DEVELOPMENT PLANS IN KENYA: FACTORS INFLUENCING MONITORING AND EVALUATION OF DEVELOPMENT PROJECTS (A CASE STUDY OF MACHAKOS DISTRICT)

BY

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Declaration

This research paper is my original work and has never been presented for a degree course in any university.

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APPROVAL

This paper has been submitted for examination with our approval as university supervisors.

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Signed: [Signature] Date: 22/09/2011

MR. J. OKELO
Dedication

This work is dedicated to my parents; mom Mrs. Mary Nduati and dad Peter Nduati for their unending love and support for education which enabled me to have not only a strong education foundation but also pursue it to this level. I also dedicate it to my wife Anne and my twins Ryan and Lisa for their endurance during the time of my studies when I could not manage to spend enough time with them.
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<tr>
<td>ADB</td>
<td>Africa Development Bank</td>
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<td>APR</td>
<td>Annual Progress Report</td>
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<td>ASAL</td>
<td>- Arid and Semi Arid Land</td>
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<td>CDF</td>
<td>Constituency Development Fund</td>
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<td>CSOs</td>
<td>- Civil Society Organizations</td>
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<td>DAMER</td>
<td>District Annual Monitoring and Evaluation Report</td>
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<td>DDC</td>
<td>District Development Committee</td>
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<td>DDP</td>
<td>District Development Plan</td>
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<td>DMEC</td>
<td>District Monitoring and Evaluation Committee</td>
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<td>DRFD</td>
<td>- District Focus for Rural Development</td>
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<td>EAWS</td>
<td>- East Africa Wildlife Society</td>
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<td>ERS</td>
<td>Economic Recovery Strategy</td>
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<td>IP-ERS</td>
<td>Investment Programmes for Economic Recovery Strategy</td>
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<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MDGs</td>
<td>- Millennium Development Goals</td>
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<td>MPND</td>
<td>- Ministry of State for Planning National Development and Vision 2030</td>
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<td>MTEF</td>
<td>- Medium Term Expenditure Framework</td>
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<td>MTP</td>
<td>Medium Term Plan of Vision 2030</td>
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<td>NDP</td>
<td>National Development Plan</td>
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<td>NGOs</td>
<td>- Non-Governmental Organizations</td>
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<td>NIMES</td>
<td>National Integrated Monitoring and Evaluation System</td>
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<td>OED</td>
<td>Operations Evaluation Department</td>
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<td>PMEC</td>
<td>- Provincial Monitoring and Evaluation Committee</td>
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<td>PRSP</td>
<td>- Poverty Reduction Strategy Paper</td>
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<td>RBM</td>
<td>Result Based Management</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>UNICEF</td>
<td>United Nation’s Children Funds</td>
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<td>Vision 2030</td>
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Abstract

Most of the development plans prepared in Kenya including the Vision 2030 have provision for Monitoring and evaluation (M&E) as the means of feedback to the interventions outlined therein. This is normally found in the last chapter of the development plans, both at the national and devolved levels. Currently the government blueprint, the Vision 2030 identifies Monitoring and Evaluation to provide the progress made on the vision development interventions and further establishes the National Integrated Monitoring and Evaluation System (NIMES) as the body to spearhead all M&E activities in the country. The progress in implementation of Vision 2030 is done through the Annual Progress Reports which are based on the M&E framework in the country as provided by NIMES. However, over the years the establishment of monitoring and evaluation system has not been successful as expected despite several attempt to do so in the country. This means that the feedback mechanism on development intervention is affected. M&E is an area that has not been given much attention in terms of doing research and considering the major roles its currently playing in Kenya in reporting of progress from development plans, there was a great need for the study.

The major objective of this study was to establish the factors that influence M&E of development project by taking a case of Machakos district. It also looked at the level of influence of the factors and whether NIMES guidelines are significant factors that affect M&E in the country. In order to establish the extent this study employed the binary probit model on the cross-sectional data obtained from Machakos. Whether a project performed M&E was used as the dependent variable which was a limited dependent variable. The independent variable included; M&E skills measured in months of training, M&E budget, project duration, M&E plan, Stakeholders involvement, and source of funding.

The results found out that monitoring and evaluation budget, stakeholders' participation, M&E plan, source of funding (donor) and training in M&E had a positive relation with the probability of implementing M&E which was significant at 95% confidence level. However, NIMES guidelines were found to have no effect on implementation of M&E. further, the
project duration and source of funding (community) had insignificant relation with probability of implementing M&E in projects.

Based on the results the study concluded that Monitoring and Evaluation is important in providing the feedback mechanism of economic development interventions. As such the study recommended further studies in this area to ensure that the M&E is well established in the country and contribute to the efficiency in utilization of the scarce resources vis a viz development projects completion. Specifically there is a need to undertake a study on effectiveness of the National Integrated Monitoring and Evaluation (NIMES) in providing the reporting framework for Vision 2030.
1.0 Chapter One: Introduction

1.1 Background

Since independence Kenya has been preparing development plans which provide policy guidelines on economic growth and development for the country on the specified periods. These plans outline a framework for a wide range of programmes and projects in all the sectors of the economy. They provide guides on the planning process which includes monitoring and evaluation. The development planning process involves preparation, implementation, monitoring and evaluation of the plan. This study looked at the monitoring and evaluation part of the process.

Effective planning is important for meaningful economic development. The reality is that during the planning process there is a lot of emphasis on the policy formulation and execution with much less weight attached to effective Monitoring and Evaluation of the progress. For instance there is a lot of emphasis on the budgeting and financing of programmes while elaborate measures lack on assessing the results. Monitoring and evaluation (M&E) is a key feedback mechanism in the planning and development process that facilitates gathering of data and information on programmes and projects implementation. An effective Monitoring and Evaluation system ensures accountability to stakeholders facilitates better and prompt policy & decision-making, builds performance culture and management. The ultimate goal of Monitoring and Evaluation is to ensure efficient utilization of the scarce resources. The system of M&E helps in the measurement of the quality and quantity (standards) on the objectives or targets of the goods and services referred to here as outputs and the outcomes and impacts emanating from these outputs. Equally it assess on the timeliness and environmental sustainability of the project.

In Sub-Sahara Africa, substantial M&E achievements on the ground are rare (Bratton et al 1998; Mackay 1998). The World Bank (World Bank 2010) has set up a programme (Evaluation Capacity Development) under the Operations Evaluations Department aimed at enhancing the monitoring and evaluation capacity in developing countries in order to ensure greater achievements. Kenya has been trying to develop the M&E system both as a policy and...
managerial tool over a period of time. Measures to entrench this important exercise in the planning process are outlined in the country’s development plans over the years.

The first National Development Plan (NDP) - 1966 to 1970 which aimed to raise the standard of living of Kenyans (NDP 1965/6 - 1969/70) established plan implementation machinery at national, provincial and district levels. It insisted on discipline and sacrifice to avoid resources wastage and ensure maximization of the return as a way of control. It identified the need for continuous reciprocal flow of information on plan implementation so that variations of actual events from the targeted can be quickly identified and analyzed. The information was important for evaluation of new projects & programmes. The statistics division in the ministry of planning was charged with responsibility of collecting and analyzing all the data. In order to effectively and promptly report on implementation of planned projects coordination committees were established in the ministries, provinces, districts and local levels.

The second NDP (1970-1974) aimed to achieve economic independence with special emphasis on rural development. However, due to lack of an effective M&E system in the previous plan only information of implementation for the period up to 1968 was available (NDP 1970-1973). To solve the problem, Development Committees were set up at provincial and district levels. However there were weaknesses in institutions coordination and to counter this, the planning function was decentralized to district for some projects and from the ministry of planning to planning units in the operations ministries. A project preparation and evaluation unit was also set up to ensure projects were prepared in great details and evaluate benefits and also to develop criteria and techniques for project preparation and evaluation.

The 3rd NDP (1974- 1978) focus was on overall economic growth making district the basic planning unit through the District Development Committees (DDCs). An evaluation review system was initiated to overcome challenges experienced in implementing the previous National Development Plans. A project registry was established for purposes of recording the essential data on each project aimed at controlling the plan and analyzes variances as way of ensuring efficiency.
The 4th NDP (1979-1983) theme was 'alleviation of poverty' aimed to achieve a more efficient utilization of resources and enhance ownership of development process. It emphasized on increased participation in decision-making process at district level. This was to be achieved through strengthening and revitalizing the DDCs across the country to ensure improved coordination. The DDCs were to take a lead in addressing programmes and projects issues and also monitor all government expenditure as a way of enhancing implementation. To ensure effective monitoring and evaluation ministries were required to provide at the district level disaggregated information on planned and actual expenditure while identifying the outputs and outcomes for analysis of all programmes and projects.

During the 5th NDP (1984-1988) whose theme was 'mobilizing domestic resources for equitable development,' a project evaluation handbook was published to assist in improving the efficiency of project implementation. The DDCs were required to meet four times in a year in order to review the progress made. The District Focus for Rural Development (DFRD) strategy was introduced and it gave the most comprehensive proposal for M&E of the decentralized development projects. The Provincial Monitoring and evaluation Committees and District Development committees were given the responsibility to carry out M&E.

The 6th NDP (1989-1993) theme was 'participation for progress' which adopted an integrated approach to development programmes this involved among other things setting up a monitoring and evaluation system by the Ministry of Planning and National Development. The plan acknowledge that there was no effective monitoring and evaluation system that would provide the necessary information indicating the extent on how the development programmes meets the set objectives and the issue needed an urgent treatment. To overcome this, the ministries were required to be more efficiently-coordinated and continued development of M&E system. The system was first to develop the capacity of districts to collect and analyze data for effective decision making and then provide a channel for information flow, analysis and reporting national level. The system implementation was to be done by the ministry of planning and national development.

Despite all the previous efforts the 7th NDP (1994-1996) whose theme was 'resource mobilization for sustainable development' recognized that the country lacked a method for
monitoring the implementation of the programmes and projects and in the few cases where M&E existed it was uncoordinated and hence did not easily facilitate analysis and reporting in real terms which was a setback on information provision. And that previous efforts to set up M&E system has failed to take off (NDP 1994-1996).

It therefore advocated for an urgent need for monitoring and evaluation, and the M&E system was to be fully operational by the end of the plan period. To achieve this, a new ministerial M&E management committee in the Ministry of Planning and National Development (MPND) was set up alongside provincial Monitoring and Evaluation committees. Also the DDC were strengthened and District Information and documentation centres established.

The 8th NDP 1997-2001 whose theme was "rapid industrialization for sustained development" recognizes that despite the efforts to operationalize the M&E in the country it did not receive sufficient attention. To solve the problem the government set up Presidential Economic Commission (PEC) and launched policy framework paper to ensure continuous monitoring of policy implementation in both the public and private sector.

The theme for 9th NDP 2002-2008 was "effective management for sustainable economic growth and poverty reduction" emphasized on strengthening the management of development process and participatory methodologies in programmes and projects implementation. Despite previous initiatives on M&E management there were major weaknesses (NDP 2002-2008) mainly due to lack of an institution to coordinate an effective M&E system. There was need to set up an institutional framework and strengthen the use of M&E as a management tool enabling timely feedback and application in decision making. To solve this a M&E network was constituted of committees at National, Ministerial, Provincial, District and community levels.

