DONOR FUND MANAGEMENT AND PERFORMANCE OF THE RURAL ELECTRIFICATION PROGRAMME IN UGANDA: A CASE STUDY OF WEST NILE AND KISIIZI PROJECTS

By

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DECLARATION

I, **Pamela Kusimba,** declare that the material in this dissertation is a result of my own work and findings and has never been produced elsewhere for an academic award.

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APPROVAL TO SUBMIT

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DEDICATION

I dedicate this dissertation to my sons Mathew Kusimba and Mark Kusimba

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LIST OF ABBREVIATIONS AND ACRONYMS

BUDS	Business Development Sector
ERT	Energy for Rural Transformation
HFO	Heavy Fuel Oil
HC	Health Centers
IREMP	Indicative Rural Electrification Master Plan
LIREPs	Locally Initiated Rural Electrification Projects
MEMD	Ministry of Energy and Mineral Development
MW	Mega Watts
NGOs	Non Governmental Organisations
PREPs	Priority Rural Electrification Projects
PV	Photo Voltaic
RE	Rural Electrification
REB	Rural Electrification Board
REA	Rural Electrification Agency
REF	Rural Electrification Fund
SPSS	Statistical programme for social scientists
UEB	Uganda Electricity Board
WENRECO	West Nile Rural Electrification Company

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ABSTRACT

The study focused on the effect of donor fund management on the performance of Rural Electrification programme in Uganda using Kisiizi and West Nile projects as case studies. With the liberalization of the energy sector, came privatization of projects. The interaction of Donors, Government and the Private Sector changed the dynamics in electrification. There was slow progress on delivery of electricity to rural areas and objectives of the projects were not realized, making projects ineffective in transforming rural life. The study adopted a cross sectional case study design and used both qualitative and quantitative approaches. From a population of 271 a sample of 159 elements was selected. Systematic and purposive sampling techniques were then used to select elements from the sample. The data collection methods used included questionnaire, interviewing, documentary review and observation. Quantitative data were analysed using SPSS to generate frequencies and percentages of responses and qualitative data were manually analysed. Using Pearson's correlation coefficient, the findings indicate that resource planning has a moderate significant positive relationship at 0.261, implementation had, moderate significant positive relationship at 0.255, cost control had moderate significant positive relationship at 0.400, and political will had moderate significant positive relationship at 0.111. Lessons learnt from the study are:: all indicators of resource planning especially time should be adhered to, for the effectiveness of a project. Project implementation is a crucial phase in project management; therefore Government should play its part in Monitoring and evaluating periodically to mitigate any unforeseen circumstances. The cost control process was unique with Government and World Bank having different procedures and guidelines which the private developer was not familiar with as a new player. Political will was influential in negotiating and acquiring funds from donors but interference hindered the effectiveness of projects.

CHAPTER ONE

INTRODUCTION

The study explored the effect of donor fund management and the performance of Rural Electrification Programme in Uganda. In this study donor fund management was the independent variable while performance was the dependant variable. A number of projects in the Energy sector specifically rural electrification projects are funded by Donors, while others are funded directly by Government. The performance of the different projects is determined by a number of factors which include management, government support, donor support, feasibility factors and political priority (Maddock 1992). The Energy for Rural Transformation (ERT) programme in Uganda has implemented 3 fast track projects namely Kisiizi hospital power project and West Nile Rural Electrification Project (WENERECO). The performance of these projects was affected by the management of funds because of the interface between donors, private sector and Government. Because the funds are from donors, disbursement and management is unique and has an impact on the performance of RE projects.

This chapter presents the background to the study, statement of the problem, purpose of the study, general and specific objectives, research questions, hypotheses, the scope of the study, justification for the study and significance of the study, assumptions and limitations and operational definitions.

1.1. Background to the study

1.1.1 Rural Electrification; a Global perspective

RE is the process of bringing electrical power to rural and remote areas. The rural electrification revolution started in the United States of America in the 1930's when the Roosevelt

administration decided that it was the duty of the government to carry out rural electrification since private companies could not supply power to the people (en.wikipedia.org September 2008). The most famous such program was the New Deal's Rural Electrification Administration in the United States, which pioneered many of the themes like grid extension and renewable energy resources. Rural electrification was based on the belief that affordable electricity would improve the standard of living and the economic competitiveness of the family farm. (http://newdeal.feri.org: August 2008). Private companies were also encouraged to invest in rural electrification since the rural electrification helped to offset the extra cost involved in bringing power lines to the country (Tennessee Valley Authority: Electricity for all http://newdeal.feri.org October 2008). The performance of RE projects in America led to development of rural communities and encouraged other countries to adopt it.

Since the 1930s, other countries have joined the rural electrification revolution. China launched the China Township Electrification Program in 2001 to provide renewable electricity to 1,000 townships, one of the largest such programs in the world. The performance of RE projects in China has been successful as the emphasis is on low cost technologies that depend on rural skills. Involving the local communities improved the performance of project because there is ownership at the local level. RE is largely decentralized thus the need for subsidies delivered through donor funding (Haanyike 2005). Rural electrification in China depends on Donor funds from development partners.

In Peru, like most developing countries, electrification was lowest in the rural areas, but in 2002 the Peruvian government also liberalized the energy sector to allow private sector players (Cherni and Preston 2005). But like Peru, India liberalized the energy sector and still private

player participation was not adequate until donors came in to fund the RE projects (Neha and Akanksha 2004)

Initially, RE was a reserve for central governments. Governments then stopped investing in rural electrification because of liberalisation in the energy sector. Liberalisation in the sector meant that the private sector had to play the leading role, although initially it was with Government support. Donors got involved in rural electrification largely because it was not viable for the private sector to invest. Jamtal, Newbery and Pollitt (2005) argue that substantial amounts of money have been spent on implementing market oriented electricity reforms in developing countries. Maddock (1992) advances this argument further that, donors are introducing arrangements where development products are managed by institutions in the recipient countries. In this case rural electrification projects are now being designed to be managed by local communities. This implies that RE projects are have three players; government, Donors and the private sector. This shows that there is a shift from the norm where funds are being managed by the central Government to implement projects.

1.1.2 Rural Electrification in Africa

Most Rural Electrification projects in Africa are funded by the World Bank either through loans or grants (www.worldbank.org august 2008). Projects are packaged either as Priority Rural Electrification Projects (PREPS) or Locally Initiated Rural Electrification Projects (LIREPS). The initial focus was on Mozambique, Uganda, South Africa and Zimbabwe, and to date it is spreading to other countries like Kenya, Rwanda, Malawi, Eritrea and Tanzania. The initiative supports combining new technology and financing with partnerships of local private sector and

communities (www.hedon.info: August 2008). Bhagavan and Karekezi (1992) assert that demand for electricity in the rural economy can change the demand dynamics of a country. Donor or government funded programs tend to place greater importance on technical performance and equipment quality than on the costs of the system or the charge for the electricity produced by the system (rru.worldbank.org November 2008). The Performance on RE projects in Africa is attributed to factors like donor support, feasible projects, political priority, since governments are more interested in the outcomes and outputs of the projects.

Most electrification sectors in Africa remain highly centralised, giving politicians a major role to play in implementation of electrification projects. Politicians find it difficult to shift cost covering tariffs given the limited tax base and therefore seek donor funding for RE projects (rru.worldbank.org November 2008). The political intervention is usually not based on cost recovery but political gain. This shows that politicians influence the relationship between donor fund management and performance of RE projects in Africa. It is common for the electorate to demand for electricity from politicians. This act in itself drives the politicians to interfere in the implementation of RE projects. Minister of Energy Hon. Daudi Migereko continuously assured the electorate that with the implementation of Bujagali Hydro Power project, they would access electricity at cheaper rates (The New vision July, 2007). This affected the implementation of this specific project because the people around that area expected to be a priority. Consequently some funds had to be diverted for community development around Site area.

The goal of the energy sector in Mozambique was to make sufficient energy available to the community at economic cost, to promote efficient use of energy by consumers. The project was financed by ADB at 19.68Million USD$. Overall, the project was a success and contributed to the socio-economic development of the rural areas of the Mozambique. However, the project has

performed less than satisfactory in a number of specific areas. There were significant delays in the implementation of the project. Although a natural disaster contributed to the delays, there are also other reasons, including: Staff at the Executing Agency's implementation unit was not fully familiar with all the Bank procedures prior to commencement of the project; There was not sufficient capacity at the Executing Agency's implementation unit to deal with a number of similar projects simultaneously. And the implementation timeframe might have been overly optimistic given that Mozambique was a fragile state emerging from prolonged periods of strife and instability. (Mozambique RE project II: www.afdb/mozambique-electricity-project-II January 2010)

1.1.3 Rural Electrification in Uganda

Wood fuel was the major source of energy in rural areas. With the Global Environment protection drive put in place to decrease green house gas emissions, RE was promoted to encourage use of other renewable sources of energy like wind, solar, geothermal and biomass (MEMD annual report 2003). Uganda originally generated hydro electric power from Owen falls dam built in 1954 by the British colonial masters. It had a capacity of 150 mega watts (MW), which was increased to 180MW to meet increasing demand in the 1980s. To date generation capacity has been boosted by including 150 MW of thermal generation. The generated power is then transmitted to consumers through grid extension.

In the early 1970s, RE in Uganda was traditionally the domain of the state owned Uganda Electricity Board (UEB). Rural areas consist of all non urban areas and urban areas that did not

have grid electricity or are two Kilometres away from the existing grid. At the beginning of the programme in 2001 only 1% of the rural population had access to electricity. But with the intervention of the RE programme today rural electrification stands at 3% (ERT progress report June 2007). An Indicative Rural Electrification Master Plan (IREMP) was developed to guide on priority of rural electrification investments to the private sector. Different delivery mechanisms have been used to extend electricity to rural areas. These include grid extension, solar photo voltaic systems (PVs), pico-hydros and mini hydro (Energy Development Report 1999). These are mechanisms which use renewable energy. Grid extension involves extending lines to places where there are none and uses Hydro electric power as a source, Solar Pvs use the sun as a source of energy while pico and mini hydros use small waterfalls where dams are built to supply electricity to the surrounding areas.

With the help of World Bank, the government established a Rural Electrification Board (REB) which inter alia awards subsidies to rural electrification projects. REB is mandated to manage the Rural Electrification Fund (REF). REF is special funds set up to competitively allocate a one-time direct subsidy to private electricity distribution and generation companies to cover part of their investments costs in rural electrification projects. This subsidy is granted to any company that can raise atleast 20% of the required cost of a project. The project's objective is to generate electricity for productive uses and should geographically be at least 2km away from the existing electricity lines (REF guidelines, ERT 1).

RE programme is a 10 year multi sectoral Programme. It is private sector led with donor support and projects benefit from subsidies to reduce capital costs or compliment the investors capital. .

The main objective of RE is to make electricity accessible to at least 10% of the population in rural areas by 2012. It addresses several energy delivery mechanisms including; grid extension where feasible, decentralized mini grids, solar PVs and development of other renewable energy sources. Target areas are district headquarters, trading centers, schools, health centers, agro-processing and rural water supply units. Potential project developers include private sector, NGOs, Local communities and Local Governments. The overall goal is to transform rural lives by attracting skilled labour and improving the standard of living in rural communities. The specific goals are to promote commercially oriented RE schemes, scale up delivery of electricity in rural areas and improve service delivery in key areas like health, education and agriculture (Ministerial policy statement 2000/2001).Under the programme 3 fast track projects have so far been implemented. These include Kisiizi hospital power project, West Nile Rural Electrification Projects and Kakira cogeneration project.

Kisiizi Hospital Power Project: is a small mini-grid project for electrifying the community in Nyarushanje sub-county, Rukungiri District. The project involved the expansion of Kisiizi Hospital Power generation from a 60KW mini-hydro power plant to 249KW. The developer of the project was Kisiizi hospital. The objective of this project was to provide electricity to the staff houses and the surrounding communities to improve the quality of life by increasing commercial activities and competitiveness. The project was developed using a subsidy of US $ 0.454 million from the World Bank (ERT bulletin 2007). The resource planning of this project was done by MEMD and the final proposal was sent to the hospital administration for counter approval. The project implementation document was prepared by MEMD and stipulated that the project was to be implemented by the hospital itself. The hospital administration hired

consultants to carry out the implementation. Cost control was done at different levels. Budget baselines were drawn by Ministry of Energy and Mineral Development (MEMD) in consultation with Kisiizi, while targets and expenditure were determined by World Bank.

West Nile Rural Electrification company (WENRECO): supplies electricity to Arua, Nebbi and Yumbe for 20 hours per day from the 1.5 MW heavy Fuel Oil (HFO) generator installed with a financing subsidy of US$ 60,000 from World Bank (web.worlbank.org: February 2009). This project also involves construction of a 3.7 MW mini hydro plant at Nyagak. This will replace diesel generation and boost power production. This component was funded through a subsidy from World Bank amounting to US$ 8,209,933 and a loan from Rural Electrification Fund (REF) amounting to 3.6 million (www.rea.or.ug February 2009). The objective of this project is to extend electricity to Arua, Yumbe and Nebbi for productive uses. This project was awarded to the developer WENERECO through competitive bidding. As a developer, WENRECO was expected to do their independent resource planning and implementing. However cost control was done by Rural Electrification Agency (REA).

