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RURAL ELECTRIFICATION IN KENYA WITH COMMUNITY COOPERATIVES ENGAGEMENT

"People's Development Drive Struggling to Cut the Leash"

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MASTER OF SCIENCE THESIS IN
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DEDICATION

"To my family, wife Fauziah, daughters Rehema and Khadija, and son Abdallah; for your endurance and understanding during my studies and travels, I dedicate this thesis work to you"

PREFACE AND ACKNOWLEDGEMENTS

Two aspects of my MSc studies culminating in this thesis work stand out as specific challenges that I have had to face. One is the fact that I have gone through the studies after a prolonged absence from academic work. After my Bachelor's degree I went straight into employment, and thereafter I believed that I had hung up my academic boots. My colleagues and superiors at work, and members of my profession generally, had the idea that as an engineer all that I needed was a first degree. The belief was that the rest of my career advancement would come from practical work, and I went along with this line of thinking Therefore, it was only after a lengthy period in the power industry and a decision to diversify from engineering that I found myself back in academia. It was not easy to come back as a full-time student but I found it necessary to do so, and since taking up the challenge I find that there is a great deal to forgo and tackle.

The second aspect that presents a challenge is the transformation that I am undergoing from a career with a strong engineering bias to a field that is focused more on socio-economic development. Seen from another angle, this means moving from the purism of the hard sciences to the more general soft sciences, and shifting from an objective to a subjective worldview. The difficulty of this transformation can be understood by considering the colloquial expression: "call a spade a spade and not a big spoon". Previously, from the hard sciences perspective, I could only see a spade for exactly what it is, but now I have to accommodate the view that a spade can be a big spoon!

As well as the challenges that I face, opportunities that I have had have played a part in shaping the thesis work. The exposure to the non-academic world has enabled me to know the real life situation, and this has to a large extent assisted in making the thesis work practicable. I am also able to appreciate academics from a more worldly or grounded point of view, and this has made it possible for me to have a more balanced thesis. Noting that socio-economic studies are generally carried out by specialists in the social sciences, I have been able to add flavour to the social scientists' work by bringing in natural science aspects to the studies.

It has been possible to tackle the challenges and make use of the opportunities, through the facilitation of many individuals and institutions. I am greatly indebted to all those who have provided the facilitation, and I wish to thank them most heartily. In this connection, I would like to single out the following people for their outstanding contribution.

The first person I would like to express my gratitude to is Professor Frede Hvelplund of Aalborg University who has not only been my thesis supervisor, but has also been a mentor in my conversion to the social science persuasion. Being an economics professor, he has enabled me to appreciate my engineering profession in the light of economics and other branches of social science. In the same vein, I acknowledge the role played by Associate Professor Poul

Østergaard, who as an engineer appreciates my situation and helped in getting me back into academics.

The last half of my MSc programme has taken place while I was stationed at the UNEP Risoe Centre, Roskilde, Denmark. The team at the centre, led by John Christensen, has given me a lot of direct and indirect support. I appreciate the support most sincerely. However, the most outstanding person in terms of the support at the centre has been Gordon Mackenzie, who initiated and guided my internship. I am highly indebted to Dr Mackenzie, and hope that I will continue working with him in future. The other person I would like to single out at the centre is Ivan Nygaard, who facilitated my work in many ways, and was able to share his material and experiences in energy related social science work. I am very thankful to Ivan.

Other key contributors to my thesis work are Mercy Kamara of Roskilde University, Denmark, and Wilson Wasike of KIPPRA, Kenya, who inspired the theoretical and practical aspects of my thesis respectively. I wish to express my gratitude to these fellow Kenyans, and the other compatriots who helped in my field work in Kenya generally and specifically within the communities at Mumias and Isoge (Nyansiongo). While on the subject of field work, I would like to acknowledge and express my appreciation for the partial funding support that I received from DANIDA, through its Travel Grant Programme. The support gave a sizeable contribution to financing of the field work.

As I acknowledge the contributions of all the people I have mentioned, I would like to take full responsibility for the thesis work, and absolve all those who have assisted me from any errors of commission or omission.

SAID M. ABDALLAH

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ABBREVIATIONS AND ACRONYMS

AFREPREN/FWD	African Energy Policy Research Network/Foundation for Woodstove Dissemination
Agro-industry	Rural industry for processing of agricultural produce
DAA	Development Aid Agency
DDC	District Development Committee
EATTA	East African Tea Traders Association
ERB	Electricty Regulatory Board
GDP	Gross Development Product
GEF	Global Environmental Facility
GOK	Government of Kenya
GTIEA	Greening the Tea Industry in East Africa
GW	Giga-Watt
GWh	Giga-Watt-Hour
ICA	International Cooperative Alliance
IED	Innovation Energie Developpment
ILO	International Labour Organization
KPLC	The Kenya Power & Lighting Company Ltd.
KSh	Kenya Shilling (= 0.0149 USD on 31st May 2007)
KTDA	Kenya Tea Developement Authority
KWh	Kilo-Watt-Hour
MW	Mega-Watt
NRECA	National Rural Electric Cooperative Association
PACEAA	Poverty Alleviation through Cleaner Energy from Agro-industries in Africa
RE	Rural Electrification
REC	Rural Electric Cooperative
REP	Rural Electrification Programme
SACCO	Savings and Credit Cooperative Society
TANESCO	Tanzania Electricity Supply Company Ltd
UNEP	United Nations Environmental Programme
USAID	United States Agency for International Development
USD	United States Dollar
WOCCU	World Council of Credit Unions

1

INTRODUCTION

1.1 Overview

To many Kenyans, the word "*Harambee*" evokes feelings of solidarity with fellow countrymen, and a sense of achievement through self-help. As observed by Ngau (1987), and is attested by the thesis author as a Kenyan, this is a motto that literally means "let's all pull together" towards a common development goal; and was made a national call by the first president of Kenya, Jomo Kenyatta. Although by many standards Kenya is a poor country, and there are significant socio-political problems, through the "*Harambee*" spirit the Kenyan people have made good progress in socio-economic development. This is particularly so in the rural areas where government presence in development affairs is insignificant, and in there resides the largest proportion of the country's population and the poor. Despite the fact that in recent times the "*Harambee*" goodwill has been misused by some politicians, it has been possible for Kenyans to build many and some huge social facilities and infrastructure, and rescue people with hardships, through "*Harambee*" contributions. Most importantly, the contributions come from the rich and poor, in the form of money, material, labour, or other support.

In view of the cooperative culture that has been built over the years through the "*Harambee*" spirit, the existence of a large cooperative movement in Kenya can easily be understood. Indeed, the movement is ranked as the topmost in Africa and seventh in the world. (Nyatichi[1], 2006). Cooperatives are in the form of savings and credit societies (SACCOs), agricultural production and marketing associations, consumer organizations, and other groupings. SACCOs are mostly urban based, professionally manned, and cater chiefly for salaried staff. In terms of financial resources, they make the largest contribution to the cooperative movement, and are the fastest growing. Agricultural cooperatives used to lead but have declined significantly due to political and management factors (Nyatichi, 2006; Gamba and Komo, 2005).