After the 2002 general elections a new government was sworn in and in a bid to fast track economic growth came up with an Economic Recovery Strategy Paper for wealth creation (ERS) which replaced the NDP 2002-2008. The ERS was based on the poverty reduction strategy paper.

In Kenya for a long period of time, M&E has been done in ad hoc manner (ERS, 2003-2008) without a coordinated system and mostly it was due to donor demands. There was need
improve governance through an integrated system for M&E that would provide a mechanism for measuring the efficiency of government programmes & projects and effectiveness of public policy in achieving its objective (ERS,2003-2008). The system was to provide the much needed policy implementation feedback and form basis for a transparent process which the government and international donor community can undertake appraisal of results. It identified key indicators to be used in measuring the efficiency.

A National Integrated Monitoring and Evaluation System (NIMES) was established in 2003 under the M&E department in the MPND that allowed for the participation of community, civil society and all development partners at all levels. The circular N° OP CAB 1/9A of 7th July 2005 from the head of public service gave the impetus to harmonize set of standards for project monitoring and evaluation.

The main objective of NIMES was to provide the government with reliable mechanism to measure the efficiency and effectiveness of programmes and policy in achieving the set objectives. The system was linked to the Medium Term Expenditure Framework in order to provide a feedback to the resources allocation. ERS End Term Report recognized that every project should have M&E component that informs the government on whether their goals, objectives, targets and outputs are being met against the inputs. As a starting point NIMES identified thirty one (31) national indicators to be used in conducting M&E. This was done in collaboration with academia, involving citizens and other stakeholders including Civil Society Organizations (CSOs).

The successful implementation of Economic Recovery Strategy culminated into an economic growth of 7.1% in 2007. This success motivated the government to come up with a long-term development plan (Vision 2030) to be implemented in five year Medium Term Plans (MTPs). During the life of the vision the strategies and action plans will be systematically reviewed and adjusted every five years in order to effectively respond to the changing environment.

Kenya's vision 2030 is the government blueprint which aims to make Kenya a middle-income country. The first Medium Term Plan was generated in July 2008 (MTP 2008) which noted that an effective Monitoring and Evaluation system will be critical to the successful
implementation of Vision 2030. The National Integrated Monitoring and Evaluation System (NIMES) will be relied upon to collect accurate and up to date information and data on the implementation of MTP 2008-2012 of the Vision 2030. This will be done at both central & devolved levels which includes the District & Constituency levels. It is also expected to track and provide feedback on the implementation of policies and programmes for improved performance, results and accountability. It will also receive information from, parastatals, local authorities, reform programmes, civil society, private sector and development partners.

At the same time according to the MTP 2008-2012, all the districts in the country developed District development plans which cascades the vision 2030 and MIPs. To effectively track the implementation of programmes and projects at the district, the District Monitoring and Evaluation Committees were to be strengthened and integrated more effectively within NIMES. The reporting was to be through published annual district monitoring and evaluation reports (DAMERS).

1.2 Monitoring and Evaluation in Kenya

For a long period of time Monitoring and Evaluation in the country has been done in ad hoc manner (IP-ERS, 2003) without a coordinated system mostly due to donor demands. In the government the most comprehensive proposal was in 1983 when the District Focus for Rural development strategy was introduced. Subsequent planning and policy documents did not articulate clear measures of M&E mechanisms until the year 2000 when the Poverty Reduction Strategy Paper (PRSP) were prepared. The National and District Development plans and FRS were based on the PRSP and they emphasized on M&E. DFRD and PRSP mainly aimed at institutionalizing the M&E in planning process since aspects of M&E existed in administrative data collection with much focus on national level as compared to lower levels.

In 2003, the government through the Ministry of Planning and National Development established the National Integrated Monitoring and Evaluation System (NIMES). The objective was to provide the government with a reliable mechanism and framework for measuring the efficiency and effectiveness of government policy, programmes and projects. NIMES was to produce data, contribute to decision making and create a database upon which to design other
projects. It was also to ensure the integration of government and non-state partners in reporting progress.

NIMES began by tracking progress in the Economic Recovery strategy (ERS) programmes and projects and now has moved to Vision 2030 and the Medium Term Plans. During the annual Progress Reports on IP-ERS for periods 2003/4 to 2005/6 it was noted that there was need for comprehensive institutional and coordinating framework in order to fully integrate M&E in the planning and policy making. Circular No. OP CAB 1/9A of 7th July 2005 from the head of public service gave the impetus to harmonize set of standards for project monitoring and evaluation in the country. This resulted in preparation of NIMES master plan 2007-2012.

Institutionalizing NIMES forms an important aspect in the government reforms agenda for Result-Based Management (RBM) under the Public sector Reform and Development Programme. NIMES has since been embedded in the National Performance Management Framework for public sector reforms which is out to ensure accountability and results for Kenya public service. Further the performance contracting and appraisal is expected to be tracked through NIMES. The national Monitoring and evaluation policy is yet to be prepared.

NIMES has prepared guidelines/standards for preparation, appraisal, Monitoring and evaluation of development projects in the country. The guide requires among other things, that each project should have M&E component and a budget to implement the component. Further an Enhanced Project Monitoring and Evaluation Systems at central and devolved levels to support Public value and results based Service delivery forms one of the four NIMES development areas. Despite the efforts by the government to develop and integrate M&E in the planning and decision making process, studies have not been done to establish the level of M&E system development in the country. Therefore, the need to do research in the area and this study provides one of the attempts towards that.

To report on the progress made on vision 2030 (MPND 2010), the government is preparing Annual Progress Reports (APR). The first APR was prepared in May 2010 (APR 2010). It provides a review of the progress achieved in the first year of implementation of MIP which cover July 2008 to June 2009. The report was prepared within the Monitoring and Evaluation
framework as guided by NIMES. This was by reviewing ministerial annual Monitoring & Evaluation reports, District Monitoring & Evaluation Reports (DAMER), progress report of various government agencies and other development partners in the country. DAMER provides data and information generated from the programmes and projects being implemented at the District level. However, poor information flow, low absorption capacity for resources, lack of teamwork and participation of stakeholders in project cycles, political interference, corruption, collusion and fraud have affected the quality of project data and information.

Since most of development assistance to Kenya and some government funded specific activities are in form of discrete projects, makes project Monitoring and Evaluation an important aspect in ensuring regular and quality reports on projects portfolio. Further the government has made district the focal point of planning and gives a lot of attention to rural development. This motivated the researcher to look at the district level by taking a case of Machakos in order to get the factors that influence M&E in development projects.

Machakos is one of the districts in Eastern province covering an area of 1,984.5KM2 most of which is semi-arid with an average rainfall of between 500mm and 1300mm which is unevenly distributed and unreliable (Machakos DDP 2008-2012). These geographical features made it suitable for this study since most Arid and Semi-Arid (ASAL) areas attract donor funded development projects, hence providing a wider range of projects being considered. A large part of Kenya is ASAL and therefore in geographical terms it is representative. Its location is near Nairobi city which made it easily accessible by the researcher. The district had a population of 199,211 in 2009 and projected to increase to 211,528 in 2011. It consists of one constituency (Machakos Town) and two divisions (Central and Kalama). The district is an old one which means that most of the structures including administration are in place which was vital in provision of information and other support during the data collection period.

The District Development Committee (Machakos district Development Plan (DDP) 1994-96) carried out the monitoring of programmes and projects in the district. Funding was the major constraint in conducting the exercise which limited the number of field visits. The DDC is supported in its work by the Divisional, locational and Sub-locational Development
committees. However, during this period the Divisional committees lacked guidance while Locational and Sub-locational ones were not very effective.

District Monitoring and Evaluation Committee was established during the 1997-2001 plan period (Machakos DDP 1997-2001) although funding remained a major constraint. The district also established a district information and documentation centre.

The district proposed the conducting of M&E through field visits and reports from the community level to the district by establishing Project, Locational, Divisional and District M&E committees (DDP 2002-2008). However, the exercise was hampered by lack of funds, personnel, transport, poor roads and vastness of the district which also affected the coordination and supervision. Specifically the establishment of Divisional and locational M&E committees was not successful due to financial and human resource constraints. This is despite the plan giving a very strong emphasis on the monitoring and evaluation. The Machakos Poverty Reduction Strategy Paper noted that lack of community participation in the planning process has affected development (Machakos District PRSP consultation report 2001-2004).

Institutionalization of the M&E system (Mackay 1998) is important in establishment of an effective M&E system. To achieve this, the government has set up the National Monitoring and Evaluation System (NIMES) under the Ministry of State for Planning, National Development and Vision 2030. An effective M&E system should have a bottom-up approach, with results emanating from the grassroots to the top.

1.3 Monitoring and Evaluation as a Policy and Management Tool

For any country to achieve economic growth and development there is need for sound policies to be in place. To achieve this, the policy making should be evidence based. Evidence-based policy making is an approach that people use to make decisions which are well informed about the policies, programmes and projects by considering the available evidence from policy development and implementation. This is in agreement with the United Nation’s definition in the Millennium Development Goals (MDGS) which defines evidence-based policy-making as a planning process that make better-informed decisions by using the best available evidence in the policy process.
Decision making is a key area in managerial economics and evidence-based decision making is preferred where possible. This approach stands in contrast to opinion-based policy, which relies heavily on either the selective use of evidence (e.g., on single surveys irrespective of quality) or on the untested views of individuals or groups, often inspired by ideological standpoints, prejudices, speculation, or political reasoning. Many governments and organizations (UNICEF, 2009) are adopting the evidence-based policy as opposed to opinion-based policy. The process of evidence-based policy making is being affected by the nature of the policy environment, capacity to provide quality evidence, and also the political and social systems. The policy environment depends on the societies with some being open, accountable, and transparent, while others are corrupt. The timing of evidence, resource availability, values, beliefs, and ideologies affect the use of evidence in policy making.

Evidence should be technically sound and policy-relevant in order to help address the policy questions. For some time now, it has been of great concern to the governments, donors, and evaluators to enhance the evidence-based policy making through M&E (Rist, 2009). An effective M&E system facilitates the availability of evidence which is relevant to country-specific needs in the policy making so as to meet their development goals (Oumoul, 2009). M&E provides the feedback mechanism which is the source of the evidence needed in evidence-based policy making to improve performance.

In economics, M&E has emerged as a key policy and managerial tool which is aimed at reducing uncertainties (AfriFA, 2002). The policy makers need the information generated from M&E to improve their policies while donors and stakeholders need the results to ensure resources accountability while improving the overall policy effectiveness.

1.4 Problem Statement

Over time M&E has become a key management tool being used in planning and decision-making processes. Most governments in the world are working towards entrenching it in the system of governance (Mackay, 2007). Evidence from literature points out that substantial Monitoring and Evaluation achievements on the ground are rare in Sub-Saharan Africa (Bratton et al., 1998; Mackay, 1998). This is due to insufficient implementation of M&E (ADH...
1999 Mackay, 1998; Mackay, 1999; World Bank, 1999). In Kenya, for a long time M&E has been done in an ad hoc manner despite efforts to develop a national M&E system through Development Plans (IP-FRS, 2003). The most comprehensive proposal for M&E was in 1983 when DFRD was introduced but it failed to meet the objectives. The M&E of the decentralized development in Kenya was not systematic, failed to adopt Development plans requirements on M&E and the information generated was not timely, relevant or accurate (Macharia, 1988). These points to the fact that the real variables that influence implementation of M&E may not have been identified and targeted by the policy measures.