Kakira cogeneration project: uses bagasse a by product of sugar production to generate 21MW of which 16MW are sold to the main grid through a 33kv new line. The project received a US$ 3.3 million grant from Global Environmental Fund and US$ 8 million World Bank refinance under the ERT Programme (www.kakiraSugar.com: February 2009). The objective of this project was to assess the viability of using bagasse to generate electricity for production. This project was developed from a proposal developed by Kakira. Having an in- house technical team and single management of the donor fund helped this project to perform as per objectives. The resource planning, implementation and cost control was done in-house with periodic review by REA and

World Bank. This style of managing the donor fund aided the performance of the project in that having a single team manage the process made it deliver the planned outputs on time. The developer was organized in terms of resource planning, project implementation and cost control. Today 12MW are being transferred to the main grid and the remaining 2MW used for production at the factory (ERT Quarterly report Jan-march 2008). Only literature from this project will be used, since its performance met the objectives of ERT.

Prokopenko (1989) argues that performance has seven dimensions which include; cost control, productivity, efficiency, quality of life, profitability, innovation and effectiveness. Effectiveness was the emphasized in the study because RE projects are focused on goals and objectives hence the need for outputs and outcomes. While efficiency is equally important in measuring outcome, it takes a longer time to realize, yet RE programme is a new initiative in Uganda. Furthermore effectiveness was emphasized because the focus was on whether electricity reached the target population. Under effectiveness output was considered in terms of accessibility of electricity and outcome whether there was a change in life style leading to development.

1.1 Statement of the problem

African countries are still unable to fund large energy projects because of the required capital (Kassum 1981). Donors and development partners are increasingly funding and lending funds to developing countries to meet their energy needs in accordance the Millennium Development Goals (MDGs) Despite this intervention, the performance of RE projects has not met the goals and objectives. When RE was centralized, projects goals and objectives were accomplished, but with the involvement of donor funds, projects are not meeting their goals and objectives.

Performance of RE projects is determined by several factors: Availability of funds, willingness of the private sector to participate, delivery mechanism, feasibility of technology and funds management. Majority of RE projects are donor funded. Because it is a common factor across all RE projects, donor fund management has an effect on performance of RE projects, although performance of RE projects can be determined by any of these factors. In 2006, Uganda faced acute electricity shortage as a result of reduction in generation capacity. ERT diverted funds in 2007 to buy 800,000 energy saver bulbs to distribute freely to domestic consumers. This was expected to save at least 30Mega watts (MW) which would be availed to the national grid (MEMD annual report 2007). The objectives of rural electrification were affected. Furthermore between December 2007 and March 2008, WENERECO failed to distribute the 18 hours a day of electricity to Arua, Yumbe and Nebbi because of the fuel crisis. Even when fuel became available, there was reduced generation because of increased fuel prices. (ERT Quarterly report Jan- Mar 2008). Because the price of fuel was quoted at a specific price at the beginning of the project, no changes could have been made at that point hence affecting the performance of the project.

As a World Bank funded programme, RE follows specific guidelines regarding management of funds, while executing projects. (ERT I: PAD 2002). However, each project is unique and required changes from time to time. The rigid guidelines then affect the performance. The management of funds affects the performance of projects because resource planning, implementation and cost control have to adhere to strict guidelines.

A review of current literature revealed that although studies have been conducted in various areas regarding donor fund management and the performance of RE projects, the relationship has

not been explored in the Ugandan context. The study therefore sought to explore the relationship between donor fund management and the performance of RE projects in Uganda.

1.3 Purpose of the study

The purpose of the study was to explore the relationship between donor fund management and the performance of Rural Electrification programme in Uganda with special reference to West Nile and Kisiizi Projects.

1.4 Objectives of the study

i. To establish the effect of resource planning on performance RE projects
ii. To establish the relationship between project implementation and RE project performance
iii. To examine the effect of cost control on performance of RE projects
iv. To investigate the influence of political will on the effect of donor fund management and performance of RE projects

1.5 Research questions

i. What is the effect of resource planning on RE project performance
ii. What is the relationship between implementation and performance of RE projects
iii. What is the effect of cost control on performance of RE projects
iv. What is the influence of political will on the effect of donor fund management and the performance of RE projects

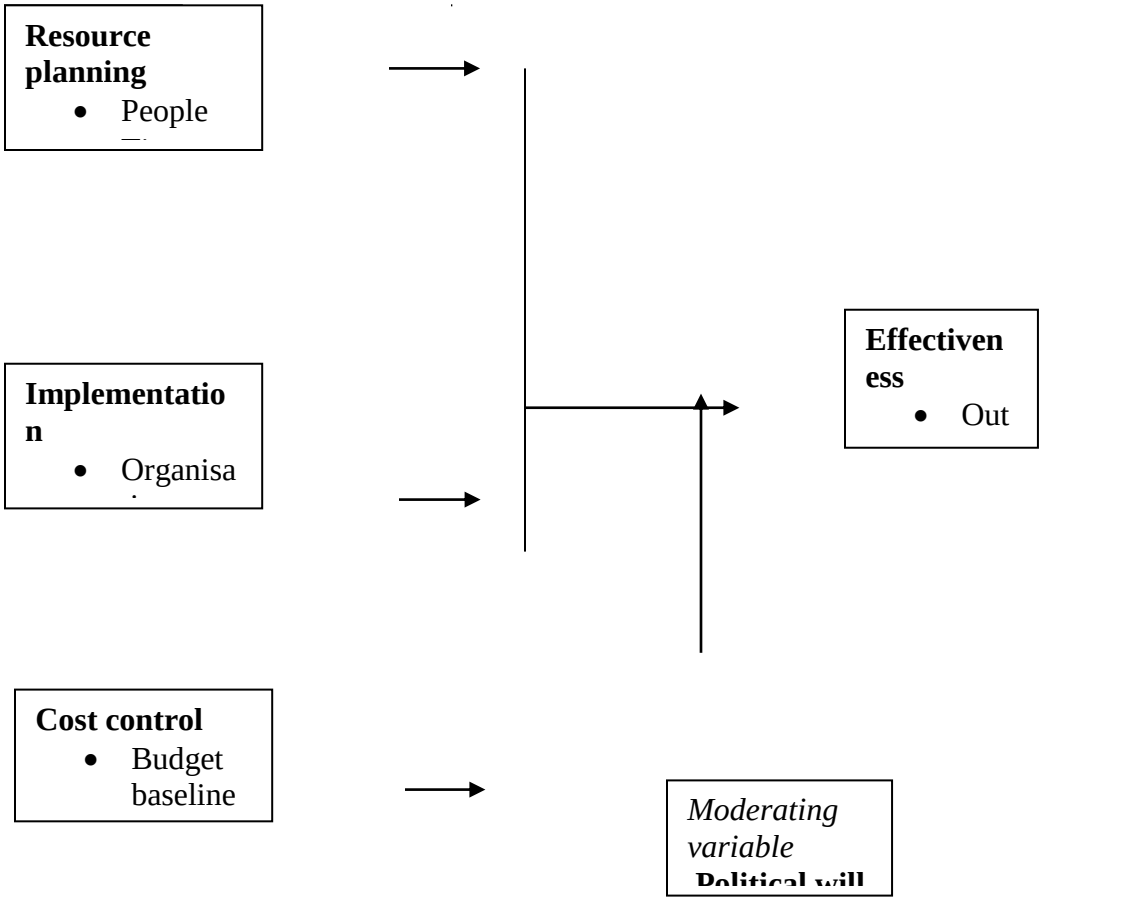
1.6 Hypotheses

i. Resource planning has a significant effect on performance of RE projects.
ii. Project implementation has a significant effect on performance of RE projects
iii. Cost control has a significant effect on performance of RE projects

iv. Political will has a significant influence on the effect of donor fund management on the performance of RE projects.

1.7 Conceptual frame work:-Relationship between donor fund management and performance of RE projects

Figure.1



Source: (modified from Prokopenko 1989)

In this conceptual frame work, project performance is the dependant variable and has been operationalised as effectiveness with output and outcomes as indicators. Outputs are the presence of generators for WENERECO and the modified turbine and power house for Kisiizi Project, while outcomes are the resulting businesses and improved lifestyle of the population. Donor fund management is the independent variable and has been operationalised as Resource planning, project implementation and cost control. Resource planning has people, time. Equipment and cost estimation as indicators. These are the resources necessary for the development of a project. Project implementation has organisation, deployment and project appraisal as indicators. These are the processes whose activities result into outputs and outcomes on a project. Cost control had the indicators of budget baselines, targets and expenditure as indicators. These provide for checks and balances to bring about effectiveness on a project. It has been hypothesized that the effect of donor fund management on performance is moderated by political will. Political will affects projects through interference and influence.

1.8 Scope of the study

The study covered Rural Electrification programme from 2003 to 2008 because implementation of activities was during this period. Research was carried out at the Ministry of Energy and Mineral Development, Energy Resources Department. The department is located at Amber house plot 29/33 Kampala road, Kampala Uganda. Data were obtained from the two fast track projects namely:

Kisiizi hospital power generation located in Nyarushanje sub county Rukungiri district in western Uganda and WENERECO- a company concession to supply power to Arua, Yumbe and Nebbi in West Nile, North Western part of Uganda.

1.9 Justification of the study

The researcher chose to explore the effect of donor fund management on the performance of RE projects in Uganda. According to the MDGs developing countries stand to alleviate poverty through rural electrification. Most of the population lives in rural areas where access to electricity is limited to townships and is expensive. Rural Electrification programmes are developed to address this problem. But projects do not deliver electricity according to plan even though funding is available from donors. Because of liberalization in the energy sector, private players started participating in electrification. They are involved at project implementation level. As new entrants they find challenges dealing with Government and Donors who previously implemented projects. The study indicated that, donor fund management led to delays in project implementation and therefore delayed realization of the goals and objectives of the project.

1.10 Significance of the study

The findings on the effect of donor fund management on the performance of RE projects is beneficial in both academia and policy environment for various reasons.

The findings and conclusions will provide private developers; financial managers and government agencies handling rural electrification projects with lessons on the most significant dimension of donor fund management that affects the performance of RE projects and enable them make relevant decisions.

The results may enable future researchers to generate new knowledge on the dimensions of donor fund management; resource planning, implementation and cost control and their effect on

the performance of RE projects. They will also contribute to the existing literature and stimulate further research.

The findings may help the government, private sector, development partners and donors to identify the gap regarding donor fund management that adversely affects the performance of RE projects, which will aid in identifying mitigation measures.

The findings may help political leaders to appreciate the change in delivery mechanism and thereby reduce the level of interference of political leaders and their role in Donor fund management and the effect on the performance of RE projects.

1.11 Operational definition of terms and concepts

Donor funds: It refers to monies lent or advanced to government by donors or international agencies to carry out rural electrification (Development activities).

Performance: A projects ability to achieve it goals and objectives.

Rural electrification: Extending electricity to rural areas for purposes of development.

Subsidies: It refers to funds allocated to private companies to reduce the cost of investing in Rural Electrification projects.

Political will: This is support extended by politicians in project development and prioritization..

Renewable energy: It refers to generating electricity from natural replenishable sources like the sun wind, water and waste.

Grid extension: It is the extension of electricity to rural areas through power lines.

Solar Pvs: These are panels developed to tap energy from the sun to generate electricity for lighting.

Pico hydro: small seasonal waterfalls that use low cost technology to generate up to 5kw of electricity.

Rural transformation: This refers to improvement on the quality of life through increased productivity and better livelihood as a result of having electricity.

Resource planning: drawing up estimates or required inputs to a project development plan.

Implementation: executing the project development plan to realize goals and objectives.

Cost control: measures that monitor the flow of money viz a viz the plan.

Mini hydro: a small water fall that can generate up to 10MW of electricity.

Rural area: areas that are at least 2km away for the national grid.

Urban areas; are areas that have access to the national grid.

New public management: reforms set up by government to increase market orientation and encourage cost effectiveness in the energy sector.

Resource planning: managing function s of the project.

Implementation: organizing and managing resources to achieve project goals and objectives.

