a project. The process helps in improving the outcomes of a project by ensuring that corrective measures are taken at the right time.

1.12 Organization of the Study

The study comprise of 5 chapters with the first one focusing much of its attention on background information relating to the study. As such, it identifies the main research problem, study's objectives, limitations and delimitations together with identifying study's importance to the field of study among other relevant issues. The second one review the studies that have been published before that relate to the area of interest together with theoretical and conceptual frameworks utilized to conduct the study. The third one highlights the methods utilized to conduct the study in terms of collecting and analyzing the data and ethical measures observed to ensure that the study was conducted in the right way. The fourth one provides the main findings whereas the fifth one concludes the study by summarizing and discussing the findings as well as recommending the areas for further researches.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses much of its attention on the studies that have been conducted before that relate to performnce of agricultural projects. Also, it addresses itself to theoretical and conceptul frameworks applied throughout the study before summarizing the min findings from previous studies and research gap in them.

2.2 Performance of Agricultural Projects

Development in rural areas particularly in agricultural projects financing can be impacted by a variety of factors one of them being access to credit. This may be affected by farm productivity because constrained farmers might opt to use inputs of lower levels than their counterparts who are not constrained by anything (Kenzer, 2009). In this respect, access to credit can enable farmers to use high quality products in their farming practices thereby improve the productivity of their farms. This is so because availability of credit addresses cash needs that are necessary in the production process. According to Etwireet al (2013), productivity can be defined as the ability of a person to produce effectively and economically. The current study defines agricultural productivity as the ratio of output that a farmer gets out of farm inputs utilized in the farming exercise.

The importance of regional agricultural projects financing ranges from providing more food to enhancing the process of migrating labor from one region to the other. An increase in agricultural productivity in one area implies that the scarce resources in that area are distributed in the right way. As the adoption of new farming practices increase in different regions, farmers who are more productive are able to increase their yields whereas the least productive ones exit the farming exercise to try their luck elsewhere (Newton, 2009).

The success of agricultural projects is thereby measured in terms of agricultural inputs and outputs (Liu, 2013). While products at individual level are measured in terms of weights, their densities that vary from each other complicate the process of measuring the overall output of agricultural practices. Accordingly, output ought to be measured in terms of market value of the final output that excludes the intermediate products like corn utilized in other industries

such as meat industry. The output value in this case might be compared to different types of inputs that form part of partial measures of productivity.

Because project involves a variety of interrelated activities that are combined together it can be a complicated process. It may involve processes involved in tracking performances, coordinating changes, enhancing the way a project performs and providing feedbacks at various stages. To ensure that all these activities are coordinated in the right way, project planning is involved in planning, managing and securing resources to ensure that project runs smoothly. It may thereby be defined as the short-lived process that creates unique services and/or products (PMI, 2013). In spite of this, it relies heavily on proven techniques and processes that are repeated over time. The techniques and processes help in coordinating resources to achieve desired results. The general processes include monitoring, planning, initiating, closing and executing.

Inasmuch as success is never a guaranteed factor, projects tend to be successful when processes are conducted confectionary. This success depends on the ability of those concerned with managing them to develop control and information systems that are fully integrated so that they can plan, monitor, instruct and control large tracks of data effectively to solve problems and help in making important decisions (Okun, 2009). Burke recognizes that for a long time classical methods have been utilized to manage projects. Benin and Yu (2012) define project success as their ability to meet deadlines, make customers happy and deliver outcomes within stipulated budgets. Omwega (2009) claims that project success is not only a matter of the way project meets its milestones and objectives, but also the extent to which it meets customers' expectations and get work done within time and costs constraints. As a result, activities involved in managing project performance are concerned about the extent to which projects are managed effectively.

2.3 Education Level and Performance of NGO Funded Agricultural Projects

Level of education is another factor that has a remarkable influence implementation of project since challenges in literacy skills hampers the management of the ventures. According to Wambugu (2010) education attainment of the heads of families might be critical in enlightening other members of families about the advantages of modernizing food production by means of technology utilization hence enhancing food supply. Policies designed to reduce income inequality, such as hunger, and malnutrition have had mixed results but income inequality and

household food insecurity research to study the complex concepts of adequacy, stability and access to food especially in low income countries (Ausubel, WernIcK & Waggoner, 2013).

According to Benin and Yu (2012), education is critical in empowering rural communities especially in overcoming factors that bar equality. This might minimize the tendency of women to marry at tender ages and even giving birth to many children and even resulting to unpaid labor. In Africa for example, back in 1996, the level of illiteracy among women was at 60 percent in comparison to that of men that was at 41 percent. Chepkirui (2012) claim that for project management practices to attain desired results then there is need to improve the literacy levels of the people who implement projects.

Education could and would inevitably have a positive effect behaviour and performance (Duer & Christensen, 2010). It has been established that educated populations are able to internalize concepts and processes related to project management easily especially in agricultural setups rural areas where women dominate. Dynamism in project activities requires fairly skilled manpower that can interact objectively to achieve project outputs and outcomes. There is a lot of data that indicates that men can overcome challenges with lower levels of education than women can do with such levels of education (Kirui, 2014). In India, progress has been made to ensure that access to education is improved among both sexes. For instance, back in 1971 only 46% of men and 22% of women were educated in the country. However, by 1991 the number of educated men had risen to 64% whereas that for women had risen to 39%. This is in spite of the huge difference in literacy levels among people living in rural and urban areas (Masole & Howie, 2013).

The Indian government started non – formal Education in 1970-80 with an aim of reaching children especially girls that were not in formal education system. Women form the majority of the rural population involved with agricultural activities. Men represent 30% of the active agricultural populace. While this is the case, the high level of illiteracy among women is considered to hinder them from securing employment and even developing societies. This has therefore impacted greatly in terms practicing commercial agriculture given that most projects implemented by farmers require a reasonable level of literacy (Nakano, Bamba, Diagne, Otsuka & Kajisa, 2013). Back in 1996, the level of illiteracy among African women was 60% in comparison to 41 percent among men. This is largely because in certain countries it is as high s 86.6% in Guinea, 88.7% in Sierra Leone and even 82.1% in Chad. In most of the African countries, the implementation of projects has been hampered greatly by an imbalance in gender

literacy. Webber and Labaste (2010) agree that most parents in African countries prefer sending boys to school than sending girls. While most girls complete their studies at primary level, the fact remains that most of school curricular do not focus on addressing this challenge and even their contents are not developed to minimize this challenge.

The above implies that most of school curricular are gender biased thereby they force majority of women to look for employment in farms, clerical jobs and nursing. According to Swallow and Goddard (2013), the literacy levels in the rural population have a correlation with how the rural people will appreciate strategies aimed at development and integration of ideas. Penetration in terms technology advancement will also depend on educational exposure since MFIs and other stakeholders will employ technology in one way or another. Generally, Kenya has achieved tremendous growth with a Gender Equality Ration of 105.8% for boys and 103.7% for girls. In terms of rural development which is achieved through project related initiatives either driven by the government, private sector or donors the approach to extension changed from supply driven approach to demand driven approach in the year 2001 (Masole & Howie, 2013).

The project design was such that farmers were expected to identify their problem(s) and then look for an extension agent to provide the technical knowhow. Micro finance Institutions through their institutional networks have also participated in the extension meetings to advertise their credit products and the farmers have learnt about these products. Acquisition of credit to farmers by Faulu Kenya and KWFT has been achieved this way and the farmers have made well informed choices concerning the relationship between farmers and lenders. Boserup (2017) agrees that financial literacy among the farming community is an important aspect of agricultural credit and enlightens the farmers on how to invest the loans borrowed and the need for repayments of the funds. Above all they also learn about farming as a business venture as well as utilizing the funds for the stated agricultural activity. This way wealth is created and jobs realized.