Notwithstanding the upward drive to the Kenyan economy by high achievers like the cooperatives, there are impediments that weigh down growth of the economy. A key obstacle in

[1] Mr Nyatichi is a scholar and the Assistant Commissioner of Cooperatives, his position being the third most important functional rank in the Kenya ministry of Cooperative Development and marketing

this regard is the very low availability of electricity in the country generally, and specifically in rural areas. Obviously, there are many similar obstacles particularly related to infra-structural under-development, but as an important element of the overall barrier to development, electric power is given weight in this thesis. The gist of the argument presented in the thesis study is that the cooperative culture that permeates the Kenyan society can actually be harnessed to enhance rural electrification, and alleviate poverty afflicting the rural population.

Empirical evidence that the author has come across in countries like Bangladesh and Denmark, shows that it is feasible to improve access to electricity through cooperative organization, and involve rural communities in the supply of electric power. Hence, the thesis investigations borrow from experiences of such pioneering countries, and seek to explore evidence of the Kenyan cooperative culture in relation to its suitability for electrification. The envisaged electrification is the type that would have the participation of rural people, so that the people would benefit from electricity and improve their livelihoods and social conditions.

Analytically, the thesis study is guided by a social capital and cooperative theoretical perspective, and the Cooperative Principles as stipulated by the International Cooperative Alliance (2005). The main theoretical argument advanced is that the cooperative type of organization is ideal for self-electrification by communities, as this organization style aims at both economic and social goals for the cooperating members (Birchall, 2003). This is in contrast to cases where, like in Kenya, power utilities that would otherwise provide electricity to the communities are driven by commercial motives; and as far as the utilities are concerned socio-economic welfare is largely secondary. A major proportion of the evidence in the study consists of peoples' perceptions and interpretations as obtained through the interview method (Kurt, 1998). Accordingly, there is a significant qualitative content in the study.

While the thesis task is an academic effort within a Master's degree course, it also aims at contributing to a corporate project at the UNEP Risoe Centre, Denmark, to which the author is attached. The corporate initiative is known as the PACEAA (Poverty Alleviation through Cleaner Energy from Agro-industries in Africa) project, and it entails facilitation of poverty reduction through rural electrification, using renewable energy from agro-industries. It targets eleven countries in eastern and Southern Africa, including Kenya; and is cosponsored by the European Commission (COOPENER funding) and UNEP (GEF funding). Within the context of the latter sponsorship the project is also linked to two other projects on power generation from agro-industries. Additionally, the thesis study is linked to the generation projects and the PACEAA project, to the extent that community cooperative electrification targeted by the study may use agro-industrial electricity envisaged in the projects.

An important point to note is the author's extensive contribution to the evidence used in the study. This is on account of more than 20 years exposure to the electricity sector in Kenya, while on service to the KPLC. Since the employer was previously the only power generator and supplier, and since 1997 has been the only power transmitter and distributor in Kenya, the long public service experience attained by the author is a key input to the study.

Salient features of the thesis study and other introductory information are underscored and outlined in the remainder of this chapter.

1.2 Goal and objectives

The ultimate aim of this study is to seek knowledge and action on creation of cooperatively organized and community based rural electrification (RE) that can lead to poverty reduction in Kenya. With this in mind, the main objectives of the study are:

- To investigate the state of rural cooperatives in Kenya relative to similar cooperatives in other countries
- To seek general information about RE cooperatives and the possibility of Kenyan communities forming such cooperatives
- To explore the possibility of using renewable energy from agro-industries in community based RE
- To disseminate information and seek action on the study findings through the study report

1.3 Significance

Apart from the chance that the study gives the author to undertake an academic research, the thesis study comes at an opportune time when it stands to benefit a number of emerging initiatives. Firstly, there is the PACEAA project which is expected to start by the middle of this year. The project is expected to pave the way for use of energy from agro-industries to provide supply for RE. The findings from the thesis study can therefore be applied in the project.

Secondly, there is a new RE authority being implemented in Kenya. Since the main mandate of the authority would be to accelerate the rate of provision of power to rural areas, it could be of interest to the authority to know the possibility of community based and cooperatively organized RE as considered in the study. Implementation of some of the study results could constitute the first activities of the authority.

Thirdly, there are a number of rural energy initiatives being pursued in the East Africa sub-region, which can benefit from the study. For example, there is the ongoing Uganda Energy for Rural Transformation Project. This project has an RE component that is promoting the use of renewable energy and the involvement of private power producers in RE, in a similar way to

what this study wishes to promote. Results from the study could therefore be of interest to the project.

Finally, there is the general research on rural energy for sub-Saharan Africa and other developing countries, which could draw from the study. Little research has been done on the potential involvement of agro-industries in RE, and therefore the study can make a significant contribution to this field.

1.4 Scope

The thesis task, being under a Master's degree academic programme, has a limited scope. It is being done with the author's own sponsorship mainly, and some assistance from DANIDA, UNEP Risoe Centre (URC), and Aalborg University. The total duration of the study is 10 months from 1st August 2006 to 31st May 2007, and within this period there are internship tasks performed at the URC. Nevertheless, it has been possible to have a substantial output, where there has been an in-depth coverage of socio-economic issues surrounding electrification.

Geographically, the study covers Kenya in general, and at a detailed level it encompasses two communities in north-west and west Kenya respectively. The field aspects of the study work have been carried out through a two month visit to Kenya, while the rest of the study time has been spent at URC.

Supervision for the study and associated internship has been provided from Aalborg University and URC respectively. However, most of the study time has been spent at URC, where the internship has been taking place.

1.5 Layout of Study Report

The report is divided into seven chapters, the first three of which introduce the study and the frameworks within which the study is carried out. The key aspects of the problem being addressed are included in the second chapter, while the theoretical basis and methodology for the study are incorporated in the third chapter. Also included in the third chapter are the relevant contextual parameters for the study; and relevant geographic, socio-economic, and other national data on the study country.

The fourth chapter gives brief descriptive details and analyses typical cooperative movements around the world. However the case of RE cooperatives is examined at length, and so is the cooperative movement in Kenya. Apart from giving an overall picture of typical cooperative movements and the experiences they have undergone, the chapter provides some details on specific cases of interest, and replication possibilities for Kenya especially in connection with RE.

Primary data obtained during field work is mostly included in chapter five. The data from interviews and focus group discussions is organized according to themes that were identified during evidence compilation, and is presented with some analytical observations. In addition, data from technical and site observations is included.

In chapter six a summary of the study up to the end of the data collection stage is given, followed by an analysis of findings from the study. Possible explanations of the important revelations in the study are offered. Correlations are also made between the theoretical arguments in the study and evidence collected, and foundations for the recommendations of the study are laid.

Finally, in the seventh and closing chapter the study's research question is revisited, and an answer to it provided. Objectives of the study are also re-examined in the light of the findings of the study, and highlights of the strong areas of the study as well as aspects that may need further work are reflected upon. At the end of the chapter, conclusions and recommendations are given along with indications of steps that are expected to follow the study.

2

PROBLEM BACKGROUND AND HIGHLIGHT

The situation giving rise to the problem studied in this thesis has its genesis in the 1970's when Kenya's development course to a great extent disengaged from that set by the colonial administration. Previously, the development agenda was largely the one set by the British government, which ruled the country up to 1963, and maintained its economic influence after handing over political power. The agenda was also determined by foreign powers that controlled the country's agenda through a deluge of development aid that came in after the colonial rule ended. Presented in this chapter is background information on the problem studied, and then the problem itself is considered at length. Ensuing from the problem analysis is the research question that will be used for guiding the thesis study. In addition, the actors or stakeholders who are deemed to be central to the problem studied and possible solutions to the problem are taken into account. The information about the stakeholders will facilitate knowledge of their inter-relations, and how they influence or contribute to the problem, and how they can play part in solving the problem.