Cost control: managing finances to ascertain variances between actual cost and budgeted cost and taking corrective action.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to variables of the study. In this chapter variables are operationalised. The effect of Donor fund management and the performance of rural electrification projects is evaluated. The literature was reviewed objective by objective:: a) resource planning and performance of Rural Electrification projects; b) project implementation and performance of Rural Electrification project; c) cost control and performance of Rural Electrification projects; d) Political will and performance of Rural Electrification projects. This chapter evaluates works from other scholars through journals, relevant papers presented, and thus gives empirical evidence that the problem exists

2.2 Conceptual review

Prokopenko (1989) like Bhagavan and Karekezi (1992), contend that effectiveness is one of the dimensions of performance of a Project. The study focused on effectiveness and its indicators of output and outcome. These indicators measure the goals and objectives of projects. These indicators were the focus because for a RE project to be rated successful, the important aspects are output and outcome. Government is interested in whether the project has met its goals and objectives. Goals and objectives can be measured by determining the output and the outcome of the projects. The output is of RE projects in Uganda is to extend electricity to rural areas while the outcome is to improve the quality of life (ERT Bulletin 2007). This implies that a RE project extends electricity and ensures that its availability improves the livelihoods of the people.

Performance is the function of an organization's ability to meet its objectives by exploiting the available resources in an efficient and effective way (O'mara et al, 1995). Performance can also be defined as the expression of the degree of achievements targeted by an individual group or institution in terms of quantity and quality while doing a job (Serite 2007:131). These scholars assert that performance is about the end result, the ability to achieve the desired output. In RE projects the performance of a project will be determined by the presence of electricity in a specific rural area and its ability to transform quality of life

Kloot (1999) argues that performance entails effectiveness and refers to the firm's ability to serve and produce what the market requires at a particular time and efficiency, meeting the objectives at the lowest cost. This argument strengthens the fact that performance is not only about employees, but the timeliness and overall output of a project. This emphasizes the indicators of performance which are outcome and output. Ledgerwood (2000) also states that effective financial management requires periodical analysis of financial performance. This point in further enhanced by Balunywa (1998) when he argues that performance can be looked at in terms of competitive performance, financial performance and quality of services, flexibility of resource utilization and innovation.

While performance of RE projects is attributed to meeting goals and objectives, a World Bank evaluation found that to improve access to electricity, countries should assign priority to grid Extension rather than off-grid electrification as such projects have lower costs per connection and are relatively easier to implement (IEG 2007). In reality, government decisions for electrification investments are based on many country-specific factors, including equitable regional development, and are rarely either grid or off-grid decisions. Depending on a country's income level and stage of electricity infrastructure development, such decisions often involve

trade-offs between financial viability and equity (World Bank CODE 2007).While this indicates that performance is based on the project design, pertinent issues of relating to resources, implementation and Cost control are constant in performance of projects

According to Dixion (1990) appropriate performance measures are those which enable organisation to direct their actions towards achieving their strategic objectives. This view boosts the relationship between the variables. These different schools of thought attest to the fact that donor fund management has an effect on performance of RE projects which confirms the purpose of the study

In the case of Uganda, like Mozambique, RE projects were challenged by the new delivery mechanism involving the private sector. The response of the private sector was slow and when it was not, implementation was a challenge because it was a learning process to understand and appreciate World Bank procedures (ERT quarterly report Jan-March 2007).

2.3 Resource planning and performance of RE projects

Resource planning involves determining what resources (people, equipment, materials, time and costs) are needed in specific quantities to perform project activities. Kassum (1981) states that, African countries need aid agencies to fund large scale energy projects with their infrastructure. In the case of RE before going into project implementation phase, a specific project will go through a due diligence process (ERT I Project Appraisal Document 2002). Due diligence will involve ascertaining whether the project is feasible, the number of beneficiaries, sustainability and long term benefits to the communities. After this a project implementation plan is approved

by both World Bank and the government. At this point all resources to be utilised have been planned.

However, Stanton (1981) argues that feasibility studies may take a year and above and cost up to 5% of the final project cost. This argument advances the view that resource planning as a dimension of donor fund management does not affect performance but rather the feasibility studies involved in energy projects. This view is discounted by Mumford, Schultz and Osuburn (2002) when they assert that, in a complex, dynamic environment where people must coordinate their activities, planning represents a key influence on performance. This shows that people, time and equipment planning should be vigilantly addressed as they have a significant effect on performance. Cost estimation affects performance adversely if not well addressed. Since RE projects are huge, actual expenditure should not fall below or above the approved cost estimation.

While people, time and equipment are planned concurrently, cost estimation is given much attention. The process of cost estimation takes the lions share in the planning process because it has to be done vigilantly and articulately to avoid any mishaps. Bhagavan and Karekezi (1992) define cost estimation as an approximation of the cost of resources needed to complete project activities. Under ERT, Cost estimation involves drawing budgets which are scrutinized by Ministry of Finance and proposals for funding are developed

With the electricity reforms, the private sector is expected to take the lead role in rural energy investments with Government incentives (The Electricity Act 1999-Uganda). However, because of the set up of rural areas with small markets and widely dispersed commercial centers, electrification is not viable for the private sector to undertake. With the involvement of the private sector, therefore, resource planning affects the performance of RE projects, because a

private developer has no capacity to mobilize supplementary funding to cover budgetary falls short (Bhattacharyya 2006).

2.4 Project Implementation and performance of RE Projects

Benecke (2008) asserts that, until now a major part of national and international public and private attempts to provide affordable and stable energy supply have failed due to various economic, political, social and institutional obstacles. These are factors that affect implementation indicators of organisation, project appraisal and deployment and consequently have an effect on the performance of RE projects.

Implementation on RE projects involves organizing, carrying out project appraisals and deployment of resources. In the process of organizing, different aspects of projects like Management styles have to be considered. Because of the change in RE project implementation from purely government funded to Public Private Partnership (PPP), implementation has been affected. The interface between the private sector, Government and donors has seen a drastic change in project implementation.

Kane (2006) argues that, the reforms that inaugurated New Public Management dismantled the site of prudence while simultaneously attempting, in effect, to disperse prudential judgment and action. The reforms in the energy sector, which involve the interaction with the private sector, have not catered for the problem of how to balance new freedoms with new controls to prevent abuse or folly. Under ERT, upon identifying a project then the Ministry of Energy will consider engaging a developer and if that fails then government takes the responsibility. This implies that implementation of a project will be either slowed down because of non responsiveness of the private sector or be undertaken by Government and risk political interference..

Under RE, project viability is determined using Cost Benefit Analysis (CBA) and Internal Rate of Return (IRR). This project appraisal process is prevailed upon by high costs of grid extensions and establishment of decentralized grids. However, Devarajan (2000) asserts that, the issue of general interest to both national policymakers and international donors is that, if the government provides a good or service that would otherwise have been provided by the private sector, the net contribution of the public project could be low. The second issue is of particular concern to donors. If financial resources are available, the project being appraised should be undertaken without external financing. In this case, donor funds are actually financing some other, unappraised project. Both cases argue for a shift in the emphasis of project evaluation away from a concern with precise rate of-return calculations and toward broader sectoral analyses and public expenditure reviews. In this context, three areas critical for proper project appraisal include a consideration of the rationale for public intervention, the fiscal impact of the project, and the availability of external assistance.

The government will only implement projects which are not commercially viable with grid extension as a delivery mechanism. In Uganda, Government has taken the initiative to carry out grid extension on Kibaale to Kagadi to enable rural electrification. The government packaged Priority Rural Electrification Projects (PREPS) which were advertised to attract private investors with a subsidy. Despite this intervention, the private sector response was poor. In the process of redesigning these projects it was decided that they should be implemented by Government with Donor funding (ERT quarterly report OCT-DEC 2006). The management of donor funding therefore affected the performance of the projects because the funding came with conditions of execution.

Deployment of resources under RE has an effect on performance of RE projects because it is predetermined and there is limited room for change. A project will be allocated resources before it is implemented. But if upon implementation the dynamics that were anticipated are not realistic it will affect the performance of the project. A case in point, a turbine to WENERCO was delayed on the road in December 2007 because of the election violence in Kenya. This led to the delay in commissioning of the project (ERT Bulletin 2008). If the funds to procure the turbine had been released early, then the delay would have been avoided. RE is then affected because the implementation is delayed and consequently the project objectives are affected.

2.5 Cost control and performance of RE Projects

Basak (2006) argues that cost control is a key factor in ensuring that project objectives are achieved through provision of accurate and efficient information. Cost control involves controlling changes to the project budget and includes monitoring and analysing cost variances, recording and reporting changes to cost baseline, preventing unauthorized changes, undertaking corrective action, forecasting final completion cost and communicating to the appropriate stakeholders. Tomilinson (1999) also contends that to a large extent the financial constraint is the legacy of poor management of public utilities by government. Many African energy sectors are rather small compared with the financing needs of projects. This shows that project cost control encompasses planning, scheduling and cost control activities which revolve around budget baseline, targets and expenditure. This process is undertaken between government and the funding agency to encourage transparency and ensure that objectives of both parties are satisfied. By involving both parties the process of cost control is streamlined. However, with the

involvement of the private sector this, cost control process changes and affects performance. This is because the private sector has a unique environment with the objective of profiting of projects undertaken

In Tunisia, African Development Bank funded Gafsa and Gabes RE projects. The bank was interested in the outcome of the project and hence got involved at the implementation stage not the project design and preparation. Funds were provided with prescribed deadlines. There were no delays and the projects managed to achieve their objectives on time. (Project Performance Evaluation Report PPER 3- www.afdb.org). This is an indication that cost control has an effect on the performance of RE projects. Budget baselines, targets and expenditure have been affected by the new market mechanism involving the private sector hence the poor performance of RE projects. This shows that there is a relationship between cost control and the performance of RE projects.

2.6 Political will and performance of RE Projects

Political will under ERT is two dimensional; Political influence and political interference. Political influence is when there is political involvement in negotiating for donor funds to implement RE projects while political interference is the involvement of politicians in projects appraisal and implementation. Bhattacharyya (2006) asserts that political will affects the performance of RE projects because of the volatile nature of politics. In developing countries, leadership may change or political ideology may change hence affecting the initial plans of RE projects.

The involvement of politicians affects donor fund management and consequently the performance of RE projects. Local leaders have failed to mobilize the masses to contribute 30% equity for rural electrification (REB guidelines 2001). Politicians continue to put pressure on Government to electrify their constituencies (New vision 25th march 2008: 3). This affects the implementation of projects since some politicians like ministers are involved in negotiations of funds for rural electrification.

Waddams (2006) further contends that RE has a direct link with political will since electrification is tagged to development and politicians promise the electorate electricity to amass support and gain political office. The relationship between donor fund management and performance of RE projects is therefore moderated by political will. Because RE is a government initiative to achieve development and alleviate poverty, there is a significant contribution of political will to affect the performance of Projects. RE is catchword in many elections and is used as a campaign slogan by most rural politicians. The performance of projects takes the trend of the election outcome and other political appointments taking place like appointment of a new minister in the energy sector.

RE does not have its own vote and is budgeted for under MEMD. Since it is not a priority in the ministry, a private developer is required to contribute at least 30% equity to be subsidized. MPs on the natural resources committee demand to know why power has not reached their constituencies despite the fact that funds for particular projects had been disbursed (New Vision, March 25th 2009: 5). This interference influences implementation of projects, thereby affecting performance.

In Ghana the lessons learnt during the implementation of the national RE schemes is that the process was marred by corruption from the political heads and this discouraged the private sector

from taking up projects (Abavana 2008). This was mitigated by introducing Self Help Electrification Programme (SHEP) which encouraged communities to develop and project proposal and submit to the central government to obtain a subsidy of up to 80%. This minimized political involvement and encouraged ownership by the local community.

In Uganda, however, the case is not the same with RE still a new initiative. In West Nile, the local community blames the frequent power black outs on the developer WENERECO. Although its evident that WENERCO has not supplied electrify as per objectives the Mps on the natural resources committee can not withdraw the contract because of the legal risks and the political atmosphere prevailing. (Electrification club working paper: October 2009). In Kenya, Lestho and Malawi the rural electrification process has been dominated by politically influential people and this affected the performance of projects (**www.afripen.org/presentation** accessed Janauary 2010)

2.7 Summary of Literature review

The literature reviewed suggests that there is a relationship between donor fund management and performance of rural electrification projects. Although some scholars attribute performance to employees, others have argued that performance can be attributed to financing. This concludes that donor fund management plays an important part in performance of rural electrification projects, an aspect which has not found sufficient literature coverage in Uganda and thus the motive of this research to bridge the gap. Since all rural electrification projects are donor funded, performance can be tagged to it. For a project to perform effectively, resource planning, implementation and cost control should be timely, hence the significance of donor fund management on performance of Rural Electrification Projects. Also political will is very

important as the performance of projects depends on the political programme of the day. All these concepts are relatively new developments in Africa in particular thus warranting empirical study to establish their dynamics in the quest for poverty alleviation in a

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology used in the study. It includes the research design, the population of the study, sample size and selection, sampling techniques and procedure, data collection methods and instruments, measurement of variables and data analysis. This chapter also describes and discusses the tests for measuring validity and reliability.