Achieving an effective M&E system in the country has been a key target for the government. As such the government established the National Monitoring and Evaluation System (NIMES) in 2003. However, the desired targets have not been achieved especially in respect of implementation of M&E in development projects. Most projects have run into problems due reasons that would have been averted had there been proper M&E carried out during the implementation (MCTaggart, 1991).

This has called for a great concern to find answers to this problem. Campo (2005) acknowledged that it takes time to build an effective M&E system, noting that strengthening of institutions and learning from mistakes plays a key role. There is a need therefore to conduct research in the area on regular basis not only to identify the gaps but also lessons learnt. Unfortunately, NIMES has not conducted research to go out and investigate the factors behind this.

M&E provides the feedback of development interventions, the area have not received much attention. There is a need for an integrated M&E system in order to timely and accurately track the progress made in development. An integrated system requires that every project should have M&E component. The low level of development of the systems limits the effectiveness of the system. Therefore the system needs to be strengthened from the project level all through to national level. To establish effective M&E components in the projects we need to get the factors that influence M&E of development projects.
Therefore, the concern still remains on the factors on the ground that influences the M&E in Development Projects in Kenya.

1.5 Objective of the study

The general objective of the study was to identify the various factors that influence Monitoring and Evaluation of Development Projects in Machakos District.

Specific objectives were:

- To establish the extent to which the identified factors influence monitoring and evaluation of development projects in Machakos district.
- To find out if the current National Monitoring and Evaluation System (NIMES) guidelines are a significant factor influencing Monitoring and evaluation of projects.
- To provide policy recommendations for monitoring and evaluation in the country.

1.6 Justification and significance of the study

Monitoring and Evaluation has become a key management and policy tool. Therefore, implementation of M&E in Development projects is not only important to ensure that the projects are completed on time and meet the set objectives but also inform the managerial and policy decision making process. The information and data from M&E forms an essential input in evidence-based decision making process.

M&E is a vital element of a country's accountability infrastructure, because it provides governments and citizens with information on the effectiveness, efficiency, and quality of programmes and projects being implemented. Further, it will inform the project management on the progress made, identify gaps between the actual and planned targets and the information will be key in project redesign. It ensures that corrective measures are done on time and enhancing effectiveness and efficiency in the scarce resources utilization by reducing wastage.

The information gap on the factors that affect M&E in development projects has the potential to replicate failures when planning and implementing new projects without reference to
existing or completed projects. It also affects the efforts of strengthening the M&E system in the country. This study therefore sought to bridge the gap and contribute to available literature and data base that provides useful information to government especially NIMES policy making.

Most literature on M&E in Kenya is not available and very few studies have previously been done none of which have been conducted on the District Development projects as guided by NIMES. Previous studies in the area have concentrated on either specific programmes e.g. Youth Enterprise Funded Projects or a single organization such NGO.

The findings of the study are useful in formulation of strategies to enhance the level of M&E in projects. This ensures that an effective M&E system is set in the country a key source of information in evidence-based decision making.

In Kenya most of development assistance and some specific activities by the government are channeled to discrete development projects. Further the government has made District the focal point of planning. It was therefore important to look at development projects at the District level. It was important to get the factors that affect M&E implementation in projects to enhance an effective M&E system since most projects experience problems due to reasons that could have been averted if an effective M&E was carried out during implementation.
2.0 Chapter Two: Literature Review

2.1 Theoretical literature review

Development plans outlines frameworks for wide range of policies aimed at economic growth and development (Vision 2030). They include programmes and projects implemented within the sectors of the economy. The effectiveness of the policy, projects and programs are assessed through the feedback mechanisms. Monitoring and Evaluation provides the much needed feedback mechanism which also gives the progress on achievement of the set objectives. Monitoring and Evaluation are two terms which are normally being confused amongst each other. Macharia (1988) while assessing M&E of decentralized development in Kenya found that DFRID failed to give an operational definition of the two terms which led to ambiguous relationship between provinces and Districts in terms of authority and responsibility affecting the execution of an effective M&E.

The World Bank (2000) defined Monitoring as the continuous systematic function of collecting data on specific indicators so as to provide the management and stakeholders with information on the extent of progress and achievement of development interventions and on the use of funds that have been allocated. This agrees with Nyundemo and Kongere (2010) who defined project monitoring as the continuous function of day-to-day operation of project, programme or policy implementation. It involves the routine measurement of inputs/activities, outputs, implementation of plans, resources and how they adhere to the procedures and achievement of targets. Musingi (2010) adds that monitoring involves regular analysis and recording of the activities progress in project/programme. The Evaluation Department (OFD, 2002) also adds that it involves tracking development activities at project, programmes, sector and national level against Millennium Development Goals and other national measures of development success. Findings from monitoring are used in the making of managerial decisions (Kunwar and Nyundemo, 2004) in the day-to-day management of the project. It ensures review of progress achieved; identify any problem in planning and/or implementations stage(s) and make adjustments to ensure project completion and achievement.
of set objectives. Monitoring is done through field visits, review of progress reports, tracking inputs and providing information to the responsible officials.

Philips (2006) added that monitoring process ensures the project goes according to plan and necessary action is taken when evidence proves that the project isn’t going according to the plan. It involves actively collecting and measuring the project performance, risk, time, cost and scope. The information is then used to improve the project and forecast project performance based on the trend. This provides scope verification to see whether the results are within the expectations of the scope. This happens at different levels of the project cycle. Constant monitoring enforces the schedule allowing slippages to be analyzed at the earliest stage possible and necessary action taken on time.

It helps to remove the bottlenecks and measure the achievement against targets (Joy, 1999) if there is good coordination in all project activities. The frequency of monitoring should change depending on the stage of the project with much of it during the critical and acceleration stage.

When conducting monitoring (Orr, 2004) there is need to consider the project team so as to identify what works, the stakeholders both internal and external, timescale, resources, and scope of monitoring.

Evaluation was defined by World Bank (2000) as a systematic and objective assessment of the relevance or efficiency of a development activity. The definition agrees with the one by Kongere and Nyandemo (2010) which defined Evaluation as the process of systematically and objectively determining the effectiveness, efficiency and impact of the project activities implemented on the objectives. It involves assessing whether the programmes/projects were done in accordance to the plan (Musingi, 2010). Evaluation uses the information generated from monitoring.

Evaluation contributes to accountability, allocation by ensuring resources are allocated to activities which contribute most effectively to objectives and learning from successes and failures to ensure things are done in better way in future (Mackay, 1998).
Monitoring and Evaluation therefore is a management tool which when effectively used provides systematic information on resources allocation decisions, support design and management of activities in projects and enhances the transparency and support accountability. To achieve these there is need for an integrated M&E system.

Gray (2001) as cited by Athieno (2009) noted that for effective evaluation to be realized the monitoring should be done requiring a detailed monitoring framework to be in place before project implementation. The evaluation process is highly dependent on quality of monitoring, data analysis and cooperation of the different agencies. Noting that monitoring and evaluation are closely related but distinct. The differences are in four main ways:

- **The scope;** monitoring is concerned with tracking of information through the project stages while evaluation is about gathering information about the project.
- **Nature;** monitoring is a routine collection and analysis of project information while evaluation describes specific event in the project cycle.
- **Timing;** monitoring is done on regular and ongoing basis and takes place throughout the project life while evaluation takes place at particular time.
- **Purpose;** monitoring focuses on keeping the project on track which is the progress against the set objectives and hence relatively specific while evaluation is broader since it looks at the objectives achievements to lessons learnt.

Monitoring leads to evaluation and despite the differences, M&E are closely related and authors tend to use them together. Gorgen (2009) also agreed that M&E are distinct but complimentary.

The United Nations centre for regional in 2000 also agreed that M&E are two activities which are integral part of the project cycle. Monitoring provides a review of the progress while evaluation provides a judgment of the effectiveness of the project. Evaluation can lead to more efficient and effective projects as a result of systematic, careful analysis of project consequences and costs. It should start from project design or planning and continuing in implementation and also a full review of the project once it becomes operational. This result to more evidence in planning process.
Project M&E if effectively done avoids resource wastage during implementation and staying in
course during implementation. To do this there is a need for time schedules, budget and staff to
carry out the M&E. However, the M&E activities are overlooked for some reasons which
includes: Lack of politico-administrative commitment, lack of explanation to decision-makers
on how the information from M&E can increase the effectiveness of project, insufficiency of
the budget and poor institutional arrangements.

M&E provides a way for decision-makers to know how well their project is performing and the
results being obtained. The type of evaluations performed includes:

Ex-ante evaluation: this is undertaken before project starts and it examines the feasibility of
the project.

On-going (concurrent) evaluation: this is undertaken during the project implementation
period. It analyses the relationship between project output against the set targets. It helps
identify the variations in project implementation at the earliest chance possible and take the
necessary action and helps in purposes of adapting the project to changes in the environment.

Ex-post (impact) evaluation: this is done after project has been fully implemented and
examines effectiveness of the project in achieving its stated goals and the type of changes
resulting from the project.

The M&E should be well prepared to ensure its success. The United Nations centre for regional
development outlined the steps involved includes as follows:

• Preparation of logical framework: this involves determining what the project is intended
  for and how it is expected to operate. Its outlines the objectives, assumptions and indicators
  which are important in the M&E exercise.

• Specification of information requirements: the identification of what is to be measured to
  avoid resources wastage. Guided by what information is needed, for what purpose and when.
  The indicators play a key role in getting the measurements.

• Identification of sources of information: where the needed information is to be obtained
  should be identified and it involves how the M&E is to be done.
Formulation of Research design: refers to how to collect and analyze data usually answered when designing the M&F system itself.

Determination of the timing of the research: when and how often must the data is collected. When should one go back to find out if change is taking place. Its affected by resources, project life, time, study length and administrative calendar.

Reporting M&E results: for M&E to be useful the results must be reported to decision-makers. The report should be able to attract the decision-makers attention, generate confidence in accuracy, be clear and rational in the decision-making process.

Assigning responsibilities: refers to who is to perform which activity of the M&E exercise. This is normally guided by the skills in the areas.

Gorgen (2009) noted that there is more pressure for organizations around the world to be more responsive to demands from internal and external stakeholders for accountability, transparency and greater development effectiveness and delivery of tangible results. Hence the need for a useful and usable results-based M&E systems to support the management of policies, programmes and projects. M&E is a powerful management tool that can be used to improve the way organizations achieve results.

The monitoring gives information on where the project is at any given time relative to its targets and outcome (its descriptive) while evaluation gives evidence about why targets and outcomes are, or are not being achieved (it explores causality). M&E is not relatively a new concept, ancient Egyptians regularly monitored grain and livestock production about 5,000 years ago.

Most organizations have good human resource systems, financial systems but they also need good feedback mechanisms. M&E is essentially such the feedback mechanism; it is a management tool to measure and evaluate outcomes, providing information for decision making and it is this feedback mechanism that many organizations have been missing. M&E should be conducted throughout the life of the project since data collected and feedback adds value at each stage of the project. The information should be use for internal purposes as a crucial management tool and it ensures targets are met by assessing the progress, problems and performance at each level. Also for external use, and it helps build trust, demonstrate impact.
and better the life of citizens. This leads to Results based M&E that ensures accountability and transparency contributing to poverty reduction, economic growth and achievement of goals.