Change in technologies act as a driving force in promoting productivity within agricultural sector. For a long time, the adoption of technologies has been geared towards improving income from farms and improving productivity (Liu, 2013). As a result, most of the policies developed in the sector have been influential in determining the adoption of technology within agricultural sector. For this reason, agriculture is being integrated extensively in agro-food chain to promote food sustainability. While this is the case, the sector is impacted negatively

by regulations from other sectors. Accordingly, new challenges are emerging within the agriculture sector with a possibility of impacting it more than ever. The challenge right now relates to producing high-quality products capable of competing within international market and meeting the growing demand for food. Additionally, it should ensure that sustainable goals are achieved without compromising policy reforms within the sector. This includes the implementation of new environmental agreements developed within OECD countries (Burke, 2008).

The above means that policy makers within agricultural sector are faced by many challenges. Some of those challenges include technologies that are yet to develop fully, uncertainties within the international market and a whole range of policies that are developed on daily basis. Besides, there is increased pressure from advisory budgets and research communities (Kiser, 2008).

At the moment, partnerships between different sectors play an important role in advancing research (Pole & Wasilwa, 2011). Nonetheless, efficient use of technology is impacted significantly by other factors other than access to it. Accordingly, it requires institutions that are innovative and different organizational settings. In this respect, there is need to consider links between various players in development and dissemination of knowledge. In addition, there is need to engage different groups of stakeholders (Maitima, Rakotoarisoa & Kang'ethe, 2010).

2.4 Monitoring &Evaluation and Performance of NGO Funded Agricultural Projects
Monitoring is considered to be a continuous process that is undertaken to ensure that a project is implemented in the right way and as per the laid out instructions. It provides managers and other people who are involved in managing projects with information that enable them to identify areas of success or even possible challenges ahead so that timely adjustments can be undertaken to ensure that a project is successful (UNFPA, 2004). For this reason, projects need to be monitored on continuous basis so that the necessary corrective measures can be taken at the right time. The process targets to provide regular oversight over the implementation process of a project so that it can complete within stipulate time, budget and costs (Xue, Turner, Lecoeuvre & Anbari, 2013).

While the above is the case, an effective monitoring process requires adequate planning, practical mechanisms within implementation process, baseline data and performance indicators. This necessitates for regular field visits, stakeholders' meetings, regular reporting

and an efficient process that is able to document activities within a project. Swallow and Goddard (2013) claim that monitoring can be generally utilized to describe the systematic method that is utilized to collect and analyze events and information with a view to improving the process of managing projects.

Evaluation, on the other hand, is concerned about assessing projects' efficiency, impact, performance and relevance on a periodic basis. Interim evaluations are conducted as the first review processes within evaluation process. It evaluates the possible defects within a project with a view of identifying corrective measures that might be required at that time within project design (Webber & Labaste, 2010).

In the light of the above, M&E are vital processes within project management. When used at all stages, they strengthen project designs, enhance learning and improve decision making processes (Boserup, 2017). Both processes are aimed at evaluating the efficiency, impact and performance of a project. They ensure that desired results are obtained once project is completed.

Regardless of the skills that team members have M&E processes are important in project management. They help in understanding the progress made towards achieving desired results, identifying needs and taking corrective measures. Mostly, almost all people who are involved in implementing projects are involved in M&E processes. As a result, they should all receive training so that they can familiarize themselves with projects' focus, intent and designs among other things (Masole & Howie, 2013).

M&E resources and assessments carried out on capacity help in identifying possible gaps within a project. This helps in identifying needs and developing training programs needed to improve project performance (Hogan, 2012). However, the training process adopted depends on the size of project and complex processes involved in it. As a result, larger projects focus on developing training programs that address knowledge gaps among staff members.

2.5 Stakeholders' Involvement and Performance of NGO Funded Agricultural Projects

The term stakeholder is all inclusive because it includes the direct beneficiaries of a project together with other people who are not influenced by project directly. These include the people who manage project, community people who are affected directly or indirectly by the project, people who work in the project by either supplying labor or other products that are needed in the project among others (Chepkirui, 2012). Most of these people benefit from projects when

they are included in them because their expectations are understood and nagged effectively through apposite communication processes.

Normally, each of the above people who form part of stakeholders influences the outcomes of a project in one way or the other. This might include a right or even an interest in the ownership of the project. Rights in this case could either be legal or even moral; as such, the way projects are initiated helps in determining whether they will be successful or not (Duer & Christensen, 2010). The most important factor to consider at this point is the environment under which project takes place. Hope (2011) claims that identification of the role played by different actors in a project plays a critical role in promoting the success of projects. Pole and Wasilwa (2011) claim that deficiencies identified at every stage should be reported and fixed as soon as possible. As a result, a plan should be developed right at the start to analyze the needs of all people, review operations and provide measurable goals. In addition, a financial analysis that focuses on evaluating costs and budgets should also be carried out.

According to Mutua (2014) the donor-led projects fail to be effective because they do not include all stakeholders. Because of this the stakeholders who are not involved in those projects do not own them as their own. As a result, it is always necessary to evaluate whether all stakeholders are involved in project management.

Kerzner (2009) identifies the need for all people involved in an organization including their departments, activities and different levels to work together because they all need each other and they influence organization in one way or the other. Central to this argument is that people within organizations contribute significantly in customer satisfaction. Nonetheless, the application of this notion to e-procurement processes is moderately new (La Rovere, Abdoulaye & Banziger, 2010).

Government participation is identified as a cutting edge for enhancing the apathy levels of stakeholders in agricultural farm productivity. Participants argue that providing government as stakeholders will increase their knowledge level in agricultural projects financing practices and what role they need to play for farm productivity (Matanda, 2010). This government extension education on how to finance agricultural projects is very vital for "local stakeholders" (farmers) who do not normally understand their role in the implementation and agricultural projects practices in their farms.

Financiers' participation in provision of the needed monitoring and evaluation equipment such as vehicles for efficient and effective monitoring of agricultural projects. If these materials are not available, the only way with the financing body is to enhance farm productivity alone which does not promote such projects. Therefore, the appropriate financing authority must always make sure that, the required monitoring equipment's are always available at the right time and place as well to farm productivity to provide value for money (Pole &Wasilwa, 2011).

Farmer involvement by recognition of patriotic stakeholders or Motivation of stakeholders will be a way of fueling the zeal in them to get involved in enhancing farm productivity. These recognition/ motivations can be in the form citations, materials gifts, and free access to some farming places or facilities. This will make them put on more effort and also encourage those who do not participate to participate (Masole & Howie, 2013).

The term stakeholder is all inclusive because it includes the direct beneficiaries of a project together with other people who are not influenced by project directly. These include the people who manage project, community people who are affected directly or indirectly by the project, people who work in the project by either supplying labor or other products that are needed in the project among others (Chepkirui, 2012). Pole and Wasilwa (2011) identify client consultation as the first stage within project when it is aimed at implementing changes. It expresses the requisite to considering needs for clients and users of projects. Therefore, it determines whether stakeholders have been identified in the right way. Okun (2009) established that management systems and donor polices adopted by donors affected the sustainability of those projects. Other factors included technologies, stakeholder involvement, beneficiaries and existing financial systems. Nduta (2008) identified stakeholder involvements as an important aspect in the kazi Kwa Vijana projects carried in Kenya.

2.6 Theoretical Framework

This part of the study provides the theoretical background of the study by identifying the theories that form its basis. The theories include human capital theory, stakeholder theory and Resource based theory.

2.6.1 Resource Based Theory

The theory was put forward by Feurer and Chaharbaghi in the year 1997 who argued that resources formed the basis of implementing projects other than environment. In spite of this, the origins of this theory can be traced to authors such as Wernerfelt (1984) who defined its

fundamental principle. He argued that the basis of competitive advantage within organizations lied on the bundles of resources that organizations possess. In order for this to happen, the resources have to be valuable, non-substitutable, non-imitable and even rare so that they can sustain competitive advantage.

The theory focuses on explain the internal sources of competitive advantages of an organization. Hope (2011) considers resources to be either organizational, human or even physical capitals that include skills possessed by employees, talents among managers, patents, finances and capital equipments. Hogan (2012) claims the unique resources help organizations to implement their projects by acting as their foundations. The theory attempts to explain why firms in the same industry differ in performance. For a project to be successful it requires funds and resources. This theory was thus relevant to the study in relation to resources needed such as the importance of the M&E for the enhancement of performance of agricultural projects.