3.2 Research Design

Sarantakos (2005) says that a research design is the path of the research showing the way and the form that a researcher wants to follow. The study used a cross sectional case study design which is appropriate to make an in-depth investigation of an individual, group, institution or phenomena (Mugenda and Mugenda, 2003:173). Data were collected from a group of people at once as opposed to longitudinal design which collects data in series over time (Amin 2005). The study used both qualitative and quantitative approaches for data collection and analysis. This triangulation of approaches gives the study more than one perspective and makes the findings more valid and acceptable. The qualitative approach generated data to provide an in-depth understanding and the quantitative approach facilitated the measurement of relationship between the variables of the study.

3.3 Study Population

The total population comprised of 271 members from which a total of 159 elements were selected using the table provided by Krejcie and Morgan's (Amin 2005); Table 1. Sampling enabled the researcher to study a relatively small part of the target population and obtain data that was representative of the whole target population (Sarantakos 2005).The researcher chose to use sampling because samples give more detailed information and have a relatively high degree of accuracy since they deal with small numbers of units. The study population included 77 senior members of staff from MEMD and REA, 44 project managers, 52 members of the beneficiary communities, 88 project staff, and 10 Key informants.

3.4 Sample size and selection

Sample size was determined using table provided by Krejcie & Morgan 1970 as cited in Amin (2005).

1) **Table 1:** Population Sample size and selection

Category	**Population**	**Sample**	**Technique**
Senior members	77	45	Systematic random sampling
Project managers	44	25	Systematic random sampling
Beneficiary community	52	31	Systematic random sampling
Project staff	88	52	Systematic random sampling
Key informants	10	6	Purposive sampling
Total	**271**	**159**	

Source: Krejcie & Morgan 1970 as cited in Amin (2005)

From table 1 above, from 271 members of the population, 159 were selected using the table provided by Krejcie and Morgan 1970 as cited in Amin 2005. Forty Five elements from senior members of staff in Ministry of Energy, 25 out of 44 Project managers 31 out of 52 members of the beneficiary community and 52 out of 88 project staff were selected using systematic random sampling. Six out of ten key informants were selected using purposive sampling.

3.5 Sample techniques and procedure

A combination of sampling techniques was used to select the sample of respondents. These included probability methods like systematic random sampling and non- probability methods like purposive sampling.

3.5.1 Systematic random sampling

The Systematic random technique was used because it allowed for generalisability of the findings (Sekaran 2003). This technique was used to select the relevant subjects from the population which included members of the beneficiary community, senior members of staff and project managers. It was also used because of its capability to capture a wide range of respondents (Amin 2005). The procedure involved selecting every 5^{th} element in the population starting with a randomly chosen element between 1 and 5. The random number chosen was 4. The elements were then sampled until the desired number was achieved for each category of respondents.

3.5.2 Purposive sampling

This technique was used for because it allowed the researcher to use cases that had the necessary information regarding the variables of the study (Mugenda and Mugenda 2003: 50). This

technique has been known for achieving sufficient responses and to make the study viable. It is also quick and inexpensive. (Sekaran 2003; Amin 2005). The respondents included key informants. The procedure involved identifying elements in positions of authority in the Energy Sector in Uganda, from a population of 10 a sample of 6 elements were selected. These included Executive Director REA, Project Planning and Management manger REA, Project Accountant ERT, Project manager WENERECO, Energy Desk Officer World Bank Uganda office and Commissioner Energy Resources Department.

Both qualitative and quantitative techniques were used to offer the promise to get closer to the "Whole" of a case in a way a single method of study cannot achieve (Brewerton 2001: 33) a representative sample was obtained using a multi stage sampling technique that involved selection of primary sampling units from the secondary sampling units drawn (Kothari 1990).

3.6 Data collection methods

Data collection for both primary and secondary data was sought using different methods. Since the study was both qualitative and quantitative, various data collection methods were used. These included questionnaire, interviews, documentary review, and observation. This triangulation of methods enabled the study to obtain more accurate data.

3.6.1 Questionnaire

Questionnaires were the primary method for data collection. Questionnaires are well known for their convenience and the ability to capture a large number of respondents (Mugenda and Mugenda 2003). The questionnaire was also instrumental for purposes of precision and clarity

(Amin 2005). It was vital in coding the raw data and therefore facilitating the quantifiability of the study. Because the questionnaire was constructed by the researcher, it was subjective. This was mitigated by making the questionnaire semi structured**.**

3.6.2 Interviews

Interviews were used as a supplementary method to gather data to cover the subject matter in depth and also cover issues that were not covered by the questionnaire. This method aided in securing primary data from key informants who included the procurement officer, the project manager, the coordination manager, Permanent Secretary, project engineer and the Monitoring and evaluation manager. The questions for the interviews focused on were based around donor fund management and performance of RE projects. Six interviews were scheduled and only five were conducted. Due to the busy schedule of one key informant, it became impossible to keep appointments. Conducting interviews with key informants was vital since they directly deal with donors and are managers of RE projects. Although the interviews were potentially subjective and biased, the interaction with the researcher allowed for flexibility of responses to get the true opinion of the respondent.

3.6.3 Documentary review

Secondary data were gathered from documents, reports, relevant journals relating to the variables of study and papers. Since the research on RE is generally a diverse one, the researcher could not directly meet with all the key players thus the choice to review documents. The other pertinent reason is that some of the data required were records of over three years, thus the need to review project progress reports. However, there was also the fact that some respondents didn't have the information readily available. In Kisiizi for example, the researcher found that the key informant

could not give empirical data, it was found in some of the reports. The data was mainly qualitative

3.6.4 Observation

Observation as one of the oldest methods of social research entails gathering data through vision as its main source (Sarantakos 2005).The researcher as a member of staff had the opportunity to observe the performance of projects. With the aid of an observation checklist, data was collected and used to supplement the primary data obtained through the questionnaire. The data collected were qualitative in nature, in that the researcher was able to give an informed opinion as a result of observation.

3.7 Data collection instruments

3.7.1 Questionnaire

The questionnaire was formatted and structured in five likert itemized rating scale of 1 to 5 (5- Strongly agree, 4- Agree, 3- Not sure, 2-Disagree, 1- Strongly disagree). The likert scale ensured that the items have the same measurement and reliability. The scale enabled for comparison to the research and made it easier to complete for the respondent (Mugenda nad Mugenda 2003).

The questionnaire was used because of its convenience and its anonymous nature. It was easy to administer and respondents filled it with confidence knowing there would be no breach of confidentiality. It was also efficient as a means of collecting both qualitative and quantitative data to make triangulation feasible (Sekaran, 2003;Amin, 2005). The questionnaire was semi structured. The questionnaire was pre-tested and standardized. The researcher included open

ended questions to provide room for probing and classification. The researcher being a member of staff was present to encourage respondents to fill the questionnaires.

3.7.2 Interview guide

Mugenda and Mugenda (2003) define an interview guide as a planned set of questions used by a researcher to obtain data related to the objectives of the study. An interview guide was used to carry out face to face interviews with key informants. This was done to supplement the data gathered through the questionnaires, observation and documentary review. The study used a semi structured interview guide. In some cases, structured questions were used with some open ended questions. The interviews enabled the researcher to capture extra information that was revealed through respondents' body language and other extra linguistic features. Interviews made it possible to get data that meet the objectives of the study (Mugenda and Mugenda, 2003:84).

3.7.3 Documentary Review checklist

This instrument enabled the researcher to obtain qualitative data regarding the performance of RE projects in developing countries with major emphasis on Uganda. A list of items to be investigated was generated. A detailed list of Rural Electrification documents was accessed from the MEMD resource center and electronic journals from which relevant data was obtained.

3.7.4 Observation check list

The study involved an observation of RE performance of projects with the researcher being the participant observer as part of the work team (Sekaran 2003). A detailed list of outputs and

outcomes was generated against which a likert rating scale was made. This instrument allows the researcher to tick off an item as it occurs and it enhances the accuracy of the study (Mugenda and Mugenda, 92: 2003). This instrument enabled the researcher to obtain qualitative data regarding the variables of the study.

3.8 Pre-testing of data collection instruments

The study research instruments were pretested for validity and reliability. Validity is the measure on an instrument to ensure that it contains items that will tap the concept of study (Sekaran 2003). Reliability is the measure that indicates the extent to which an instrument yields consistent results after repeated trials (Mugenda nad Mugenda 2003). Adjustments were made to questions that were not easy to understand, those that were biased and those that were not clear.

3.8.1 Validity

A content validity test was carried out before the research instruments were administered. A Content Validity Index (CVI) was computed using the following formula (Amin 2005)

$$\text{CVI} = \frac{\text{Items rated relevant}}{\text{Total no. of items}} \text{ in the questionnaire}$$

$$= \frac{80}{98} = 0.816$$

Amin (2005) asserts that a coefficient of validity index should be within the statistical range of > 0.5< 1. The result of 0.8 indicated that the questionnaire was capable of capturing the information which was required to answer in the research questions.

3.8.2 Reliability

Reliability for the questionnaire as an instrument was assessed using Cronbach's coefficient alpha (Amin 2005). And the result was 0.9464 which was in the statistical range of >0.5< 1. The closer the Cronch's alphas is to one the higher the internal consistency reliability (Sekaran 2003) The questionnaire was pre tested with 20 respondents in the district of Kabale where another RE project was implemented. These respondents did not take part in the actual study. This was done to check for the flow of questions and relevance of responses in relation to the objectives of the study. It was administered to 10 project managers and 10 members of the beneficiary community. Pre-testing helped the researcher estimate the time each respondent will take to fill the questionnaires during the final data collection process.

3.9 Measurement of Variables

A likert rating scale of 1 to 5 (5- Strongly agree, 4- Agree, 3- Not sure, 2-Disagree, 1- Strongly disagree), was used to measure the variables. It is an interval scale used to perform data collected from the respondents (Sekaran 2003). Using this scale facilitated the interpretation and analysis of quantitative data. Performance of RE projects the dependant variable, was captured using outputs and outcomes while donor fund management was captured using resource planning, implementation and cost control as indicators.

3.10 Data management and analysis

Quantitative data obtained from the questionnaire were edited to check for completeness, accuracy and consistency for responses. The inconsistencies detected were logically corrected or rectified (Sekaran 2003) after editing each response was given a code. The codes were entered into SPSS to generate frequencies and percentages. These were then presented in tabular format

for both background characteristics and variables of the study. Frequencies were applied to the indicators of each dimension then converted into graphs, analysed and interpreted in Chapter 4. Data were further analysed for the degree of relationship using Pearsons correlation coefficient in order to carry out relationship tests.

Qualitative data were edited sorted, coded, and classified into categories. Interviews were classified into categories and themes to relate to the study objectives. Raw data were collected using interview guide, documentary review checklist and observation checklist. It was edited and systematically organized in a manner that facilitated further analysis. It was categorised according to themes based on the variables of the study. This strengthened explanation and aided in drawing of conclusions.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents the findings, analysis and interpretation. The findings are discussed objective by objective. The objectives of the study were 1) To establish the effect of resource planning on RE project performance. 2) To establish the relationship between project implementation and RE project performance. 3) To examine the effect of cost control on performance of RE projects and 4) To investigate the influence of political will on the effect of donor fund management and performance of RE projects. The chapter also presents the response rate and background characteristics of the respondents.

4.2 Response Rate

The researcher planned to have 159 elements as the sample from the population. A total of 153 questionnaires were distributed, 150 were returned and 5 out of 6 interviews were held. In total the study had 155 of 159 respondents which is 97.4% response rate. The study subjects comprised of project managers, beneficiary communities, project staff, senior staff at MEMD and key informants. ‘Three questionnaires were not returned because the respondents took a long time to fill and return them and one interview was not held because the respondent kept rescheduling and failed to keep five appointments.

Table 2 below presents the response rate from the sample.