Corgen noted that some of the major Challenges facing M&E include:

- Skills and capacity in M&E
- Lack of harmonized training courses and technical advice
- Political challenges in data providing greater accountability
- Misconception of M&E as a policing tool

It is important to set up a M&E which is effective to achieve the desired results. According to the literature a functional M&E system is determined by the following:

(a) **Structure and Organizational alignment**

It should be clear on where the M&E unit should be located within the organization structure. This enables the formal assignment of M&E responsibilities to ensure employees fulfill their tasks on the individual responsibilities. There is need for qualified staff and provision of technical support for M&E needs. The alignment ensures staff will are clear on organization overall goal and strategies on its goals and understand the role of M&E in helping the organization meet its goals and hence ensure they achieve their M&E responsibilities.

(b) **Human capacity for M&E**

For the M&E to function there is need for skilled persons who will effectively execute the M&E tasks for which they are assigned. The skills and capacity needs should be identified and addressed to improve the quality of M&E. M&E capacity development plays a key role since most of the capacity gaps are identified while the system is being implemented. This will ensure that the human resources are adequately skilled and able to effectively and efficiently complete all the activities set out in the M&E workplan

(c) **M&E Partnership**
The M&E team should work together with key stakeholders. This can be done in task forces, working groups, joint study tour, joint evaluation and M&E missions/trips. It helps in improving communication, coordination, harmonization and aligning of M&E systems, mobilizing technical and financial resources. This enhances strengthening the M&E systems.

(d) M&E Plans

This is a comprehensive narration of all the M&E activities. It reflects on the indicators to be used, timing, where and how the data will be collected. It provides a link to the programmes plan, also a common vision on what a successful system will look like, provide benchmark to measure progress on M&E implementation, provide responsibilities to stakeholders while ensuring a functional M&E system.

(e) Costed M&E Workplan

It describes and budgets for all the M&E activities necessary for a defined period of time forming basis for planning, prioritizing, costing, mobilizing resources and funding for all the M&E activities. If well done it ensures clear execution of M&E mandates, makes M&E a useful management tool, assessing the support required for M&E and mobilizing and rationalizing resources for M&E.

(f) Advocacy, Communication and Culture for M&E

To overcome misconception, there is need for advocacy and communication. If well done it enhances the M&E culture and M&E becomes acceptable and encouraged in the organization. This leads to acknowledgment and communication between the project management and other stakeholders.

(g) Routine Monitoring

Data is the key thing in M&E system. The M&E require routine, periodic and one-off data sources. Therefore data should be generated on basis required to meet the different needs. A routine system ensures that timely and high quality are used in the decision making process. The management will therefore be able to explain changes at outcome and impact level.
provide real-time data which can be used on day-to-day monitoring, coordination and programme planning.

(b) Periodic Surveys

This supports the routine monitoring by providing the necessary data. The surveys should answer to relevant project objectives and should be unbiased, accurate, generalizable, ethical and economical as required by the project data needs. This helps to generate objective impact-level and outcome-level data.

(i) Database useful to monitoring and evaluation

There should be a database that enables the stakeholders to access relevant data for policy, management and project improvement. A database ensures that the data is readily available in a format that facilitates analysis, cross-referencing, reduce amount of time spent in managing data and improve information consistency.

(j) Supportive supervision and data auditing

When designing a routine monitoring system, supervision and data auditing should also be designed to link the data management with auditing. The necessary human resource skills are necessary. Ensure data quality, improve data credibility, build programmes implementers capacity and improve use of information for decision making.

(k) Evaluation and research

Evaluation provides information to answer questions related to programmes performance and to understand critical areas of the programme. Evaluation and research help develop new strategies, programmes and targets therefore informing the policy, programming, and intervention selection.
Using information to improve results

The data collected should be analyzed and disseminated to key decision makers for use in policy, planning, and programming. It helps solve problems facing the project, create a shared joint understanding of the problem, ensure policies and solutions formulated are relevant, improve programmes and use of funds.

Gautam (1999) while assessing the agricultural National Extension Programme in Kenya noted that there was a weak monitoring and evaluation system in the project as a major weakness and this affected the information system in terms of timeliness and reliability. Kirori (2003) in his study of rural development policy in Kenya looked at the effectiveness of implementation of rural development policies in the decentralized process for the period 1970 to 2001. He noted that the rural sector recorded a declining trend in the performance; among the hindrances towards was lack of technical and administrative capacity for planning, budgeting, financial management, coordination, implementation and Monitoring and Evaluation of projects and activities at the district level which also affected the decision-making committees at the local levels. The district funding framework lacked financial autonomy and grass-root institutions lacked legality to ensure the decisions are legally binding. He noted that the rural structures lacked a precise policy framework on project monitoring and evaluation and there was duplication of functions among stakeholders.

Efforts to establish an integrated M&E system in Kenya can be traced back in 2003 when the ERS was formulated. The Kenya National Integrated Monitoring and Evaluation System (NIMES) provides the guidelines for monitoring and evaluation in the country. The main objective is to provide the feedback mechanism on the implementation of Vision 2030 and Medium Term Plans. This will enable achievement of the national objectives of the vision alongside other international objectives like the Millennium Development Goals (MDGs).

Leauter F, the president of World Bank in 2005 (May F. and Others. 2006) while addressing the world bank/inter-American development bank conference on towards institutionalizing M&E system in Latin America and Caribbean noted that the M&E is an important input in the
achievement of the Millennium Development goals. It provides a track of 'where we are' which is important in programmes re-design and long term performance assessment.

M&E is a strategic function in the evidence based decision making (UNICEF, 2008) by providing unique information on the performance of policies, programmes and projects. It also provides the performance of several implementing agencies e.g. Ministries, NGOs, Government, individuals etc by identifying what works, what doesn't work and the reasons. This way it enhances result-based management, transparency and accountability on the use of resources and supports the evidence-based decision making process.

Accountably of resources utilization in the projects is an important to the stakeholders since it makes the government officers. It forms the basis of making the civil servants accountable and avail information for evaluating the political leaders (Schacter 2000) providing a link between governance and M&E capacity development in Sub Saharan Africa. M&E is a key element of accountability providing the government and with information on how effective, efficient and the quality of government programmes. It supports good governance by providing information, a necessary input in the decision-making, prioritization especially in budget process and provides information on activities performance and help in planning new ones.

Canadian M&E system has invested heavily in the monitoring and evaluation exercise (Lahey, 2010) as a way of ensuring accountability and result-based management in the government. A formalized and centralized evaluations system was started in 1969 evolving into a government-wide evaluation policy in 1977 with a strong management board to ensure more accountability. The policy was updated three times in 1991, 2001, and 2009 due to changes in demand for M&E system, changes in evaluation needs, M&E practices matured. During the 1990s a formal requirement for submission of performance report to parliament with emphasis on measurement of outputs and outcomes resulted to an increase in demand for M&E system. However the evaluation function slowed due to funding cutbacks in the 1990s. In the last decade, the Canadian government has emphasized on formal results-orientation (Results for Canadians) and M&E was recognized as key tool to ensure the results. To achieve this, the government strengthened M&E capacity and created an evaluation center. However, currently
some weaknesses still persist in the system that includes insufficient programmes performance information on monitoring and insufficient focus on programmes effectiveness in evaluation.

While World Bank was conducting the diagnosis of Colombia Monitoring and Evaluation system (World Bank, 2007), it found out that the major challenge was lack of full institutionalization of the system. This would help in ensuring the system is able to withstand changes in government administration. Promoting greater awareness among all stakeholders boosts confidence in use of M&E information and findings in decision-making. Quality and credible monitoring information, low cost of data supply and increasing the number and scope of evaluations strengthens the M&E system. The government should take lead in utilizing the M&E information in its policy development and planning as a way of enhancing M&E demand.

Campo (2005) conducted two in-depth studies of M&E development in Uganda and Egypt linked M&E to an institution. He argued that the incentives and penalties are attached more to the policies and programmes formulation and executions while less emphasis is given to the effective monitoring and evaluation of the results. The incentives for M&E were weak or non-existence and hence the need to introduce and strengthen the incentives for M&E and be sustained for a long period of time. The incentives affected the implementation of monitoring and evaluation in the countries. The M&E skills required did not exist just like in most developing countries in SSA.

To enhance the skills there is need for educational and related activities outside the programmes and also enhancing small strong in-house capacity to enable self-evaluation. The M&E were not connected to the legislature e.g. committees in the parliament that monitors the actions of the government, parastatals and other agencies in programme implementation. The M&E were affected by weak piloting, achievements being overstated, ambiguous results and timing discontinuities.

In Africa (ADB & World Bank 2000) the M&E has not been fully developed. The main challenges being lack of M&E skills, lack of utilization dissemination of the findings, lack of stakeholders participation, finance and time (process not systematic and sustainable). The
process is also donor driven and lacks motivation. Other issues are low demand for M&E by the government, lack of accurate information on M&E, lack of motivation and gender equity.

2.2 Empirical literature

Campo (2005) noted that building an effective M&E system is neither quick nor an easy task but what is important is the need to strengthen the institutions and learning from mistakes.

Canada has one of the successful M&E systems in the world, though it has taken about 30 years of development to the current status. Lahey (2010) looked at the Canadian M&E 30 years of existence and found that developing a successful M&E system in an organization is determined by times, human resources and financial resources invested in the process. The real need for M&E information should also be there, a condition achieved due to the public sector reforms in Canada. Technical skills in M&E, political will and sustained commitment played a major role in the success. He argued that it takes years not months to develop the system and it should be linked to the management and decision-making process. The clear distinction of the terms monitoring and evaluation also affects the implementation in terms of requirement for each. There formal requirement for M&E in the project and internal infrastructure affects the success of implementation.

Sufficient communication on role of M&E in the projects plays a key role when supported by a formal policy document. A M&E unit in a projects ensures the exercise is conducted on time.

Macharia (1988) looked at the Monitoring and Evaluation of decentralized development in Kenya through the DFRD taking a case of Nyanza province. The responsibility on M&E was on the Provincial Monitoring and Evaluation Committees (PMECs) and the District Development Committees. However, the DFRD did not provide operational definitions of the terms Monitoring and Evaluation which led to ambiguous relationship between the Provinces and Districts in terms of authority and responsibility. He found out that the PMECs were not executing effective M&E due to lack of operational definition of the terms monitoring & evaluation and lacked clear delineation of responsibility between the province and districts. The system failed to operate systematically and therefore did not generate timely, accurate, and relevant information. In the Districts the M&E was captures in the DDC minutes but they did
not contain the data and information needed from M&E. Further DDC and PMEC failed to adopt the M&E tools outlined in the District Development plans. The tools he noted were not developed to meet the M&E purpose. The PMEC failed to produce useful information which was not timely, relevant or accurate. The main cause being the M&E was done at the province and district level instead of the project level.

Rugito (2010) looked at influence of M&E on projects performance, a case of Youth Enterprise Development Fund in Marani District. He assessed how training in M&E of project implementers, M&E baseline surveys and how M&E design affects the performance of the projects. A survey on 79 youth projects was done and found out that most of the youth project implementers (85.8%) had no training on M&E, baseline are largely not done (62%), most projects don't have M&E plans (74%). Found out that most of the projects (63%) don't collect M&E data and the goals are not achieved. He found out that the major challenges facing M&E are M&E budget, Skills and time. He concluded that lack of training on M&E, baseline surveys, M&E plans affected project implementation and hence the achievement of development objectives. Further low level of formal education and lack of assistance from the government officers affected implementation of M&E.