2.6.2 Stakeholder Theory

The theory was postulated by Evans and Freeman in 1988 who argued that companies managed their relationships explicitly with variety of stakeholders' groups for them to achieve the projects. Stakeholders of a project can either be from within an organization (employees, customers, suppliers or owners) or from outside an organization (consumer advocates, competitors, media, conservationists or government officials among others). Freeman (1984) describes these actors as groups or individuals who influence organizations in one way or the other thereby influence the attainments of project's objectives.

Stakeholder involvement is well explained by the Stakeholders Theory. The perspectives of stakeholders have intensified over the last few years thereby influence the way organizations perform. The relevance of this theory is demonstrated by the "dominant discourse" in organization theory (Swallow & Goddard, 2013), and by its applicability to different disciplines in management. It argues that the success of organizations depend largely on consideration of needs and goals of different groups of stakeholders (Webber & Labaste, 2010).

One important thing to note at this point is that community members form an important part of stakeholders in projects that are carried out at community level. The theory argues that legitimate groups of people should take part in making decisions within organizations or projects because they are influenced by its outcomes in one way or the other (Donaldson & Preston, 1995).

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The inclusion of community members within the implementation of projects appreciate the critical role that partnership plays in ensuring that projects succeed. This enhances the contributions of all parties involved in running and managing projects. It particularly helps the members of community to develop their skills and even support projects to ensure that they succeed. In this respect, Indeche (2015) claims that project manager should ensure that community members participate in project management actively and on voluntary basis right from the time projects are initiated to the time they complete. While their participation helps organizations to run and complete without encountering challenges from local people, the theory claims that community members benefits significantly from such participation. This helps us to appreciate the importance of involving stakeholders in agricultural projects to ensure that they perform effectively.

2.6.3 Human Capital Theory

The theory was put forward by Becker in 1964 who argued that the knowledge of entrepreneurs that was gained from schools was of great importance to the success of firms. It claims that skills that employees acquire from schools are critical in ensuring that employees perform their jobs effectively. Generally, teams that manage projects require practical skills that can help them in running projects. The skills could either be technical or formal skills attained at places of work.

The theory hypothesizes that organizational productivity increase as employees acquire more knowledge. This link between training and development at workplace is founded on factor pricing. Human capital theorists acknowledge the importance of investments made in education (Okun, 2009). Kerzner (2009) thereby asserts that employees' satisfaction with their jobs is critical in influencing their engagement and making sure that projects succeed.

In the light of the above, a good investment in education and on-job training can be vital in ensuring that organizations improve their productivity. It plays an important role in developing a work environment that enables employees to perform their jobs effectively. The theory thereby claims that improvement of human capital can act as a source of sustainable competitive advantage within an organization. According to Kiser (2008), the theory appreciates the importance of value addition among employees. This theory formed a basis for the farmers' education level in the success of agricultural projects in Machakos County.

2.7 Conceptual Framework

This framework combines the conceptual and theoretical issues surrounding an area of research. This study was on the factors influencing performance of agricultural projects funded by Eastern Community Development Programme (ECDP) in Machakos County, Kenya. The independent variables in this study were farmers' education level, monitoring and evaluation and stakeholders' involvement. The study thereby identifies the impact that independent variables have on the dependent one, which was performance of agricultural projects funded by Eastern Community Development Programme (ECDP) in Machakos County.

Independent variables

Moderating Variable

Farmers' Education level
- Technical expertise
- Training on the best agricultural practices
- Resource management skills
- Skills in irrigation technologies
- Accessibility to modern equipment

- Political Environment

Dependent variable

Monitoring and Evaluation
- Frequency of Field days
- Feedback sessions
- Stakeholder participation in M&E activities
- Monitoring implementation strategy
- Use of M&E findings

Performance of agricultural projects
- Years of operation
- Level of productivity
- Number of farmers
- Variety of animals and crops

Stakeholders' involvement
- Participation in decision making
- Level of contribution
- Participation in project execution
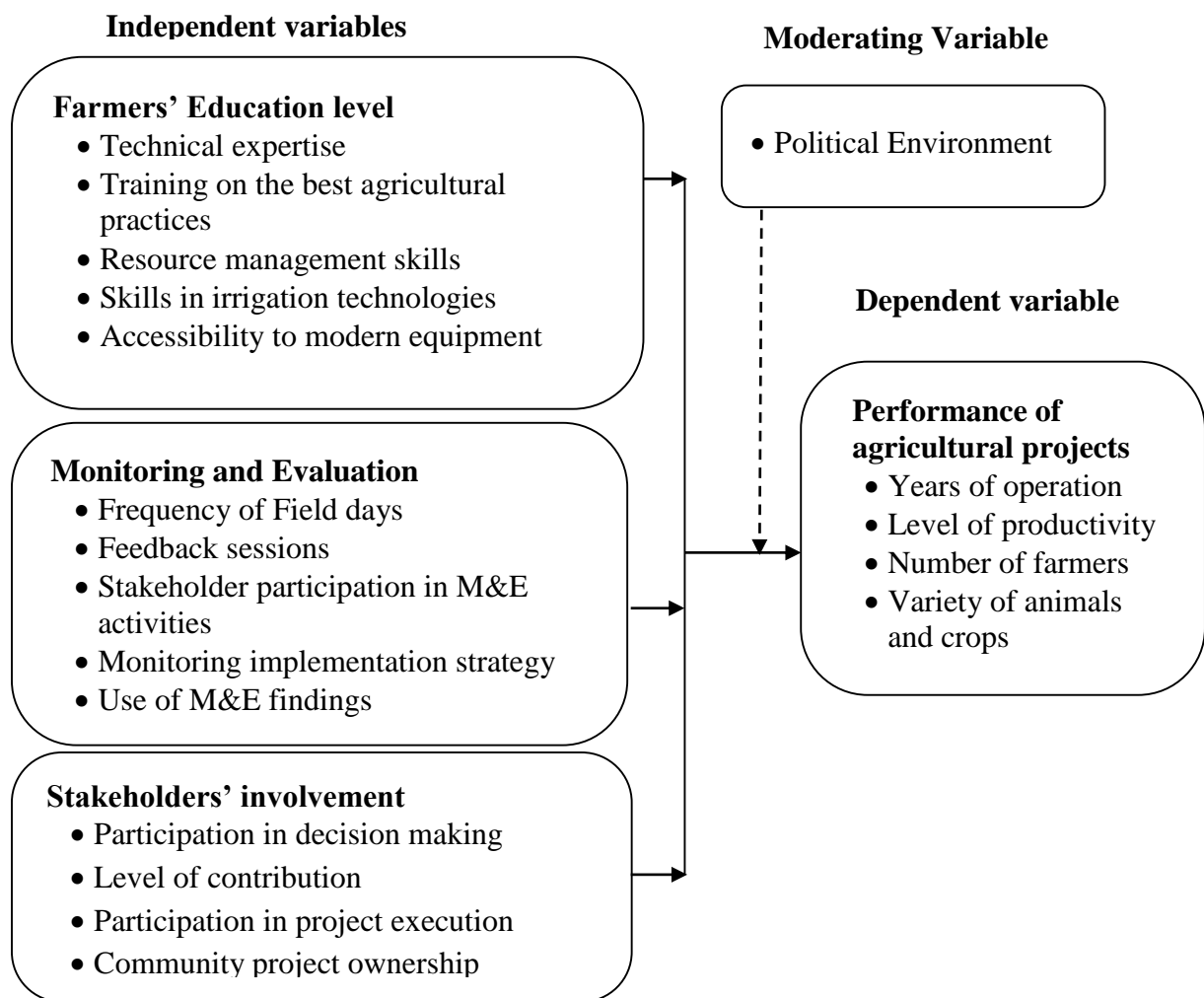- Community project ownership

Figure 1: Conceptual Framework

2.8 Summary of Literature and Research Gaps

The study was grounded on human capital theory, stakeholder theory and Resource based theory. The literature reviewed has expounded on factors influencing performance of County infrastructural projects. Rural development and, in particular, agricultural projects financing

projects is impacted by many factors; one of them being access to credit (Kenzer, 2009). This may affect farm productivity because farmers who do not have access to credit may opt to use farm inputs of low quality in comparison to those who have access to credit who may use high quality inputs. The importance of regional agricultural projects financing include provision of more food, enhancing labor migration, distributing income equitably, promoting a saving culture and competitiveness among farmers. Increase in productivity at one region may indicate that scarce farm resources are distributed effectively at that region. Level of education is another factor that has a remarkable influence on implementation of project since challenges in literacy skills hampers the management of the ventures.