2.1 Background

Since Kenya secured political independence in 1963, the country has been dominated by a strong central government and mode of planning. As Wanyama (2005) has noted, the centrist style was a worldwide trend between the 1950's and 1970's, and thus Kenya was following the fashion at the time it acquired independence. In the early years of the country's democracy, the capacity for national development was very low. It therefore made sense to pool planning resources and deploy them centrally.

While considering the planning and governance model adopted by the independent Kenyan state at its infancy, it may be worth mentioning that there are countries like Denmark which have thrived on a contrasting model for most of their histories. What distinguishes Denmark, where this thesis study is being conducted from, is the existence of an empowered and egalitarian society predating modern history. Analysts of the Danish system (e.g. Olsen and Skytte, 2001; and Hadjilamrinos, 1999) observe that Danish development has been shaped principally by bottom-up forces including the democratically capacitated and enlightened rural masses. In chapter 4, section 4.2.1 of this report light will be shed on how this system has shaped the Danish electricity industry.

The rationale for central planning in Kenya worked well in the first decade, and in fact there was the highest post-independence national economic growth of 7% (Freeman et al, 2004). However, by mid-1970's, the negative aspects of top-down planning started manifesting themselves through social exclusion that beset certain sections of society, especially those in the rural areas. Since the planning did not pay sufficient attention to the needs of rural people, there was a relatively low level of economic growth outside cities and towns. The number of rural poor accordingly increased with time.

By the 1980's neo-liberalization came into force, and it brought with it the dismantling of state-led development around the world. Involvement of non-state players and communities in local development also evolved (Wanyama, 2005). For Kenya, the need for local people's participation in planning for their own development, and the necessity of bringing government services closer to the people, were recognized by the country's political authorities earlier in 1974. Hence, attempts at decentralization were made. One of the measures taken was the creation of the offices of District Development Officers, to coordinate district planning Tokida (n.d.)

Nonetheless, the initial decentralization steps were largely inadequate, and as a result new strategies were formulated, the most important of which was the introduction of the *District Focus for Rural Development* in 1983 (ibid). The latter strategy aimed at giving each district an opportunity to decide on its development agenda, and use more of its resources for its growth. The aim was well intended but, as Tokida (n.d.) contends, the strategy has been ineffective in the face of the weakness of government structures.

While efforts were made to generally improve rural development, sectoral measures for uplifting the standards of rural people were also undertaken. Among the latter measures was the establishment of a rural electrification programme. It was necessary to have this programme because electricity is an essential element for modern socio-economic growth, but for rural people this form of energy is far too expensive, and generally investment in it gives low or no returns.

Based on the author's own experience, those who have been fortunate to get electric power under the programme have been able to enhance their socio-economic positions, but despite the programme running for over thirty years it has made little overall impact. It is argued in this thesis study that organizational problems have a large part to play in realization of rural electrification goals. Overcoming the problems should be a challenge for the programme.

2.2 The current situation

What has been presented in the preceding section mainly relates to the post-independence period leading up to the beginning of the new millennium, when in 2002 a new pro-reform government came to power. Although some signs of socio-economic changes have started showing, most of the challenges facing the rural people in the past are still persisting. The need for more meaningful decentralization of national planning and government services is therefore growing along with the challenges.

To scholars like Wanyama (2005) the major barrier to effective devolution of planning and governance functions to people at the grassroots is patronage by the elites. Patronage or corruption networks on which the elites thrive greatly obstruct the necessary empowerment of people in the rural areas, and the upward flow of ideas from local communities. Through the networks, the bureaucrats and politicians gain from material and other resources meant for the people; and they achieve the gains by *inter alia* giving favours or buying loyalty of those who can pervert systems that are designed to give access of the resources to the people. However, there is now hope for a break from captivity by the elites, as the new government has shown resolve towards fighting corruption.

Within the first three years after coming to power, the government took important steps towards dismantling corruption networks, when it among other things removed from the judicial system and civil service elements that were perceived to be corrupt. There was also general awareness created that people engaged in underhand activities would be severely punished. Although in recent times the drive towards curtailing economic malpractices has waned, there are improvements that will in the long run benefit the people in rural communities.

Among the positive measures undertaken by the new government is the enactment of the Energy Act, 2006. This act proposes to set up a Rural Electrification Authority, to take over the function of supplying electric power to rural areas. This function which has hitherto been to a large extent handled by the Kenya Power & Lighting Company, the national power distributor, has not achieved much. The under-achievement has been because the power utility has been preoccupied with providing electricity to profitable areas in cities and towns. The new authority, whose formation is currently underway, should be able to meet the needs of the rural people more effectively as its proposed specific mandate is to provide service to non-urban communities.

Against the background and indication of the country's current situation as described above, the problem examined in this thesis study is analyzed.

2.3 The Problem and Research Question

For Kenya, and most developing countries, poverty and socio-economic deprivation are characteristic of rural areas, where about three-quarters of the population dwells (World Bank, 2006). Indeed, much of the under-development of the third world is associated with the impoverished conditions of the rural people. Any effort for ensuring sustainable development in the countries must therefore have a strong element of poverty alleviation. Although there is urban poverty as well, the thrust of the development initiatives should be on rural areas.

One of the important factors contributing to poverty in the rural areas of Kenya is the lack or under-provision of key resources, like modern energy, that could be used for economic activities and social advancement. General unavailability of suitable energy, especially electricity, has meant absence or very slow rate of: modernization of farming which is the most import economic activity in the rural areas, industrialization, commerce and social undertakings, and general development (Barnes et al, 1996. See also Ailawadi, et al, 2006)

From the point of view of the environment-health link, the World Health Organization (2007), among others, observes that insufficiency of modern clean energy indirectly contributes to health problems arising from woody biomass smoke. The biomass, which is usually in the form of firewood, and may include agricultural residues, emits smoke when burnt for cooking or heating, the consequence of which are diseases of the respiratory system and eyes. In rural households, where most of the woody biomass is used, modern biomass-based fuels are largely not available; and other modern energy alternatives like liquefied petroleum gas (LPG) and electricity are rare and expensive (Barnes et al, 1996).

Furthermore, electricity non-availability also contributes to the continued use of fossil fuel in the form of kerosene for lighting, with its problems of poor illumination and fire hazards. Another fossil fuel that is widely used due to very low availability of electricity is diesel for motive power. Although in a small way, the use of diesel and other fossil fuels in rural areas contributes to carbon dioxide emissions that cause global warming. Overall, therefore, lack of modern clean energy in rural areas is a source of negative environmental impacts, and therefore an impediment to sustainable development (ibid).

Here, and in later parts of this thesis report, the definition of sustainable development is as given by the World Commission on Environment and Development (WCED, 1987), which states that:

> *"Sustainable Development is the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs*", and further stresses: *"the essential needs of the world's poor, to which overriding priority should be given", and "the environment's ability to meet present and future needs".*
>
> Thus, present and future poverty reduction and soundness of the environmental are key features of the definition

The scale of modern energy scarcity, and hence low level of development, can be appreciated by noting the low level of access to electricity. Compared to some developing countries in Asia and Latin America where the populations have nearly 100% access to electricity (GNESD, 2004), Kenya has a very low rural electrical energy access of less than 5%. Rural electrification has therefore not had any significant impact, and there is need for stepping up the rate of electrification so as to achieve sustainable poverty reduction and development (UNDP & GTZ, 2005).