Table 2 Response Rate

Category	Sample size	No. of respondents	Instrument	Response rate
Senior staff MEMD	45	45	Questionnaire	28.3%
Project managers	25	25	Questionnaire	15.7%
Beneficiary community	31	28	Questionnaire	17.6%
Project staff	52	52	Questionnaire	32.7%
Sub total	**153**	**150**		
Key informants	6	5	Interviews	3.1%
Total	**159**	**155**		**97.4%**

Source: primary data

The table above shows the percentage of each category from the sample. The overall response rate was 97.4%

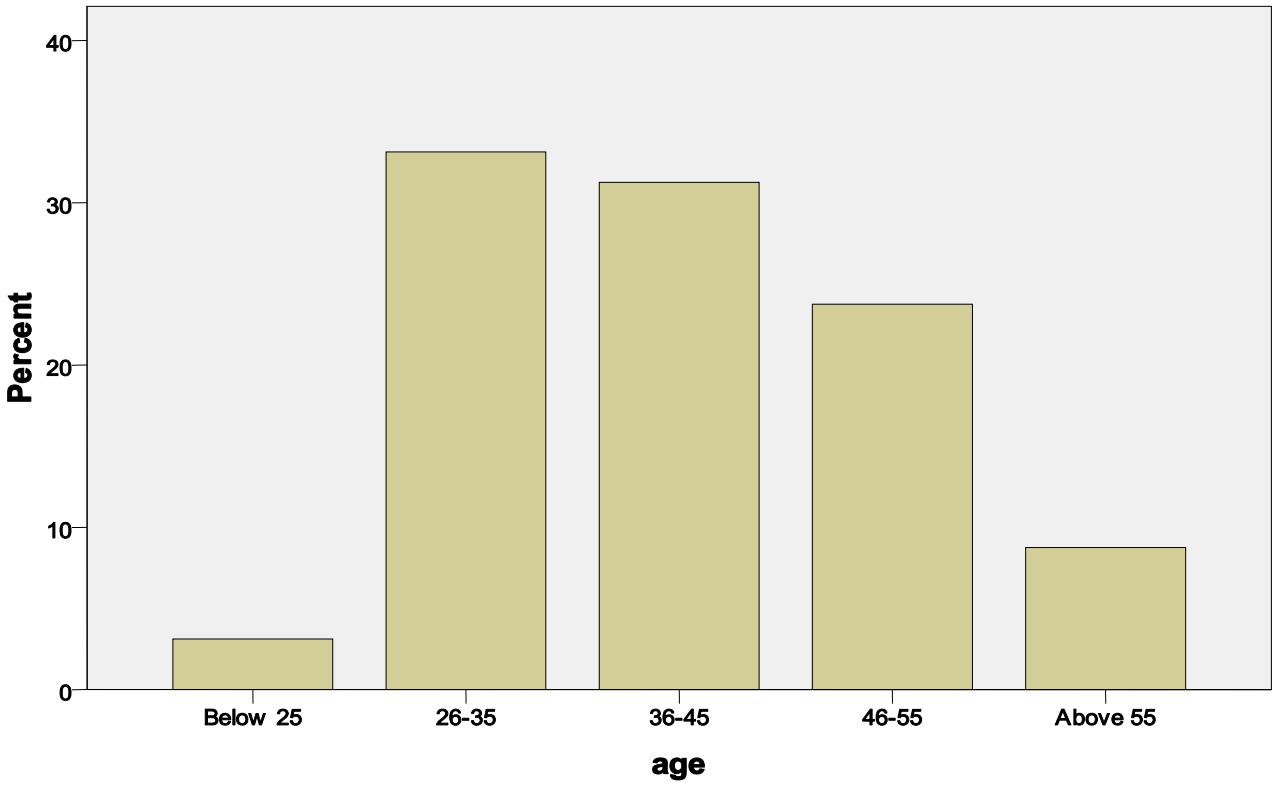
4.3 Background Characteristics of Respondents

These included the characteristics of the respondents such as age distribution, gender, employer, work station and beneficiary. This information was presumed to enrich the study because demographic features are known to affect the implementation of projects. The findings reveal that 64.4% of the respondents were male and 35.6 % were female. The majority of the respondents were in the age group between 26 and 35. The background characterized where used to find out how they affect donor fund management and performance of RE projects.

4.3.1 Age of the respondents

In the bio- data section of the questionnaire, the researcher sought to find out the age categories of the respondents. The respondents' age ranged from 25 to above 55 years. The results are presented in the graph here below.

Figure 2: Age categories of the respondents



Source: Primary data.

A significant number of the respondents were in the age bracket of 26 to 35 years. These were 53 (33.1%). Those below 25 years of age were 5 (3.1%). The age bracket of 36- 45 registered 50

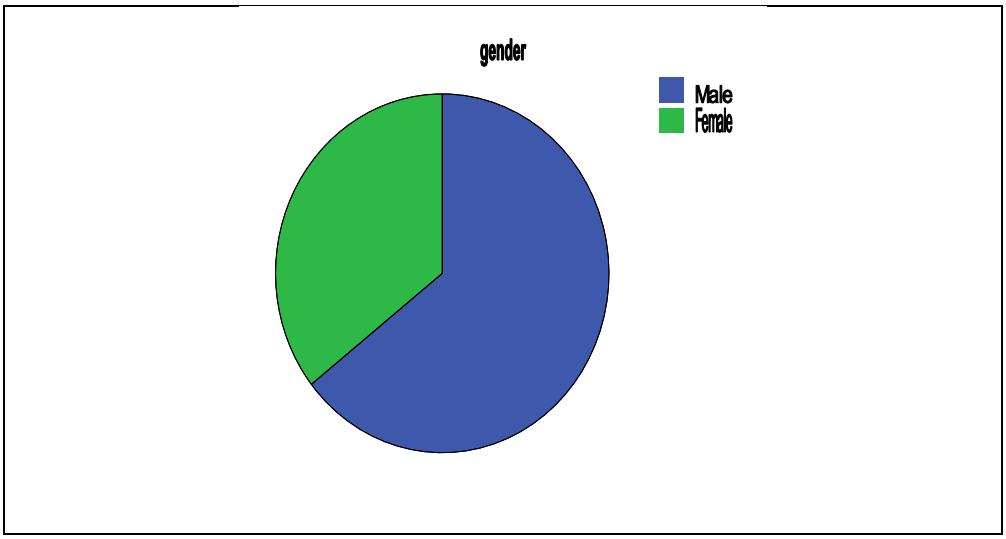
respondents (31.3%). The category of 46-55 registered 38 respondents (23.8%). The above 55 category registered a response rate of 14 respondents (8.8%).

The age groups of 26-35 and 36-45 had a significant response rate because these are age groups that are actively involved in working and are employed on different rural electrification projects. These age groups are also significant because they are proactive in managing donor funds and overseeing performance on projects. The researcher noted that, donors, when extending funds, prefer to work with Government and in Uganda the retirement age in the civil service is 55 years. This kind of evidence is substantiated by the information gathered from one World Bank, Uganda Office Energy desk that, as a funding Agency Government is their main focus when extending grants or funding projects. This therefore shows that the active working age group ranges between 26 and 45 years. This is the youthful age whose participation on a project affects its performance. It is thus prudent to say that the age category which affects performance of RE projects is between 26 and 45.

4.3.2 Respondents' gender distribution

The researcher set out to find out the gender distribution of the respondents, in order to establish whether this has any influence on the relationship between donor fund management and performance of RE projects. This analysis was a question in the questionnaire and observation from the interviews held. The results are presented in figure 2 below;

Figure 3: Pie chart showing the distribution of the respondents by gender.



Source: Primary data.

The pie chart above summarizes the gender of the respondents. The findings revealed that 102 (64.4%) of the people that took part in the study were male, whereas the remaining 53 (35.6%) were female. This indicated that the RE project in Uganda is dominated by a male workforce. From observation it was noted that the male work force is involved in negotiations with donors, resource planning, implementation and cost control on RE projects. Women on the other hand are more involved as the end users of output and outcome of RE projects or as beneficiaries. From observation the researcher noted that there were fewer women managers on the RE projects and more female users of the electricity.

These findings indicate that it is the male gender who are mostly employed in Government and in the projects. Although the number of women is increasing, the work force is still dominated by men. It was noted that during project implementation developers prefer to use men because of their physical strength and flexibility in terms of extended working hours. Whereas men are directly employed on RE projects and therefore are an important resource, women are the target beneficiaries and affect performance because they are becoming more active in agitating for the availability of electricity.

4.3.3 Employment of the respondents

The employment of the respondents was categorized as; government, donor, private sector and project. This categorization gave the study a perspective of which respondent appreciates a donor funded project in that elements from the sample understand the dynamics. The findings are presented in table 3

Table 3: Employment of the respondents

	Frequency	Percent
Government	45	29.0`%
Donor	25	16.1%
Private sector	33	21.2%
Project	52	33.5%
Total	**155**	**100.0%**

Source: Primary data.

From table 3 above, it was found from the study that 45 (27.5%) of the study respondents were employed by Government, 25 (37.5%) indicated they were employed by Donors 33 (20%) are

employed by the private sector and 52 (15%) are employed by RE projects. This shows that that the majority of the respondents were employed by Donors. Since the majority are employed by donors, their actions have a direct effect on the performance of RE projects. The man hours put in and the commitment to achieve goals by each individual affects the output. This is an indication that the source of employment will have an impact of the performance. All employees working on donor funded projects are contractual workers; which means that they must accomplish project activities during the course of their respective contracts. The source of employment affects performance because it affects outputs directly. As a government employee and donors making decisions and change management is important, while for private sector and project staff meeting goals and adhering to work schedules affects the ultimate performance.

4.3.4 Work station of respondents

The respondents were asked whether they worked in rural areas or urban areas. This was done in order to establish whether the work station affected performance of RE projects. The findings are presented in table 4.

Table 4: Work station of the respondents

Work station	Frequency	Percent
Rural	79	51.3%
Urban	76	48.8%
Total	**155**	**100.0%**

Source: Primary data

The results showed that 79 (51.3%) of the respondents worked in rural areas while 76 (48.8%) worked in urban areas. The researcher, through an interview with the project planning and

management unit at REA, noted that, although some project staff are based in urban areas like Kampala they are periodically required to travel to different sites where RE projects are being implemented. The workstation of the respondent affects performance in that resource planning, implementation and cost control are affected by the distance. From observation the researcher noted that when resource planning was done, for WENERECO, the developer was to take residence in Arua. The management instead set their camp in Moyo, such that when technical faults occurred at the generator sites there was no one responsible to fix the problem. This affected the output and less electricity was generated. The source of employment on project is important whether one was a beneficiary of RE projects. The relationship between source of employment and performance as Verma (1995) asserts, is that a person will perform to standard if they stand to benefit from the output either directly through employment or indirectly by having their homes or businesses access electricity

4.4 Empirical findings

In this section, the extent to which donor fund management affects performance of RE projects is presented analysed and interpreted. The findings are presented objective by objective. The responses were measured using a five point likert scale and the results are presented in descriptive statistics, showing the percentage of responses under each variable. The results are then further analysed using correlations in order to show relationships between the variables. The results from both the quantitative and qualitative source are then triangulated

4.4.1 Resource Planning and the performance of RE projects

The purpose of this section was to establish the relationship between resource planning and the performance of RE projects. The section was based on the hypothesis that resource planning has a significant effect on the performance of RE projects. A correlation analysis was done and the findings are presented below in table 5

Table 5: Correlation between resource planning and performance

		Resource Planning	**Performance**
Resource Planning	Pearson Correlation	1, 000	.261**
	Sig. (2-tailed)	.	.001
	N	155	155
Performance	Pearson Correlation	.261**	1, 000
	Sig. (2-tailed)	.001	.
	N	155	155

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

Source: Primary data

A correlation analysis was done using Pearson's correlation to find the degree of relationship between resource planning and performance of RE projects. It was found to have a significant relationship at 0.01 level. There was a moderate significant positive relationship between resource planning and performance with a correlation of .261**. The significance was .000 at 0.01 level. This implied that resource planning was likely to affect performance. This relationship therefore affirms the hypothesis that resource planning has a significant effect on the performance of RE projects. From the questionnaire the findings are presented resource by resource. An analysis was done to ascertain the view of respondents on how people, time,

equipment and cost estimation affect performance on RE projects. The findings are presented below

4.4.1.1 People planning

People as a resource have an influence on the performance of RE projects. This resource was important in achieving outputs on the projects. In this study, this variable was measured using a total of 5 questions, which solicited the respondents' opinions. This was done on the basis of the five likert scale. Emerging results are presented in the table 6 below;

Table 6: People planning and the performance of RE projects

Item	**SA %%**	**A %**	**NS %**	**D %**	**SD% %**
People are the major determinats of performance	27.5	38.1	8.8	15.0	10.6
People are responsible for effectiveness of a project	31.9	37.6	8.1	10.6	1.9
Adequate people planning leads to good performance	40.0	33.1	5.0	13.1	8.8
People as a resource affect the output of RE projects	33.8	43.8	3.8	8.8	10.0
People have an effect on the outcome of projects	38.8	38.1	9.4	9.4	4.4

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From table 6 above the respondents were asked to give their opinion on people planning and the performance of RE projects. From a total of 155 respondents 38.1% agreed that people are major determinant of performance on RE projects. Thirty seven point six percent (37.6%) of the respondents said people are responsible for effectiveness of a project. Forty percent (40%) of the

respondents strongly agreed that adequate people planning leads to good performance on RE projects. Forty three point eight percent (43.8%) agreed that people affects outputs on RE electrification projects and 38.8% strongly agreed that people have an effect on the outcomes of RE projects. These findings show that people have a significant impact on performance of RE projects. From interviews it was ascertained that right from the consultant who does the feasibility studies to the last man who carries bricks to the site, all affect performance since they are a direct input for the project. From observation and documentary review it was noted that people are rated highly to have an effect on the performance of RE projects. Without adequate planning for people it is difficult to achieve the desired performance of any RE project. To plan for people will make the project goals and objectives achievable.

