MONITORING AND EVALUATION PRACTICES AND THE PERFORMANCE OF AGRICULTURAL PROJECT:
CASE STUDY OF CATALYST PROJECT IN MUSANZE DISTRICT, RWANDA

HATANGIMANA THOMAS
MBA/0067/12

A Research Project submitted in Partial Fulfilment for The Award of the Degree of Master of Business and Administration (Project Management Option) of Mount Kenya University

NOVEMBER 2017
DECLARATION

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Student name: Hatangimana Thomas

MBA/0067/12

Sign: ……………………… Date: ………/…………/ 2017

This project report has been submitted for examination with my approval as Mount Kenya University Supervisor.

Name: Dr, Tom Mulegi

Sign: ……………………… Date: ………/…………/ 2017
DEDICATION

To my wife, Mukeshimana Consolée, for having supported my Master’s studies.

To my children Hatangimana Cyuzuzo Ange Jackson, Hatangimana Shemaryanjye Alain Voltaire, Hatangimana Mukesharugo Alice Marie, Hatangimana Munyanshongore Abraham Valentin.

To my colleagues for their cooperation.
ACKNOWLEDGEMENT

First of all, I thank the Almighty God for the gift of life.

I express my sincere acknowledgements to all who helped me by far or near for the execution of this work.

I extend my thanks to the Mount Kenya University and all Lecturers of the School of Business and Economics.

I would like to extend my heartfelt gratitude to my supervisor Dr. Tom Mulegi, for her valuable suggestions, corrections and comments that made this research project to a successful completion.

I thank all those who contributed for the performance of this work.

I finally thank my family for its support.

May God bless them all!
ABSTRACT

Many Agricultural projects have been implemented by Local Civil society and International Organizations, or by Government /MINAGRI to address problems related to livelihoods especially in rural areas where most of the inhabitants (Farmers) rely on agriculture of subsistence. Further projects fail despite heavy presence of monitoring and evaluation activities. This therefore raises serious issues as to whether the monitoring and evaluation practices employed are effective enough to achieve project goals. The general objective of this study is to assess the role of M&E practices on performance of agricultural projects in Rwanda, a case study of CATALIST project in Musanze District. IMBARAGA Farmers Organization as implementer of CATALIST Project in Musanze district will be given useful information on this subject matter. The target population is 183 that were involved and touched by project activities as direct beneficiaries. Sample size is 65 customers including 6 staff who are involved in M&E of CATALIST project. The questionnaire was pre-tested on 30 farmers as beneficiaries that were included in the population under study. This study discusses the data collection techniques and data collection instruments which are questionnaires, data validity and reliability and data analysis methods were discussed. Data for the study were collected and entered in SPSS and it was exported into Excel for generation of some tables and interpretation, SPSS generated some results for some inferential statistics. The findings show that following monitoring and evaluation practices were consistently done in CATALIST project: Monitoring and evaluation plan and coherent framework, M&E budget, M&E team and stakeholder involvement, Schedule of M&E activities, Frequency of data collection, Mid and end term project evaluation. The research findings show that there were effectiveness and impact of the CATALIST project in Musanze district. According to the findings both production of targeted crops and consequent income increased at households targeted by CATALIST project. In average the Irish potatoes increased production achieved was 20 Mt/ha and generated an average increased income by 403,123 Frw at household level. The maize crop increased production achieved was 3.024 Mt/ha and generated an average increased income by 170,596 Frw at household level. The wheat crop increased production achieved was 0.799 Mt/ha and generated an average increased income of 32,544 Frw at household level and finally the bean crop production increased at average of 0.951 Mt/ha and generated an average increased income of 36,492 Frw at household level. After CATALIST Project most of Beneficiaries shifted to two meals per day (84.2%). Even 15.8 % of CATALIST Project beneficiaries started to have three meals per day. The relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district was assessed by the study. The findings show that there is a positive influence of Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district. The coherent framework, M&E budget, stakeholders’ involvement, and Mid and end evaluation were found as practices which highly contributed to the performance of the project with high mean of 4.85 and less standard deviation of 0.408. The research recommended for further studies be done on other agricultural projects focusing firstly on the same crops in other districts and secondly on other agricultural projects targeting other crops such as cassava, banana, and various vegetables in different districts. There is need for both the donors and NGOs (project activities implementer) to allocate more resources on M&E activities.
# TABLE OF CONTENTS

DECLARATION.................................................................................................................. ii

DEDICATION................................................................................................................... iv

ACKNOWLEDGEMENT.................................................................................................... v

ABSTRACT....................................................................................................................... vi

LIST OF TABLES ............................................................................................................... x

DEFINITION OF KEY TERMS......................................................................................... xiv

CHAPTER ONE: INTRODUCTION ..................................................................................... 1

1.0. Introduction ................................................................................................................ 1

1.1. Background of the study .......................................................................................... 1

1.2. Problem Statement .................................................................................................. 3

1.3. Objectives of the Study ........................................................................................... 5

1.3.1. General Objective ............................................................................................... 5

1.3.2. Specific Objectives ............................................................................................. 5

1.4. Research Questions ................................................................................................ 6

1.5. Significance of the Study ......................................................................................... 6

1.6. Limitations of the Study ......................................................................................... 6

1.7. Scope of the Study .................................................................................................. 7

1.7.1 Concept scope ..................................................................................................... 7

1.7.2 Content scope ...................................................................................................... 7

1.7.3. Geographical scope ......................................................................................... 8

1.7.4. Time scope ........................................................................................................ 8

CHAPTER TWO: REVIEW OF RELATED LITERATURE .................................................. 9

2.0 Introduction to literature review .............................................................................. 9
2.1 Theoretical literature ........................................................................................................... 9
  2.1.1 Concepts ......................................................................................................................... 9
  2.1.2 Concept of monitoring and evaluation ............................................................................ 11
  2.1.3 Project performance ....................................................................................................... 14
  2.1.4 Relationship between M&E and project performance ................................................... 16
  2.2 Empirical literature ......................................................................................................... 18
  2.2.1 Monitoring and Evaluation in Project Management ....................................................... 18
  2.2.2 Role of management in M&E and project performance ................................................ 19
  2.4 Theoretical and conceptual framework ............................................................................ 23
    2.4.1 Theoretical framework ............................................................................................... 23
    2.4.1.1 Best practices in M&E of community based projects ............................................... 23
    2.1.4.2 MINAGRI/IFAD portfolio performance evaluation and poverty impact overview. ... 27
    2.1.6.2. Rural Poverty Impact ......................................................................................... 28
  2.5 Conceptual framework ..................................................................................................... 29
  2.6 Summary .......................................................................................................................... 30

CHAPTER THREE: RESEARCH METHODOLOGY ..................................................................... 31

  3.0 Introduction ...................................................................................................................... 31
  3.1 Research Design ............................................................................................................... 31
  3.2 Target Population ............................................................................................................. 32
  3.3 Sample design .................................................................................................................. 32
    3.3.1 Sample size ................................................................................................................ 33
    3.3.2 Sampling techniques ................................................................................................ 34
  3.4 Data Collection Methods ................................................................................................. 34
    3.4.1 Data Collection Instruments ..................................................................................... 34
    3.4.2 Administration of data collection instruments ............................................................ 35
    3.4.3 Validity and Reliability .............................................................................................. 35
  3.5 Data Analysis Procedure ................................................................................................. 36
    3.5.1 Primary data ............................................................................................................... 36
    3.5.2 Secondary data ......................................................................................................... 36
LIST OF TABLES

Table 1: Target population........................................................................................................32
Table 2: Existence of M&E plan in CATALIST Project.............................................................43
Table 3: Involvement of Respondent in M&E planning............................................................44
Table 4: Use of the log frame in planning M&E ......................................................................44
Table 5: Project schedule and M&E .........................................................................................45
Table 6: M&E data collection frequency ..................................................................................46
Table 7. M&E report and other activities ..................................................................................47
Table 8: Dissemination of M&E Report ....................................................................................47
Table 9: General appreciation ...................................................................................................48
Table 10: Specific appreciation .................................................................................................49
Table 11.M&E practices and CATALIST performance ............................................................58
LIST OF FIGURES

Figure 1: Conceptual framework ........................................................................................................... 29
Figure 2: Gender of respondents ........................................................................................................... 39
Figure 3: Age of respondents ................................................................................................................ 40
Figure 4: Working experience with CATALIST project in Musanze district between the period of 2007 to 2011 ............................................................................................................. 41
Figure 5: Gender of respondents ........................................................................................................... 41
Figure 6: Age of respondents ................................................................................................................ 42
Figure 7: Experience of respondents in CATTALIST Project ............................................................... 42
Figure 8: Budget proportion for M&E .................................................................................................... 46
Figure 9: Production of Irish potatoes crop (In Mt/ha) before and after CATALIST project in Musanze district .................................................................................................................................................. 50
Figure 10: Production of Maize crop (in Mt/ha) before and after CATALIST project in Musanze district .............................................................................................................................................. 51
Figure 11: Production of Wheat crop (in Mt/ha) before and after CATALIST project in Musanze district .............................................................................................................................................. 52
Figure 12: Production of Bean crop (in Mt/ha) before and after CATALIST project in Musanze district .............................................................................................................................................. 53
Figure 13: Income gained by farmers by crop before and after CATALIST intervention ................. 54
Figure 14: Meals frequency per day before and after CATALIST Project .............................................. 55
Figure 15: Food sufficiency before and after CATALIST project ......................................................... 56
Figure 16: Extent to which CATALIST objectives were achieved in Musanze district ....................... 57
Figure 17: Influence of M&E practices on the performance of CATALIST project in Musanze district .............................................................................................................................................. 59
LIST OF ACRONYMS AND ABBREVIATIONS

ADB : Asian Development Bank

CATALIST : Catalyze Accelerated Agricultural Intensification for Social and Environmental Stability.

CCIs : Community Innovation Centres

CIP : Crop Intensification program

CLGSs : Local Watershed Management and Supervision Committee

CPE : Country Programme Evaluation

DFID : Department for Foreign and International Development

EDPRS : Economic Development and Poverty Reduction Strategy

EU : European Union

Gov : Government

Hh : Household

IDB : Inter-American Development Bank

IFAD : International Fund for Agricultural Development

IFRCS : International Federation of Red Cross and Red Crescent Societies

IREX : International Research & Exchanges Board

ISAR : Institut des Sciences Agronomiques du Rwanda

LFA : Logical Framework Approach
MDGs : Millennium Development Goals
MINAGRI : Ministry of Agriculture and Animal Resources
MSE : Micro and Small Enterprises
NGO : Non-Governmental Organization
OECD : Organization for Economic Co-operation and Development
PAPSTA : Support Project for the Strategic Plan for the Transformation of Agriculture
(Pap de l’Appui au Plan Stratégique de Transformation de l’Agriculture au Rwanda)
PDCRE : Cash and Export Crops Development Project
PMBOK : Project Management Body Of Knowledge
PME : Participatory monitoring and evaluation
PPPMER II : Rural Small and Micro Enterprise Promotion Project - phase II
(Pap de Promotion de Petites et Micro Enterprises Rurales)
RADA : Rwanda Agriculture Development Authority
SMART : Specific, Measurable, Achievable / Agreed upon, Relevant/Realistic, Time-bound
SPSS : Statistical Package for the Social Sciences
TANGO : Technical Assistance NGOs
UNDP : United Nations Development Programme
UNISDR : United Nations International Strategy for Disaster Reduction
WB : World Bank
DEFINITION OF KEY TERMS

Evaluation

In the context of this study, we define evaluation as a systematic and objective process which attempts to determine the relevance, effectiveness and impact of project or program’s activities in the lights of the objectives. It also examines processes, contextual factors and causality in order to understand achievements or lack of achievements.