In this research inquiry, a way of addressing the key challenges to rural electrification in Kenya is being pursued. In this connection it is noted that there are a number of underlying causes for the very low rate of electrification. Analysts that include Freeman et al (2004), Murphy (1999), and Garuraja (2003), have identified the causes as, *inter alia*:

- Low power demand and high capital costs
- Government support lacking or insufficient
- Weak political representation
- Generally under-developed rural infrastructure
- Most capital resources are used in urban areas
- Intellectual resources attracted by urban opportunities

- General ignorance of rural population
- Appropriate technologies for rural areas are not available
- Limited or no international support
- The level of priority given to energy issues is relatively low

All the indicated causes lead to a general lack of an enabling environment for development and implementation of rural electrification. The capacities that are lacking are mainly institutional, financial, human, and technological. Of greatest concern in this study are the institutional and financial capacities, as with sufficient strengths in these the others can be built (UNDP & GTZ, 2005). On account of scope limitations, it is proposed to focus the present research on examining the institutional aspects, particularly with regard to RE through community cooperatives, and institutional factors affecting this organizational approach to RE.

A major drive for the community involvement and empowerment is to engender a bottom-up approach to provision of electricity, which would address the failures of top-down approaches to RE. At present, nearly all rural electrification is planned and implemented centrally by the government. However there has not been really concrete action in rural power provision since efforts are being concentrated on supplying power to urban areas and high impact economic projects. Through decentralization of rural electrification, and letting people in the rural areas take part in supplying their own power, a significant difference would be expected in rural power supplies (Ailawadi, et al, 2006; and Practical Action, 2006)

Meaningful community participation is required where the people who are expected to benefit are fully involved in electrification projects from conception, to execution, and up to the evaluation stages. Such participation can enhance poverty reduction in a sustainable way, as the spirit of ownership and business or employment incentives for the communities would strongly enhance the electrification and its benefits (Armstrong et al, n.d.). Overall, the desired building of institutional and financial capacities for rural electrification would be largely achieved through community driven initiatives.

In Figure 1 below, the problems considered above are depicted and complemented graphically:

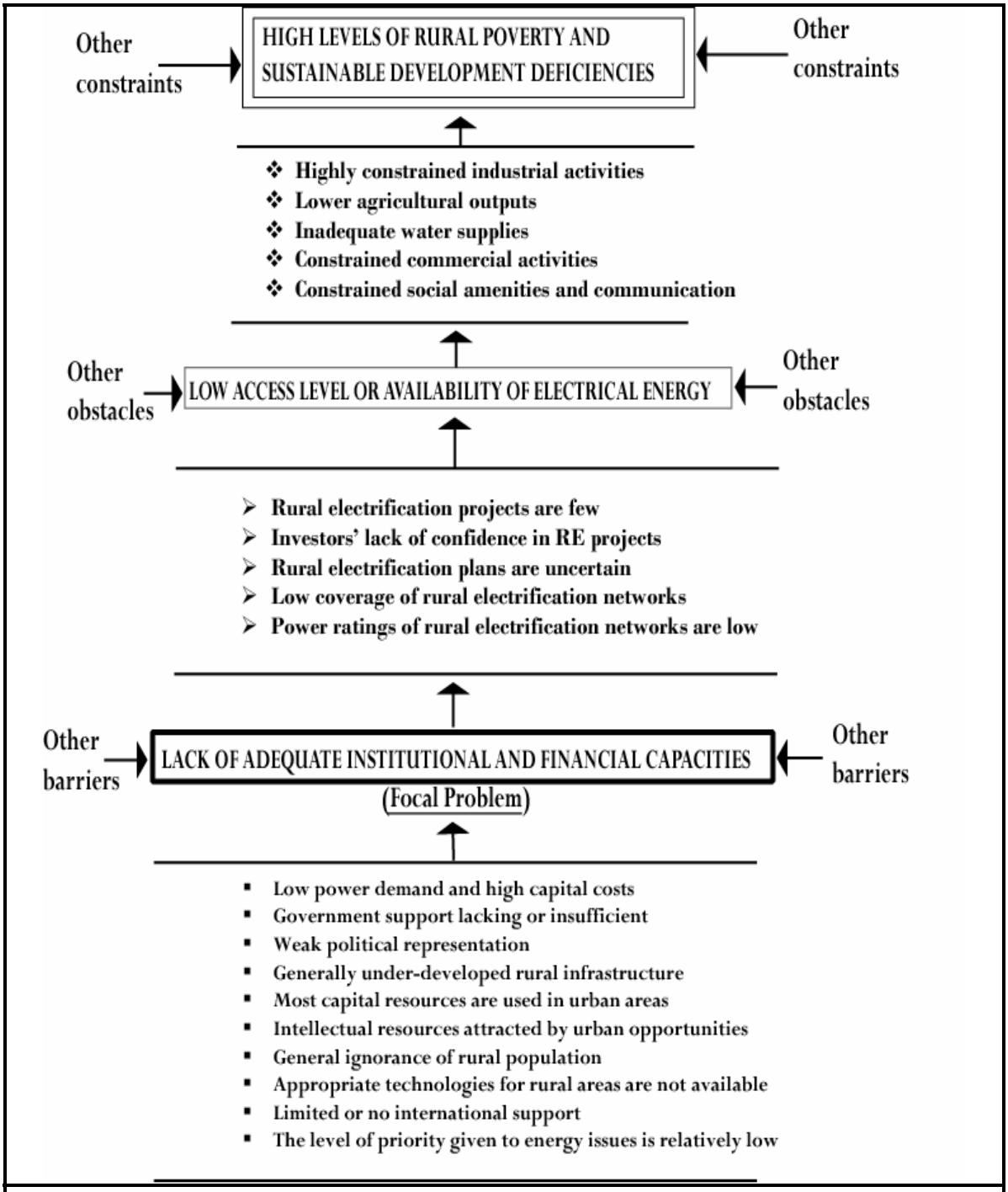


Fig 1: CENTRAL FACTORS IN RURAL ELECTRIFICATION DEVELOPMENT FOR POVERTY REDUCTION

(Compiled by author)

RESEARCH QUESTION

Based on the problem analysis presented above, and based on the premise that community cooperatives can play a part in rural electrification for sustained poverty reduction and development, the pertinent question that is expected to guide the study research is:

Are cooperatives suitable for development of rural electrification in Kenya, and how can the suitability be achieved or enhanced?

It is reckoned that the other types of organizations that could be used instead of cooperatives are companies and social groups. However, it is assumed that the suitability of these in community RE development and management is lower than that of cooperatives. This is on the grounds that companies tend to be too commercial and therefore neglect the social aspects of community welfare, and social groups have the opposite problem of promoting social wellbeing at the expense of business prosperity. In this regard, the balanced nature of cooperatives is an asset that is examined at length in this study, and is discussed in the sections of this report covering theoretical aspects -- chapters 3 and 6.

2.4 Stakeholders

Having in the previous sections identified the problem to be addressed and the research question to be answered in the thesis study, it is important to take stock of the stakeholders who are key to the study. An early identification is required of the individuals and institutions involved, their roles, and their status in matters of community-based rural electrification. Hence, a list of the relevant actors and related information are given in the following (Table 1).