Change in technology is one of the factors that promote high yields within agricultural sector (Omwega, 2009). The process of monitoring enables managers to receive and give feedbacks on continuous basis. As a result, it helps in providing corrective measures early enough before projects get out of hand. This study assessed the effect of farmers' education level, capacity to adopt new farming technology, monitoring and evaluation and stakeholders' involvement on agricultural projects funded by Eastern Community Development Programme (ECDP) in Machakos County, Kenya.

Studies have been done in respect to agricultural projects which include; Kirui (2014) who evaluated factors that impacted the performance of poultry farming projects within Bureti sub County, which is in Kericho County. Masila (2015) examined factors that influenced the sustainability of fish farming projects within Matungulu sub-County, which is in Machakos County. Wangechi (2013) did a study on factors that determined the performance of agricultural projects using NALEP projects in Ruiru district as the case study. Omache (2016) focused his attention on factors that influenced the productivity of agricultural projects within Nyathuna ward, which is in Kiambu County. Mutua (2014) did a study on factors that influenced the implementation of agricultural projects that were funded by microfinance institutions within Machakos County.

Among the studies, Masila (2015) only focused on the effect of demographic factors, financial stability, land availability and capacity building on sustainability of fish farming projects. Further, Wangeci(2013) only focused on the effect of project planning and project initiation process on performance of agricultural projects while Omache (2016) focus was on the factors such as skilled human resource and participatory data collection. The studies did not focus on how the farmers education level, capacity to adopt new farming technology, M&E and

stakeholders' involvement affect the performance of agricultural projects. Therefore, the current study fills the gap by establishing how the farmers education level, monitoring and evaluation practices and stakeholders' involvement influence performance of agricultural projects funded by Eastern Community Development Programme in Machakos County.

Table 2. 1: Summary of Empirical Literature Review and Research Gap

Author/Year	Study's focus	Findings	Research Gaps	Focus of current study
Kirui (2014)	Factors that the way poultry farming projects perform in Bureti sub County	The study found that the farmers have enough education to implore help from assorted alternative sources, such as private veterinarians, internet, keep reliable records, do a more critical and realistic analysis of the situations.	The study did not examine the farmers education level in depth as the current study and was conducted in a different county.	To establish how farmers' education level influence the way agricultural projects funded by eastern community development programme (ECDP) perform in Machakos County.
Masila (2015)	Factors that influence the sustainability of fish farming projects within Matungulu sub-County.	The study established that for the project beneficiaries who had employed fish farm attendants, 59.4 per cent noted that training was very useful in sustainability of fish farming and 69.1 per cent said external sources greatly influence sustainability of fish farming.	Focused on the effect of financial stability, demographic factors, land availability and capacity building on sustainability of fish farming projects	This study established the factors influencing the performance of agricultural projects funded by eastern community development programme (ECDP) in Machakos County, Kenya
Wangeci(2013)	The factors that influence the performance of agricultural projects within Ruiru region using NALEP as case study.	M&E processes that were carried out were important in project management. Additionally, it established that stakeholders involved in	Focused on effect of project planning and project initiation process on performance of agricultural projects	The study determines the way M&E practices influence performance of agricultural projects funded by eastern

		project management did not have formal training in management.		community development programme in Machakos County
Omache (2016)	Factors that influence the productivity of agricultural projects within Nyathuna ward in Kiambu County	The study found that farm visits was the farmers' preferred training method hence this should be factored in. In the section of the dissemination of agricultural messages, Participatory Approach method is the most preferred by the farmers.	Focused on factors such as skilled human resource and participatory data collection	The study attempts to evaluate the impact of stakeholders' involvement on performance of agricultural projects funded by eastern community development programme in Machakos County
Mutua (2014)	Factors that influence the implementation of agricultural projects that are funded by microfinance institutions within central division, Machakos County.	The study found that efficient implementation of MFI funded agricultural projects within target region was impacted by interplay between technology and education that emanated from governmental institutions.	The study did not deal with the performance aspect and also focused on microfinance institutions	The study established the factors influencing the way agricultural projects funded by eastern community development programme (ECDP) in Machakos County performed.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The chapter provides the techniques and procedures that were utilized to collect, process and analyze the data. It specifically addresses itself to research design, instrument, procedures and processes utilized to collect the data, sampling methods and pilot testing among other areas.

3.2 Research Design

A descriptive research design was utilized to conduct the study. The design was concerned about the frequency with which things occurred (Lewis, 2015). On this basis, it was considered to be among the suitable designs because the study focused on collecting information and describing relating to the area of study. Creswell and Creswell (2017) claim that the design attempts to obtain information that can be utilized to describe existing phenomena by asking questions especially those related to attitudes and perception.

3.3 Target population

Lewis (2015) notes that population consists of all elements that one wishes to make inferences about. The study focused on the beneficiaries of agricultural projects funded by Eastern Community Development Programme (ECDP). There are 106 agricultural projects in Machakos County that are funded by Eastern Community Development Programme (ECDP). Therefore, the target population comprised of Machakos County officials, project managers, community leaders and Ministry of Agriculture officers as depicted in Table 3.1.

Table 3.1: Target Population

Categories	Population
Community leaders	134
Ministry of Agriculture officers	13
Project managers	78
Machakos County officials	36
Total	**261**

3.4 Sample Size and Sampling Procedure

3.4.1 Sample Size

A sampling plan expresses the sampling together with its procedures, frames and sample size. The sampling frame describes the list of population units from which the sample is obtained from (Gorard, 2013). Gillham (2011) observes that sampling is concerned about picking a given number of units from population so that the units can be utilized to represent others. Both simple random and stratified sampling methods were utilized in the current study. The stratified one was utilized to classify target population into strata that included Machakos County officials, project managers, community leaders and Ministry of Agriculture officers. Then from each of these strata, a representative sample was picked from it using simple random methods. In this case, the researcher selected randomly the respondents keeping in mind that every item in the strata had equal chances of being picked and included into the sample. This ensured that all people in the population had equal chance of being included in the sample. This helped to eliminate the biasness.

To attain the desired sample size, the Nassiuma (2000) formula was utilized since it was more precise than other formulas. The computation was as shown;

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

Where n = sample size

N = population (261)

Cv = coefficient of variation, which was taken to be 0.6.

e = tolerance of desired level of confidence, which was take to be 0.05 or 95% confidence level.

$$n = \frac{261(0.6^2)}{0.6^2 + (261-1)0.05^2} = 77.78 \approx 78$$

The ration therefore was 78/261 =0.298. This was used across all the strata to get the sample for each stratum.