In other words, evaluation helps determining the relevance, impact, effectiveness, efficiency and sustainability of interventions and the contribution of the intervention to the results achieved.

Monitoring

From the perspective of our study we define monitoring as a regular observation and recording of activities taking place in a project or program. It is a process of routinely gathering information on all aspects of the project and to check on how project activities are progressing. From the point of reporting and accountability, monitoring can be understood as a process that involves giving feedback about the project to donors, beneficiaries and other key stakeholders by providing basic information for objective decision making and future project performance.

Project

In the context of our study, we define project as a temporary undertaking to deliver specific outputs in line with predefined time, cost and quality constraints. A project has then a well-defined start and end and specific objectives that when attained, signify completion. It can also be defined as a portfolio of multiple and related projects that are managed and
coordinated as one unit with the objective of achieving outcomes and benefits for the organization.

**Project Performance**

In this context, project performance can be assessed on the basis of completion within scheduled time, completion within reasonable cost and within budget, quality achievement, meeting of technical requirement, project achieving user satisfaction and finally achievement of organizational objectives. In this study the project performance is measured based on project effectiveness, efficiency, sustainability and the project impact.
CHAPTER ONE: INTRODUCTION

1.0. Introduction

This chapter intends to give an overview to the study by providing its background, stating the problem to be addressed, defining the objectives and the research questions, highlighting its significance, limitations, scope and finally by giving the organization of the study.

1.1. Background of the study

Globally, the number of people in absolute poverty has been in decline for around 25 years, yet in Africa it is still increasing. The challenge of poverty reduction in Africa is of a different order from that elsewhere and will require different strategies (Collier, 2007). In 2011 the average East Africa Community population living below US$1.25 a day was 48.0 per cent. There is wide variability in this data but the fact is that the poverty level in the region remains a big challenge. Women and children constitute the majority of the most affected groups. (EAC, 2016). Rwanda, one of EAC countries and Africa’s most densely populated country, remains poor and essentially rural. Several significant demographic and social shifts in the course of its history have contributed to slowing its economic development. Following extensive consultations across the country, the Rwandan Government elaborated its Vision 2020 which is a translation of Rwandans’ aspirations for the future of their country and society. The Vision presents a framework and key priorities for Rwanda’s development and a guiding tool for the future, and is ambitious to overcome poverty and foster unity and reconciliation. Vision 2020 has been made operational by a series of medium-term national Poverty Reduction and Economic Development Strategies. Rural development poverty reduction is achieved through broad-based growth across sectors in rural areas by improving land use, increasing the productivity of agriculture,
enabling graduation from extreme poverty and connecting rural communities to economic opportunity through improved infrastructure. The prevalence of poverty is associated with low productivity in subsistence agriculture. Poverty is highest by far (76.6%) among households (often landless) who obtain more than half their income from working on other people’s farms. The next poorest group is those with diversified livelihoods who obtain more than 30% or more of their income from farm wage work (76.2%). Women are more likely to fall into the category. Given the transition of some men to off-farm employment, there are now more women involved in agricultural subsistence production than before EDPRS 1(MINICOM, 2012). Many Agricultural projects / Programs have been implemented by Local Civil society and International Organizations, or by Government /MINAGRI to address problems related to livelihoods especially in rural areas where most of the inhabitants (Farmers) rely on agriculture of subsistence. In agriculture, the main programs include the intensification of sustainable production systems in crop cultivation and animal husbandry; building the technical and organizational capacity of farmers; promoting commodity chains and agribusiness, and strengthening the institutional framework of the sector at central and local level. (The Republic of Rwanda, EDPRS 2008-2012).

Despite various agricultural projects carried out for both economic growth purpose and improved economic livelihood in particular, many socio-economic indicators have been stagnant for long time or slightly improved. These projects or agricultural programs are initially well planned with clear results and indicators but there is still a big challenge to objectively measure expected outcomes.

However, in many Agricultural projects, M&E is something that is seen as a donor requirement rather than a management tool (International Research & Exchanges Board [IREX], 2010). The impact of the contribution of Agricultural projects in development
depends on their respective M&E practices across the world. The Projects are accountable to their stakeholders, public, private and beneficiaries. They should strengthen their M&E systems to be result oriented in order to improve constantly their public image.

With respect to agricultural projects, a recent study by the IDB (2010) finds that the coverage of agricultural impact evaluations is limited in most areas and even where there is a greater critical mass of evaluations, such as in land titling and technology adoption projects, additional information on these types of interventions would be helpful. Overall, Del Carpio and Maredia (2009) conclude that the evidence on the effectiveness of agricultural projects in developing countries is quite thin.

While methods of evaluation are well known, specific issues in evaluating agricultural projects make them different than evaluations done in the social sector (IDB, 2010). Agricultural projects are generally designed to improve production or the returns to agriculture and therefore impact evaluations of agricultural projects focus on production-based indicators such as gross margins, crop prices, yields, productivity, agricultural investment, spending on agricultural inputs, technology adoption, changes in land use patterns, crop and varietal diversification and food for home production. Collecting this type of information can be challenging, beginning with the definition of the sample unit: in fact, while production is often linked to multiple plots and crops, the decision-making process takes place at the household level. The challenge is even greater when attempting to evaluate the impact of a project on different types of households, such as smallholders and large holders, who quite often have very distinct production systems. (IDB, 2010)

1.2. Problem Statement

During recent decades, agricultural projects and their accountability have gotten into the public eye. Nonprofit organizations, which depend on public or private support, are more and
more under pressure to demonstrate their effectiveness and document their outcomes in order
to continue securing monetary support for their projects. By 2002, the International Fund for
Agricultural Development highlighted some challenges faced by projects and organizations
during M&E process like the fact that the monitoring is seen as an obligation imposed from
outside, with project staff mechanically filling in forms for managers and the project
managers seeing monitoring only as a form of data collection in the process of writing reports
for donors; the irrelevant and poor quality information produced through monitoring that
focused on physical and financial aspects and ignores project outreach, effect and impact; and
almost no attention is given to the M&E needs and potentials of other stakeholders such as
beneficiaries and community-based and other local cooperating institutions. Although a vast
body of M&E knowledge and expertise has been developed and institutionalized during
recent decades, mainstream M&E practices continue to be critically analyzed by development
practitioners and researchers (Naidoo, 2009). High rate of growth in agricultural productivity
is essential to promote broad-based economic growth, reduce poverty, and conserve natural
resources (World Bank, 2005). In turn, productivity growth is based largely on application of
science, technology, and information provided through national research and development
systems and various extension and advisory services of agricultural programs or projects
(World Bank, 2005). The assessment Project Performance is based on the three core
performance criteria: relevance, effectiveness and efficiency. Although the performance of
hundreds of rural development projects and programs at grass-root level has improved in
many aspects over the years, external evaluations continue to report weaknesses in their
Monitoring and Evaluation (M&E) systems, in particular in the way impact M&E is carried
out and used at project management and policy level. (IFAD, 2002.)
A significant share of the failed projects was government funded or donor funded projects. These projects usually undergo the necessary monitoring and evaluation processes which are often a requirement of the law. The paradox is, despite a consensus among scholars that proper monitoring and evaluation leads to project success, there are still cases of project failure in Rwanda. Further projects fail despite heavy presence of monitoring and evaluation activities. This therefore raises serious issues as to whether the monitoring and evaluation employed is effective enough to achieve project. Thus, the problem addressed by this study was to assess the effect of M&E on agricultural project performance in Rwanda, with the case study of CATALIST project in Musanze district where Monitoring and Evaluation (M&E) knowledge and expertise is needed towards data collection and impact analysis.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of this study is to assess the role of Monitoring and Evaluation practices on the performance of agricultural projects in Rwanda.

1.3.2. Specific Objectives

i. To assess monitoring and evaluation practices of CATALIST project in Musanze district during the period from 2007 to 2017

ii. To assess the performance of CATALIST Project in Musanze district during the period from 2007 to 2017

iii. To establish the relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district.
1.4. Research Questions

i. What are monitoring and evaluation practices in CATALIST project in Musanze district?

ii. What is the performance of CATALIST project in Musanze district?

iii. What is the relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district?

1.5. Significance of the Study

The study is significant to the researcher, academics, CATALIST project and its Partners and IMBARAGA Farmers Organization mainly for the following reasons:

To the researchers and academic community: After this study is successfully conducted, a copy will be availed in the Mount Kenya University academic library and will serve as reference to the academic community members who will be interested in the similar research. This study will help the researchers to understand more about the M&E of agricultural projects and their success in Rwanda.

CATALIST Project and its Partners: CATALIST project and its Partners will be given an opportunity to know more about the M&E of Agricultural Projects in Rwanda. Imbaraga Farmers Organization as implementer of CATALIST Project in Musanze district will be given useful information on this subject matter. This study will be used for future agriculture interventions.

1.6. Limitations of the Study

First of all, the research was conducted in the context where the researcher undertook postgraduate studies while also accomplishing his duty at work for survival and ability to pay all the school dues. Hence six months period after successful completion of all course
units including the research methodology, time allocated to the research was a constraint to the researcher. It would be better if it was given a longer time. A steady follow up of the action plan of the research enabled us to avoid unnecessary counter times. Second, M&E as field has gained much emphasis in these last decades with a diversified documentation worldwide.

However, at some places it was a challenge to the researcher to timely obtain accurate document from project managers and other officials. Also there has been restricting will from some respondents who did not return back the filled questionnaire to the researcher. For all the above mentioned constraints, the researcher tried to establish good rapport with all stakeholders in the research and regularly kept updating managers to maintain involvement and participation at different levels.

1.7. Scope of the Study

The scope of this study is defined in terms of concept, content, time, and geography.

1.7.1 Concept scope

This study is based on the new development paradigm of M&E which attaches an increased value to results-orientation, iterative learning and evidence-based policy-making (Holvo & Rombouts, 2008)

1.7.2 Content scope

The study aims at assessing the effectiveness of M&E of Agricultural project and assessing the factors determining the success of agricultural project in Rwanda, specifically the Crop intensification program (CIP), a case study on CATALIST Project in Musanze district.
1.7.3 Geographical scope

The study covers the District of Musanze, Sector, Cyuve, Kinigi, Nyange, Busogo and Gataraga.

1.7.4 Time scope

The study covers the period of 10 years from 2007 to 2017. Because CATALIST Project was implemented over the period of 2007 to 2011 and project impact is assessed after the project that is from 2011 to 2017.