Table 1: Stakeholders in Community Cooperatives' Electrification

(Author Compilation)

Stakeholder	**Role**	**Status/Remarks**
1. Community Members	The rural people would be responsible for electrification and be beneficiaries of electricity supplied	Initially support from government and other bodies would be needed to build community capacity
2. Community Leaders	Represent the communities in regard to specific activities	Elected or appointed by the people
3. Cooperative Leaders	Directors, managers, and supervisors of cooperatives	Directors elected by members of cooperatives, while managers are appointed by the directors. Government officers do the supervision

……..Table Contd.

Table 1 (Continued)

Stakeholders in Community Cooperatives' Electrification

(Author Compilation)

Stakeholder	Role	Status/Remarks
4. Local Administration	Government representatives and regulation enforcers at local level	May be chiefs, district officers and commissioners, and provincial commissioners
5. Local Politicians	Provide political leadership and representation in parliament, and at local councils	Members of parliament and councilors
6. Power Utility	Provide electricity at distribution level	Carrying out rural electrification on behalf of government
7. Rural Industries	Utilize community produce and labour in their industries, and can possibly produce electricity	Agricultural industries are the main focus
8. Ministry of Energy	Provide legislative, regulatory, and policy facilitation for electrification, and directly or indirectly implement relevant projects and programmes	Some of the ministry functions may be delegated to an appropriate body or agencies
9. ERB	Implement the rules and regulations of electricity distribution, supply, and use to and within the communities	Functions of ERB include recommendations to the Minister for Energy regarding special electrical needs of the communities (The ERB is in the process of being converted to the Energy Regulatory Commission)
10. Ministry of Cooperatives	Provide legislative, regulatory, and policy facilitation for cooperatives, and give support for development of people-driven cooperatives	Development of autonomous community cooperatives would be one of the ministry's key challenges
10. Ministry of Planning and National Development	Inclusion and coordination of community electrification plans within the overall economic development plans	
11. Development Aid Agencies	Direct and indirect support of development of community cooperatives and electrification	Support may be through the government and/or NGOs
12. Energy Consultants and contractors	Design and implementation of energy interventions for the communities	May work with government, aid agencies, and others
13. Cooperatives Consultants	Design and implementation of the right cooperatives for the communities	May work with government, aid agencies, and others

3

STUDY FRAMEWORKS AND CONTEXT

The sections included here examine the philosophical and theoretical perspectives, methodology, and context within which the study is being carried out. The standpoints included in the scope of the perspectives will inform the study generally, and specifically will facilitate the discussion towards the end of the research task. The qualitative methodology described in the chapter entails case study and ethnographic approaches, and will guide conduct of the study, particularly data collection and analysis. Ultimately, the main contextual aspects that pertain to the study will be presented, with a view to facilitating the understanding of parameters within which the study is being done

3.1 Philosophical and Theoretical Background

Electrification of rural areas in developing countries is primarily aimed at addressing socio-economic challenges such as poverty facing the large populations in the areas. Unlike in urban areas, the challenges have a strong social element, and therefore the electrification must go way beyond the satisfaction of economic or commercial demands. This is why RE in developing nations should be seen in a wider socio-economic perspective and not simply as a business undertaking where profit-making is paramount.

The situation facing the rural masses in non-industrialized countries has parallels with the one faced by the working class and peasantry in Britain in the early part of the 19th Century. Details that are given in the following section give a picture of multitudes of lower class members of society struggling to survive in the face of loss of employment and under-pricing of their farm produce. Like those in developing countries, the biggest assets that the marginalized British people had were their numbers and their community bonds.

Literature (e.g. Bowman, 2005) points out that one of the leading social philosophers of 19th Century Britain was William Thompson, who recognized and actively promoted the social aspects of poverty alleviation and other interventions for ameliorating the lives of the underprivileged. He was strongly opposed to Owenism, which advocated for improvement of the welfare of the people through capitalistic entrepreneurship. He correctly argued that the purely capitalistic approach enhanced individual wealth, often at the expense of the general society membership. He argued for utilitarianism, which propagates the ideal of *"the greatest good for the greatest number"*

Reflecting on Thompson's philosophies, it can easily be seen why the rural people in developing countries can benefit from a social approach to electrification. Instead of having large amounts of power supplies benefiting relatively few people, as happens in urban areas, rural people can do with much less electricity and use the power for considerable gain. In this regard, it should be borne in mind that the individual power requirements for rural dwellers are quite small. However, the small quantities of power can go along way into meeting the people's socio-economic needs.

In later years, some of the philosophers who advanced the case for the social dimensions of alleviation of poverty afflicting the poor majority included Putnam (1995) and Bourdieu (1986). Both of these philosophers recognized that the social institution can be used as a resource, which can be converted into a capital good as understood under classical economics. They termed the resource as *social capital* which, according to Putnam (2001), refers to: *"features of social organizations such as networks, norms, and social trust that facilitate cooperation and coordination for mutual benefit"*. They argued that social capital abounds within large populations, and can be used alongside other capital in advancing the wellbeing of the majority of the populations. The view held by Putnam could be summed up in his statement:

> *Historically, social capital has been the main weapon of the have-nots, who lacked other forms of capital. "Solidarity forever" is a proud, strategically sensible rallying call for those, such as the working class, who lack access to political clout* – quoted from Smith and Kulynch (2002)

Bourdieu and Wacquant (1992) gave other principal forms of capital as economic, human and cultural; and asserted that all types of capital can be converted into economic capital. They also saw social capital as a source of power just as is the case with economic capital. The latter attribute is used particularly well by those, like politicians, seeking power through the masses.

Based on the philosophical viewpoints of people like Thompson, Putnam, and Bourdieu, tools have been developed for using the strengths of needy but populous members of society to overcome socio-economic challenges. One of the most important tools is the cooperative organization, which effectively and in a balanced way deploys social and economic capital. In the following section, characteristics of the cooperative are examined, and merits of using this type of organization are analyzed. Overall, the cooperative is explored as a possible means for community based RE leading to poverty reduction and sustainable development.

3.2 The cooperative organization

As literature indicates (eg Birchall, 1994), this form of organization, simply referred to as a cooperative, had its origins in Europe, and flourished during the industrial strife of the 19th Century. At the time, the working class, made up of peasants and workers, had great difficulties earning a living due to growing capitalism. The capitalistic system created increasingly wealthy merchants, who included industrialists and traders. Members of the working class were forced to sell their labour or produce under conditions dictated by the merchants. Cooperatives were therefore formed as parallel organizations to counter the injustices of the system, and had a socialist leaning.

Over time, the cooperative movement has outgrown its leftist standing to become a common and worldwide workers' small-scale business organization, specializing in micro-entrepreneurship, savings, and credit. However, it still serves the dual purpose of seeking economic gain on one hand, and social advancement for its members and the community on the other. For this reason, it falls within the class of the so-called social enterprises (Gertler, 2006).

The International Cooperative Alliance (ICA) acts as the apex body for all cooperatives globally, and sets overall standards. Apparently, due to a void in theoretical works on cooperatives, the ICA also informs policy with regard to cooperative operations and development. This fact may be discerned from the provision by the alliance of the only widely accepted definition and principles of a cooperative [see Box 3.2].

Due to the importance of the seven cooperative principles to this study, they are reproduced below from ICA (2005):

Box 3.2

INTERNATIONAL COOPERATIVE ALLIANCE

Definition of a cooperative
A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.