Mugaka (2010) while assessing the influence of M&E methods on performance of Women Enterprise Funded Projects in Kisii Central District argued that the project performance was poor due to weak Monitoring and Evaluation systems. The survey was done on 54 women groups and looked at the effect of Inspection, Focus Groups and Progress Reports as Monitoring and Evaluation methods on the projects. He found out that mostly M&E was done by group members and their leaders who were ill-informed due to lack of training in the subject and there was no M&E system for Women Enterprise Funded Projects from the respective Ministry.

He concluded that use of inspection, focus groups and progress reports methods of M&E had no influence in project progress and achievement of the objectives. The implementation of M&E was mainly affected by lack of M&E system from the respective Ministry, inadequate M&E skills by women groups and minimal key stakeholders' participation. Poor timing and low frequency of M&E contributed also affected the implementation.
Nyabuto (2010) while assessing the factor influencing the M&E of projects in NGO’s, a case of East Africa wildlife society looked at subgroups of EAWS and their donor funded projects. He sought to understand how M&E budget, level of stakeholders’ participation, M&E skills of project officers and staff availability affected the implementation of M&E. The survey was conducted on 69 respondents. It showed that 94% of the project officers had University level education but majority had an average level of M&E skills with a small percentage having excellent skills. Most of the project officers (53%) have not undertaken professional M&E courses.

Further 82% of the financial allocation was not enough for M&E during implementation period while almost all the projects didn’t have allocation for post project evaluation. Most of the stakeholders (90%) were not involved in the M&E and where they were involved it was mostly during the project closure. Most of the projects (98.5%) did not have department dedicated to M&E while 85% did not have enough M&E officers.

He concluded that skills and knowledge have a direct effect on M&E. The finance also affected the implementation by limiting the infrastructure set, field visits, carrying out surveys and involving stakeholders. Hence there was need to allocate a sufficient budget for the exercise. The number of staff also affected although it could be linked to the financial constraints and lack of M&E departments. The stakeholders’ involvement also affected the implementation since it makes the M&E exercise participatory. He recommended for an enhanced M&E budget, setting up M&E department, involve key stakeholders and development of M&E framework.

Athieno (2005) looked at whether NGOs involved in campaign against HIV/AIDS undertake M&E of their programmers found out that most of them conduct post-campaign evaluation which is done either annually or semi annually. She noted that the information collected becomes obsolete to the project since it comes at a time when the project is done therefore recommended for conducting M&E on continuous basis so as to track and reassess priorities and provide evidence. She also recommended for guidance’s and indicators framework should also be provided.
A total of 50 NGOs were sampled out of 218 where 15% did not conduct M&E, 37% of them conducted M&E annually, 29% semi-annually, 8% on monthly basis while only 11% conducted it on continuous basis. Out of those projects that conducted M&E, 44% did it after the project, 34% during and 18% before the projects. Only 44% of the NGOs used the results to improve the performance of the project while 28% used it in sourcing for funds while 42% was used in research and development.

The major challenges in implementing the M&E were limited resources, data collection supervision, measurement of impact, institutionalization of M&E and the process being complicated. The study concluded that timing of the M&E is crucial since in most of the projects it was done late mostly post project and on annual and semi-annual basis.

2.3 Overview of Literature

The studies indicate that M&E skills, level of education, finance, time, political good will (local leadership), clear distinction of M&E terms, age of the project, M&E unit in a project, M&E plan, M&E culture, stakeholders participation, source of fund, M&E policy, M&E guidelines & standards, usage of M&E information, presence of M&E tools, M&E agency from the government and staff are some of the factors that influence implementation of M&E.

The studies done in Kenya like Nyabuto (2010), Rogito (2010) focuses on specific projects or organization and not a specific part of the country making it difficult to generalize the results on the entire country. These studies do not look at a wider cross-section of projects being funded by different organizations. This study attempted to fill this gap.
3.0 Chapter Three: Methodology

3.1 Introduction

This chapter describes the area of study, type and source of data and the sampling procedures. The model will also be presented.

3.2 Study Area

The study was carried out in Machakos district which is one of the districts in Eastern province covering an area of 1,984.5KM². Most of the District is semi-arid with an average rainfall of between 500mm and 1300mm which is unevenly distributed and unreliable (Machakos DDP 2008-2012).

The district had a population of 199,211 in 2009 and projected to increase to 211,528 in 2011. It consists of one constituency (Machakos Town) and two divisions (Central and Kalama). The main reasons for selecting this District as the area of study were:

• One of the geographical features of the area is Arid and Semi-arid which attracts a wide range of projects including from donor-funded projects. This was of great use especially in comparing the factors as per the source of funding and provides a case to comparison.
• In Kenya a large part of the country is ASAL and therefore the results will be useful to a wider area in the country.
• The area is near Nairobi city of which made it easily accessible by the researcher and eased on communication.
• Unlike the newly created districts. The district is an old one which meant that most of the structures including administration are in place which enabled provision of information and other support at the time the study. Specifically the district development office was of great use in provision of the projects database in the district.
3.3 Data type and source

The study used cross-sectional primary data for the year 2009-2010. The data was collected from the projects management by administering structured questionnaires. The structuring of the questionnaire was done in such a way that it enabled collection of data on development projects and the project management.

3.4 Sample selection

The respondents in the sample were selected from projects which were implemented in the period 2009 to 2010. The projects included among others water, health and education. The sampling was due to cost, time and lack of resources which made it not possible to conduct the study on all the projects in the study area. A random sampling was used to select the projects using systematic sampling method. A random start was done and then systematic random sampling to pick subsequent respondents.

3.5 Sample size

The size of the population determines the sample size alongside the budget and time. In this study the size was guided by the population size, the budget and time constraints. The researcher targeted a sample size of 73 projects, consisting of 43 projects in Kalama and 30 in Central division. However, response achieved was 62 with 34 and 28 from Kalama and Central divisions respectively.

3.6 Data Collection Problems

The data collection encountered some problems. Some of the selected respondents failed to respond as expected mainly due to fear on disclosure of the project information. Also the vastness of the area especially in Kalama division contributed. This can be attributed to the fact that most of the project don't have offices where they operate from and the respondents were traced mostly from their homes most of which were near the projects.
3.7 Model Specification

Monitoring and evaluation is relatively a new tool of management which is being used as a feedback mechanism in development process. Its as a result that data in this area is usually unavailable. The study used probit model to analyze factors influencing M&E of development projects.

Different factors influence the projects’ management decision to implement M&E given the different objectives of the projects. The project management can decide to perform M&E or not. Hence the decision to implement M&E can be characterized as a dichotomous choice between two mutually exclusive alternatives. Therefore a model which can identify these factors while explaining the magnitude of their effects was required. A qualitative response, discrete or binary model was ideal in analyzing a problem of this nature. This kind of a model helps to explain the dichotomous behavior of the dependent variable. In such a case, the dependent variable takes the value of 1 if the event occurs and 0 if otherwise. In this case, if the project implements M&E or otherwise.

The study used probit model has been simplicity and advantages and also have been applied in such situations of binary dependent variable. In probit the disturbance term is homoscedastic which helps to avoid the problem of heteroscedasticity common in linear probability model. Therefore in the study the dependent variable takes the value of 1 or 0 only which depends on a vector of independent variables $X$, and some unknown parameters represented by vector $U$.

The project management can decide to implement M&E or not and therefore the event can occur or not. Its from the probability of this event occurring or not that we derive the probit model and it depends on unobservable utility index $l$, which is determined by the vector of explanatory variables $(X)$ such that;

$$l_i = \beta_0 + \beta_i X_i$$

(1)

The dependent variable will be denoted by $Y$ which refers to the project management decision such that;
$Y_i = 1$ if the project management implements M&E

$Y_i = 0$ if otherwise

Assuming that in each project management there is a threshold or critical level of $I$ given as $(I_i^*)$. If $I_i$ exceeds $I_i^*$, the management will implement, otherwise it will not. This can be written as:

$\begin{cases} 
Y_i = 1 & \text{if } I_i \geq I_i^* \\
Y_i = 0 & \text{if } I_i < I_i^*
\end{cases}$

(2)

Just like $I_i$, the threshold $(I_i^*)$ is unobservable. However, if we assume that it is normally distributed with the same mean and variance, then it is possible to estimate the parameters in equation (1) and also get some information about the unobserved index itself. The only data that can be observed is $Y_i$ and $X_i$, we therefore estimate $\beta_i$ using

$$I_i = \beta_0 + \beta_i X_i + \epsilon_i$$

(3)

Introducing the dependent variable ($Y = 1$ or $Y = 0$) and using equation 2 and 3 we get:

$$\begin{cases} 
Y_i = \beta_0 + \beta_i X_i + \epsilon_i & \text{if } I_i \geq I_i^* \\
Y_i = 0 & \text{if otherwise}
\end{cases}$$

(4)

The model specified by Maddala (1983) will be used for the mathematical estimation. The model is stated as:

$$\begin{cases} 
Y_i = \beta X_i + U & \text{if } \beta X_i + U \geq 0 \\
Y_i = 0 & \text{if otherwise}
\end{cases}$$

(5)

Which can also be expressed as

$$Y_i = \beta_0 + \beta_i X_i + U$$
The expected mean of the error term is zero \( E(U) = 0 \).

This means using probit we can be able to estimate the coefficient \( \beta \), and the estimation model becomes:

\[
E(Y_j) = \beta_0 + \beta_j X_i + U
\]  \( (7) \)

The estimation of \( Y \), in equation \( 7 \) gives us the probit index and the probability of implementing M&E by the project management can is predicted by:

\[
P_j = \frac{1}{1 + e^{Y_j}}
\]  \( (8) \)

Where:

\[
Y_j = \beta_0 + \beta_j X_i + U
\]

The error term is assumed to be normally distributed in probit model. This means that the probit model of implementing M&E can be expressed as

\[
P_j = \frac{1}{\sqrt{2\pi} \sigma^2} e^{-\frac{1}{2} \left(\frac{z^2}{\sigma^2}\right)}
\]  \( (9) \)

Where:

\[
Z_j^2 = Y^* = \beta_0^* + \beta_j^* X_i + U^*
\]

\( \beta^* \) and \( \beta^* \), are parameters to be estimated while \( \pi \) and \( e \) are natural constants which are equal to 3 and 2.7 respectively. \( U^* \) is the error term which is assumed to be normally distributed. \( P_j \) is the probability of project management implementing M&E which ranges from 0 to 1.

we use \( \beta_0^* \) and \( \beta_j^* \) estimates to compute which in turn will be used to compute \( P_j \), and then we will be able to generate \( Y^* \).
The $Y'$ is the probit index which takes the value of $-\infty$ to $+\infty$. This gives the change in probit index $Z'$ due to a unit change in $X_i$.

From the literature the functional relationship that was estimated is given as:

$$ \text{M&F status} = I \ (\text{trainmths, M&F Budget, p_duration, mplan, stakehold, fundso, U}) \ and \ others $$

The variables used are:

- **M&F**: the projects have the option of implementing M&F or not.
- **trainmths**: months of M&F training of the project management
- **M&F Budget**: budget allocation for project M&F.
- **p_duration**: age of the project
- **Mplan**:项目的 M&F plan
- **Stakehold**: projects stakeholders participation in M&F
- **fundso**: source of project funding
- **U**: error term

### 3.8 Variables Definition

**M&F**

This is the dependent variable and it referred to whether the project implemented M&F or not taking a binary response of 1 if implemented and 0 if otherwise.