Table 3.2: The Sampling Matrix

Categories	Population	Ratio	Sample
Community leaders	134	0.298	40
Ministry of Agriculture officers	13	0.298	4
Project managers	78	0.298	23
Machakos County officials	36	0.298	11
Total	**261**		**78**

3.4.2 Sampling Procedures

As indicated earlier on, the stratified sampling method was utilized to pick the people who participated in the study. The method was unbiased because it grouped the heterogeneous population into homogeneous subsets before picking individuals from each subset. The goal of this method was to attain a sample that was representative and that had minimal variations (Creswell &Creswell, 2017). Beside, the simple random sampling was utilized to pick participants from each stratum. The sampling ratio was;

Sample size= 78   = 0.298

Target Population261

3.5 Research Instruments

A self-administered questionnaire that consisted of both open and closed ended questions was utilized to obtain the primary data. The open ended ones encouraged respondents to provide in-depth information whereas the closed ended ones narrowed answers to specific answers that were of great interest in the study. Lewis (2015) claim that unstructured questions that are normally open ended enable respondents to express their minds whereas closed ended ones are easier to evaluate. The closed ended ones were utilized mainly to conserve time by simplifying the analysis process. Secondary data was obtained from the journals, books and articles from libraries.

3.6 Pilot Testing

This refers to the process that is utilized to evaluate the correctness and validity of research questions utilized to collect the data by way of conducting a semi-data collection process (Kumar, 2005). In the current study, pilot testing was conducted among the project managers of agricultural projects in Machakos County. 18 questionnaires were administered to the

managers who were picked randomly. After a day, the same people were also requested to fill similar questionnaires without necessarily notifying them. This was meant to determine whether their responses would differ from the former ones. The process was relevant to research process because it helped in identifying vague questions and unclear instructions that needed to be revised. In addition, it was necessary because it helped in capturing important suggestions and comments from research participants. As a result, it helped in improving instrument's efficiency. The process was repeated several times until the researcher was certain that research questions were clear.

3.7 Validity of Research Instruments

According to Gorard (2013), validity is concerned about the meaningfulness and accuracy of inferences made from research's results. One of the tasks of pilot study is to establish the validity of questionnaire. The content validity, which draws its suppositions from test score, was utilized in the current study. To a large extent, it was concerned about the representation of the population by the sample that was drawn from it. The knowledge covered by test items should represent the larger domain (Meyers, Gamst and Guarino, 2016). To ensure that research questions were suitable and representative, expert opinion was sought before the questionnaire was utilized to collect the data. The experts commented on what needed to be revised or even structured in a different way. This improved the content validity of the data that was collected. Both lecturers and supervisor and other professionals in the field of study were sought for these opinions.

3.8 Reliability of Research Instruments

The reliability of an instrument is concerned about the extent to which instrument can produce similar results if the study would be carried out for a second or even a third time. Therefore, it might be regarded as the level of consistency in results and data obtained using an instrument (Wang, 2015). To ensure that similar results would be obtained if the study would be conducted for a second or even a third time, a pilot study comprising of 18 members was carried out before the main data collection process was carried out. The responses they provided were utilized to determine the extent to which similar results would be obtained using the questionnaire. The 18 members were 23 percent of the sample that was utilized in the study thereby they were above the 10 percent mark that is recommended for pilot testing. Normally, a Cronbach alpha that is above 0.7 is considered to be adequate (Song, Coit, Feng & Peng, 2014). The Cronbach's alpha (α) that was utilized in the study was computed as follows:

$A=k/k-1\times [1-\sum (S^2)/\sum S^2 sum]$

Where:

α= Cronbach's alpha

k = Number of responses

$\sum (S^2)$ = Variance of individual items summed up

$\sum S^2 sum$ = Variance of summed up scores

This measured the internal consistency by determining whether questions measured similar construct.

Table 3. 3: Reliability Analysis

Scale	Cronbach's Alpha
Farmers' education level	0.830
Monitoring and evaluation	0.910
Stakeholders' involvement	0.789

Table 3.3 depicts that monitoring and evaluation had a reliability of (α= 0.930), which was the highest. This was followed by farmers' education level (α=0.830) while stakeholders' involvement (α=0.789). Since these values were over 0.7, then they were considered to be appropriate for the study.

3.9 Data Collection Procedures

Before the data was collected, an introductory letter was obtained from NACCOSTI and the university. The two letters were then presented to the relevant authorities within Machakos County to allow the research collect the data. A drop and pick method was utilized to collect the data from the research participants who were sampled to take part in the study. This gave participants sufficient time to go through the questionnaire and respond to questions adequately. Before the process of dropping the questionnaires was implemented, the researcher booked for appointments with the relevant people two days before. Since the process of collecting the data was not complicated, the researcher opted to drop the questionnaires himself and collect them at the right time. Accordingly, the services of research assistants was not sought or even utilized in the current study. This created a rapport that was critical in the data collection process

3.10 Data Analysis Techniques

The Statistical Package for Social Sciences (SPSS Version 25.0) program was utilized to analyze the data. Accordingly, as soon as the questionnaires were obtained from the field, they were serialized whereas the open ended questions were coded to facilitate the data entry process. Similarly, the questionnaires were evaluated to ensure that they were filled in the right way. Afterwards, descriptive statistics were utilized to summarize the data and interpret it. The qualitative data was analyzed using conceptual content method that involved identifying the main themes.

The multiple regression analysis was utilized to carry out the inferential statistics. The analysis was concerned about the link between dependent and independent variables. The focus of using method was to determine the extent to which independent variables could be utilized to predict the outcomes of the dependent variable. The following model was utilized to conduct the multiple regression analysis.

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

Where: -

Y = Performance of Agricultural Projects in Machakos County

β_0 = constant

β_1, β_2, β_3 and β_4 = Regression coefficients

X_1 = Farmers education level

X_2 = Monitoring and evaluation

X_3 = Stakeholders' involvement

ε = Error Term

3.11 Ethical Considerations

The study collected data from human beings who were at the risk of being harmed if the study was conducted inappropriately. To ensure that they were not harmed by it in any way, then the following measures were observed. Firstly, a consent form that was designed to request for permission from research participants before they participated in the study was prepared and presented to them before they were asked to participate in it. The form introduced the participants to the study by providing them with the study's objectives together with possible benefits and risks they could accrue from the study. To ensure that they participated in it on

voluntary basis then they were asked to sign it on voluntary basis upon understanding what they were engaging in. In addition, it assured them that the data that they would provide would be treated with high level of confidentially to the extent that it would not be shared with any one or even utilized in another study other than the one it was collected for. More importantly, they were informed that they could withdraw from the study at any given time they chose to withdraw from it without being penalized or even victimized. Secondly, the data that was collected from respondents was kept in padlocked cabinets and computers secured with strong password to ensure that unauthorized people did not access it. At the same time, participants' names or even identifying codes were not utilized in the data analysis; hence, it was not possible to identify them by their names.

3.12 Operationalization of Variables

Table 3.4 provides an outline of the method that was utilized to operationalize variables.

Table 3.4: Operationalization of Variables

Objectives	Type of Variable	Indicator	Measuring of Indicators	Tools of analysis	Type of analysis
To establish how farmers education level influence performance of agricultural projects funded by Eastern Community Development Programme in Machakos County.	Independent	Farmers education level	• Technical expertise • Training on the best agricultural practices • Resource management skills • Level of knowledge and skills	Percentages Mean score	Descriptive statistics Regression analysis
To determine how monitoring and evaluation influence performance of agricultural projects funded by Eastern Community Development Programme in Machakos County.	Independent	Monitoring and evaluation	• Frequency of Field days • Feedback sessions • Stakeholder participation in M&E activities • Monitoring implementation • Use of M&E findings	Percentages Mean score	Descriptive statistics Regression analysis
To evaluate the influence of stakeholders' involvement on performance of agricultural projects funded by Eastern Community Development Programme in Machakos County.	Independent	Stakeholders' involvement	• Participation in decision making • Level of contribution • Participation in project execution • Community project ownership	Percentages Mean score	Descriptive statistics Regression analysis
	Dependent	Performance of agricultural projects	• Years of operation • Level of productivity • Number of farmers • Variety of animals and crops	Mean score	Descriptive statistics Regression analysis

CHAPTER FOUR

RESEARCH RESULTS AND DISCUSSION

4.1 Introduction

The chapter presents the findings attained from the questionnaires. It starts by giving the responses rate and reliability analysis before giving background information for the respondents and thereafter the findings for factors influencing the performance of agricultural projects funded by eastern community development programme (ECDP) in Machakos County. Finally, regression analysis was conducted. The findings were presented in tables.