(ICA 2005)

" 1st Principle: Voluntary and Open Membership

Co-operatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination"

"2nd Principle: Democratic Member Control

Co-operatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives members have equal voting rights (one member, one vote) and co-operatives at other levels are also organized in a democratic manner"

"3rd Principle: Member Economic Participation

Members contribute equitably to, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the co-operative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership"

"4th Principle: Autonomy and Independence

Co-operatives are autonomous, self-help organizations controlled by their members. If they enter to agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy"

"5th Principle: Education, Training and Information

Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public - particularly young people and opinion leaders - about the nature and benefits of co-operation"

"6th Principle: Concern for Community

Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional and international structures"

"7th Principle: Concern for Community

Co-operatives work for the sustainable development of their communities through policies approved by their members"

On the basis of these principles, it is easily understandable why community businesses carried out through the cooperative would be sustainable, as observed by Schmidt (2004). Unlike their purely profit-making company equivalents, the cooperatives aim for the double bottom-line, namely: equitable economic and social advancement of members. Going by the principles, no member is expected to have disproportionate economic gains as happens in commercially-oriented firms.

Further, the targeting of community development is a measure towards an even higher level of sustainability. By virtue of policies and actions that help in developing communities which they are a part of, cooperatives engender support of the communities. The support comes in the form of, for example, provision of inputs like labour and materials, and markets for the cooperatives' goods and services. In this way, the reinforcing synergies between the cooperatives and the communities ensure sustainability.

At this point, and with recourse to the definition of sustainable development given earlier in chapter 2, section 2.3, it is worth considering the environmental aspect of sustainability. This is as relates to the envisaged use of cooperatives for electric power business. Evidently, cooperatives are not designed to directly address environmental concerns. However, the business carried out by a cooperative can be directed towards environmental protection. This environment-friendly approach is being contemplated in respect of electric power cooperatives. The cooperatives would be expected to obtain energy from renewable energy sources available locally. In the process, the environment would be protected, the energy resource would be continually available, and sustainability would hence be ensured.

Finally in this subsection, empowerment for and by cooperative members is considered. As observed by Gessner (1996), the cooperative has the core of its powers in its membership and, according to the democratic nature of the organization, each member is expected to share the powers equally. Therefore, the stronger the individual members, and the more cohesive the membership, the more robust the cooperative is. Powers of the membership will be greatly dependent on the cooperative's most important asset: social capital, as explained in the last section. Other key assets that will determine the powers are human, legal, financial, physical, and political resources.

Figure 2 below illustrates the empowerment flows:

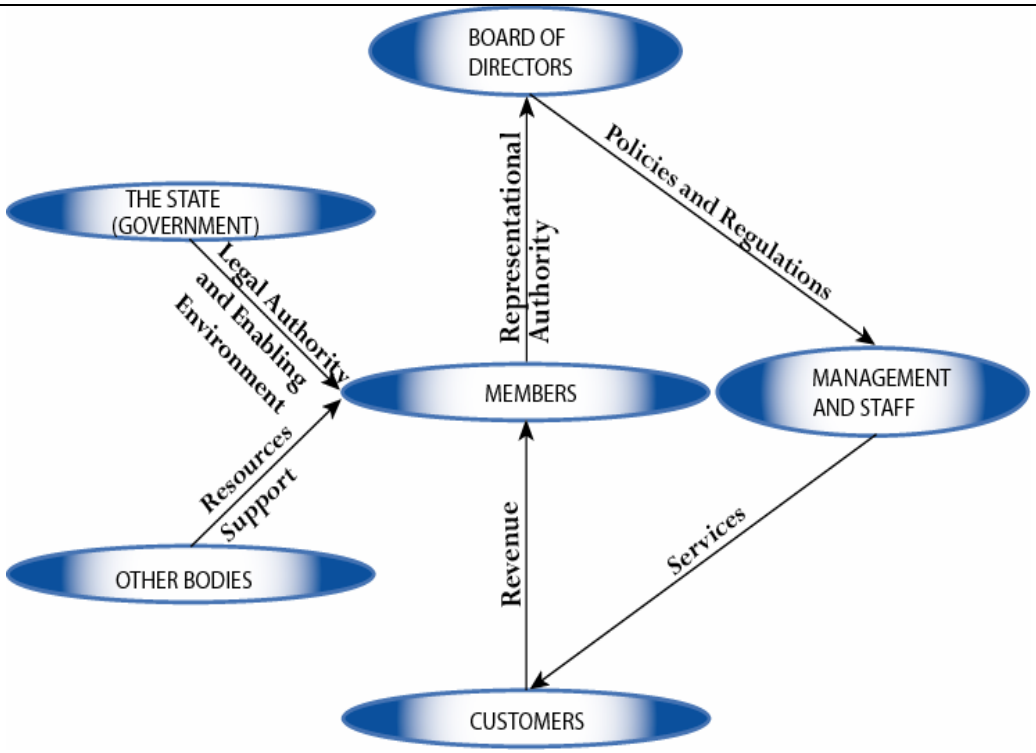


Fig. 2 : Structure of Cooperative with Empowerment Flows

[Inspired by Gessner (1996)]

The illustration shows how cooperative members are at the heart of the organization. They get empowered by the state or national government through cooperative legislation. They may also get government support in the form of, for example, cooperative extension and education; and other support from bodies like Non-governmental Organizations. Members then empower the board of directors with authority to govern the cooperative on their behalf, and in turn directors hand down policies and regulations to management and staff (working team). The empowerment loop is completed by services provided by the working team to customers, and revenue from customers to members (indirectly).

Drawing from theory (ibid) and the illustration, it is clear that for the cooperative to function there must be power flows to and from the cooperative membership. Critical among the inputs are legal powers vested in the cooperative by the national legislature through government. Depending on the legal provisions governing the cooperative, the degree of effectiveness of the membership and hence the cooperative will vary. In addition, if the cooperative is deficient in resources it may rely on external means for supplementation of some or all resources. Obviously, the more dependent the organization is on external empowerment, the more it is exposed to influences and control from its benefactors.

Proper functioning of the cooperative is also determined by empowerment of the cooperative's board of directors by the members (ibid). Election of the directors, on the one man one vote basis, is the most crucial of the empowerment steps. If voting is poorly done or the wrong directors are voted in the empowerment is accordingly hampered, and weakness occurs in the whole cooperative structure. Then, attendance at cooperative general meetings, and participation in passing of critical decisions, are the other key empowerment steps. If these steps are not taken diligently the board cannot function effectively, and amongst the consequences could be the board assuming its own powers at the expense of the members and cooperative staff. It would also be possible for the staff to allocate themselves powers, misuse resources of the cooperative, or fail to give services to customers, ending in falling revenues and performance of the cooperative.

3.3 Theoretical Basis for Research

From the above philosophical and theoretical perspectives, the basis for the research to be carried out can be derived in the form of *a priori* or predetermined themes (Kurt *et al*, 2006). The themes are the hypothesized guidelines within which research outcomes are expected to fall and analyzed. Thus they are useful in pointing the directions which the research should take. It is according to the themes that such research instruments as questionnaires can be designed, and indeed this has been done in this study. On the other hand, emerging themes are expected to evolve from research evidence (Kurt *et al*, 2006). Analysis of data is expected to be done through correlation of the predetermined and emerging themes, and in case there is no correspondence between the two, the latter themes override the former for analysis purposes.