1.8. Summary

The study consists of five chapters. Chapter one is an overview of chapter content and gives background of the study and problem leading to this research as well as the objectives of the study which is also stated in this chapter. The following chapter is a review of literature, which is presented as chapter two. This gives background information in terms related to monitoring and evaluations practices and project success, relationships, empirical literature, critical review and frameworks. Chapter three is the methodology which describes of the methods the researcher will use to collect, analyze and interpret data. The chapter four deals with research finding and discussion, it presents findings based on the general objective of this study which is to assess the role of Monitoring and Evaluation practices on the performance of agricultural projects in Rwanda. The fifth chapter deals summary, conclusion and recommendations, it discusses the summary of findings on the study based on the research objectives.
CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction to literature review

This chapter presents the literature related to the research topic under the following themes: theoretical literature and empirical literature that provide us with an insight of what has previously done by others in the field of Monitoring & Evaluation and performance of the project. It also entails M&E of agricultural project. The chapter concludes with note on summary and gaps to be filled by the study, the theoretical framework and conceptual framework that illustrates the research problem and how it will be addressed.

2.1 Theoretical literature

2.1.1. Concepts

2.1.1.1 Monitoring

Monitoring is a system of activities with three critical components: it requires the regular collection of information, it requires an evaluation of that information, and most importantly, it requires that the evaluation results in an institutional (project) action (Kiesler and Sproull, 1982).

Monitoring is a continuous process of collecting and analyzing information to compare how well a project, a program or policy is being implemented against expected results. Monitoring aims at providing managers and major stakeholders with regular feedback and early indications of progress or lack thereof in the achievement of intended results. It generally involves collecting and analyzing data on implementation processes, strategies and results, and recommending corrective measures (IFRCS, 2007). According to McCoy, Ngari and Krumpe (2005), monitoring is defined as “The routine tracking of key elements of project
implementation performance, usually inputs, activities and outputs, through record keeping, regular reporting and surveillance”. Monitoring hence seeks to determine if the inputs, activities and outputs (immediate deliverables) are proceeding according to plan. The inputs are tracked including financial and human resources, equipment used and other inputs into project implementation.

2.1.1.2 Evaluation

Shapiro (2002) defines evaluation as a comparison of actual project impacts against the agreed strategic plans. Evaluation looks at what you set out to do, at what you have accomplished, and how you accomplished it. Uitto (2004) argues that evaluations are systematic and independent. They are an assessment of an ongoing or completed project including its design, implementation and results. Furthermore, he explains that evaluations assess the relevance, efficiency of implementation, effectiveness, impact and sustainability of the project.

Evaluation is defined as “the periodic assessment of the relevance, performance, efficiency, and impact (both expected and unexpected) of the project in relation to stated objectives.” (EU, 2007). Evaluation is the periodic assessment of the design, implementation, outcomes and impact of a development intervention. It should assess the relevance and achievement of objectives, implementation performance in terms of effectiveness and efficiency, and the nature, distribution and sustainability of impacts. (Casley & Kumar, 1987).

The credibility of the evaluation outcome depends enormously on the quality of the information provided and most importantly the way this information was collected, analyzed and interpreted by evaluators. For this, evaluations should be as objective as possible so that the information provided is credible as much as possible, and not easily
disputed or set aside (International Fund for Agricultural Development handbook for monitoring and evaluation [IFAD], 2004).

2.1.2 Concept of monitoring and evaluation

The field of monitoring and evaluation has gained priority over recent decades to its current status characterized by an impressive body of research literature and a community of practitioners in the field of project management. It is therefore intimately linked to project management function. However, though monitoring and evaluation are distinct, they are complementary (Shapiro, 2002). The term “monitoring and evaluation” runs the two together when they are in fact, two distinct sets of organizational activities that are related but not identical.

The Development Assistance Committee (DAC) of the OECD (2002), defines ‘monitoring’ as a continuing function that uses systematic collection of data on an ongoing development and with specified indicators. This data is used to provide management and key stakeholders with indicators of the extent of progress and achievement of objectives and progress in the use of allocated funds. Alternatively evaluation is defined as a systematic, objective assessment of an ongoing or completed project, program or policy. This may include evaluation of design, implementation and results against the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability.

On the other side, Casley & Kumar (1986) as quoted by Crawford & Bryce (2003) disprove the use of acronym M&E to mean monitoring and evaluation. They suggest it infers a single function without making a clear distinction between the two. In response to this consideration, monitoring and evaluation are described separately for the purpose of making a clear distinction between the two terms.
Monitoring is a continuous function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds (Mbeche, et al, 2009). Evaluation is the systematic and objective assessment of an ongoing or completed project, program, or policy, including its design, implementation, and results. The aim is to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact, and sustainability (EC, 2012).

A monitoring and evaluation framework on how success of the projects should be measured forms part of the project proposal due to demand to demonstrate results and accountability requirements on projects performance (IIIRR, 2012). Monitoring and evaluation on agricultural projects should provide a logical way of assessing whether and how goals were being achieved over time to meet community’s priority needs.

Planning for monitoring helped to clarify project objectives, assumptions, indicators and activities. Good indicators for which data could be collected, analyzed and used to make decisions about the project’s direction, made monitoring and project management easier (ACF, 2011). Participation was also a solid operational principle, since leaving intended community members participating in the project out of decision-making increased the risk that interventions would not match people’s priorities and needs (CARE PMERL, 2012). Participatory methods provided active involvement in decision-making for those with a stake in the project, program, or strategy and generated a sense of ownership in the M&E results and recommendations (World Bank, 2004).

There are different ways of doing an evaluation but they can be broadly divided into two categories based on when they take place these include formative and summative
evaluations. The first takes place during the life of a project or organization, with the intention of improving the strategy or way of functioning of the project or organization. This type of evaluation may also look at the continued relevance of the project and its sustainability. The aim is to improve the performance of the project during implementation (Shapiro, 2002). It is therefore an on-going evaluation that enables management and stakeholders to know about project progress toward certain outlined objectives, and the activities and strategies that aided the participants to reach predetermined objectives.

The second is summative evaluation that is used to assess the project’s success after the project has ended. It serves in drawing lessons from a completed project or an organization that is no longer functioning. This type of evaluation attempts to determine the success of the project, achievement of overall goals, participant satisfaction and benefit, effectiveness, end results versus cost, and whether the program should be repeated or replicated (EC, 2012).

Welling and McDowall (2000) identify two types of summative evaluations that are process evaluations and outcome evaluations. The process evaluations look at the actual development and implementation of a particular program. It establishes whether you’ve hit quantifiable targets and implemented strategies as planned. It’s typically done at the end of the project and it looks at the program from start to finish, assessing cause-and-effect relationships between the program components and outcomes. Whilst the first mainly looks at the process, the second focuses on the outcome. Outcome evaluation measures the change that has occurred as a result of a program. For example, when a process evaluation confirms that 150 people have completed a vocational training program then an outcome evaluation will tell you how many of these demonstrate an
increased confidence, changed behaviors, how many have started or created new jobs opportunities because of the new skills etc.

2.1.3 Project performance

On project performance, there is wide divergence of opinions in this field; the only agreement seems to be what constitutes ‘project performance’ (Murphy, et al, 1974; Pinto & Slevin 1988; Gemuenden & Lechler 1997 and Shenhar, et al, 1997). In this study, project performance, was considered as the overall quality of a project in terms of its impact, value to beneficiaries, implementation effectiveness, efficiency and sustainability. M&E is analyzed to see its influence on project performance, taken to mean degree of project goal achievement.

PMBOK (2001) explains that project success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction. Ling (2009) also assessed Scope management, Time management, Cost management, Quality management, Risk management, Human resource management, Procurement management, and Integration management in relation to project success where he established there were significant associations. These factors were closer to Papke-Shields’ (2010) factors.

Time dimension of assessing project success is the most common aspect brought out in the literature review. Pretorius, et al, (2012) found out that project management organizations with mature time management practices produce more successful projects than project management organizations with less mature time management practices. Project time is the absolute time that is calculated as the number of days/weeks from start on site to practical completion of the project. Speed of project implementation is the relative time (Chan, 2001). Peterson & Fisher (2009) established that construction firms are usually interested in monitoring project time variance and verifying contractor progress payments requests.
Kariungi (2014) expressed that energy sector projects were completed on time due to factors such as efficient procurement procedures, favorable climatic factors, and timely availability of funds and proper utilization of project planning tools.

Completion of the project within the budget is another dimension that is used to measure project success. Costs can be computed in form of unit cost, percentage of net variation over final cost and so on (Chan, 2001). The project monitoring and evaluation team may control the costs using PERT and CPM techniques. Projects often face cost overruns during the implementation phase; hence a proactive approach is essential for monitoring project costs and detection of potential problems (Cheng, et al, 2012). Related to cost aspect of measuring project success, is technical performance. Baker (2008) identified technical performance as one of the project success factors among others such as schedule performance and cost performance. Quality achievement by projects is also another dimension of assessing project success. The quality of projects and project information has a significant influence project success (Raymond & Bergeron, 2008). Closely related to the quality and technical requirement dimensions is the scope. Project completion within scope is considered as one of the success factor. The project charter or statement of work requires the implementers to develop a scope of work that was achievable in a specified period and that contained achievable objectives and milestones (Bredillet, 2009).

Another important dimension in project success includes customer satisfaction (Dvir, 2005). A project that in the final analysis leads to customer satisfaction would be said to be successful. Evaluating the performance of project is beneficial to both the stakeholders by enabling them to appraise the services received and to project manager by helping them to improve their services (Besner & Hobbs, 2008). Project success relates to the end product’s goals in terms of performance and fulfilling the technical requirements, as well as customer
satisfaction. Successful projects also contributes to company's success in long term in terms of gaining a competitive advantages; enhancing company's reputation; increasing the market share; and reaching specified revenue and profits (Tmeemy, 2011). Project manager whose personality profile was close to the ideal Project Manager’s profile for a particular project type were more successful in impact on the customers, benefit to the organization and overall success (Malach, et al, 2009). This ultimately means that the project managers who understand the projects will be in a better position to satisfy the clients of the project and the stakeholders.

2.1.4 Relationship between M&E and project performance

It is important to recognize that monitoring and evaluation are not magic wands that can be waved to make problems disappear, or to cure them, or to miraculously make changes without a lot of hard work being put in by the project or organization. In themselves, they are not a solution, but they are valuable tools (Verma, 2005). There are various processes involved in the monitoring and evaluation of projects which when done correctly can lead to improvement and good delivery of projects in future (Msilu & Setlhako, 2013).

Monitoring and evaluation can help identify problems and their causes and suggest possible solutions to problems (Shapiro, 2001). In this way, M&E can have influence on project performance much as there is inadequate information on this (Singh & Nyandemo, 2004). So then, what activities are involved in M&E? According to UNDP (2009), conducting monitoring and evaluation involves a number of complementary activities of which the most important is to formulate a plan for M&E, which guide the rest of the exercise. Shapiro (2001) adds that monitoring and evaluation should be part of the project planning process and that there is need to begin gathering information about project performance in relation to targets right from the start.
Several studies have been carried out with an aim of determining the critical success factors (CSFs) which contribute to project success. Most of the studies as discussed in the following paragraphs links project success to M&E. The problem of this study is that, despite knowledge that effective M&E is a major contributor to project success, there are still project failures in Rwanda. This section explores the existing knowledge that links effective M&E to project success. A study by Prabhakar (2008) pointed that Monitoring and Feedback was one of factors leading to project success. Likewise Papke-Shields, et al, (2010) also noted that the probability of achieving project success seemed to be enhanced among other factors, by constantly monitoring the progress of the project. According to their study, monitoring and controlling was relevant in management of project scope, time, cost, quality, human resources, communication and risks.