4.4.1.2 Time planning

Time as a resource had an influence on the performance of RE projects. This resource was important in achieving outputs and outcomes on the projects. In this study, using the questionnaire, this variable was measured using a total of 5 questions, which solicited the respondents' opinions. This was done on the basis of the five likert scale. The results are presented in table 7 below;

Table 7 Time and performance of RE projects

Item	SA%	A%	NS%	D%	SD%
Time is the major determinant of performance	18.8	38.8	15.0	17.5	10.0
Time affects the effectiveness of a project	7.5	24.4	30.6	23.8	13.8
Timely delivery of electricity amounts to good perf	20.0	30.0	20.0	20.6	8.1
Time affects the output on prjts	33.1	42.5	8.1	11.9	4.4

Time determines the outcome on projects	13.1	22.5	13.8	28.8	21.9

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the table 7 above the 38.8% of the respondents agreed that time is the major determinant of performance, 30.6% are not sure that time affects the effectiveness of projects, 30.0% agreed that timely delivery of electricity amounts to desired performance, 42.5% agreed that time affects the output on projects and 28.8% disagreed that time affects the output on projects.

From interviews it was ascertained that although time should be crucial it is not strictly adhered to because of the challenges in the new delivery mechanism of Public Private Partnership. The response of the private sector is unpredictable even with all the incentives. Yet, from observation it was noted that there is a lot of pressure to adhere to time in terms of having the output on the ground.

This implies that time is an important resource in achieving performance although it is not strictly adhered to as per the plan. Time affects the performance of RE projects in such a way that, when outputs of projects are realized within the planned time frames, then outcomes are also realized and the project is then effective.

4.4.1.3 Equipment planning

The data on equipment as a resource and its relationship with the performance of RE projects was measured using a total of 5 questions, in the questionnaire which solicited the respondents' opinions. This was done on the basis of the five likert scale. The results are presented in table 8

Table 8 equipment and the performance of RE projects

Item	SA %	A %	NS %	D %	SD %
Equipment affects the outcome of projects	9.4	26.9	19.4	28.8	15.6
Equipment leads to desired output on a project	26.9	36.9	15.0	14.4	6.9
Adquate equipment affects performance	5.6	18.8	18.8	32.5	24.4
Equipment can deter effectiveness	15.6	28.8	14.4	25.6	15.6
Equipment is the major determinant of performance	21.3	22.5	6.3	26.9	23.1

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From a total of 155 respondents, 26.9% disagreed that equipment is the major determinant of performance, while 28.8% agreed that equipment as a resource can deter effectiveness. 28.8 % disagreed that equipment affects the outcome of projects, whereas 36.6% disagreed that equipment leads to desired output. Thirty two point five percent (32.5%) disagreed that adequate equipment affects the performance of RE projects. From interviews it was ascertained that equipment does not affect the performance much because at the planning level, a technical team with vast experience will draw up the requirements of a specific project. It was also observed that most of the equipment is standard and once it is in place, it requires only operation and maintenance These findings are an indication that equipment as a resource alone will not affect

performance, but because it requires technical skill to operate and money to maintain then it will affect performance. This means that equipment affects the output of projects if it is not well operated and maintained.

4.4.1.4 Cost estimation

In order to find out the relationship between cost estimation and performance, the researcher gave the respondents a set of questions in the questionnaire related to this aspect. The responses were collected using a five likert point scale and the responses are summarized in table 9

Table 9: Cost estimation and the performanceof RE projects

Item	**SA %**	**A %**	**NS %**	**D %**	**SD %**
cost estimation affects outputs of projects	15.6	31.9	8.8	25.6	18.1
cost estimation affects outcome	28.1	36.3	6.9	16.9	11.9
cost estimation determines performance	21.9	36.9	5.6	20.6	15.0
cost estimation enables effectiveness on a prjt	30.6	40.6	10.0	11.3	7.5
proper cost estimation guarantees good performance	23.1	30.0	12.5	26.3	7.5

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the table above a total of 155 people responded to the different questions as follows. Thirty one point nine percent (31.9%) agreed that cost estimation affects the outputs on RE projects, while 36.3% also agreed that cost estimation affects the outcome of projects. Thirty six point nine percent (36.9%) agreed that cost estimation determined the performance of projects while

40.6% also agreed that cost estimation enables effectiveness on a project. Thirty percent (30.0%) of the respondents agreed that proper cost estimation guarantees good performance. From interviews and observation it was apparent that cost estimation had a strong effect on the output and outcome of a project. A project manager from WENRECO said that the initial cost estimation of the project were not sufficient to run the project up to the end of the concession. The main input for this project is Heavy Fuel Oil (HFO) whose cost estimates were made at a certain price, but market forces led to price increment. This increment slowed the performance of the project. From documents reviewed there was an indication that Government subsidized the price of HFO and even established a tax waiver but still the market price was higher than the original cost estimates. This findings show that cost estimation is very crucial to the performance of a project.

In an interview with the project Monitoring and Evaluation manager in REA it was clarified that, the output of projects was determined by the initial resource planning and implementation which are a pre requisite for donor fund management.

From observation it was noted that the developers are interested in having the electricity in the rural areas. Government's main concern is to ensure that electricity has reached the target rural areas. This shows that all the stakeholders involved are kin on having the output in place. From Observation it was further noted that, World Bank sent several teams to monitor the operation of the generator in West Nile and the procurement of the Turbine in Kisiizi. Documentary review substantiates t that the priority is to have outputs on the ground. The beneficiary communities are also to have these outputs in place like in Arua where an individual allowed a line to be built through his land without demanding for compensation because his interest was to access the electricity

These findings indicate that outputs are crucial in the performance of any project and donors are interested in ensuring that the output are in place and meet the Millennium Development Goals to eliminate absolute poverty by 2015 in developing countries.

None of the indicators of resource planning can affect the performance of RE projects alone. They affect the performance as a group. The planning of people, time, equipment and cost estimation have to be scrutinized thoroughly and mitigation measures put in place for them not to affect performance.

4.4.2 Project Implementation and the performance of RE projects

Using Pearson's correlation, an analysis of the data collected was done to ascertain the relationship between project implementation and the performance of RE projects. The findings are presented in table 10

Table 10: Correlation between implementation and Performance

		Implementation	Performance
Implementation	Pearson Correlation	1, 000	.255**
	Sig. (2-tailed)	.	.001
	N	155	155
Performance	Pearson Correlation	.255**	1, 000
	Sig. (2-tailed)	.001	.
	N	155	155

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

Source: Primary data

From table 10 the results show there is a moderate significant positive relationship between implementation and performance at 0.01 level, with a correlation coefficient of .255**. This

shows that the hypothesis that project implementation has a significant effect on performance is valid. The significance (2-Tailed) as seen in the table above indicates a level of .0.01, which is way below 0.05. This explains that performance of RE projects is affected by project implementation. The indicators of implementation were organisation, project appraisal and deployment. These were evaluated individually to explore their effect on performance. The findings are presented below respectively.

4.4.2.1 Organization

In line with the implementation dimension the researcher, gave a set of questions on organisation in the questionnaire and the findings are summarised in the table below

Table 11: Organisation and performance of RE projects

Item	**SA %**	**A %**	**NS %**	**D %**	**SD %**
Organization affects the outcome on RE projects	8.8	15.0	10.6	38.8	26.9
Organization affects the output	14.4	35.0	11.9	31.9	6.9
Organization leads to good performance	16.9	25.6	8.1	38.8	10.6
Organization leads to effectiveness	21.3	41.3	10.6	18.8	8.1
Organization is the major determinant of performance	3.1	8.1	7.5	63.8	17.5

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the table above taking the highest percentage of responses for each question 38.8% disagreed that organization affects the outcome of projects, while 35.0% agreed that organization

determines the output on projects. 38.8% disagreed that organization leads to good performance on projects; where as 41.3% agreed that organization leads to effectiveness of a project. Sixty three point eight percent (63.8%) disagreed that organisation is the major determinant of performance. From interviews it was noted that organisation though a vital aspect of donor fund management is not considered to affect performance of RE projects. However from observation and documentary review it was apparent that organisation has an effect on the performance of RE projects. These results show that although organisation is important for performance, donor fund managers believe it is insignificant and can not affect performance. Organisation is an important aspect of performance and should be treated with the same level of importance as other indicators of implementation.

4.4.2.2 Project appraisal

The data on project appraisal and its relationship with the performance of RE projects was measured using a total of 5 questions, which solicited the respondents' opinions in the questionnaire. This was done on the basis of the five likert scale. The results are presented in the table 12 below;

Table 12: Project appraisal and performance of RE projects

Item	SA %	A %	NS %	D %	SD %
project appraisal affects the outcome on projects	5.0	26.9	11.9	42.5	13.8
project appraisal has an effect on outputs	2.5	9.4	39.4	34.4	14.4

project appraisal is the major determinant of performance	5.0	6.9	36.9	39.4	11.9
appropriate project appraisal results into effectiveness	6.3	21.3	24.4	20.0	13.1
project appraisal process determines the performance of projects	2.5	10.0	26.3	45.0	16.3

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the table above 42.5% disagreed that the project appraisal process affects the outcome on RE projects while 39.4% were not sure that the project appraisal process had an effect on the output of projects. Thirty six point nine percent (36.9%) were not sure that project appraisal is a major determinant of performance and 24.4% were not sure that project appraisal resulted into effectiveness of a given project. Forty five percent (45%) disagreed that project appraisal process determines the performance of projects. From these statistics it is evident that the project appraisal process is not well appreciated.

From interviews and documentary review the using IRR and CBA to appraise projects was shown to be effective in achieving the output of a project. However, from observation it was noted that project appraisal is done by a technical team where project managers are not involved. These findings indicate that project appraisal while a factor affecting performance is not considered as very significant for the effectiveness of projects. The significance of project appraisal is reserved for donors who decide which projects to fund but not implementation.

4.4.2.3 Deployment of resources

The data on deployment and its relationship with the performance of RE projects was measured using a total of 5 questions, which solicited the respondents' opinions using the questionnaire.

This was measured on the basis of the five likert scale. The results are presented in the table 13 below;

Table 13: Deployment and the performance of RE projects

Item	**SA%**	**A %**	**NS %**	**D %**	**SD %**
Deployment affects outcome	13.8	35.6	7.5	27.5	15.6
Deployment affects output	21.3	43.8	7.5	22.5	5.0
Timely deployment determines the effectiveness of projects	18.8	48.1	6.3	20.0	6.9
Deployment is the major determinant of performance	18.1	55.0	18.8	7.5	6.0
Timely deployment of resources ensures performance	8.1	17.5	6.3	51.9	16.3

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the table above, 35.6% of the respondents agreed that deployment affects outcomes while 43.8% also agreed that deployment affects outcomes on RE projects. Forty eight point one (48.1%) agreed that timely deployment determined the effectiveness of projects and 55.0% also agreed that deployment is a major determinant of performance. Fifty one point nine percent (51.9%) disagreed that timely deployment of resources ensures good performance. From interviews it was ascertained that deployment in very crucial for performance of projects. From documentary review and observation it was noted that deployment is critical for a project to

achieve its outputs and outcome. These findings clearly indicate that deployment of resources has the capacity to affect the performance of RE projects. .

After achieving outputs donors have become diligent in observing outcomes. Although from documentary review, it was apparent that, previously outcomes of RE projects were not documented. It was only done in Ministry of Finance to monitor development. It is only after 2008 that World Bank changed the format and requested the government to start documenting outcomes of the various projects they have funded. (www.ertuganda.go.ug, June 2009).

But with PPP donors have increasingly picked interest in outcomes. In an interview with the Executive Director REA it was indicated that outcomes are very important because they measure whether the project has met its objective of transforming rural lives. From other interviews it was noted that Ministry of Finance was incorporated into the RE Programme to monitor whether it would bring about development. As a result baseline surveys were carried out in Kisiizi before the implementation of the project and a post implementation survey is to be carried out. This shows that donors have continued to fund the process even after the life cycle of the project.

From observation the outcome of projects was achieved In West Nile (Arua). With the availability of electricity a welding firm was opened and now sells fabricated doors and windows, milling machines were opened and other small scale industries. The availability of electricity for commercial purposes has made the town a commercial hub. Further information obtained from interviews reveals that, the outcomes have been achieved; there has been transformation of rural life. In Kisiizi, the surrounding areas developed a number of businesses. The communities are now using electricity for productive uses.

These findings indicate that with the implementation of projects and achievement of outputs the outcomes of projects will transform lives.