The predetermined themes that are considered appropriate for this study are:

1. The cooperative concept theme is expected to capture the spirit of community members working together for their common wellbeing, economically and socially. Under the theme, issues of togetherness, trust, cohesion, commonality of purpose, and care for each others welfare would be included. The balancing of economic and social dimensions in community members' common pursuits is embraced in this theme

2. The cooperative principles theme would be covering such aspects as the existence of a true form of cooperative where the principles enunciated by the International Cooperative Alliance are honoured and effectively practiced. Issues related to compliance or non-compliance with the principles are included

3. The empowerment theme is in relation to how well cooperative members are able to drive their cooperatives using the rights vested in them by the cooperative principles; and how effectively the empowerment chain functions from members, to directors, and down to cooperative staff. Issues of legal, financial, and other means of empowerment

of the cooperative organization so as to function effectively come within the scope of this theme Additionally, existence or otherwise of interference in the affairs of cooperatives comes under this umbrella

4. The investment issues theme is expected to cover the business aspects of community endeavours, particularly communities' capacity for involvement in such business as rural electrification. Under the same theme, matters to be considered include needs and plans for rural electrification in the areas occupied by the communities. Similarly, issues of rural electrification partnership between communities and stakeholders like rural industry power producers fall within this theme's coverage

Further, from the theoretical points and the indicated objectives of the study, the theoretical framework in Figure 3 is deduced. The illustration, in a simplified way, shows the theoretical or predetermined themes as forming the baseline for research. The themes can also be visualized as the foundation upon which the cooperative organization lies. For the cooperative organization, there are the two pillars of economic aspects on one hand, and social aspects on the other. These are the same pillars that would support an RE organization based on the cooperative concept, and poverty reduction and sustainable development resulting from RE cooperatives.

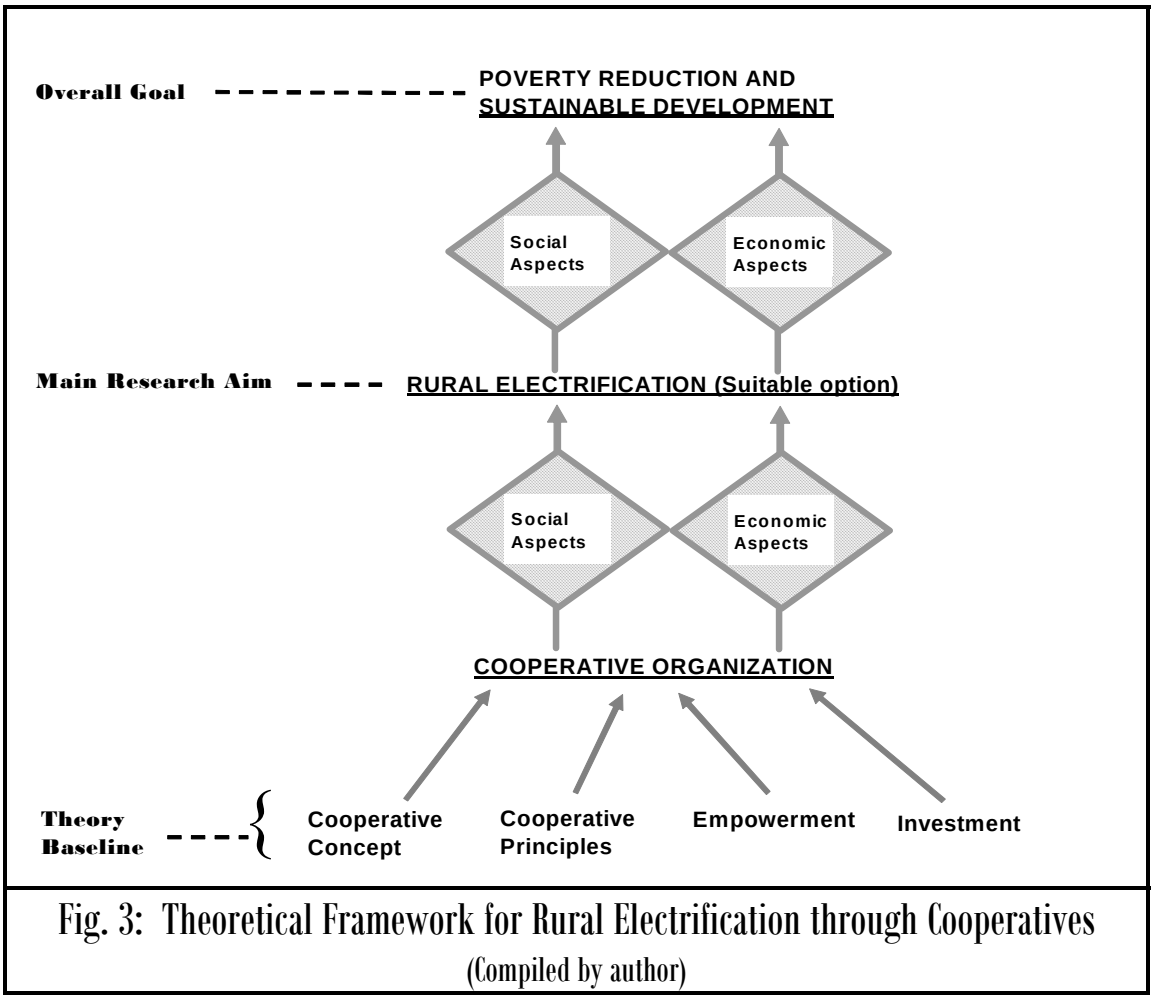


Fig. 3: Theoretical Framework for Rural Electrification through Cooperatives
(Compiled by author)

3.4 Methodology

The two parts of this section will respectively cover structural and procedural aspects of the methodology being employed. Firstly, the structural aspects will be considered by examining the use of the case study approach generally and as it applies to this inquiry. Then will follow a description of the procedures that will be used for data collection and analysis; and closure of the inquiry through data interpretation, and discussion of research findings.

3.4.1 Case Study Approach and Qualitative Research

Investigation of the application of cooperatives as community business organizations, along the lines pursued in this research task, lends itself to the case study research strategy due to the real life and contextual nature of the subject under examination (as adapted from Yin, 2003). It

relates to real life since it targets empirical evidence from everyday life; and it is expected to involve specific locations and people, who in this regard are the rural communities of Kenya.

The practical situation of the research task also calls for the use of the case study methodology, where an in-depth sample of one or a few cases is sufficient for the inquiry (Flyvbjerg, 2006). A short explanation to the latter aspect of the qualitative method is that by selecting a strategic sample that would yield the best or most information, it is possible to use that sample for generalization.

Coming back to the practical situation referred to above, it is important to note that this research task is tied to three other projects as described in later in section 3.5 of this chapter. The projects respectively explore electricity generation by sugar and tea industries. It is envisaged that the outputs of these industries could be bought and used by potential electric power cooperatives within the vicinity of the industries. Thus, it would be prudent for the inquiry on cooperatives to be based on one or two case studies, involving separate power purchases from the sugar and tea industries.

However, there is also the constraint of the resources of this research task. Because of low budget, it is considered practical to carry out one case study which will embrace the whole of Kenya. The separate contexts of sugar and tea generation sources are expected to be catered for by having two embedded units of analysis (Yin, 2003). Although each context will have data collection and analysis done separately in its unit, the same methods will be applied and final results will be unified.