In agreement, Hwang and Lim (2013) also established that Monitoring and evaluating, budget performance, schedule performance and quality performance could lead to project success. Ika (2012) carried out a regression analysis which shows that there was a statistically significant and positive relationship between each of the five Critical Success Factors and project success. The five critical success factors include monitoring, coordination, and design, training and Institutional environment. He further explained that, consistent with theory and practice, the most prominent CSFs for project supervisors are design and monitoring. Hence Ika (2012) ranks M&E highly as one of the major project success factors.

A research carried out by Ika (2010) established that project success was insensitive to the level of project planning efforts but on the other hand ascertained that a significant correlation does exist between the use of monitoring and evaluation tools and project “profile,” a success criterion which was an early pointer of project long-term impact. Once again Ika (2010) accentuates that M&E is even more critical than planning in achievement of
project success. Similarly one of the components of the project management methodology whose main aim is to achieve project success was monitoring project progress (Chin, 2012).

There seems to be consensuses across the project management field of study in the statement that monitoring and evaluation is a major contributor to project success. To crown it all, PMBOK (2001) which is a book which presents a set of standard guidelines which are widely accepted and consistently applied, continually stresses the importance of monitoring and evaluation in achieving project success.

2.2 Empirical literature

2.2.1 Monitoring and Evaluation in Project Management

Managing Stakeholders, teamwork among members and monitoring the progress of the project work are some of the key processes used to manage the project work (Georgieva & Allan, 2008). A good monitoring team is the one that has good stakeholders’ representation. Likewise an M&E team which embraces teamwork is a sign of strength and an ingredient for better project performance. Gwadoya, (2012) found that there was a shared need for proper understanding of Monitoring & Evaluation practices in donor funded projects. This is an indication that there was lack of shared understanding of Monitoring & Evaluation practices in donor funded projects among the various teams. With proper enhancement and capacititating of the monitoring teams, there would be more team work and hence more productivity.

According to Karlyn (1996), development assistance has come under greater scrutiny with increased attention being given to the local impacts of development assistance. The impact of NGO projects on local communities and environment is not well understood, nor is the differential impacts on women, children, landless or other vulnerable groups. There are likely
to be many reasons why development projects do not succeed or have unintended negative impacts on people and the resources on which they depend. Lemons and Porter (1992) report cited by Karlyn (1996) noted that only 55% of impact assessment practitioners monitor for social impacts in development projects.

2.2.2 Role of management in M&E and project performance

Management and leadership as well as project teams, is also emphasized in the literature as having a significant effect on the project success. Management and leadership also play a key role in supporting monitoring and evaluation of projects. Yang, et al, (2011) carried out an analysis that suggested that increases in levels of leadership may enhance relationships among team members. The study also indicated that teamwork had a statistically significant influence on project performance.

Yang, et al, (2009) analyzed the various factors which are critical to the success of a project most which were centered around managing stakeholders, Assessing attributes (power, urgency, and proximity) of stakeholders, Compromising conflicts among stakeholders effectively, Formulating a clear statement of project missions, Predicting stakeholders’ reactions for implementing the strategies, Analyzing the change of stakeholders’ influence & relationships during the project process and Assessing stakeholders’ behavior. Yang’s critical success factors were mainly focused around the stakeholder’s management. It’s the role of management to look into the affairs of stakeholders. However stakeholder management is not the only responsibility of management as regards project success.

Research also shows that some of the best project management practices include: Managing Communications, Managing Stakeholders, Motivating, and Knowledge Transfer. Planning, testing and monitoring the progress of the project work are some of the key processes used to manage the project work (Georgieva & Allan, 2008).
Under normal circumstances the project managers implement any project as guided by government rules and regulations, organizations requirements, stakeholder’s preferences and client location. It is important that management confirms the completion of promised deliverables. Performance during monitoring is compared against the original plans created during the first days of a project and measurements must be against revised and relevant baseline plans (Attarzadeh & Ow, 2008). It is the role of management to facilitate monitoring and evaluation of the projects.

Management’s competence, commitment to the project, communication and cooperation with the project teams has a significant contribution towards the success of a construction project. These factors were found to be of significance in as assessed in Malaysian construction industry (Yong & Mustaffa, 2012). Management commitment is a key aspect when it comes to the implementation of monitoring and evaluation since they are key decision makers in an organization (Magondu, 2013).

Atencio (2012) suggested that charismatic leadership and people-oriented/relations-oriented leadership have negative connotations associated with them. Charismatic leaders are viewed as not having follow-through. People-oriented/relations-oriented leadership is viewed as biased and ineffective do to the subjectivity of the decisions made, and actions taken that are heavily influenced by favorable relationships. This implies that the leadership style adopted by the management has an effect on the performance of project teams.

Jetu (2013) pointed out that, personally focused cultural values, such as openness to change, rather than socially focused cultural values, such as self-transcendence have the most significant influence on project team performance. They further found cultural values to have a strong relationship with two out of three dimensions of Project.
Team Success, namely, project team learning and development, as well as project team working spirit, when compared to project team leadership. Community participation right from the onset of the project is critical as it ensures that the community owns up the project which is viewed as one of the factors that could ensure project success (Marangu, 2012). It is the role of management to ensure that there is community participation and in fact participation of all the stakeholders in the project implementation and in monitoring so as to guarantee project success.

Muriithi and Crawford (2003) identified several issues related to approaches to project management in Africa. These issues include: the need to cope with political and community demands on project resources, recognition that economic rationality and efficiency, assumed as a basis for many project management tools and techniques does not reflect local realities; and that use of such tools and techniques will not enhance project success if they run counter to cultural and work values.

2.3 Critical Review and Research Gap Identification

Though the studies carried out mainly dealt with critical success factors, monitoring and evaluation being one of them, few of the studies have focused on monitoring and evaluation in isolation and in a greater detail. Several other studies reviewed also focused on monitoring and evaluation for example (Peterson and Fischer, 2009; Naidoo, 2011; Mwala, 2012; Marangu, 2012) but none have addressed to the specific link between monitoring and evaluation in relation to project success. This is the gap that this study seeks to address.

Through reviewed literature on monitoring and evaluation of agricultural project, it was identified that there are gaps on how M&E function is done by Non-Government Organizations. Monitoring and evaluation is not yet properly integrated in their working procedures. Karlyn (1996) found that few studies covered how local NGOs monitor and
evaluate their projects in light of contemporary M&E practices. She further noted that there has not been much research on the distribution of impacts in highly participatory projects, despite the emphasis donors have given to local participation.

As far as agricultural project in Rwanda are concerned, no previous studies specifically devoted the relationship between monitoring and evaluation practices and agricultural project success in an extensive literature was conducted.

Though M&E plays a vital role in the project cycle management, it is not well understood by NGOs and these show little evidence of M&E in their working procedures. What are the reasons behind inadequate monitoring and evaluation practices of community-based projects within NGOs? This research sought to assess the M&E practices used to monitor and evaluate their interventions in the light of M&E contemporary best practices.

In Africa and developing countries, including Rwanda, government policy plays a major role in project management, more so in the public sector (Pinto, 2000). One of the models that is employed by the politicians in controlling projects is the sacred cow model where the politician or a powerful person in the organization dictates on the projects to be implemented (Asaka, et al, 2012). Political influence is to be expected in project management and this includes monitoring and evaluation aspect. The researcher did not come across studies that have covered the effect of government policy on monitoring and evaluation and how it affects the project success. This is yet another gap that this study sought to address.

Departing from CATALIST Project as a case study, the researcher identified the relationship between M&E practices and project performance. The researcher assessed the rural impact of agricultural project and made recommendations to improve the existing M&E systems for agricultural project.
2.4 Theoretical and conceptual framework

2.4.1 Theoretical framework

2.4.1.1 Best practices in M&E of community based projects

Despite the inherent challenges of conducting impact assessment of projects and programs run by NGOs, there is a growing recognition that there is a need for evidence of the impact of such projects and programs and a need for insights on how to improve project performance. In order to ensure the rigor of such evaluations, it is important that they follow good practices in terms of identifying comparisons groups, establishing a baseline and mixing quantitative and qualitative methods through a well-functioning M&E system. Some of the best practices associated with monitoring and evaluations are described below:

2.1.4.1.1 Monitoring and evaluation plan

To effectively monitor and evaluate any program or project it is necessary to develop an overall M&E strategy plan. The plan should be prepared as an integral part of project plan and design. M&E should therefore be part of the planning process. According to Shapiro (2003), the first information gathering should in fact take place when conducting needs assessment. This provides information to assess improvements overtime.

Through the planning process, it is important to set indicators that provide the framework for the M&E system. Indicators clarify what you want to know and the kinds of information it will be useful to collect.
2.1.4.1.2 Coherent framework

A clear framework is essential to guide monitoring and evaluation. A framework should explain how the project is supposed to work by laying out the components of the intervention and the order or steps needed to achieve the desired results. Aune (2000) argues that one of the best practices that have been adopted because of its structured approach is the Logical Framework Approach (LFA). It acts as a tool to aid both the planning and M&E functions during implementation. Other frameworks such as results frameworks can also be used. It is thus important to note that coherent framework increases understanding of the project’s goals and objectives, defines the relationship between factors key to implementation and articulates the internal and external elements that could affect the project’s success.

2.1.4.1.3 Monitoring and evaluation budget

Given the importance of M&E in the achievement of the expected results and success of the project, M&E activities should also be integrated in the early phase of project planning and be allowed for in the budgeted. According to Gyorkos (2003), a monitoring and evaluation budget can be clearly delineated within the overall project budget to give the M&E function the due recognition it plays in project management. Monitoring and Evaluation costs are variable and largely depend on how the M&E plan is structured. There is a need to provide for M&E activities throughout the planning process to ensure that the activities take place in due time and are part of integral body of the project.

2.1.4.1.4 Schedule of monitoring and evaluation activities

Monitoring and evaluation plan is used as a reference throughout the length of a project cycle to track progress including the M&E data and results. Therefore it needs to be planned and
scheduled at all level of project cycle management to ensure all project progress are tracked and monitored on due time. McCoy, et al, (2005) argue that the M&E activities of the project should also be included in the project schedule so that they are given the due importance they require, not done at the ‘whim’ of the project manager.

2.1.4.1.5 Specification of the frequency of data collection

The monitoring and evaluation timetable should be straightforward and must provide the answer to the question of when each of the monitoring and evaluation activities is being implemented. Hence there should be a clear specification of how often monitoring and evaluation data is collected and from whom. There should be also a specification of schedule for monitoring and evaluation to written report. The decision on how frequently a given indicator needs to be monitored depends on a careful assessment of the trade-off between the desirability of the recent data and the cost of collection, much like the decisions on which indicators to track and at what level of disaggregation. For instance, much data on outputs is available on an annual, quarterly or even monthly basis whilst data on impact is only assessed annually. This is both because it is costly to collect and analyze household survey, and participatory data and impact indicators do not usually change rapidly (Gyorkos, 2003).