**Months of M&F training of project management**
The level of M&E skills of the project management is important. The higher the level of M&E skills in project management, the higher the probability of implementing M&E system in a project. The skills are obtained through trainings which could be done at different levels and forum. The skills are measured on aggregate number of months training on M&E.

**M&E budget**

This refers to the budgetary allocation for M&E in the projects budget. Funds availability is key in facilitating the implementation of M&E and the higher the amount the higher the probability of implementing M&E. The budget is measured in Kshs.

**P-duration**

This is the age of the project in terms of years of existence. It was expected that old projects have higher chances of implementing M&E. The age was treated in the total number of years.

**M&E plan**

This is whether the project had a M&E plan or not. The study looked at whether the projects plan factored for M&E as an activity with 1 for those which had it and 2 for those that didn’t have it.

**Stakeholders’ participation**

This refers to whether the stakeholders who are not part of the project management were involved in the project monitoring and evaluation. The stakeholders’ participation is an important aspect since it contributes to accountability and project sustainability. It takes the value of 1 if yes and 2 if not.

**Source of funding**

This refers to who provide the financial support to the project. It is important since some financiers have M&E as a requirement of their funding. The study looked at the main source of
funding with five levels where 1 is for goverment (GoK), 2 for CDF, 3 for donor, 4 for community and 5 from any other source.
4.0 Chapter Four: Findings and Interpretation of Results

4.1 Introduction

This chapter presents findings and the interpretations. Primary data collected from 62 projects in Machakos district, Kenya, was used for the variables used in building a model that aims to estimate factors influencing project monitoring and evaluation. The chapter starts with descriptive statistics and proceeds to normality test and binary probit regression analysis. Finally, short-run and long-run relationships are established.

4.2 Descriptive Statistics

<table>
<thead>
<tr>
<th>Position of respondent in the project</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project manager</td>
<td>11</td>
<td>11</td>
<td>17.7</td>
</tr>
<tr>
<td>Project officer</td>
<td>13</td>
<td>24</td>
<td>21.0</td>
</tr>
<tr>
<td>Project committee chairperson</td>
<td>15</td>
<td>39</td>
<td>24.2</td>
</tr>
<tr>
<td>Project committee Secretary</td>
<td>9</td>
<td>48</td>
<td>14.5</td>
</tr>
<tr>
<td>Project committee Treasurer</td>
<td>5</td>
<td>53</td>
<td>8.1</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>62</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Source: author's computation

The table shows that 24.2% of the respondents were project committee chairperson. This can be attributed to the fact that most of the projects sampled were from CDF.
Table 4-2  Age distribution of the respondents

<table>
<thead>
<tr>
<th>Age of respondent (years)</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 20</td>
<td>0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>21 - 30</td>
<td>9</td>
<td>9</td>
<td>14.5</td>
</tr>
<tr>
<td>31 - 40</td>
<td>26</td>
<td>35</td>
<td>41.9</td>
</tr>
<tr>
<td>41 - 50</td>
<td>19</td>
<td>54</td>
<td>30.6</td>
</tr>
<tr>
<td>51 - 60</td>
<td>7</td>
<td>61</td>
<td>11.3</td>
</tr>
<tr>
<td>61 and above</td>
<td>1</td>
<td>62</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Source: author's computation

The table shows that the 41.9% of the sample respondents are aged between 31-40 years. Assuming that people are most productive from the age of 31 to 60 years then a 97.8% of the respondents are productive.

Table 4-3  Distribution of General education level

<table>
<thead>
<tr>
<th>Position of respondent</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Secondary school</td>
<td>28</td>
<td>28</td>
<td>45.2</td>
</tr>
<tr>
<td>Diploma</td>
<td>15</td>
<td>43</td>
<td>24.2</td>
</tr>
<tr>
<td>Degree</td>
<td>13</td>
<td>56</td>
<td>21.0</td>
</tr>
<tr>
<td>Others</td>
<td>6</td>
<td>62</td>
<td>9.7</td>
</tr>
</tbody>
</table>

Source: author's computation

Table 3 shows that 45.2% of the sample respondents have secondary school education level of education.
**Table 4-4: Types of project**

<table>
<thead>
<tr>
<th>Type of project</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>4</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>Water</td>
<td>27</td>
<td>31</td>
<td>43.5</td>
</tr>
<tr>
<td>Education</td>
<td>11</td>
<td>42</td>
<td>17.7</td>
</tr>
<tr>
<td>Health</td>
<td>12</td>
<td>54</td>
<td>19.4</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>62</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Source: author’s computation

The table shows that water at 40.3% constitute most of the projects in the sample. This may be attributed to the fact that the area of study is arid and Semi-Arid and hence water is a major challenge in the district.

**Table 4-5: Distribution on main source of funding**

<table>
<thead>
<tr>
<th>Position of respondent</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GoK</td>
<td>16</td>
<td>16</td>
<td>25.8</td>
</tr>
<tr>
<td>CDF</td>
<td>24</td>
<td>40</td>
<td>38.7</td>
</tr>
<tr>
<td>Donor</td>
<td>16</td>
<td>56</td>
<td>25.8</td>
</tr>
<tr>
<td>Community</td>
<td>5</td>
<td>61</td>
<td>8.1</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>62</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Source: author’s computation

The table shows that 38.7% of the projects sampled were mainly funded through the Constituency Development fund. This can be attributed to the increased funding to the kitty by the government. However, the projects funded directly by the government and the donor...
funded are close to each other in the sample with 25.8% and 25.8% respectively. The high percentage of donor funded projects could be attributed to the fact that the district is ASAL and hence getting much attention from the donors.

Table 4-6  M&E Budget allocation

<table>
<thead>
<tr>
<th>M&amp;E budget allocated for the project</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>24</td>
<td>38.7</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>62</td>
<td>61.3</td>
</tr>
</tbody>
</table>

Source: author’s computation

The table shows that a massive 61.3% of the projects did not have a budget allocation for M&E, this means that there were limited financial resources to conduct M&E and hence a negative effect.

Table 4-7  Distribution of project performance

<table>
<thead>
<tr>
<th>Level of projects objectives achievement</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully achieved</td>
<td>4</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>Partially achieved</td>
<td>58</td>
<td>62</td>
<td>93.5</td>
</tr>
<tr>
<td>Not achieved</td>
<td>0</td>
<td>62</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: author’s computation

A massive 93.5% of the projects recorded a partial achievement in meeting the objectives with only a 6.5% of the projects achieving them fully.
Table 4-8  Distribution of submission of M&E reports

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor's sponsor</td>
<td>19</td>
<td>19</td>
<td>54.3</td>
</tr>
<tr>
<td>NIMES</td>
<td>0</td>
<td>19</td>
<td>0.0</td>
</tr>
<tr>
<td>Ministry</td>
<td>13</td>
<td>32</td>
<td>37.1</td>
</tr>
<tr>
<td>Community</td>
<td>0</td>
<td>32</td>
<td>0.0</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>35</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: author's computation

None of the projects sampled submits their M&E reports to NIMES while majority (54.3%) submits to the donor. This could be attributed to the fact that most of the donors have M&E as requirement for funding.

Table 4-9  Sources of M&E guidelines

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Cumulative frequency</th>
<th>Percentage of sample size (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIMES</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Donor</td>
<td>15</td>
<td>15</td>
<td>57.7</td>
</tr>
<tr>
<td>Ministry</td>
<td>9</td>
<td>24</td>
<td>34.6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>26</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Source: author's computation

Out of 26 projects had M&E guidelines none of the projects used NIMES guidelines in performing their M&E. most of the guidelines were from the donors. One of the objective of the study was to find out if NIMES guidelines are significant factor in influencing M&E, from the table its clear that the guidelines played no role.
4.3 Response rate and Summary Statistics

From a target sample size of 73 projects selected for response, a total of 62 respondents were successfully interviewed yielding a good response rate of 84.9 percent. Table 4.1 below has a summary of descriptive statistics.

Table 4.10 Summary statistics (n=62)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>M&amp;E status</td>
<td>0.5645161</td>
<td>0.4998678</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Project duration</td>
<td>3.758065</td>
<td>2.252034</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>M&amp;E Budget – amount in Ksh</td>
<td>69967.9</td>
<td>138804.3</td>
<td>0</td>
<td>850000</td>
</tr>
<tr>
<td>Stakeholder participation</td>
<td>0.467419</td>
<td>0.5030315</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Have a monitoring plan</td>
<td>0.348387</td>
<td>0.4823703</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Months of training on M&amp;E</td>
<td>3.16129</td>
<td>4.421236</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>Source of funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GoK</td>
<td>0.2741935</td>
<td>0.4497487</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CDF</td>
<td>0.3709677</td>
<td>0.4870073</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>NGO</td>
<td>0.2903226</td>
<td>0.4576167</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Community</td>
<td>0.0645161</td>
<td>0.2476756</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: author’s computation

Looking at the mean (0.5645) of the dummy variable measuring whether the sampled projects conduct monitoring and evaluation M&E, we notice that slightly over half of the projects (56.5%) performed monitoring and evaluation of their activities. Indeed as shown by tables 1a and 1b in the appendices, thirty five (35) projects practiced M&E compared to 27 projects that did not. The duration of the projects ranged between one to eleven years with a standard deviation of 2.25 and the typical project was almost four (3.75) years old. On average, projects M&E budget was Ksh 69,967.9 with the highest allocated Ksh 850,000. The variance on M&E budget was quite wide especially for those which practice M&E as shown by appendix table 4.2. Overall, there was 46% stakeholder involvement; as far as M&E training, most respondents had attended three-month seminars and workshops; 36% of the projects had a monitoring plan and CDF led as the major source of funding (37%) of projects.
Projects which practice M&E had a mean duration of 4.9 years (which is at least double that of projects without M&E). It appears that projects with M&E practice are mainly NGO sponsored whereas those which do not practice monitoring are mainly CDF and government funded. The biggest distinction between the two project categories is that the ones which conduct M&E have management personnel with a mean of five months training in M&E while projects which don't carry out monitoring have personnel with almost no such training. Thus projects that conduct M&E have personnel with at least ten times better skills development than those which do not. The former have an M&E plan while the latter do not have. Finally, projects with M&E report a 63% stakeholder involvement while those without M&E have only 26% involvement of stakeholders. The M&E budget variable was omitted from the figure due to high variances between those with and those without M&E leading to distortion of the figure.

*denotes variables that were binary measured (to return either 0 or 1). As such the mean becomes a percentage.
4.4 A correlation Matrix of Explanatory Variables

In order to understand the direction of relationships among variables used, we established correlations. Correlation is a technique that enables analysts to measure strength and direction of association between two or among more variables. The value of correlation coefficient can be negative or positive $-1 \leq r \leq 1$ but has a limit of absolute value of $1$. When values get close to the absolute value of one the correlation is described as very strong and vice versa for those values that are very close to zero.