4.1.1 Response Rate

As Table 4.1 depicts, the questionnaires that the researcher administered were 78 out of which only 62 were fully and returned. This was a 79.2% response rate that was within a minimum rate of 50% recommended by Sproul (2011).

Table 4.1: Response Rate

	No. of Respondents	Response Rate
Response	62	79.2
Non-response	16	20.8
Total	**78**	**100.0**

4.2 Background Information

This section provided information that was of great importance to researcher because it provided a hint of the people who participated in the study. The section asked respondents to provide their information relating to gender, age bracket, highest level of education and how long they had been involved in agricultural projects in Machakos County. The information is provided in form of tables.

4.2.1 Respondents' Gender

The researcher asked the respondents to provide their gender orientations and results are in Table 4.2.

Table 4. 2: Respondents' Gender

	Frequency	Percent
Male	24	38.7
Female	38	61.3
Total	**62**	**100.0**

The findings show that 61.3% of them were females whereas the rest (38.7%) were males. This depicts that a larger percentage of females participated in the study in comparison to a relatively smaller number of males. In spite of this slight difference, there was no form of gender bias throughout the process of collecting the data.

4.2.2 Respondents' Age Bracket

The respondents were further asked to indicate their age bracket and results are in Table 4.3.

Table 4.3: Age of The Respondents

	Frequency	Percent
> 25 years	5	8.1
25 - 35 years	10	16.1
36 - 45 years	14	22.6
< 45 years	33	53.2
Total	**62**	**100.0**

As Table 4.4 depicts, most of the respondents (53.2%) were over 45 years, 22.6% of them were between 36 and 45 years, 16.1% were between 25 and 35 years whereas only 8.1% of them were below 25 years. While the respondents were not normally distributed, they were of reasonable age to provide relevant information.

4.2.3 Levels of Education

The respondents further indicated their utmost levels of education and results are in Table 4.4.

Table 4.4: Highest Level of Education of the Respondents

	Frequency	Percent
Post Graduate	9	14.5
Undergraduate	33	53.2
Diploma	14	22.6
Certificate	6	9.7
Total	**62**	**100.0**

The findings reveal that 53.2% of the respondents were undergraduates, 22.6% indicated that they had attained a diploma, 14.5% had indicated they had reached the post graduate level while 9.7% had attained a certificate. This implied that all of them were educated even though at different levels. From this information, it was concluded that they understood the language that was utilized to collect the data thereby they provided reliable information on subject matter.

4.2.4 Years Involved in Agricultural Projects in Machakos County

Besides the above, the respondents also provided the number of years they were involved in agricultural projects in Machakos County. Table 4.5presents their replies.

Table 4.5: Years Involved in Agricultural Projects in Machakos County

	Frequency	Percent
Below 1 year	10	16.1
1-2 years	35	56.5
3-4 years	13	21.0
Above 5 years	4	6.5
Total	**62**	**100.0**

The findings indicated that 56.5% of them were involved in agricultural projects in Machakos County for a period of 1-2 years, 21.0% indicated for 3-4 years, 16.1% indicated for less than 1 year while 6.5% indicated above 5 years. This implied that most of them had been involved with agricultural projects in Machakos County for a long period; hence were able to provide information that could be relied upon in the study.

4.3 Performance of Agricultural Projects in Machakos County

The research sought to examine the performance trend of agricultural projects in Machakos County for a period of five years. The results were as shown on Table 4.6.

Table 4.6: Trend of the Aspects of Performance of Agricultural Projects in Machakos County

	Mean	Std. Dev.
Years of operation has increased	3.616	.578
Level of productivity is high	4.075	.839
Number of farmers has increased	4.199	.776
Variety of animals and crops has improved	3.815	.788
Aggregate Score	**3.926**	**0.731**

The respondents agreed that the number of farmers had increased as illustrated by a mean score of 4.199, level of productivity was high as depicted by a mean score of 4.075, variety of animals and crops had improved as illustrated by a mean score of 3.815 and years of operation has increased as illustrated by a mean score of 3.616 for the last five years. The aggregate score of mean was 3.926 with a standard deviation of 0.731 implied that the respondents agreed the performance of the agricultural projects in Machakos County had improved for the last five years.

4.4 Farmers Education Level

The study further sought to establish the way farmers' education level impacted the performance of agricultural projects funded by eastern community development programme in Machakos County. The researcher required the respondents to specify the extent to which they agreed with certain statements concerning the influence of farmers' education level on

performance of agricultural projects in Machakos County. The results are presented on Table 4.7.

Table 4.7: Extent of Influence of Farmers Education Level Aspects on Performance of Agricultural Projects

	Mean	Std. Dev.
Literacy levels of project stakeholders leads to better participation in the project activities	4.151	.817
Farmers have Technical expertise	4.021	.851
The farmers have received training on pests and disease control	3.014	.770
The farmers have undergone training on how carry out fish projects	3.945	.608
The farmers have been trained and equipped with resource management skills	3.929	.677
Farmers level of knowledge and skills affects their participation in the agricultural projects.	3.370	.954
Aggregate Score	**3.738**	**0.745**

From the results, the respondents agreed to a great extent that: literacy levels of project stakeholders lead to better participation in the project activities as shown by a mean of 4.151; farmers have technical expertise as shown by a mean of 4.021; the farmers have undergone training on how carry out fish projects as shown by a mean of 3.945 and the farmers have been trained and equipped with resource management skills as shown by a mean of 3.929. The respondents also agreed, but to a moderate extent that farmers level of knowledge and skills affects their participation in the agricultural projects as illustrated by a mean of 3.370 and the farmers have received training on pests and disease control as shown by a mean of 3.014. The aggregate score mean for the farmers' education level was 3.738 and a standard deviation of 0.745 which implied that the respondents agreed that farmers' education level influenced the performance of agricultural projects in Machakos County.

4.5 Capacity to Adopt New Farming Technology

The research aimed at determining how capacity to adopt new farming technology influenced the performance of agricultural projects funded by eastern community development programme in Machakos County. Table 4.8 displays the responses on the degree to which the respondents concurred with statements concerning the influence of capacity to adopt new farming technology on performance of agricultural projects in Machakos County.

Table 4.8: Extent of Influence of Capacity to Adopt New Farming Technology Aspects on Performance of Agricultural Projects

	Mean	Std. Dev.
Farmers receive training on yield-raising technologies like improved seeds	3.841	0.940

	Mean	Std. Dev.
Farmers receive training on variety of tools and equipment	3.741	0.940
Most of the farmers have skills in irrigation technologies	3.309	0.946
Information on new farming techniques is readily available to farmers.	4.358	0.661
Extension officers train Small holder farmers on areas of conservation and fertility-restoring technologies	3.854	1.498
Farmers are aware of yield-raising technologies like improved seeds	2.810	0.692
The modern equipment's are always accessible to farmers	2.073	1.155
Extension officers are readily available to farmers to provide them with information on new farming technologies	4.533	0.595
Aggregate Score	**3.565**	**0.928**

Broadly speaking, the respondents concurred that extension officers were readily available to farmers to give them information relating to technologies as presented by a mean of 4.533, there is information/creation of awareness to small holder farmers as shown by a mean of 4.358. Additionally, information was readily available to farmers as shown by a mean of 4.358 and extension workers focused on training employees on areas relating to conservation and fertility-restoring technologies as shown by a mean of 3.854. Furthermore, farmers received training on enhanced yield-raising technologies like improved seeds as illustrated by a mean of 3.841 and they even received training on using various tools and equipment as depicted by a mean of 3.741. Also, the respondents agreed, but to a moderate extent that most of the farmers had skills in irrigation technologies as shown by a mean of 3.309 and that they were even aware of yield-raising technologies like improved seeds as depicted by a mean of 2.810. Furthermore, they agreed, but to a low extent that the modern equipment were always accessible to farmers as depicted by a mean of 2.073. The aggregate score mean of 3.565, standard deviation of 0.928 implied that the respondents agreed that the capacity to adopt new farming technology influences performance of agricultural projects in Machakos County.