2.1.4.1.6 Stakeholder’s involvement

A project stakeholder is anyone who has a stake in the project being assessed or undertaken. Participatory M&E enables people to take an active role in their own development; to be actors of the development process is the ultimate goal.

The classical approach in M&E design is that the information is collected at peripheral level and reported to the central level of the organization where it is consolidated and analyzed.
The experiences with such centralized systems are sporadic and in general, the data quality is poor.

The involvement of beneficiaries in M&E brings a sense of ownership that contributes to long-term sustainability long after the project donor has ceased financing the project. It also increases the chances of beneficiaries taking over the services of the project.

Therefore, participation and involvement of a broader range of stakeholders in M&E is critical to develop a successful M&E plan from the design stage to the implementation. This enables a better use of M&E conclusions, recommendations and lessons, (Shapiro, 2003).

2.1.4.1.7 Mid-term and end of project evaluations

Evaluation is an important tool that organizations use to demonstrate accountability, improve performance, increase access to funds, support future planning, and fulfill organizational objectives. Evaluation is usually defined as assessing the value, worth or merit of something. The most common types of evaluation are: formative, process, summative and outcome.

The formative evaluation is an ongoing evaluation that starts early in a project to assess the nature of the project, the needs to be addressed, and the progress and implementation of the project. The process evaluation is used to monitor activities to make sure a project is being implemented and completed as designed and on time. The summative evaluation is an overall assessment of the project’s effectiveness and achievements. It reveals whether the project did what it was designed to do and provides information for future planning and decisions. It is usually completed when the project is over and can be conducted by an external evaluator, staff or practitioner, who is well equipped with required knowledge and resources. (Pinto, 2000).
The outcome evaluation assesses the extent to which a project has achieved its intended effects, and other effects it could have had on the project’s participants or environment. It focuses on immediate, intermediate or ultimate outcomes resulting from completion of the project.

2.1.4.1.8 Dissemination of monitoring and evaluation findings

The next stage is to communicate these lessons to the project stakeholders. The stakeholders should be a part of the project review making it a logical step to communicate lessons learned to those same stakeholders. It is important to archive and communicate the lessons learned to all project managers either through the project management office or previously approved means of project management collaboration and communication (Hughes, 2002).

2.1.4.2 MINAGRI/ IFAD portfolio performance evaluation and poverty impact overview.

The evaluation framework refers to criterion for evaluation as defined by IFAD as of relevance, effectiveness, efficiency and sustainability in this research we discussed about effectiveness and rural impact criterion.

2.1.4.2.1 Effectiveness criterion

It is about the extent to which the development intervention’s objectives were achieved, or are expected to be achieved, taking into account their relative importance.

Effectiveness criterion will consider following guidelines:
Consider key project objectives and verify data on their achievement; comparing (when possible) actual figures against expected figures (with some caution if the project is not completed). It refers to the detailed project objectives in the design document (e.g. appraisal report). For a project disseminating new agricultural practices, measures of effectiveness may
be adoption rates. Actual figures may be compared to expected figures (with some caution if the project is not completed). It is important to highlight factors that explain achievement and underachievement (IFAD, 2003).

2.1.6.2. Rural Poverty Impact

Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions. This impact refers to what extent did the project play a role in the observed changes and how reference made to coverage: how many benefited; magnitude: how large are benefits and beneficiaries: what categories of people benefited and why? The Rural Poverty impact is assessed on following issues: household income and assets (hh income diversification and increase and range of changes in housing quality, availability of livestock, appliances, durable goods, inventory for microenterprises, on indebtedness if possible), human and social capital and empowerment (changes in social cohesion, functioning of rural poor’s organizations, changes in technical capacity of people, changes in the way the poor interact with authorities and changes in the way certain categories (women, orphans, minorities) interact with others), food security and agricultural productivity (Access to food, evidence on children’s nutritional status, reduction in seasonal fluctuation in food availability), natural resources and the environment (Changes in the availability of natural resources: forest, water, topsoil, fish, vegetable cover etc., changes in capacity to manage natural resources and changes in exposure to environmental risks e.g. flooding, landslides), institution and policies (Consider changes in issues such as land tenure and security, protection / regulation of savings for rural poor, access to market, price information and change in other institutions that affect the poor) (IFAD, 2011).
### 2.5. Conceptual framework

On the basis of the review of literature as explained in the immediate previous sections, the conceptual framework is a combination of the various findings in literature which have been grouped and arranged to a framework which will guide this research in an attempt to provide a solution to the research problem. The conceptual framework is illustrated in Figure 2.1.

**Conceptual framework**

On the basis of the review of literature as explained in the immediate previous sections, the conceptual framework is a combination of the various findings in literature which have been grouped and arranged to a framework which will guide this research in an attempt to provide a solution to the research problem. The conceptual framework is illustrated in Figure 2.1.

#### Source: Researcher, 2017

The conceptual framework used for this study is informed by the literature and observations of the researcher, as it pertains to the field of M&E especially for Agricultural projects in

![Conceptual framework diagram](image-url)
general and particularly in Rwanda, CATALIST Project in Musanze district. For the M&E practice to be realized efficiently for Agricultural projects, there should be well prepared in the Project document with a clear understanding based on the donor ‘policies and Government policies, that guides effective management towards project performance leading to the impact.

The framework depicts the relationships between monitoring and evaluation and project success as mediated by management support and government policies.

The independent variables (Monitoring and evaluation practices) are Monitoring and evaluation plan and coherent framework, M&E budget, M&E team and stakeholder involvement, Schedule of M&E activities, Frequency of data collection, Mid and end term project evaluation which will or may influence the project evaluation and monitoring dependent variables that are respectively the project performance (Effectiveness, Efficiency, Sustainability and the Project Impact).

2.6 Summary

This chapter has brought M&E and project performance related literature to better understand the study. It has shown the definition of key terms, concepts, empirical literature, framework and monitoring and evaluation in World Bank Project and IFAD agricultural project performance evaluation criterion. The gaps to be filled by the study have been shown and finally a conceptual framework of the study was developed.
CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter refers to how the research was conducted. It indicates where the data were obtained from and describes the research design, population size, sample size selection, data collection and processing and data analysis. Briefly, this chapter indicates the methods, techniques and approaches that were used during the research process. It also helps the researcher to make a decision while analyzing, evaluating and interpreting the data obtained from the field, and provides a basis for innovation. In short, in this chapter, the researcher intends to explain the research design and methodology to be used to answering the research questions.

3.1 Research Design

By definition a study design is the process that guides researchers on how to collect, analyze and interpret observations. It is a logical model that guides the investigator in the various stages of the research (Getu, 2006).

This study is a descriptive research design based on case study. Because it is well suited to studies in which individuals are used as a unit of analysis in order to measure generalizations (Gall & Borg, 1999). The survey design is best suited for this study because the data required for analysis was collected from a large population, in which it could be hard to observe the features of each individual.

In addition, descriptive studies are structured with clearly stated questions to be investigated. The descriptive design was therefore selected and used in this study. It allowed the researcher to gather numerical and descriptive data to assess the relationship
between the variables. This made it possible for the researcher to produce statistical information on relationship between M&E practices and CATALIST Project performance.

3.2 Target Population

According to Grinnell & Williams (1990) the population is defined as totality of persons or objects which the study is concerned. A population is also defined as a group of individuals or items from which samples are taken for measurements. The population of the study is 183 farmers as the total number of direct beneficiaries of CATALIST project in Musanze district from Sector, Cyuve, Kinigi, Nyange, Busogo and Gataraga for the period on 2005 to 2011.

The study treated 183 targeted farmers and 6 project staff as population; Table 3.1 shows the whole targeted population by sex as direct beneficiaries (Monthly report on list of beneficiaries kept by the field agronomist: Nsabimana Emmanuel, Personal communication, December, 2012).

### Table 3.1: Target population

<table>
<thead>
<tr>
<th>Target population</th>
<th>Number of individuals</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>96</td>
<td>52.4</td>
</tr>
<tr>
<td>Female</td>
<td>87</td>
<td>47.6</td>
</tr>
<tr>
<td>Total Population</td>
<td>183</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

3.3 Sample design

Under normal circumstances, the whole population should be used to get the information for the study. But due to the time constraint, vast area and inadequate resources, it was not possible to carry out the study on the whole area. Therefore, a sample was selected to
represent the whole population. Sampling is the process of selecting units (for example, people, organizations) from a population of interest so that by studying the sample we may fairly generalize our results back to the population from which they were chosen (Bailey, 1978). It is obvious from the definition of the population above that a census was not feasible in this study according to the time and financial means available. Accordingly, the study has not used the random sampling to determine a sample (subset of the population that is taken to be representative for the entire population) from the population of the study.

3.3.1 Sample size

In the course of CATALIST project implemented in Musanze district by Imbaraga Farmers Federation, a total of 183 were involved and touched by project activities as direct beneficiaries and project staff.

According to Yamane (1967) sample size is calculated in case of finite population as follow

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

Where \( n \) is sample size

- \( N \) is total population
- \( e \) is the level of confidence is 0.1

Sample size for the population of 183 beneficiaries is

\[ n = \frac{183}{1 + 183(0.1)^2} = 65 \]

Sample size is 65 customers who are involved in M&E of CATALIST project, plus 6 project staff therefore the number of respondents is 71.
3.3.2 Sampling techniques

The study used both probability and non-probability sampling techniques to create a sampling frame for staff and farmers. Stratified sampling was one of the probability techniques used in order to ensure that all levels are included in the survey. The study population was stratified into two main levels. These included the staff (agronomists) and the beneficiaries (farmers). Non-probability sampling was employed to select some key administrative staff members at senior management level.

3.4 Data Collection Methods

3.4.1 Data Collection Instruments

Questionnaire

A questionnaire can be defined as a set of related questions designed to collect information from a respondent. A group of sequence of questions designed to elicit information upon a subject) or a sequence of subjects from an informant. A questionnaire is a survey instrument intended for in mated or self-administered survey. It is composed of either open-ended and either close-ended questions (Bickle, 2001). Open-ended questionnaire is a set of questions set to give interviewee a chance to express his or her opinions. Open-ended questions allow respondents freedom in answering questions and the chance to provide in-depth responses (Tayie, 2005). Close-ended questionnaire refers to questions whose answers are given in multiple choices, the role of the respondent is to tick or circle the choice which suits his or her opinion. It limits the respondents’ response by the use of pre-selected alternatives. This type of questions is more convenient as it is less time consuming and allows the researcher to get order and logic answers. The questionnaire was in Kinyarwanda for easy understanding of the respondents.
3.4.2 Administration of data collection instruments

The questionnaire was in Kinyarwanda for easy understanding of the respondents and the researcher explained the questionnaire to beneficiaries and agronomists. The researcher went to the area where respondents were selected, that is where the researcher found the respondents that were among the beneficiaries. Before administrating the questionnaire to the respondents, the researcher firstly introduced himself to the respondents who are project beneficiaries and agronomists through an introductory letter provided by Mount Kenya University. After, a researcher explained briefly about his research by emphasizing on research results that he was expecting from the respondents. And the researcher asked questions from the questionnaires and the researcher wrote the answers as the beneficiaries were responding with a purpose of collecting the data for coding, analyzing and interpreting them.