4.4.3 Cost control and the performance of RE projects

When the findings were analysed using Pearson's moment coefficient, they indicated that there was a significant relationship between cost control and performance of RE projects, showing that cost control is a factor that can be used to determine performance on RE projects. The findings are presented in the table below;

Table 14 Correlation of cost control and performance of RE projects

		Cost control	Performance
Cost Control	Pearson Correlation	1, 000	.400**
	Sig. (2-tailed)	.	.001
	N	155	155
Performance	Pearson Correlation	.400**	1, 000
	Sig. (2-tailed)	.001	.
	N	155	155

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

From the table above the correlated findings proved that cost control had a significant effect on the performance of RE projects at 001**(2 tailed). Cost control had budget baselines, targets and expenditure as indicators about which data were collected. The findings about these indicators are presented, analysed and interpreted below

4.4.3.1 Budget baselines

In this study, this variable was measured using a total of 5 questions, which solicited the respondents' opinions in the questionnaire. This was done on the basis of the five likert scale. Emerging results are presented in table 15 below

Table 15: budget baselines and performance of RE projects

Item	SA%	A%	NS%	D%	SD%
budget baselines affect the outcome of projets	14.4	50.6	16.9	15.6	2.5
budget baselines affect the output of projects	15.0	28.1	11.9	32.5	12.5
budget baselines influence the perfomance of prjts	19.4	46.3	13.1	18.1	3.1
budget baselines enable timely delivery of outputs	6.9	30.6	20.6	28.1	12.5
budget baselines led to good performance	11.3	40.0	24.4	15.6	8.8

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the findings presented in the table above 50.6% of the respondents agreed that budget baselines affect the outcome of projects, while 32.5% disagreed that budget baselines affect the output of projects. 46.3% agreed that budget baselines influence the performance of projects, while 30.6% agreed that budget baselines enable timely delivery of outputs. 40% of the respondents agreed that budget baselines led to good performance of the projects. From interviews and documentary review it was substantiated that, budget baselines have an effect on performance. Observation showed that budget baselines were established but the related changes

took a while to be effected and thus affected the performance of RE projects. These findings indicate that budget baselines are vital in achieving performance for a RE project.

4.4.3.2 Targets

Targets were measured using a total of 5 questions, which sought the respondents' opinions in the questionnaire. This was done on the basis of the five likert scale. Emerging results are presented in table 16

Table 16: targets and the performance of RE projects

Item	SA%	A%	NS%	D%	SD%
set targets have an effect on outcome of projects	1.3	10.0	14.4	56.3	18.1
set targets affect the output of projects	9.4	42.5	18.8	25.0	4.4
target outputs are met on time	5.6	29.4	16.9	35.0	13.1
target outcomes were achieved	5.0	15.6	20.6	44.4	14.4
target goals and objectives were met	5.6	18.1	12.5	46.9	16.3

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the findings in the table above taking the highest response for each item, 56.3% of the respondents disagreed that set targets have an effect on the performance of projects, where as 42.5% agreed that set targets affect the output of projects. 35% disagreed that set targets on RE projects were met on time while 44.4% disagreed that the targeted outcome were achieved.

46.9% also disagreed that the target goals and objectives were achieved. From interviews it was ascertained that targets play an important role in measuring performance in that the outputs of a project are measured using the targets, but from documentary review it was stated that targets are set to give the project a perspective in terms of implementation but are strictly adhered to since each project is unique. Being a different delivery mechanism where the private sector is involved it was observed that targets are put in place but are not adhered to because of a number of challenges which each project goes through. The findings indicate that targets are important for performance because they affect output but may not necessarily affect the outcome on projects. The findings further reveal that both Kisiizi and WENERCO did not achieve the targets.

4.4.3.3 Expenditure

In this study, this indicator was measured using a total of 5 questions, which solicited the respondents' opinions using the questionnaire. This was done on the basis of the five likert scale. Emerging results are presented in the table 17

Table 17 Expenditure and the performance of RE projects

Item	SA%	A%	NS%	D%	SD%
expenditure has an effect on the outcome of projects	8.1	20.6	13.1	44.4	13.8
expenditure has an effect on the output of projects	11.3	28.8	20.6	29.4	10.0
set expenditure affects effectiveness of a prjt	9.4	30.6	13.8	36.3	10.0
preset expenditure affects the performance of RE prjts	3.1	13.1	16.9	53.1	13.8
expenditure schedules affect the performance of RE prjts	11.9	31.9	12.5	34.4	9.4

Source: Primary data.

Key: SA = Strongly agree, A= Agree, NS = Not sure, D=Disagree, SD=Strongly disagree, %= Percentage

From the presentation of the findings above 44.4% disagreed that expenditure had an effect on the outcome of projects while, 29.4% disagreed that expenditure had an effect on the output of projects. 36.3% disagreed that set expenditure affects the effectiveness of a project while 53.1% also disagreed that preset expenditure affects the performance. 34.4% disagreed that expenditure schedules affect the performance of RE projects. From interviews and documentary review it was apparent that expenditure schedules are put in place as per the planned implementation schedule. This expenditure schedule is adhered to but in most cases projects are behind schedule in expenditure and are under pressure to spend with in a given financial period. However from observation it was noted that WENERECO surpassed the expenditure schedule and needed additional funding. This affected the performance of the project. These findings indicate that expenditure has a big effect on performance of RE projects, which implies that the it greatly affects the delivery of electricity to rural areas.

4.4.4 The influence of political will

In order to find out the influence of political will on the effect of donor fund management and the performance of RE projects, the researcher gave the respondents a set of questions related to this aspect in the questionnaire. The responses were collected using a five likert point scale. From the questionnaire the findings indicated that there was uncertainty whether political will has a moderating role in the relationship between donor fund management and performance of RE projects. When the data was subjected to Pearson's moment correlation coefficient, the outcome

further indicated that there was no significant moderator effect on the relationship between political will and performance of RE projects, as explained in table 18

Table 18: Correlation of political will and performance of RE projects

		Political Will	Performance
Political will	Pearson Correlation	1, 000	.111**
	Sig. (2-tailed)	.	.001
	N	155	155
Performance	Pearson Correlation	.111**	1, 000
	Sig. (2-tailed)	.001	.
	N	155	155

Source: Primary data

The results summarised above show a correlation coefficient of .111**, between political will and performance of RE projects. The significance (2-Tailed) indicates a level of 0.001. This serves to explain that political will has influences donor fund management to affect the performance of RE projects. From interviews it was explained that politicians still try to influence donor fund management in the energy sector but their influence does not have a significant effect on the performance of RE projects. Politicians are only figure heads who sign binding contract between donors and Governments. From documentary review, it was noted that, prior to signing a contract, there a various proposals that are sent back and forth between a donor and the government until an agreement is reached (ERT 1 PIP). If a project is implemented as per plan and proper accountability is made, then politicians can not influence donor fund management to affect performance of RE These findings indicate that politicians influence one dimension of donor fund management which is cost control. Members of Parliament are mainly interested in accountability which takes place after project implementation. This implies that

performance of RE projects is not affected if resource planning and Implementation are handled appropriately.

4.4.5 Influence of factors

The objective of this section in the questionnaire was to determine the degree of influence that Resource Planning, Project Implementation, cost control and political will, on performance of RE projects. The findings indicated that that resource planning had a high influence on the performance of RE projects, while project implementation and cost control had a moderate influence on the performance of RE projects and Political will had a low influence on the effect of donor fund management and the performance of RE projects.

These findings indicate that although all the dimensions of donor fund management have an effect on performance, some may influence performance more than others. It was revealed that resource planning had the highest influence while implementation and cost control had a moderate influence. All the three dimensions work together to affect the performance of RE projects. Resource planning affects implementation which affects cost control.

4.5 Summary

From the bio data, the study revealed that most of the people who work on RE projects are predominantly male and are aged between 26-45 years. Fifty one point three (51.3%) of the respondents work in peri urban or urban areas and 67.7% are beneficiaries of rural electrification. They are employed by donor organisations on different projects.

Resource planning was found to have a significant relationship with performance. People as a resource are a crucial to achieve performance of RE projects while time is not strictly adhered

and hence affects performance. Equipment as a resource depends on people to affect performance while cost estimation is important because it will directly affect the output and out comes on a projects.

Project implementation was also found to have a significant effect on performance. Organisation was considered to have an effect on the performance of RE projects although the findings from the questionnaire and interviews showed otherwise. For project appraisal it emerged that it is not very significant in affecting the performance of RE projects, whereas deployment of resources showed that it affects the performance of RE projects if it is not handled appropriately.

Cost control was also found to have a significant relationship with performance of RE projects. From the findings it emerged that budget baselines affected the performance because the acceptable changes were not executed in a timely manner and consequently affected the output of delivering electricity to West Nile and Kisiizi. From targets it emerged that they affect output such that if the target output is not achieved with in the planned time then it affects performance. On the other hand expenditure was found to have a minor effect on performance in such a way that, the largest expenditure of a project may be focused consultancies whose input to the project is 20%.

The findings further revealed that political will influences cost control which in turn affects the performance of a project. Although the political representatives have a mandate to monitor donor funds, their influence is restricted to accountability issues.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study was carried out to evaluate the effect of donor fund management on the performance of RE projects. This chapter presents the summary, discussion, conclusion and recommendation. This section presents the summary in answer to the research questions and objectives of the study. To make the discussion meaningful and logical this chapter is presented objective by objective.

5.2 Summary

The effect of donor fund management on the performance of Rural Electrification projects in Uganda was established. The energy sector was liberalized to involve the private sector in the development of Electrification projects. Since most electrification projects require a large financial input, government alone could not meet the cost of development hence the intervention of donors. The interface of the three changed the dynamics of RE projects. Like other RE projects in developing countries, this paused a challenge in that the goals and objectives of the projects were not met.

The variable donor fund management was operationalised as resource planning, project implementation and cost control, while performance was had outputs and outcomes as indicators. The study used a cross sectional case study design on Kisiizi and WENERECO projects.

The findings of the study show that resource planning` had a significant effect on performance and should be scrutinized and all gaps addressed to avoid any affect on implementation. Time was identified as the indicator handled with laxity hence affecting performance. Implementation

was found to affect performance of RE projects. It was believed to be straightforward if resource planning was done adequately. However it should be treated with equal importance because alone it can deter the performance of a project. Cost control was found to have significant effect on performance and therefore budget baselines, targets and expenditure should be adhered to. The findings further revealed that political will influences cost control which in turn affects the performance of a project. Although political will has a mandate to monitor donor funds, their influence should be restricted to accountability issues.

The study recommends therefore, that resource planning should be done objectively and diligently, implementation should be handled as an important function while cost control should follow the set procedure and guidelines for the effectiveness of RE projects.

5.3 Discussion of findings

5.3.1 Resource planning and the performance of RE projects

From the interpretation of findings, resource planning was found to have a high influence on performance, a case in point on West Nile project HFO, one of the resources of the project was planned at one hundred Uganda shillings (100shs) but with in the course of implementation the international price of oil rose from US$45 a barrel to over US$70 a barrel hence affecting the performance of the project. These findings are substantiated by Vasilaki and O'Regan (2008) that unless resource planning is carried out and mitigation measures are put in place there is bound to be little effectiveness on projects. All the resources required for a project have to be planned appropriately for a project to be effective. The findings are inconsistent with the view advanced by Stanton (1981) that it is feasibility studies that affect the performance of RE projects most and not resource planning.

People were identified as a vital resource that affects performance. Planning for this resource requires considering how many people are required for a project, what skill is required whether skilled labour or semi skilled labour and how much it will cost. For Kisiizi project this was done and there was no issue with lack of people to implement the project however as resource it was affected by other resources and consequently affected the performance of the project. In West Nile on the other hand, people resources affected the performance of the project because they kept changing from one manager to another.

Time was one of the resources that affected the performance of both West Nile and Kisiizi projects. In Kisiizi the project was planned to take 2 years because it involved expanding the generation capacity of an already existing system. Although in West Nile time was adhered to at the beginning of the project, after one year the project status changed. The electricity that was distributed for 18 hours was now distributed for less than 6 hours a day. This affected the performance of the project because it did not achieve project outcomes.

From the findings, Equipment as a resource does not affect performance directly but would affect it if people to operate and funds to maintain the equipment are not planned for, In Kisiizi for instance a turbine was procured from Germany in 2007. It was expected to arrive at the site in Rukungiri but was delayed due to the post election violence in Kenya. This affected the performance in that the equipment was not available on time, hence delaying the schedule of implementation. Although from the findings, equipment has no significant effect on performance, it can be argued that at the planning phase it needs to be given the same significance as time and people because without equipment a project cannot be effective.

Cost estimation as a resource was found to be very crucial to performance according to the findings. This is an indication that without proper cost estimation a project will not achieve the

desired outputs and outcomes. The cost estimated for the completion of Kisiizi Mini hydro expansion was US$ 454 million. But because the project did not adhere to the planned time lines, the administrative costs went up and this affected performance. All the resources required for the effectiveness of a project are inter related such that if planning for either of them is not adequate, it will affect another resource which will have an effect on performance.

According to Prasanta (2001), the inter relationship between donor fund management and resource planning is a complex one. The electrification programme relies on the states to formulate the projects. Depending on the preparedness of the states and their utilities, it may not be possible to formulate attractive projects covering all non-electrified areas. This affects the performance of projects because much as the outputs are achieved the outcomes may not achieve the desired change in rural areas.

5.3.2 Implementation and the performance of RE projects

From the findings project implementation was found to have a moderate relationship with performance of RE projects. Project implementation had as indicators; organisation, project appraisal and deployment. Curtis (2002) argues that project implementations will largely determine the overall performance of a project. RE projects are gigantic involving many stakeholders and requires painstaking project management skills. All three indicators of implementation play a big role in achieving performance

From the findings, it was ascertained that organisation does not directly affect performance but is influenced by resource planning to affect performance. Although from observation, it was found that organisation has a direct effect on performance and therefore affects the output on projects.