4.6 Monitoring and Evaluation

The study sought to evaluate the way M&E practices influenced the performance of agricultural projects funded by eastern community development programme in Machakos County. The researcher asked respondents to specify the extent to which they agreed with the statements concerning the influence of monitoring and evaluation on performance of agricultural projects in Machakos County. Table 4.9 shows the results.

Table 4.9: Extent of Influence of M&E Aspects on Performance of Agricultural Projects

	Mean	Std. Dev.
Monitoring plans are germane to organization activities	4.365	0.775

	Mean	Std. Dev.
The farmers and other project stakeholders are well trained on efficient monitoring planning practices in managing projects	4.555	0.605
The project monitoring and evaluation team carries frequent of field days	3.562	1.035
Network frameworks and diagrams are utilized in scheduling agricultural projects	2.628	1.057
The organization conducts surveys on its resources before it plans.	2.898	1.214
Swift assessment is normally carried out in monitoring plans utilized in projects	3.526	0.986
Aggregate Score	**3.589**	**0.945**

As per the findings, the respondents agreed to a very great extent that the farmers and other project stakeholders were trained well on efficient monitoring planning practices within project management as depicted by a mean score of 4.555. They also agreed to a great extent that monitoring plans are well applicable in organization activities as illustrated by a mean score of 4.365, the project monitoring and evaluation team carries frequent of field days as shown by a mean score of 3.562 and swift assessment was carried out within monitoring plans utilized in projects as illustrated by a mean score of 3.526. Further, it was agreed to a moderate extent that the relevant organization conducted surveys on its resources before executing its projects as illustrated by a mean of a mean score of 2.898 and that network frameworks and diagrams were utilized to schedule projects as illustrated by a mean score of 2.628. The aggregate mean score of 3.589, standard deviation of 0.945 implied that the respondents agreed that M&E practices influence performance of agricultural projects funded by eastern community development programme in Machakos County.

4.7 Stakeholders' Involvement

The research sought to evaluate the influence that stakeholder involvement had on performance of agricultural projects funded by eastern community development programme in Machakos County. Accordingly, the researcher requested participants to specify the degree to which they concurred with statements concerning influence of stakeholders' involvement on performance of agricultural projects in Machakos County. Table 4.10 depicts the responses.

Table 4.10: Extent of Influence of Stakeholders' Involvement Aspects on Performance of Agricultural Projects

	Mean	Std. Dev.
There is equality in assortment of project committee members	3.701	1.400
Projects committees include local community leaders	3.847	0.999

Need assessment is always conducted on the basis of communal priority at the stage of identifying projects	4.577	0.889
Tenders are normally awarded to local suppliers	4.539	0.735
All the stakeholders participate in decision making	2.703	1.090
The local people are hired to provide labor for the projects	3.967	0.809
Community supplies its locally available materials to projects	2.341	0.991
There is an equal contribution by all the stakeholders towards the projects.	3.648	0.993
The project management involves all the stakeholders during the project execution	3.923	1.213
Aggregate Score	**3.694**	**1.013**

Respondents agreed to a very great extent that thorough need assessment that was done on the basis of community priority was done at the point of identifying projects as illustrated by a mean score of 4.577. In addition, they agreed that tenders were given to local people as illustrated by a mean score of 4.539. The respondents also agreed to a great extent that the local people were hired to provide labor needed to the projects as illustrated by a mean score of 3.967, the project management involves all the stakeholders during the project execution as illustrated by a mean score of 3.923, the projects committee consists of local community leaders as illustrated by a mean score of 3.847, there was equality in selection of project committee members as illustrated by a mean score of 3.701 and there is an equal contribution by all the stakeholders towards the projects as illustrated by a mean score of 3.648. The respondents agreed to a moderate extent that all the stakeholders participate in decision making as illustrated by a mean score of 2.703 and also to a low extent that the community supplied materials that were locally available to project as illustrated by a mean score of 2.341. The aggregate score of 3.694 and standard deviation of 1.013 imply that the participants agreed that stakeholders' involvement influence the performance of agricultural projects funded by eastern community development programme in Machakos County.

4.8 Regression Analysis

This was done to determine the link between farmers' education level, stakeholders' involvement and monitoring and evaluation as the independent variables against the dependent variable, which was the performance of agricultural projects in Machakos County. The results are in Table 4.11, 4.12 and 4.13.

Table 4.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.904	0.818	0.808	1.232

These study results depict the manner in which the model fits the data into the equation. The adjusted R^2 provides the predictive power of the model and it implies that it can be utilized to provide about 80.8% variations in performance of agricultural projects in Machakos County. This variation can be explained by changes in farmers' education level, M&E processes and stakeholders' involvement.

Table 4.12: Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sign.
Regression	408.032	3	136.011	86.635	.000
Residual	91.056	58	1.570		
Total	**499.088**	**61**			

A p-value of 0.000 depicts that the model was significant at predicting the manner in which farmers' education level, M&E processes and stakeholders' involvement influenced performance of agricultural projects in Machakos County. The F calculated is 86.635 and it is greater than the critical one (2.764) at 5% significance level implying that the model is significant.

Table 4.13: Regression Coefficient

	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	**Std. Error**	**Beta**		
(Constant)	0.864	0.112		7.714	.000
Farmers' education level	0.895	0.393	0.921	2.277	.028
Stakeholders' involvement	0.675	0.239	0.718	2.824	.007
Monitoring and evaluation	0.579	0.178	0.629	3.253	.002

From the above figures, the regression equation would be: -

$$Y = 0.864 + 0.895X_1 + 0.675X_2 + 0.579X_3$$

As per the study results, it was revealed that if independent variables would be held constant at zero, then the performance of agricultural projects in Machakos County would be 0.864. Also, a unit increase in organizational farmers' education level would lead to 0.895increase in the performance of agricultural projects in Machakos County. The variable was significant since p=0.028 is less than 0.05; hence, null hypothesis that presumed that there was no significant relationship between farmer's education level and performance of agricultural

projects funded by Eastern Community Development Programme in Machakos County, was rejected.

Moreover, the study depicted that if all other variables would be held constant, then a unit change in the score of stakeholders' involvement would change the performance of agricultural projects within Machakos County by 0.675. The variable was significant because p=0.007 was less than 0.05; hence the null hypothesis that there was no significant relationship between monitoring and evaluation and performance of agricultural projects funded by Eastern Community Development Programme in Machakos County, was rejected. Finally, on the null hypothesis stating that there was no significant link between stakeholders' involvement and performance of agricultural projects funded by Eastern Community Development Programme in Machakos County, the study showed that a unit change in M&E would change the performance of agricultural projects in Machakos County by 0.579. Since the p-value=0.002 was less than 0.05, then the null hypothesis was rejected.

Overall, farmers' education level was determined to have the greatest influence on performance of agricultural projects within Machakos County. This was followed closely by stakeholders' involvement whereas M&E had the least influence.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the findings before discussing them and concluding the study by way of recommending the way forward from the findings. Both recommendations and conclusion are founded on study's objectives.

5.2 Summary of the Findings

The study sought to establish how farmers' education level influences the performance of agricultural projects funded by eastern community development programme in Machakos County. It established that it was to a great extent that literacy levels of project stakeholders led to better participation in the project activities; farmers had technical expertise; the farmers had undergone training on how carry out fish projects and the farmers had been trained and equipped with resource management skills. The study also found that farmers level of knowledge and skills affected their participation in the agricultural projects and the farmers had received training on pests and disease control to a moderate extent.

The research aimed at determining how capacity to adopt new farming technology influences the performance of agricultural projects funded by eastern community development programme in Machakos County. The study found that extension officers were normally within the reach of farmers to provide them with updated information concerning technologies available in the market, the information was made available to small holder farmers, extension workers undertook farmers through intensive training on conservation and fertility-restoring technologies, farmers were trained how to improve yields using technologies and using those technologies to a great length. Besides, the study established that most of the farmers having skills in irrigation technologies and awareness on yield-raising technologies like improved seeds were moderate. Further, it was found that the modern equipment being always accessible to farmers was to a low extent.