3.4.3 Validity and Reliability

The validity is defined as the correctness or credibility of a description, explanation, interpretation, account or conclusion (Maxwell, 1999). The validity refers to whether the variables measure what they are intended to measure. Validity is the extent to which the measurements of the survey provide the information needed to meet the study's purpose (Simon & Francis, 1998). The validity was used in this research is content validity. It refers to how much measure covers the range of meanings included within a concept (Babbie, 2008; Kothari, 1984; Kothari, 1985 and Kumar, 2005). To test the validity the questionnaire was given to some people to try it and give feedback.

The reliability of a measurement is defined as the extent to which the measure produces the same results used repeatedly to measure the same thing (Ross, 2006). The more reliable a
measure is, the greater is its statistical power and the more credible are its findings. Reliability is often used to refer to the consistency of survey responses over time.

Babbie (2008) stated that sometimes it is appropriate to make the same measurements more than once, using a technique called the "test-retest method". The questionnaire was pre-tested on 30 farmers as beneficiaries that were included in the population under study.

3.5 Data Analysis Procedure

3.5.1 Primary data
Primary data are data that the researcher collects for the study at hand. It is the data that is collected directly by the researcher himself on the relevancy of other study. Primary data comes from the people you are searching from and are therefore the most direct kinds of information that you can collect. Primary data is said to be the first hand observation and investigation. The primary data is the information originated by the researcher for the purpose of the investigations at hand (Gilbert, 1992). The primary data was gathered using a questionnaire.

3.5.2 Secondary data
Secondary data is a data that always exist. Macmillan (1994) point out that, secondary data is data that have already been collected for some purpose other than the question at hand. Secondary data are one step moved from the original data and are often an examination of a study someone else has made on a subject or an evaluation of commentary on or summary or primary material. Also secondary data were collected from reports, the donors ‘documents and planning documents like annual, monthly and operational plans. Gilbert (1978) defined secondary data as the information not gathered for immediate study at hand but for other purpose.
3.5.3 Data processing and analysis

Data analysis is defined as the process of evaluating data using analytical and logical reasoning to examine each component of data provided (Neuman, 2007). For the purpose of making the collected data understandable and clearer, the researcher present the raw collected data in a proper manner for easy interpretation and analysis. This was done though subprocesses of editing, coding and tabulation. Data was handled and stored to prevent data leakage. The names and contact details of the survey sample were stored in a secure location separately from the questionnaires. The data was entered in SPSS and it was exported into Excel for generation of some tables and interpretation, SPSS generated some results.

Editing

Editing of the survey aims to detect and as far as possible and eliminate errors in the completed questionnaire. Editing drives mainly to discover mistakes made during the field of the study and monitor the accuracy and find out whether there are some unfilled spaces in the questionnaire and eliminate unwanted responses. All this were done to ensure completeness, accuracy, consistence, uniformity, legibility and complexity of the data.

Coding

According to Macmillan (1994) coding means categorizing answers into meaningful categories so as to bring out their essential patterns. The researcher adopts this technique to involve all responses and views from selected respondents from targeted beneficiaries by CATALIST Project in Musanze district. Here, responses and view of every respondent was entered in a unique way, there after the researcher marched and compared the views of all respondents to every question. This was so helpful to the researcher to classify the information into a meaningful form so as to drive essential patterns in the responses and deduce data to summary from that way that is easy to deal with.
Tabulation

Data tabulation is done after editing and coding. According to Nachmias (1976) tabulation is putting the data into some kind of statistical tables such as percentages and frequency occurrence of responses to particular questions. Tabulation is either done by hand or by computer. Tabulation by hand is essentially establishing frequency distribution of the codes and then calculating the number and the percentage of these codes. It is form of manual tabulation the researcher used. Each table is followed by explanations about the nature of the relationship between variables indicated in the tables. The researcher does all this to present clear and understandable data. Tabulation is particularly important in that hypotheses are tested using percentages. A quantitative analysis using descriptive statistics and appropriate statistical tools like Excel 2007, SPSS was used for tabulation, calculation of frequency, average, percentage, graphs. These tools were used by the researcher to get useful information in order to achieve the objectives of the study.

3.6 Ethical consideration

In this research, the participants participated in the survey work willingly and the researcher took time to explain the main objective of the study which is to assess the role of M&E practices on success of agricultural projects in Rwanda, a case study of CATALIST project in Musanze district. The information from the respondents was used for the survey purpose only and was treated as confidential and for academic purpose only.
4.0 Introduction

This chapter presents findings based on the following objectives. The general objective of this study is to assess the role of Monitoring and Evaluation practices on the performance of agricultural projects in Rwanda. The specific objectives are: to assess monitoring and evaluation practices of CATALIST project in Musanze district; to assess the performance of CATALIST Project in Musanze district and to establish the relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district. The research findings were analyzed mainly from primary data and responses were collected from the sample size of 57 respondents from beneficiaries of CATALIST project and 6 CATALIST Staff in Musanze District.

4.1 Demographic characteristics of respondents

4.1.1 General information of respondents from beneficiaries of CATALIST Project

4.1.1.2 Gender of respondents

![Gender of respondents](image)

**Figure 4.1: Gender of respondents**

Source: computed from survey data
Figure 4.1 illustrates that the majority of respondents (beneficiaries) were females during the survey (54.4%) and male were the least questioned respondents because females are the most active in farming activities that CATALIST project deals with while male still busy with business out of the household.

4.1.1.3 Age of respondents

![Age of respondents](image)

**Figure 4.2: Age of respondents**

Source: computed from survey data

Figure 4.2. Shows the age of respondents whereby more respondents are aged in range of 50 years and above (51%) followed by respondents aged range of 30-40 (30%) and finally respondents aged in range of 40-50 (19%), the results show that agricultural activities are performed by aged people as few youths are interested in the agricultural sector.

4.1.1.4 Working experience of respondents with CATALIST project in Musanze district

This section helps to know how long the respondent has been working with CATALIST project in Musanze district. It helps to know if targeted respondent has really been benefiting from CATALIST interventions in Musanze district.
Figure 4.3: Working experience with CATALIST project in Musanze district between the period of 2007 to 2011

Source: computed from survey data

Figure 4.3 shows that 82.5% of respondents (beneficiaries) have been working with CATALIST project for more than 5 years in Musanze district, 10.5% for 3-5 years and 7% for 1-3 years. This shows that adult people are the ones involved in agricultural activities.

4.1.2 General information of respondents from CATALIST Project staff

4.1.2.1 Gender of respondents (CATALIST Staff)

Figure 4.4: Gender of respondents

Source: Computed from survey data
Figure 4.5 illustrates that the majority of CATALIST Staff are males (66.7% of respondents are male) while 33.3% of respondents questioned were female.

### 4.1.2.2 Age of respondents

![Age of respondents](image)

**Figure 4.5: Age of respondents**

Figure 4.5 shows that the CATALIST Staff members are aged of above 40 years, 3 respondents have age between 40 and 50 years and 3 respondents have age above 50 years.

### 4.1.2.1 Experience of respondents in CATALIST

![Experience of respondents](image)

**Figure 4.6: Experience of respondents in CATALIST Project**

Source: Computed from survey
Figure 4.6 above shows that 5 respondents (83.3%) have experience which is between 3 and 5 years working with CATALIST Project and 1 respondent has the experience above 5 years.

4.2 Presentation of findings

4.2.1 Effectiveness of M&E Practices

This section assess the effectiveness of monitoring and evaluation practices M&E plan, Coherent framework, M&E budget, Stakeholder involvement, Schedule of M&E activities, Frequency of data collection, Mid and end term project evaluation. Different questions were addressed to CATALIST staff to know if these practices are used and to assess their effectiveness.

4.2.1.1 Existence of monitoring and evaluation plan

Monitoring and evaluation plan is one of the M&E practices, the respondents (staff) were asked if in CATALIST Project the M&E plans are used.

Table 4.1: Existence of M&E plan in CATALIST Project

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.1 shows that all the respondents 6 out of 6 agreed that they have M&E plan they confirm that in CATALIST Project there is M&E plan. This shows that M&E plans are used in CATALIST Project.
4.2.1.2 Stakeholders involvement in M&E planning

Table 4.2: Involvement of Respondent in M&E planning

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.2 shows that all respondents agreed that stakeholders are involved in M&E planning, this conform the involvement of CATALIST stakeholders in M&E planning.

4.2.1.3 Coherent framework

Do you use the log frame in planning M&E?

Table 2.3: Use of the log frame in planning M&E

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.3. shows that 6 out of 6 respondents (100%) conform that they use the log frame in planning M&E, this conform the use of log frame in planning M&E for CATALIST and this the only framework used.

4.2.1.4 Schedule of M&E activities

The question addressed to the staff was to know whether the M&E is part of project schedule.
Table 4.4: Project schedule and M&E

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.4 shows that 6 out of 6 respondents agreed that M&E is part of project schedule, this conforms the exist of project schedule including Project M&E activities.

4.2.1.5 M&E budget specification

The question addressed to the staff was to assess whether there a specific budget form M&E

Table 4.5: specification of M&E budget

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.5 shows that all respondents (6 out 6) agreed that there is specific budgets form Monitoring and Evaluation activities. This conform the existence of specific budget for M&E activities.

4.2.1.6 M&E budget proportion

A question was addressed to CATALIST field staff about the proportion of M&E budget comparatively to the total budget used by the project
Figure 4.7.  Budget proportion for M&E

Figure 4.7 shows that 4 respondents (66.7%) agree that the budget proportion for M&E is less than 10% of the total budget of the project and 2 agree that the budget proportion is between 10.1% and 15% of the total budget this shows that the budget is less than 10% but not all staff knows about the exact proportion of M&E budget.

4.2.1.7 M&E data collection frequency

The M&E data collection frequency was also tracked with CATALIST Project staff, the responses are in the table below

Table 4.3: M&E data collection frequency

<table>
<thead>
<tr>
<th>Data collection frequency</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarterly</td>
<td>5</td>
<td>83.3</td>
</tr>
<tr>
<td>Annually</td>
<td>1</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher
Table 4.6 shows that 5 out of 6 respondents agree M&E data collection is done quarterly and 1 respondent agree that data collection is done annually this shows that there is M&E data collection which is done quarterly and annually.

4.1.2.8 M&E reporting

The question addressed was to know whether M&E report is separated from other activities.

**Table 4.4. M&E report and other activities**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.7 shows that 6 respondents agree that M&E report is separated from other project activities

4.1.2.9 Dissemination of M&E findings

The question was about to know to whom was addressed the M&E Report.