Table 4.11  **pair wise correlation of covariates**

<table>
<thead>
<tr>
<th></th>
<th>source-g</th>
<th>p_dura-n</th>
<th>finance</th>
<th>stakeh-r</th>
<th>mplan</th>
<th>indur-n</th>
<th>trainm-a</th>
<th>infinance</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_dura-n</td>
<td></td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>finance</td>
<td>0.3866**</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stakeholder</td>
<td>0.2192</td>
<td>0.3864**</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mplan</td>
<td>0.1810</td>
<td>0.3864**</td>
<td>1.0000</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>induration</td>
<td>0.4128</td>
<td>0.9407</td>
<td>0.3724</td>
<td>0.1439</td>
<td>0.5640</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>trainm-a</td>
<td>0.3514**</td>
<td>0.4864**</td>
<td>0.3134*</td>
<td>0.3046*</td>
<td>0.4416**</td>
<td>0.4475**</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>infinance</td>
<td>0.0772</td>
<td>0.5172</td>
<td>0.6277</td>
<td>0.2139</td>
<td>0.5361</td>
<td>0.5141</td>
<td>0.3428</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

** Statistical significance achieved at 0.01; *significance achieved at 0.05 level

Only correlation between continuous values is meaningful therefore not all correlation measures are necessary to interpret in the matrix table. Project duration associates 38.64% with amount of M&E budget directed to the project so that more funding directly relates to longer project durations. More months of training on monitoring and evaluation is associated with longer project durations; the relationship is strong and significant at 60.81 percent.
4.5 Normality Testing

We used Shappiro-Wilk "W" test of normality to establish the nature of distribution of data around the mean before regression. Shappiro-Wilk test has a threshold of 0.7 for the W statistic below which data is said to be distributed to non-normally for that variable. Significant results (p-value<0.05) confirm such conclusion for the associated variable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obn</th>
<th>W</th>
<th>V</th>
<th>z</th>
<th>Prob&gt;</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>p duration</td>
<td>62</td>
<td>0.92293</td>
<td>4.301</td>
<td>3.151</td>
<td>0.00081</td>
<td></td>
</tr>
<tr>
<td>Induration</td>
<td>62</td>
<td>0.97284</td>
<td>1.515</td>
<td>0.698</td>
<td>0.18454</td>
<td></td>
</tr>
<tr>
<td>mbudget</td>
<td>62</td>
<td>0.59700</td>
<td>22.480</td>
<td>6.723</td>
<td>0.00000</td>
<td></td>
</tr>
<tr>
<td>lnmbudget</td>
<td>35</td>
<td>0.84601</td>
<td>5.425</td>
<td>3.530</td>
<td>0.00023</td>
<td></td>
</tr>
<tr>
<td>stakeholder</td>
<td>62</td>
<td>0.99746</td>
<td>0.141</td>
<td>4.223</td>
<td>0.00000</td>
<td></td>
</tr>
<tr>
<td>mplan</td>
<td>62</td>
<td>0.98099</td>
<td>1.061</td>
<td>0.128</td>
<td>0.44908</td>
<td></td>
</tr>
<tr>
<td>trainths</td>
<td>62</td>
<td>0.73854</td>
<td>14.991</td>
<td>5.788</td>
<td>0.00000</td>
<td></td>
</tr>
<tr>
<td>fund1</td>
<td>62</td>
<td>0.95547</td>
<td>2.485</td>
<td>1.966</td>
<td>0.02467</td>
<td></td>
</tr>
<tr>
<td>fund2</td>
<td>62</td>
<td>0.98853</td>
<td>0.864</td>
<td>0.337</td>
<td>0.62433</td>
<td></td>
</tr>
<tr>
<td>fund3</td>
<td>62</td>
<td>0.96179</td>
<td>2.132</td>
<td>1.835</td>
<td>0.06102</td>
<td></td>
</tr>
<tr>
<td>fund4</td>
<td>62</td>
<td>0.99944</td>
<td>0.032</td>
<td>7.467</td>
<td>0.00000</td>
<td></td>
</tr>
</tbody>
</table>

Source: author's computation

Again only continuous variables require assessment of this test since their range of alternative outcomes is wide. Nevertheless all variables (except M&E budget) pass the normality test since their W statistics are above 0.7. When the variable measuring level of M&E budget is log-transformed it also adopts normal distribution.

4.6 Probit Regression Results

Since the dependent variable was binary in nature, a binary response model (such as logit or probit) was appropriate. Having assumed that the error term of the model observes standard normal cumulative distribution, the researcher chose simple binary probit model. The estimated coefficients of probit regression are interpreted so that instead of the slope coefficients (β) being rate of change in Y (the dependent variables) as X changes (as in the linear Probability and Ordinary Least Square regression), now the slope coefficient is interpreted as the rate of change in the probit index as X changes (Gujarati, 2004).
<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient estimates</th>
<th>Marginal effect</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log of duration of project operation</td>
<td>.5190702</td>
<td>.004358</td>
<td>0.639</td>
</tr>
<tr>
<td>Amount of M&amp;E budget</td>
<td>.0001549</td>
<td>1.30e-06</td>
<td>0.028</td>
</tr>
<tr>
<td>Stakeholder involvement status*</td>
<td>1.822855</td>
<td>.0189634</td>
<td>0.029</td>
</tr>
<tr>
<td>Have a monitoring plan*</td>
<td>2.504721</td>
<td>.0100761</td>
<td>0.060</td>
</tr>
<tr>
<td>Months of M&amp;E training</td>
<td>.8715518</td>
<td>.0073174</td>
<td>0.028</td>
</tr>
<tr>
<td>Sources of finance¹: Fund2 (NGO)</td>
<td>3.852505</td>
<td>.0023257</td>
<td>0.079</td>
</tr>
<tr>
<td></td>
<td>2.670607</td>
<td>.0021594</td>
<td>0.813</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.844301</td>
<td></td>
<td>0.012</td>
</tr>
</tbody>
</table>

Source: author's computation

(¹) dy/dx is for discrete change of dummy variable from 0 to 1

It is important to explain the "maximum likelihood" estimation procedure. Wald Chi-square statistic, pseudo likelihood and Log pseudolikelihood. The probit regression uses maximum

¹ Note that the first source of finance GoK/CDF is missing in the results table. It is actually used as the reference category to enable interpretation of the dummies.
likelihood estimation which is an iterative procedure. The first iteration (called iteration 0) is
the log likelihood of the null or empty model, that is, a model with no predictors. At the next
iteration (called iteration1), the specified predictors are included in the model. At each iteration
the log likelihood increases because the goal is to maximize the log likelihood. When the
difference between successive iterations is very small, the model is said to have converged and
the iterating stops.

By including the predictor variables the maximum log likelihood of -9.5068456 improves upon
the "Intercept Only" model since the LR chi2 of 39.69 with 7 degrees of freedom is significant
at 1% level. The Likelihood Ratio (LR) Chi-Square tests the hypothesis claiming that at least
one of the predictors' is not equal to zero in the model. The LR Chi-Square statistic can be
calculated by \(-2*\text{L}(\text{null model}) - (-2*\text{L}(\text{fitted model}))\), where \(\text{L}(\text{null model})\) is from the log
likelihood with just the response variable in the model (Iteration 0) and \(\text{L}(\text{fitted model})\) is the
log likelihood from the final iteration (assuming the model converged) with all the parameters.
Thus we conclude that including the predictors help to improve the model's power of
predicting whether a project will implement monitoring and evaluation practices (indeed to
90.7%).

Interpreting coefficients/marginal effects

The probit regression coefficients give the change in the Z score or probit index for a one unit
change in the predictor. A positive coefficient means that an increase in the predictor leads to
an increase in the predicted probability. A negative coefficient means that an increase in the
predictor leads to a decrease in the predicted probability.

The constant or intercept term represents the probit index when the effect of all explanatory
variables are assumed zero. A unit increase in log-transformed duration of the project increases
the odds of implementing M&E by .5190702 units. This relationship is not significant even at
10% meaning there is a very high likelihood that this estimator occurred by chance alone.

An extra shilling directed to funding M&E in a project has a \(1.30 \times 10^{-6}\) (0.000013) increase in
the odds of conducting M&E for that project. This result is established with significance at 5%
level. This may seem to be a minimal effect except when considered in terms of millions. For
instance, a million shilling increase in funding will cause a 13 fold increase in chances of conducting M&E. Thus more funds for M&E are likely to lead to higher project M&E implementation.

Stakeholder involvement has a .0189634 increase in odds of implementing M&E activities; presence of a monitoring plan contributes .0100761 to the chances of conducting M&E for that particular project. An extra month of personnel training has a .0073174 increase in their probability to implement monitoring and evaluation on their project.

Finally, the source of funding has an effect on whether or not a project is likely to conduct monitoring and evaluation of effectiveness/efficiency. Projects funded by NGOs have a .0023257 higher probability of being monitored and evaluated than those funded by government or CDF. Similarly, projects funded by the community have a .0021594 higher probability of being monitored and evaluated than those funded by government or CDF. Thus state funded projects have the least chances of being monitored and those funded by NGO the best chance of M&E for effectiveness.
5.0 Chapter Five: Conclusion and Recommendations

5.1 Summary and Conclusion

The study used probit model which is useful in dependent variable enabling the study to avoid the OLS problem especially in violation of the assumptions. The study sought to identify the factors that influence M&E of development projects. The results presented in chapter four outlines factors that can be used to explain the predicted probability of development projects implementing M&E. M&E budget, stakeholders participation, personnel M&E training, M&E plan and donor as source of funding had statistically significant effect on monitoring and evaluation of development projects at 95% confidence level.

M&E budget was found to be positively related to the probability of implementing M&E, this indicates that projects which have allocated M&E budget have higher probability of implementing M&E. With availability of finance, it implies the project management will be able to carry out the activity. This is inline with the expectation of the study.

Stakeholder participation showed a positive relation with probability of implementing M&E implying that the more the stakeholders are involved in the project activities the higher the probability of implementing M&E. When stakeholders are involved there is a higher demand for accountability of resources committed vis a vis the benefits realized and one way of realizing this is through the M&E and hence an increase in the probability of implementing M&E.

Training of project personnel on M&E had a positive relation with probability of implementing M&E; training is part of skills development and the higher the level of skills in M&E the higher the probability of implementing M&E of projects.

The M&E plan also had a positive relation with implementing M&E of project. A plan enables the activity to be factored for within the project timeline. This means that those projects that M&E plan have a higher probability of implementing M&E as compared to those without M&E plan.
most cases the project implementation is based on the activities provided in the plans. The results are as per the expectation of the study.

Finally the results show that the relation between project duration and community as a source of funding on probability of implementing M&E to be insignificant. This is contrary to the study expectation. This means that the probability of M&E maybe insensitive to small changes in the explanatory variables.

Further, from the NIMES guidelines were found to have no influence on development projects monitoring and evaluation.

5.2. Policy Implication

From the conclusions drawn above, some policy recommendations can be made. The policy recommended aims at improving the monitoring and evaluation of development projects. The main importance of M&E is to provide a feedback mechanism on development interventions and ensure optimal utilization of the scarce resources.

There is a need to address the M&E budget allocation. This is based on the importance of M&E budget on probability of implementing M&E in projects. This can be done by ensuring that every project is allocated funds for M&E and also in the case of national budget, M&E should be provided as an item.

Investment in human capital and especially personnel training on M&E will enhance the skills which will result in higher level of M&E. It will also ease on integration of the M&E system in the country.

The results indicated that stakeholders’ participation is of great importance in project M&E and therefore a promotion programme to enhance the level of participation. This is important in ensuring accountability and also project sustainability.