These conflicting views come about because Project managers do not organize the work force or plan resources but are also appointed. They cannot change the organization for purposes of achieving organizational goals and objectives (Reynolds 2002). The reality is that if resources are well planned, then during implementation there is poor organisation then performance is affected. In Kisiizi organisation affected the performance because initially the hospital administration did not want to be involved in project implementation thus in as far as implementation is concerned, organisation is significant in achieving outputs and outcomes on a project.

The findings from project appraisal indicate that project appraisal was not very significant in performance of RE projects. In West Nile for instance the project appraisal process involved a format which was developed by the World Bank. The process was handled by MEMD while carrying out Monitoring and Evaluation and it was not a core activity. This affected performance because the project developers did not have an input in the appraisal process. Devarajan (2000) argues that traditional approaches to project appraisal fail in practice to address two fundamental questions: whether a project belongs in the public or the private sector; and what effect any external assistance associated with the project has on the country's development. Involvement of the developer in this process will aid performance

From interviews held with the project managers it was ascertained that deployment of resources is vital for performance of RE projects. This is further substantiated by Cust (2007) that deployment has to be handled very cautiously for RE to achieve its goals and objectives. The findings from observation and documentary review show that, deployment involves putting the planned resources together and organizing them to achieve project outputs. In Kisiizi the project failed to meet its objectives in time because deployment was not given its due magnitude of

importance. The canals were dug up before the culverts were delivered on site. The rainy season came and the canals were destroyed consequently affecting the progress. If the culverts were deployed before digging then canals then placed immediately, it would not have affected the progress of works.

Project implementation depends on resource planning as a factor affecting the performance of RE projects. It is important therefore to note that, Project implementation has a high dependance on resource planning to affect the performance of RE projects.

5.3.3 Cost control and the performance of RE projects

Cost control as one of the dimensions of donor fund management was found to have a very significant relationship with performance. From interviews held it was ascertained that the indicators of Budget baselines, targets and expenditure affected the performance of RE projects. This is substantiated by Basak (2006) and Tomilinson (1999) who contend that cost control contributes significantly to the performance of projects

Furthermore from the findings budget baselines were indicated to affect performance in a way that, they determine the progress of works. On the Kisiizi project, funded by a subsidy there was a thresh hold beyond which a “no objection” had to be sought from the World Bank. While procuring the turbines the budget baselines indicated US$ 2 million which was approved but when it came to the actual purchase this amount was not enough to purchase a modern turbine, but could only purchase an older model whose spare parts were no longer produced. With such a scenario performance is affected because the decision making process does not lie with the

developer or the government but the donor. Having a budget baseline affected the progress and hence the performance of the project. (ERT progress report June 2007)

Further still, the findings emerged to show that targets were used to measure outputs on a project. In West Nile the target was to avail electricity for at least 1200 people in the districts of Arua, Yumbe and Nebbi for atleast 12 hours a day. At the beginning the project achieved these targets and even surpassed them to serve 1500 people for 18 hours a day. However, in due course the project supplied electricity for less than 6 hours a day. The challenges of fuel shortage and price fluctuation were to blame for not meeting the target. This indicates that the project targets were not sustainable and hence affected the output and outcomes of the project.

Expenditure like targets also has an on effect on the performance of projects. Both projects had an expenditure schedule. While, West Nile surpassed its schedule, Kisiizi was behind schedule. In both cases the performance was affected. Isham, Kaufmann and Pritchett (1997) assert there is a strong empirical link between expenditure and the performance of Government projects. This serves to affirm the view that donors are strict on expenditure schedules while governments are not as strict. The pressure is put on the developer to exhaust a given amount at the end of the financial period, since in Government expenditure is one indicator of performance. Involving accountability at 2 levels (for government and for the donor) implies that expenditure is mishandled because it serves different purposes for Government for the donor and for the developer.

5.3.4 Political will

The research findings revealed that Political will, plays a relatively significant moderating effect on the relationship between donor fund management and the performance of RE projects. There was no political influence on resource planning. An IREMP was developed from which priority projects were chosen depending on the level of electrification of a given area. West Nile area was chosen because they had never accessed electricity from the national grid while Kisiizi was chosen because of its existing potential for expansion. This was done in MEMD without any political interference or influence. None of the indicators of people as; time, equipment and cost estimation were influenced by political will to affect performance of RE projects This indicates that resource planning was not influenced by political will to affect performance. A comprehensive proposal was sent to World Bank and a decision was made to fund these projects. Furthermore from the findings, there was no political interference on the implementation of RE projects. All indicators; organisation, project appraisal and deployment were done between MEMD, REA and World Bank. Implementation therefore is not influenced greatly by political will. However, from an interview held with the project planning unit at REA the findings indicate that towards election time there is a lot of pressure to divert funds from one RE project to another. Although the pressure mounted it has not changed the implementation course on projects.

The research findings also indicated that cost control was fairly influenced by political will to affect performance of RE projects. While budget baselines and targets were not significantly influenced, expenditure was significantly influenced. In 2006 Uganda experienced an acute electricity shortage characterized by load shedding and black outs. RE funds were diverted to

purchase Energy savers as a demand side measure to promote energy efficiency. The purpose was to reduce the consumption load while increasing capacity on the national grid.

This decision was as a result of political pressure from the president in consultation with the World Bank. This is a case of political influence and hence validating the hypothesis that political will has a significant moderator influence on the effect of donor fund management and the performance of RE projects

5.4 Conclusions

Bourdon and Rousson (2007) argue that though donor fund management is being hailed as a promising new development tool, it lacks the strategic dimension that it needs if it is to be truly effective and fulfill donors' policy commitments. Factors such as political stability, the business climate, physical infrastructure, institutions and human capital also play a fundamental role. Benecke (2008) also contends that, although rural electrification projects and programs have been implemented in many countries, they suffered from design, planning, implementation and operational flaws. Therefore donor fund management has a significant effect as found in the data from the dimensions of donor fund management.

5.4.1 Resource planning and performance of RE projects.

The study revealed that resource planning in terms of resources like people, time, equipment and cost estimation had a significant effect on the effectiveness of projects. Resource planning is done by the government which then gives a proposal to donors to fund. The donors and developers rely on the government to formulate the projects. Depending on the preparedness of

the Government and their utilities, it is challenging to formulate attractive projects covering all non-electrified rural areas. This may cause delays in project approval and implementation, leading to non-achievement of the outputs and outcomes.

Resource planning is crucial for performance and therefore must be scrutinized and all gaps addressed to achieve the output and outcomes of projects. Inadequate resource planning can lead to the non-acceptance of projects identified and formulated by the government. Planning for people, time, equipment and costs should be done rigorously. It was revealed that equipment had a minor effect on performance, but it is imperative to note that equipment alone can deter the performance of a project.

Although, from interviews time was down played to have a significant effect on performance, it is a major indicator of effectiveness. Kisiizi project was supposed to be commissioned in 2007 but was commissioned two years later (ERT implementation Completion Report-phase I). The fact that it was not commissioned in the planned time means the project did not meet the intended goals and objectives. Therefore it can be concluded that Resource planning has a significant effect on the performance of RE projects.

5.4.2 Implementation and performance of RE projects

From the findings it was revealed that implementation affected the performance of RE projects. The individual indicators of project implementation which were; organisation, project appraisal and deployment were shown to have an effect on the output and outcomes of projects. The organisation of projects has to be clear cut such that activities remain on course and achieve project objectives. Delays in implementation result due to, poor mobilisation of workers, poor transportation of equipment and materials, unfavorable weather conditions, and other factors.

Furthermore during project appraisal developers are not involved in the process, rather it is done by the Monitoring and Evaluation team from MEMD. From observation it was indicated that during implementation the deployment of resources can affect the performance of projects.

While implementation of projects lies in the hands of the developer it is imperative to note that, it is significant to achieve project goals and objectives. Although from interviews it was ascertained that for as long as resource planning is carried out appropriately then implementation will automatically achieve project effectiveness. However, implementation is an independent dimension of donor fund management and should be considered independent of resource planning. In conclusion therefore implementation affects the performance of RE projects.

5.4.3 Cost control and performance of RE projects

Noted among the factors that affect performance of RE projects was Cost control. It was indicated to have a significant impact on the performance of RE projects**.** Developing countries as well as international development assistance have for a long time aspired to combat energy poverty in rural areas of developing countries. Benecke(2008) asserts that, until now a major part of national and international public and private attempts to provide affordable and stable energy supply have failed due to Inadequate funds arising from non-mobilisation of funds, inadequate allocation of funds or untimely allocation adversely affecting projects. Similarly, when RE was centralised government was successful in diverting planned funds to non-planned activities.

Since RE projects are donor funded cost control is important in achieving outputs and outcomes. Even if funds are available, government can fail to utilise them in time due to lack of appropriate

resource planning, contracting or other implementation difficulties. A conclusion can therefore be made that, cost control has an effect on the performance of RE projects.

5.4.4 Political will

The research findings reveal that Political will has relatively a minor effect on the relationship between donor fund management and the performance of RE projects. With the recent change in the sector that advocates for Public Private Partnerships (PPP), political will plays a small role in the donor fund management process. However from observation it was noted that MPs have a strong vote on cost control issues. But for as long as there is transparency in resource planning, project implementation and cost control then they will have no effect on donor fund management and the performance of RE projects.

5.5 Recommendations

Based on the conclusions the following recommendations will address the gaps revealed from the interaction of the variables in the findings of the study.

5.5.1 Resource planning.

Resource planning should be done by an independent technical team not government that will objectively address the need for rural electrification. Basing on lessons learned realistic goals and objectives should be set to be able to achieve transformation in rural areas. The influence of political will can also be reduced if time is addressed more strictly for effectiveness of any given project.

It is also recommended that resources be adequately planned and mitigation measures put in place to counter any risks and uncertainties that may affect the resources planned for. This

should be regarded as a condition on both the donors and the government and clearly laid out to developers

Resource planning should put into consideration donor fund guidelines It is therefore important to plan appropriately while putting into consideration what implications affect underestimating resources.

Equipment should be planned for adequately and as independent resource to waive the assumption that is people are planned for appropriately then equipment is automatically catered for. It is a strong indicator and thus treated as such.

5.5.2 Project implementation

Since implementation depends on resource planning, they key indicators of organization, project appraisal and deployment should be clearly set out at the resource planning level such that during implementation performance is not affected. As part of organization implementation manuals should be developed for every project to facilitate better internal communication with staff and transparent transfer policies.

Organization should be given significant importance because it has the capacity to hinder the achievement of goals and objectives. Although project managers believe that organization depends on resource planning, it is equally important and should be given the same significance.

The effect of project appraisal should also be addressed, to involve project developers to make them aware of the milestones that determine achievement of objectives as per donor guidelines and standards. They should be involved to address the challenges and lessons learnt while implementing projects

5.5.3 Cost control

Government should be more diligent while accepting donor funds. All possible conditions and guidelines that may impede the performance of projects should be scrutinised and dealt with in such a way that, projects' outputs and outcomes are not affected

While budget baselines and targets are critical cost control should be addressed more specifically because it is the source of challenges to both the government and the developers.

It is also recommended that a comprehensive market research should be carried when doing resource planning such that at the time of execution the budget baselines do not affect performance

5.5.4 Political will

The moderating effect of Political will's can be reduced if projects are effective. It is therefore recommended that resource planning, implementation and cost control are handled diligently to reduce the influence of political will on the effect of donor fund management and the performance of RE projects

5.6 Limitations of the study

The study was limited by the fact that it was carried out at the time when ERT phase I had been completed with only activities of report writing and accountability. This time scope affected the responses during interviews since some information regarding actual dates and budgets were not readily available.

Another limitation to the study was that project managers had left the project areas and the projects were handed over to different managers. In Kisiizi the site was handed over to the missionaries who are the hospital administrators. This affected the findings because they were

not part of the donor fund management process although they had the capacity to respond to questions regarding the project.

The study was carried out at a time when the Kisiizi project had just been commissioned. This may have affected the findings obtained from the beneficiary community because the availability of electricity was at its peak. In West Nile the findings may have been affected by the fact that the beneficiary communities were not happy with the developer because they had not had power supply for an interval of 2 months at a time.

5.7 Areas of further research

Given that this study focused on effectiveness of projects in relation to donor fund management, it is recommended that extensive study can be carried out to explore the transformation of rural communities as a result of electrification.

Further research could be carried out using other variables that the researcher did not pay attention to like quality of life, productivity due to electrification, profitability to the private sector, innovation of technology and efficiency.

There is need for more research on the donor fund management and performance of RE projects basing on a larger delivery mechanism like a large Hydro power plant. This study was conducted on small projects which do not serve more than 2km from their main grid.

Further research can also be carried out to establish the extent to which political will can influence rural electrification

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