**Table 4.5: Dissemination of M&E Report**

<table>
<thead>
<tr>
<th>Dissemination of M&amp;E findings</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report to donors</td>
<td>5</td>
<td>83.3</td>
</tr>
<tr>
<td>Report to beneficiaries</td>
<td>1</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.8 shows that 5 respondents agree that M&E report is disseminated to donors and 1 respondent agree that to the beneficiaries, this shows that the report is disseminated mainly to donors first.
4.2.2 Assessment of CATALIST Project performance

4.2.2.1 Evaluation and rating of demonstration plots, extension material, the practical skills and knowledge on ISFM.

This section helps us to get feedback from respondents on how they evaluate and rate the demonstration plots to show improved agricultural technologies, extension material disseminated in community, the practical skills and knowledge on ISFM acquired during the implementation of CATALIST project in Musanze district.

General appreciation

This gives overview from project beneficiaries on the general appreciation by respondent on demonstration plots, extension material, the practical skills and knowledge on ISFM received by respondents from CATALIST project staff on Musanze district.

Table 4.6: General appreciation

<table>
<thead>
<tr>
<th>General appreciation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enough</td>
<td>6</td>
<td>10.5</td>
</tr>
<tr>
<td>Good</td>
<td>46</td>
<td>80.7</td>
</tr>
<tr>
<td>Very good</td>
<td>5</td>
<td>8.8</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher

Table 4.9. show that the demonstration plots, extension material, the practical skills and knowledge on ISFM received by respondents from CATALIST project staff in Musanze district were appreciated in general as good by 80.7% of respondents, as very good by 8.8% of respondents and as enough by 10% of respondents.
Specific appreciation

This is about the specific appreciation by respondent on demonstration plots, extension material, the practical skills and knowledge on ISFM received by respondents from CATALIST project staff on Musanze district

**Table 4.7: Specific appreciation**

<table>
<thead>
<tr>
<th>Specific appreciation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enough</td>
<td>5</td>
<td>8.8</td>
</tr>
<tr>
<td>Good</td>
<td>39</td>
<td>68.4</td>
</tr>
<tr>
<td>Very good</td>
<td>13</td>
<td>22.8</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source: Researcher**

Table 4.10 shows that demonstration plots, extension material, the practical skills and knowledge on ISFM received by respondents from CATALIST project staff on Musanze district were appreciated specifically as good by 68.4 % of respondents, as very good by 22.8 % of respondents and as enough by 8.8 % of respondents

**4.2.2.2 Food security and agricultural production and productivity**

The food security and agricultural production and productivity refers to the performance of CATALIST project on both the wellbeing and improved livelihoods of beneficiaries in Musanze district. In this regards the production of targeted crops (Irish potatoes, Maize, bean and wheat) at household level was were considered before and after CATALIST project interventions
Irish Potatoes crop

Figure 4.8: Production of Irish potatoes crop (In Mt/ha) before and after CATALIST project in Musanze district

Source: Computed from survey

Figure 4.8. Shows very well how the production of Irish potatoes crop increased due to CATALIST project interventions. The minimum production of Irish potatoes crop before CATALIST project was 0 Mt/ha and Maximum of 12 Mt /ha with average of 4.439Mt/ha. After CATALIST project interventions, the production was significantly increased: Minimum of 15 Mt/ha , Maximum of 30 Mt /ha with a mean of 20 Mt/ha . In average, the production of Irish potatoes was increased by 20 Mt /ha in households targeted by CATALIST Project. The findings show that there is rural impact as the production increased significantly.
Maize crop

![Production of maize](image)

**Figure 4.9:** Production of Maize crop (in Mt/ha) before and after CATALIST project in Musanze district

Source: Computed from survey

Figure 4.9. Shows very well how the production of Maize crop increased due to CATALIST project interventions. The minimum production of Maize crop before CATALIST project was 0 Mt/ha and Maximum of 2 Mt/ha with average of 0.46 Mt/ha. After CATALIST project interventions, the production was significantly increased: Minimum of 1 Mt/ha, Maximum of 5 Mt/ha with a mean of 3.484 Mt/ha. In average, the production of Maize crop was increased by 3.024 Mt/ha in households’ targeted by CATALIST Project.
Wheat crop

Figure 4.10: Production of Wheat crop (in Mt/ha) before and after CATALIST project in Musanze district

Source: Computed from survey

Figure 4.10. Shows very well how the production of Wheat crop increased due to CATALIST project interventions. The minimum production of Wheat crop before CATALIST project was 0 Mt/ha and Maximum of 1 Mt/ha with average of 0.175 Mt/ha. After CATALIST project interventions, the production was significantly increased: Minimum of 0 Mt/ha, Maximum of 5 Mt/ha with a mean of 0.974 Mt/ha. The average production of Wheat crop was increased by 0.799 Mt/ha in households targeted by CATALIST Project.

The minimum of the Wheat crop production may remain as 0 Mt/ha even after CATALIST interventions when the farmer do not apply correctly recommended technologies as of the use of improved seed, use of both organic and inorganic fertilizers and respect the crop rotation and soil erosion control practice.
Bean crop

![Production of beans](image)

**Figure 4.11: Production of Bean crop (in Mt/ha) before and after CATALIST project in Musanze district**

Source: Computed from survey

Figure 4.11. Shows very well how the production of bean crop increased due to CATALIST project interventions. The minimum production of Bean crop before CATALIST project was 0 Mt/ha and Maximum of 0.9 Mt/ha with average of 0.377 Mt/ha. After CATALIST project interventions, the production was significantly increased: Minimum of 0 Mt/ha, Maximum of 2.5 Mt/ha with a mean of 1.328 Mt/ha. The average production of Bean crop was increased by 0.951 Mt/ha in households targeted by CATALIST Project. The minimum of the bean production may remain as 0 Mt/ha even after CATALIST interventions when the farmer do not apply correctly recommended technologies as of the use of improved seed, use of both organic and inorganic fertilizers and respect the crop rotation and soil erosion control practice.
4.2.2.3 Income before and after CATALIST

The information on income generated by targeted crops in targeted households enlighten on the performance of CATALIST project in the community.

Figure 4.12: Income gained by farmers by crop before and after CATALIST intervention

Source: computed from survey data

Figure 4.12 shows how CATALIST interventions increased the income gained by farmers in Frw. Farmers are getting more income after CATALIST interventions from respectively
Irish Potatoes, followed by the Maize crop and bean crop. The income from the wheat crop is still very low comparatively to other crops. This is due mainly to the lack of remunerative market for the wheat crop. Processing factories existing in Rwanda prefer to import from outside the wheat at low cost. The varieties grown are producing a flour not suitable for making the bread.

4.2.2.4 Meals frequency and frequency before and after CATALIST

Figure 4.13: Meals frequency per day before and after CATALIST Project

Source : Computed from survey

Figure 4.13 shows very well that most of beneficiaries had one meal per day (63.2 %) before CATALIST Project. After CATALIST Project most of beneficiaries shifted to two meals per day (84.2%). Even 15.8 % of CATALIST Project beneficiaries started to have three meals per day.
Figure 4.14: Food sufficiency before and after CATALIST project

Source: computed from survey data

Figure 4.14 shows very well that 56.1% of beneficiaries had not access to enough food per meal before CATALIST Project. After CATALIST Project, all beneficiaries affirmed to eat sufficient food per meal.
4.2.2.4 Assessment of CATALIST project performance as addressed by CATALIST staff

Achievement of CATALIST Objectives

![Achievement of CATALIST Objectives](image)

**Figure 4.15: Extent to which CATALIST objectives were achieved in Musanze district**

**Source: Computed from survey data**

Figure 4.15 shows that all the CATALIST objectives have been achieved at the percentage above 60%, the interventions have increased the production of targeted crops and food security at more than 80%. However, many effort need to be addressed by other project to improve on value chain development, linking farmers to market and agro dealership development.
4.2.3 Contribution of M&E Practices to the CATALIST Performance

The CATALIST staff were asked their views on the contribution of M&E practices on the project performance, the question was to know if M&E practices contribute to the CATALIST performance.

Table 4.11: M&E practices and CATALIST performance

<table>
<thead>
<tr>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.11 shows that all respondents testify that M&E practices contributed to the performance of CATALIST project therefore confirming the existence of a positive influence and relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district.

4.2.4 Influence of M&E practices to the project performance

The figure below shows to what extent contributed M&E Practices to the performance of CATALIST project in Musanze district.
Table 4.12: Influence of M&E practices on the performance of CATALIST

<table>
<thead>
<tr>
<th>Researcher</th>
<th>One-Sample Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>How M&amp;E Plan contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How Coherent framework contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How M&amp;E budget contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How M&amp;E team contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How stakeholders involvement contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How schedule of activities contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How frequency of data collection contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
<tr>
<td>How mid and end term evaluation contributed to the performance of CATALIST Project?</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 4.12 shows that the Coherent framework, M&E budget, stakeholders’ involvement, and Mid and end evaluation are the key M&E practices contributed to the performance of the project as the mean responses is 4.83 which is a high and less standard deviation of 0.408 , They were most influencing practices for the performance of CATALIST Project.
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter discussed the summary of findings on the study, “Monitoring and evaluation practices and performance of agricultural project. A case study of CATALIST project in Musanze district. The chapter presents the summary of findings, conclusions and recommendations based on the research objectives.

5.1 Summary of major findings

The results illustrated by figure 4.1 show that the majority of respondents (beneficiaries of CATALIST Project) were female (54.4%) this is because females are the most active in farming activities.

The respondents are aged in range of 50 years and above (51%) followed by respondents aged range of 30-40 (30%) and finally respondents aged in range of 40-50 (30%).

The results in figure 4.7 show that 83.3% of CATALIST staff have experience ranged between 3 and 5 years working with CATALIST.

5.1.1 Objective one

The objective one of the study is to assess monitoring and evaluation practices of CATALIST project in Musanze district. The findings of the study were briefly reiterated before recommendations were made. From Table 4.1 to Table 4.8, the M&E practices in CATALIST were found to be at a high level in comparison with the recommended M&E best practices. For all M&E practices identified (Monitoring and evaluation plan and coherent framework, M&E budget, M&E team and stakeholder involvement, Schedule of M&E activities, Frequency of data collection, Mid and end term project evaluation)
most of the respondents (90% of CATALIST Staff) confirmed that they were consistently done in CATALIST project.

The findings show that 4 respondents (66.7%) agree that the budget proportion for M&E is less than 10% of the total budget of the project but it was observed that not all staff knows about the exact proportion of M&E budget.

5.1.2 Objective two

The second objective of the study was to assess the performance of CATALIST Project. The performance indicators assessed were: effectiveness of CATALIST objectives and the rural impact. The rural impact was assessed based on food security and agricultural productivity, the questionnaire was addressed to beneficiaries of CATALIST Project. The findings from the beneficiaries as illustrate in figures 4.9, 4.10, 4.11, 4.12 show that in average, the production of Irish potatoes was increased by 20 Mt /ha in households targeted by CATALIST Project, the production of Maize crop was increased by 3.024 Mt /ha, the average production of Wheat crop was increased by 0.799 Mt /ha, the average production of Bean crop was increased by 0.951 Mt /ha in households targeted by CATALIST Project. CATALIST interventions increased the income gained by farmers in Frw. Findings show that Farmers are getting more income after CATALIST interventions from respectively Irish Potatoes, the average income increased at 403,860 Rwf, followed by the Maize crop which increased at 170,596 Rwf and bean crop which increased at 36,492 Rwf. The income from the wheat crop (average increment of 32,544 Rwf) is still very low comparatively to other crops. This is due mainly to the lack of remunerative market for the wheat crop. Processing factories existing in Rwanda prefer to import from outside the wheat at low cost. The varieties grown are producing a flour not suitable for making the bread. Before CATALIST Project interventions, most of beneficiaries had one meal per day (63.2 %) before
CATALIST Project. After CATALIST Project most of beneficiaries shifted to two meals per day (84.2%) with sufficient food. Even 15.8% of CATALIST Project beneficiaries started to have three meals per day with enough food.