There is a great need for dissemination programmes by NIMES to make people aware of its existence and use of its guidelines. The results points out that none of the sampled projects used NIMES guidelines in their undertaking of M&E. considering the effort being made by the
government through NIMES in establishing M&E in the country, the same is not replicated in
the projects. Hence to make it a success a lot of sensitization is needed on the ground.

The plan for M&E should be a requirement for all the projects in order to ensure that the
activity if factored for within the project lifeline. This should be done by rolling down the
activities of NIMES while providing clear guidelines on M&E.

The donor funded projects have the highest probability of implementing M&E. considering the
GoK and CDF has the least then the government can borrow from donors on the successful
implementation of M&E in projects. Further, there is a need to strengthen NIMES as an
integrated system which will capture both donor and government funded projects. This way it
will ensure exchange on information on best practices.

5.3. Recommendations

Considering that the reporting on progress of development plans in Kenya and specifically the
Vision 2030 is based on the M&E framework as provided by NIMES there is a need to ensure
full establishment and development of M&E in the country. To do this we would recommend
for more economic research on the area of monitoring and evaluation. This will be great in
adding knowledge to the area contributing to efficiency of M&E.

Specifically there is a need to undertake a study on effectiveness of the National Integrated
Monitoring and Evaluation (NIMES) in providing the reporting framework for Vision 2030. It
would also be appropriate to do research in other regions in the country to enable a comparison
of the results and build on the database.
References


Lahey, R. (2010), the Canadian M&E system Lessons Learned From 30 Years of Development. The World Bank, Washington D.C.


Annex I: Questionnaire

Greetings and introduction
Explain the purpose of the study and ask for permission to conduct it.

1 PERSONAL DETAILS OF THE PERSON BEING INTERVIEWED

1.1 What position do you hold in your project?
   (i) Project manager { }  
   (ii) Project officer { }  
   (iii) Project committee chairperson { }  
   (iv) Project committee Secretary { }  
   (v) Project committee Treasurer { }  
   (vi) Other person (specify) ...................................................

1.2 Age of the person in years
   (i) Below 20 { }  
   (ii) 21 - 30 { }  
   (iii) 31 - 40 { }  
   (iv) 41 - 50 { }  
   (v) 51 - 60 { }  
   (vi) Above 60 { }

1.3 Gender: male { }  
            Female { }

1.4 What is your highest level of education?
   (a) Primary school { }  
   (b) Secondary { }  
   (c) Diploma { }  
   (d) University { }  
   (e) Other (Specify) ........................................................................

1.5 For how long have you been in this project................................

2 PROJECTS DETAILS

2.1 What is the type of project e.g. water, road............................

2.2 Which year was the project started ...........................................

2.3 What is your main source of funding?
   (a) GoK { }  
   (b) CDF { }  
   (c) Donor { }  
   (d) Community { }  
   (e) Others (Specify) ........................................................................
2.4 In the project budget for 2009/2010 was there an allocation for monitoring and Evaluation?
Yes { } No { }

If yes, how much Kshs.....................................................

The amount allocated was it adequate or inadequate to do monitoring and evaluation?
(a) Adequate { } (b) Inadequate { }

2.5 How would you rate the performance of your project in achieving its objectives
(a) Fully Achieved { }
(b) Partially achieved { }
(c) Did not achieve { }

2.6 What are some of the major challenges faced by the project?
(i) ..........................................................................
(ii) ..........................................................................
(iii) ..........................................................................

2.7 How do you think the above challenges can be solved?
(i) ..........................................................................
(ii) ..........................................................................
(iii) ..........................................................................

3 MONITORING AND EVALUATION DETAILS
3.1 During the period 2009/2010 was monitoring and evaluation performed in your project?
Yes { } No { }

If, NO please explain what were the main reasons?
a. ..........................................................................
b. ..........................................................................
c. ..........................................................................

If YES, how often was it performed in the 2009-2010 period?
(a) Monthly { }
(b) Quarterly { }
(c) Semi-annually { }
(d) Annually { }
(e) Others (specify)........................................
3.2 Where did you submit your M&E reports?
(a) Donor/sponsor { } (b) NIMES { } (c) Ministry { } (d) community { } (e) Other (specify) ..................................................

3.3 Do you use the M&E report in any way in course of project implementation?
Yes { } No { }
If yes, how were they used?

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

3.4 In performing your M&E, were there any guidelines used?
Yes { } No { }
If yes, which was the source of the guidelines?
(a) National Integrated Monitoring and Evaluation (NIMES) { } (b) Donor { } (c) Ministry { } (d) Other (specify) ..........................................

3.5 Other than the management committee did you involve stakeholders in performing M&E?
Yes { } No { }
If yes, were the following involved,

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Yes</th>
<th>No</th>
<th>If No please comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project members (beneficiaries)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project officials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government officers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local leaders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others (Specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.6 Who is in charge of M&E in your project?
3.7 Do you have a M&E committee for the project?
Yes { } No { }
If yes how many members are there? Male ............... female ............
3.8 How well do you understand the terms Monitoring and evaluation
(a) Excellent { } (b) Average { } (c) Poor { }
3.9 What level of M&E skills do you have?
(a) None { } (b) Trained in Seminars and workshops { } (c) Certificate { } (d) Diploma { } (e) Degree { } (f) Any other (Specify) ..........................................................
3.10 On aggregate, how many months of training on M&E did you undergo?
.......................... months
3.11 In your project, do you have a unit specifically for M&E?
Yes { } No { }
If yes, how many members of your staff are there in the unit .............................................
3.12 Did you have a M&E plan for the year 2009-2010
Yes { } No { }
3.13 Are you aware of the National Integrated Monitoring and evaluation system (NIMES)
Yes { } No { }
If yes please explain how ...........................................................................................................
3.14 If M&E in your project is to be improved, which area would you recommend and why

<table>
<thead>
<tr>
<th>Area</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td></td>
</tr>
</tbody>
</table>
Annex II: Raw Analysis Outputs

Figure 1: A scatter matrix of number of projects and project duration

Source: author's computation

Table 1a: Summary statistics for projects that practice M&E

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_duration</td>
<td>35</td>
<td>4.857143</td>
<td>2.289912</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>mbudget</td>
<td>35</td>
<td>123343.1</td>
<td>166825.5</td>
<td>0</td>
<td>850000</td>
</tr>
<tr>
<td>stakeholder</td>
<td>35</td>
<td>.6289714</td>
<td>.4902409</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>mplan</td>
<td>35</td>
<td>.6</td>
<td>.4970501</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>trainmths</td>
<td>35</td>
<td>5.085714</td>
<td>5.054825</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>fund1-OOX</td>
<td>35</td>
<td>.2571429</td>
<td>.4434396</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>fund2-CDP</td>
<td>35</td>
<td>.3</td>
<td>.4058397</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>fund3-NOO</td>
<td>35</td>
<td>.5142857</td>
<td>.5070926</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>fund4-Comm</td>
<td>35</td>
<td>.0285714</td>
<td>.1690369</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: author's computation
## Table 1b: Summary statistics for projects that do not practice M&I

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>p_duration</td>
<td>27</td>
<td>2.333333</td>
<td>1.143544</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>m_budget</td>
<td>27</td>
<td>2.73198</td>
<td>4.358876</td>
<td>0</td>
<td>5000</td>
</tr>
<tr>
<td>stakeholder</td>
<td>27</td>
<td>21.944444</td>
<td>10.061856</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>mplan</td>
<td>27</td>
<td>0.037037</td>
<td>0.199866</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>trainths</td>
<td>27</td>
<td>0.112857</td>
<td>0.199866</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>fund1_OK</td>
<td>27</td>
<td>0.296296</td>
<td>0.466126</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>fund2_CDF</td>
<td>27</td>
<td>0.597143</td>
<td>0.500711</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>fund3_NGO</td>
<td>27</td>
<td>0.381802</td>
<td>0.466126</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>fund4 Comm</td>
<td>27</td>
<td>0.5608468</td>
<td>0.3202563</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: author's computation

## Table 2: Probit results

\[
\text{probit} = \text{induration m_budget stakeholder mplan trainths fund1 fund2 fund3 fund4}
\]

Note: fund1 = 0 predicts success perfectly.

fund1 dropped and 18 obs not used.

Note: fund1 dropped because of collinearity.

<table>
<thead>
<tr>
<th>Iteration</th>
<th>log likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-29.352122</td>
</tr>
<tr>
<td>1</td>
<td>-14.824311</td>
</tr>
<tr>
<td>2</td>
<td>-11.814418</td>
</tr>
<tr>
<td>3</td>
<td>-10.049957</td>
</tr>
<tr>
<td>4</td>
<td>-9.569004</td>
</tr>
<tr>
<td>5</td>
<td>-9.568456</td>
</tr>
</tbody>
</table>

Probit regression

\[
\text{Log likelihood} = 9.568456
\]

| Variable | Coef. | Std. Err. | z    | P>|z< | 99% Conf. Interval |
|----------|-------|-----------|------|------|-------------------|
| Induration | 0.5190702 | 1.104009 | 0.47 | 0.639 | -1.648667 2.686807 |
| m_budget | 0.0001549 | 0.0000705 | 2.20 | 0.028 | 0.0000168 0.000381 |
| stakeholder | 1.822855 | 0.368139 | 2.44 | 0.014 | 0.507185 3.13892 |
| mplan | 2.504721 | 1.310642 | 1.88 | 0.060 | -1.03288 5.042331 |
| trainths | 0.2715341 | 0.396165 | 2.20 | 0.028 | 0.09436 0.65012 |
| fund1 OK | 0.3832505 | 0.489182 | 0.76 | 0.026 | 0.241692 0.5248 |
| fund2 NGO | 0.2670607 | 0.130204 | 0.24 | 0.081 | 0.0948098 0.440219 |
| fund4 Comm | -3.844301 | 1.534151 | -2.51 | 0.012 | -6.851181 -0.837213 |

Note: 0 failures and 7 successes completely determined.

Source: author's computation
Marginal effects after probit

\[ y = \text{Pr}(\text{fail} | \text{predict}) \]

\[ = .96727367 \]

| variable | \( \text{dy/dx} \) | Std. Err. | z | P>|z| | 99% C.I. | \( \chi^2 \) |
|----------|----------------|-----------|-----|---------|---------|-----------|
| Indura-n | 0.004358       | 0.0195    | 0.22 | 0.823   | -0.033858 | 0.042574 | 0.009602 |
| mtabudget | 1.30e-06      | 0.00001   | 0.26 | 0.797   | 8.6e-06   | 0.000011 | 2.3682  |
| staks-h*r | 0.189634      | 0.06863   | 0.28 | 0.783   | -1.16128  | 0.154056 | 3.863644 |
| mplan*r | 0.1002791     | 0.04990   | 0.25 | 0.806   | -0.070263 | 0.090415 | 1.018184 |
| train-m*s | 0.0073174     | 0.03076   | 0.24 | 0.812   | 0.062968  | 0.067603 | 1.318184 |
| fund2 NGO*s | 0.0031257    | 0.01541   | 0.16 | 0.880   | 0.027377  | 0.032531 | 0.227227 |
| fund3COMM*s | 0.0021594     | 0.01329   | 0.19 | 0.848   | -0.015977 | 0.024296 | 0.00909  |

(dy/dx is for discrete change of dummy variable from 0 to 1)

Source: author's computation