The study sought to evaluate the way M&E practices influenced the performance of agricultural projects funded by eastern community development programme in Machakos County. It found that to great extent farmers and other project stakeholders were trained effectively how to monitor planning practices within the organization of their projects. The study also found that

it was to a great extent that monitoring plans were applicable in the management practices, the project monitoring and evaluation team carried frequent of field days and swift assessment was always carried out within monitoring plans that were utilized within projects. Further, it was found to a moderate extent that the relevant organization conducted surveys before it implemented most of its projects and that network diagrams together with frameworks were used in scheduling agricultural projects.

The research sought to evaluate the influence that stakeholder involvement in projects had on the performance of agricultural projects funded by eastern community development programme in Machakos County. The research found that to a very great extent needs assessment based on communal priorities was conducted especially when projects were awarded to local people. The study also found to a great extent that the local people were hired to supply labor that was needed in most of the projects, the project management involves all the stakeholders during the project execution including local community leaders, there was equality in the selection of project committee members and there is an equal contribution by all the stakeholders towards the projects. The study found to a moderate extent that all the stakeholders participate in decision making and to a low extent that the community supplied locally available materials for project.

Additionally, the study found that the number of farmers had increased, level of productivity was high, variety of animals and crops had improved and years of operation had increased for the last five years.

5.3 Discussion of The Findings

This section discusses the findings in relation to the literature review.

5.3.1 Farmers Education Level and Performance of Agricultural Projects in Machakos County

The study found that it was to a great extent that literacy levels of project stakeholders led to better participation in the project activities; farmers had technical expertise; the farmers had undergone training on how carry out fish projects and the farmers had been trained and equipped with resource management skills. Chepkirui (2012) concurs that in order for projects to attain desired results the literacy levels for the people who implement those projects should be satisfactory so that it can ensure that there is minimal penetration in terms of advancement and growth within a society. In this respect, the low levels of access to training and formal

education have contributed significantly to the low levels of employment and even a better understanding of the issues that hamper project implementation.

The study also found that farmers level of knowledge and skills affected their participation in the agricultural projects and the farmers had received training on pests and disease control to a moderate extent. Duerand Christensen (2010) assert that educated populations are able to internalize concepts and processes related to project management easily especially in agricultural setups rural areas.

5.3.2 M&E and Performance of Agricultural Projects in Machakos County

The study found that it was to a very great extent that farmers and other project stakeholders were trained effectively to monitor planning practices within project management. This is just as Masole and Howie (2013) state that all people involved in implementing projects and M&E practices should receive some form of training. This process, however, should be deliberately participatory so that project implementers can familiarize themselves with projects' design, focus, intent and the way M&E tools should be used.

Also, the study found that to a large extent that monitoring plans were germane in management practices, project M&E teams carried out frequent field days and swift assessment was carried out on monitoring plans utilized within projects. This is in line with Swallow and Goddard (2013) who assert that there should be adequate planning, practical implementation mechanisms, performance indicators and baseline data within monitoring process so that projects can run smoothly.

Further, it was found that to a moderate extent organization conducted surveys before it planned projects and that network diagrams and frameworks were used in scheduling agricultural projects. These findings are in relation to Hogan (2012) who noted that the processes of monitoring and evaluating resources that were carried out before projects were planned helped in identifying capacity gaps within M&E processes and resources needed to conduct M&E training.

5.3.3 Stakeholders' Involvement and Performance of Agricultural Projects in Machakos County

The research found that to a great extent needs assessment processes were carried out within projects on the basis of communal priorities to identify projects that were awarded to local people. Pole and Wasilwa (2011) argue that different groups of stakeholders should be included

in project initiation to analyze needs and measurable goals, review operation processes, conduct financial analysis of the costs and benefits, identify users, offer the necessary support and identify project schedules and deliverables.

The study also found to a great extent that the local people were hired to supply labor to projects, the project management involves all the stakeholders during the project execution, the projects committee includes local community leaders, there was equality in selection of project committee members and there is an equal contribution by all the stakeholders towards the projects. The study found to a moderate extent that all the stakeholders participate in decision making and to a low extent that the community supplied locally available materials for project. In accordance with the findings, Kerzner (2009) noted that there was the need for all people involved in an organization including their departments, activities and different levels to work together because they all needed each other and they influenced organization in one way or the other.

5.4 Conclusion

Based on the above findings, the study concludes that the level of education among farmers has positive influence that is significant on the performance of agricultural projects in Machakos County. This is in spite of the fact that challenges in literacy skills hampers the management of the ventures. In this respect, it concludes that further education could enhance the awareness of advantages that come with modernizing food production by means of technology utilization hence improve food supply.

It further concludes that M&E practices have positive impact that is significant on the performance of agricultural projects in Machakos County. The monitoring practices in this case provide managers together with other stakeholders with feedbacks on continuous basis so that they can implement and identify potential successes and challenges within project implementation.

The study concluded that stakeholders' involvement is also important in the performance of agricultural projects in Machakos County because it helps stakeholders in explaining their expectations and managing them effectively within effective communication processes. Broadly speaking, it helps stakeholders to identify areas they can offer support and the way they can benefit from projects.

5.5 Recommendations

The study recommended that training centers should be built for farmers wishing to start up the projects so as to ensure they acquire the necessary skills and training before, which means a lot of extension services being availed. Therefore, government should provide sufficient resources to extension officers who are the contact experts to the farmers to ensure timely dissemination of training and skills.

The study also recommends that stakeholders should be involved in management of the projects to enhance performance of the agricultural projects. The long duration for meetings to discuss progress of the projects must come in brought in at the onset of the project and should incorporate key stakeholders and other parties interested. The frequency of stakeholders involved on M&E of projects also should be enhanced. The demonstration of the long term impact of stakeholders' participation should be straight forward.

The study recommends that the consultants in the projects enable the project team to improve performance of agricultural projects because they augment the number of completed projects. The different personnel for the different activities on management of agricultural projects should be included in the areas of collecting and analyzing data, writing reports, disseminating M&E practices and logical framework approach.

The study also recommends that the project team should monitor and manage most of the activities of agricultural projects field staff yearly basis. In addition, it recommends that people who management projects should support project team adequately by offering them clear job designations and allocations that are expert-led, training them when necessary and supporting them in different ways.

Because M&E processes are necessary in project performance future projects should focus on training managers and other important stakeholders how they can monitor projects effectively. For this reason, stakeholders' involvements together with M&E processes should be encouraged as part of learning process.

The adoption of agricultural technologies is an indispensable condition for the achievement of agricultural productivity, poverty eradication and the stimulation of growth in other sectors of the economy. The more farmers embrace new techniques, the more productive they are likely to benefit from those techniques and even enhance their welfare. Towards this, the National

and County Governments should collaborate between themselves in coming up with technological policies that can spur technology uptake by our farmers.

The Ministry of Agriculture in every County should put up an agricultural depot in every sub-county to supply Government subsidized farm inputs for easy access and to curb the selling of fake seeds to unsuspecting farmers in addition to coming up with processing plants and offering good storage of agricultural produce that goes to waste during harvesting periods.

5.6 Recommendations for Further Studies

A literature review depicted that there were few studies on the factors influencing the performance of agricultural projects funded by eastern community development programme (ECDP) in the country. Accordingly, the findings from this study serve as the basis for further studies on this area of study. The study confined its focus on the farmers' education level, monitoring and evaluation practices and stakeholder involvement. As a consequence, a similar study should be conducted to determine whether the findings could also apply to other agricultural projects in the country other than Machakos County. This would help in determining whether its findings could be generalized to other parts of the country. In addition, there would be the need to conduct further studies especially on other factors that were not evaluated in the current study. As such, a similar study, but with a different focus can also be carried out within Machakos County. This would be critical in evaluating other factors that influence the performance of agricultural projects within the country.

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