5.1.3 Objective three

The third objective was to establish the relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district. The findings, as illustrated by Table 4.11 show that all respondents (100%) confirmed that the performance of CATALIST project was due to M&E practices used, therefore confirming the existence of a positive influence and relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district. The findings show the mean responses for coherent framework, M&E budget, stakeholders’ involvement, and Mid and end evaluation was 4.85 when then the maximum point was 5 with less standard deviation of 0.408, this shows that they are the key M&E practices which contributed to the performance of the project.

5.2 Conclusions

The study infers that is one of significant means to agricultural project performance and cogent arguments and presentation have been made logically to come to the conclusion that all research questions that guided the whole research were fully answered. Evidences to prove are as follows:

By addressing the research question about what are monitoring and evaluation practices in CATALIST project in Musanze district, the findings showed that following monitoring and evaluation practices were consistently done in CATALIST project: Monitoring and evaluation plan and coherent framework, M&E budget, M&E team and
stakeholder involvement, Schedule of M&E activities, Frequency of data collection, Mid and end term project evaluation.

Research question concerned with what is the performance of CATALIST project in Musanze district was completely answered. According to the findings of both production of targeted crops and consequent income increase at households targeted by CATALIST project. In average the Irish potatoes increased production achieved was 20 Mt/ha and generated an average increased income by 403,123 Frw at household level.

The maize crop increased production achieved was 3.024 Mt/ha and generated an average increased income by 170,596 Frw at household level.

The wheat crop increased production achieved was 0.799 Mt/ha and generated an average increased income of 32,544 Frw at household level and finally the bean crop increased production achieved was 0.951 Mt/ha and generated an average increased income of 36,492 Frw at household level.

After CATALIST Project most of Beneficiaries shifted to two meals per day (84.2%). Even 15.8% of CATALIST Project started to have three meals per day.

The research question on what is the relationship between Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district was assessed by the study. The findings show that there is a positive influence of Monitoring and Evaluation practices and the performance of CATALIST project in Musanze district. The coherent framework, M&E budget, stakeholders’ involvement, and Mid and end evaluation contributed to the performance of the project with mean of 4.85 and less standard deviation of 0.408.
5.3 Recommendations of the study

After successful completion of the study on M&E practices and agricultural performance, Case study of CATALIST Project in MUSANZE District, the researcher recommends the following to address some of the issues as highlighted in this research.

First and foremost, it is imperative that further study be done on other agricultural project focusing firstly on the same crops in other districts and secondly on other agricultural projects targeting other crops such as cassava, banana, and various vegetables in different districts.

Second, much as there are a lot of resources being invested in project activities implementation, very little is trickling down to the monitoring and evaluation that is supposed to inform about effectiveness and efficiency of implemented projects. Therefore, there is need for both the donors and NGOs (project activities implementer) to allocate more resources on M&E activities, so that the progress on implementation can be timely monitored and the impact measured upon completion of project activities.

Third, findings revealed a critical lack of expertise for staff in monitoring and evaluation of projects implemented by CATALIST in Musanze district. There is need for training in this aspect of monitoring and evaluation. Donors in conjunction with Implementers should invest more in capacity building of staff that implement project activities by providing them with monitoring and evaluation skills.

Fourth, donors need to relax the reporting requirements. Most of the donors have stringent, time consuming and laborious reporting requirements. There is need for donors to improve the existing reporting tools by identifying simpler and friendlier reporting formats without compromising their interests but at the same time not overburdening the organization.
5.4 Suggestions for further study

The research study was limited in assessing the relationship between Monitoring and evaluation practices and the performance of agricultural projects. Since monitoring and evaluation of projects are to be an integral part of the whole project life cycle, further research should try to investigate the challenges of Projects in the practices of monitoring and evaluation of project.

Lastly, upcoming research should also try to assess the efficiency of monitoring and evaluation practices on agricultural projects.
REFERENCES


Morris, E. (2001). *Sampling from small populations.* University of Toronto: Canada


APPENDIX 1
APPENDIX 2: INTERVIEW/ QUESTIONNAIRE FOR CATALIST STAFF

My name is Thomas Hatangimana, a student at Mount Kenya University in the School of Business and Public Management (Project management option).

I am carrying out a research titled “Monitoring and Evaluation practices and Agricultural project performance: A case study of CATALIST project in Musanze District.

Kindly assist in providing answers to questions raised in the questionnaire.

Background of respondents

1. Sex:

Male, [ ] Female [ ]

2. How old are you?

i) 20-30 years; [ ]

ii) 30-40 years; [ ]

iii) 40-50 years; [ ]

iv) 50 and above [ ]

3. How long have you been working with CATALIST/IMBARAGA project between the period of 2007 to 2011

i) Less than one year; [ ]

ii) 1-3 years; [ ]

iii) 3-5 years; [ ]

iv) More than five years [ ]
**Effectiveness of M&E Practices**

4. Have you a plan that guide monitoring and evaluation when implementing the community based projects that you carry out on

Yes ☐  Not ☐

5. Are the stakeholders involved in planning the monitoring and evaluation of the projects

Yes ☐  Not ☐

6. Do you use the logical framework approach (log frame) in aiding the monitoring and evaluation of the project

Yes ☐  Not ☐

(b) if you do not use the log frame please mention any other framework you use

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

7. Monitoring and evaluation activities are parts of the projects schedule?

Yes ☐  Not ☐

8. Is there a specific budget for M&E in your annual budget?

Yes ☐  Not ☐

If yes, what is its proportion compared with total annual budget?

a. less than 10% ☐

b. Between 10.1% and 15% ☐

c. Between 15.1% and 20% ☐
d. Between 20.1% and 25% [ ]

e. More than 25% [ ]

9. What is the M&E data collection frequency?

a. Monthly [ ]

b. Quarterly? [ ]

c. Bi-annually? [ ]

d. Annually? [ ]

10. Is M&E report separated from the other activities report

Yes [ ] Not [ ]

11. How do you disseminate monitoring and evaluation findings?

No dissemination [ ]

On the notice board [ ]

Report to donor [ ]

Community meetings [ ]

Report to beneficiaries [ ]

Report to coordination office [ ]
Assessment of CATALIST project performance

11. To what extent have CATALIST objectives been achieved in your own opinion?

NB give a max out of 5

<table>
<thead>
<tr>
<th>Objectives</th>
<th>/5</th>
<th>Evidence in Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Increase production and productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Food security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. increase farmers ‘income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. environment protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Value chain development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. linking farmers to remunerative markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Agro dealership development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Do you think M&E practices contribute to the performance of your project?

Yes          No       Don’t know

13. On a scale of 1-5 indicate the rate the at which M&E practices influence the project performance
5: Most influencing, 4: Influencing, 3: Unsure, 2: Not influencing, 1: Irrelevant

<table>
<thead>
<tr>
<th>M&amp;E practices and project performance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>M&amp;E plan contributed to the performance of CATALIST Project</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Coherent framework contributed to the performance of CATALIST Project</td>
<td></td>
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</tr>
<tr>
<td>M&amp;E budget contributed to the performance of CATALIST Project</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>M&amp;E team contributed to the performance of CATALIST Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder involvement contributed to the performance of CATALIST Project</td>
<td></td>
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</tr>
<tr>
<td>Schedule of M&amp;E activities contributed to the performance of CATALIST Project</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Frequency of data collection contributed to the performance of CATALIST Project</td>
<td></td>
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<tr>
<td>Mid and end term project evaluation contributed to the performance of CATALIST Project</td>
<td></td>
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</tr>
</tbody>
</table>
APPENDIX 3: QUESTIONNAIRE FOR CATALIST BENEFICIARIES

My name is Thomas Hatangimana, a student at Mount Kenya University in the School of Business and Public Management (Project management option).

I am carrying out a research titled “Monitoring and Evaluation practices and Agricultural project performance: A case study of CATALIST project in Musanze District.

Kindly assist in providing answers to questions raised in the questionnaire.

Background of respondents

1. Sex:

Male, □ Female □

2. How old are you?

   i) 20-30 years; □
   ii) 30-40 years; □
   iii) 40-50 years; □
   iv) 50 and above □

3. How long have you been working with CATALIST/IMBARAGA project between the period of 2007 to 2011

   i) Less than one year; □
   ii) 1-3 years; □
   iii) 3-5 years; □
   iv) More than five years □
Rural impact

4. How do you evaluate and rate together and individually demonstration plots, extension material, the practical skills and knowledge on ISFM, you received from Imbaraga staff/ CATALIST PROJECT?

a. Together (use tick)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

b. individually

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Food security and agricultural productivity**

Production and Productivity

<table>
<thead>
<tr>
<th>Crops</th>
<th>Average Yield in kg/ha before the CATALIST</th>
<th>Average Yield in kg/ha after the CATALIST</th>
<th>Average Income in Rwf before the CATALIST Project</th>
<th>Average Income in Rwf due to the CATALIST Project ‘intervention’</th>
<th>Average Income in Rwf due to the CATALIST Project Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irish potatoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Maize | Before CATALIST | After CATALIST
---|---|---
Wheat | | |
Bean | | |

**Food security**

**a. Number of meals per day:**

<table>
<thead>
<tr>
<th>Number of meals per day</th>
<th>Before CATALIST</th>
<th>After CATALIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 3 times a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 time a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twice a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No meals for some days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**b. Quantity of Food per meal:**

<table>
<thead>
<tr>
<th>Quantity of Food per meal</th>
<th>Before CATALIST</th>
<th>After CATALIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sufficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sufficient</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU FOR YOUR COOPERATION
Mount Kenya University
KIGALI CAMPUS
SCHOOL OF POST GRADUATE STUDIES

LETTER OF INTRODUCTION

Ref No: MKU/04/SPGS/0002/VOL_3/2016/699

19th July, 2016

12/09/16

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

MR. HATANGIMANA THOMAS- MBA/0067/12

This is to confirm that the above named person is a bona fide student of Mount Kenya University (Kigali Campus). He is currently carrying out research work to enable him complete his Masters of Business Administration (Project Management Option) degree program. The title of his research is:

MONITORING AND EVALUATION PRACTICES AND THE PERFORMANCE OF AGRICULTURAL PROJECT: CASE STUDY OF CATALIST PROJECT IN MUSANZE DISTRICT, RWANDA

The information received will be confidential and for academic purpose only.

Any assistance accorded him to complete this study will be highly appreciated.

Thank you.

Prof Raymond Wafula Ongus, PhD
COORDINATOR SCHOOL OF POST GRADUATE STUDIES