On account of the selected qualitative approach, it is deemed appropriate to use field evidence from samples of people who have experiences in rural cooperatives and electrification. Under the circumstances, qualitative data in the form of outputs from personal interviews, focus group discussions, and observations is considered suitable (Flick, 1998). Thus, within the units of analysis mentioned above, people will be the main source of evidence. The units of analysis and people who will provide evidence will be selected through purposive sampling (ibid). This means that the samples shall be such that they yield maximum amount of required information, based on a qualitative scale.

After data collection, qualitative analysis will be carried out on the basis of predetermined and emerging themes as pointed out in section 3.3. A manual method of analysis will be employed, chiefly because of resources constraints, and the presence of a high proportion of observational and experiential input from the thesis author. The alternative would have been to use qualitative data analysis software the cost of which would be too high for the available resources, and the software's handling of observational data would be doubtful

It is important to note that although the methods of data collection and analysis indicated above will be applied to primary investigations in Kenya, to a minor extent the methods will be used in respect of secondary data, principally from worldwide cooperative and RE experiences.

3.4.2 Procedures

This part of the methods subsection describes the actual procedure that was used in field investigations, as this was the most critical part of the study. In addition to the primary data whose collection is the subject of the subsection, there was secondary data mentioned in the last subsection. The latter data was collected generally from literature prior to the primary investigations, and throughout the study period.

Sample selection

In accordance with the alignment of this study to the PACEAA project, which is described in sub-section 3.5.4 of this chapter, it was desirable that the study samples selected yield information that would be useful to the project. Purposive sampling according to Flick (1998) was therefore done where sugar and tea agro-industries were respectively included in the scope of the samples. The agro-industries are being specifically considered under the project as possible sources for clean energy that can be used for RE. Therefore, the project provided one criterion for sampling, and communities living adjacent to one sugar factory, and one tea factory, were selected for study.

The second criterion was that the selected communities be eligible for RE, but have no power supply yet. This basis was meant to ensure that it is practicable to provide power to the communities. Other criteria included the availability of people with experiences on rural cooperatives or similar community based organizations; this being necessary due to the objectives of the study.

After investigations that were carried out prior to and during field work, two communities were identified for the study, and these were:

1. The Mumias Nucleus Community, whose members live and own farms in the Mumias area of north-west Kenya – the nearest major town being Kakamega. The community neighbours the Mumias sugar factory, which is already generating power from sugar cane waste (bagasse)

2. The Isoge Community, which is in the Nyansiongo area of west Kenya – the nearest major town being Kisii. The community neighbours the Nyansiongo tea factory, for which there is a proposal to generate power from hydro-electric sources.

Field Work Programme

The work was done in Kenya, and the programme took approximately two months, from January to March 2007. The duration fell within the study period falling between 1st August 2006, and 31st May 2007. Some of the field work was done in Nairobi, the country's capital city.

In the city, it was possible to meet and interview national officials of various government bodies and private organizations, and collect some secondary data.

The rural communities that were studied are more than 300 km from Nairobi, and therefore special arrangements had to be made to travel and stay with the communities, as evidence was collected. While visiting the communities, the respective sugar and tea industries were visited, and data collected from the factory sites.

Detailed Data Collection

The main methods of data collection were personal interviews and focus group discussions, where in both cases semi-structured interview questions were used as guides; participant as well as other observations; and document data extraction. Questions that were asked are in a questionnaire whose copy is included in the Appendix to this report. Since the most widely spoken and understood language in Kenya is Kiswahili, this is what was used in the interviews and discussions. It was an advantage for the author that due to knowledge of the language, no interpreter was necessary.

There were a total of three focus group meetings, two at Mumias, and one at Isoge; and 14 main personal interviews, eight at Mumias and six at Isoge; and during most of the discussions recording was done. There were other interviews at the two study areas and in Nairobi, but these were informal. Duration ranged between 45 to 90 minutes and 2 to 3 hours for the interviews and focus group meetings respectively. On the whole, most weight was placed on the focus group discussions, for which there was good attendance by both men and women, and there was active participation. The first focus group meeting was at Mumias and was the most well attended, with a total of 21 participants. The group had 8 women, 5 and 3 of them being above and below 30 years respectively. There were 13 men, 9 and 4 of them being above and below 30 years respectively. The picture in Figure 5 shows the participants at the Isoge focus group meeting.

At the factories, discussions were held with managers and other senior officers. Tours of the factories were arranged for the author, which provided an opportunity for site observations and familiarization with possible power supply options. In addition, site visits and inspections were carried out at farms, people's houses, and business premises. As the visits were made, copies of relevant documents were obtained.

Fig. 4: Focus Group Meeting at Isoge

(Picture by author)

3.5 Study Context

The key parameters and circumstances within which the thesis study is being carried out are set out in this chapter. To start with, geographic information and economic indicators of Kenya as the study country are described. Other general country information that is given includes political and social facts pertaining to the study. Additionally, some details of the locations of the communities that are closely studied are provided. Separately from the geographic and economic information, the energy situation in the country is indicated with particular regard to rural electrification. Finally in the chapter, the technical facts are complemented with information about projects within the scope of which the study is carried out.

3.5.1 National setting

The country focus is on the republic of Kenya, home to the thesis author. One of the key reasons for selection of the country for the thesis study is the familiarity of the geographical area to the author, and in the following the writer's own knowledge is extensively used. Other sources of information include data collected during field investigations, the Kenya Economic Survey Report (2006), and various Kenya country reports.

Kenya lies on the east coast of Africa, with the Equator transecting the land about midway. It borders Tanzania to the south, Uganda to the west, Sudan and Ethiopia to the north, and Somalia and the Indian Ocean to the east. It occupies a strategic position with respect to trading across the Indian Ocean, especially between Asian and African countries, and as a sea outlet for landlocked states to its west and north. A map showing the country's location is in Figure 5.

Fig. 5: Location of Kenya within Africa and East Africa
(Source: SatelliteViews.net)

The Kenyan economy is the largest in the east and central Africa sub-regions, and within the East African Community: an economic and political union of Tanzania, Uganda, Kenya, and Rwanda. It also ranks highly in sub-Saharan Africa. Based on the Kenya Economic Survey Report (2006) the country's population in 2005 was approximately 33.4 Million. The report also indicates that the economy grew by an average of 3.76% in the five years spanning the period 2001 to 2005. Over the same period, the income per capita of GDP averaged USD 448 per annum – just above the average least developed countries' GDP of 382 USD per annum as given by the World Bank (2005).

Like in other developing countries, the national economy depends substantially on rain-fed agriculture. Tea, coffee, and horticultural produce are the top export commodities, whose

foreign exchange earnings are only equaled or surpassed by those from tourism. For the domestic market, key agricultural and related products include maize (corn), wheat, rice, sugar cane, beef, milk, and fish. Maize being a staple food for most Kenyans is grown through large as well as small scale farming, and is produced as a subsistence crop in most parts of the country where farming is carried out. While farming principally takes place in the agriculturally rich areas of the central and western highlands, livestock rearing is the main occupation in the arid and semi-arid eastern, northern and south-western areas. Wildlife resources, which are the main tourist attraction, are found in many of the parts where livestock rearing is predominant.

There are very limited mineral resources, and nearly all metals and fossil fuel (petroleum oil) requirements are imported. While the imported oil provides for most of the commercial and transport needs, non-commercial energy is largely supplied from local biomass sources. Forests are therefore critical for supplies of the latter category of energy, particularly in rural areas where most of the population lives, and fuel wood is the main source of energy for homes. Bearing this in mind, the country faces a dilemma because forest cover is very minimal, the total of which is about 3% (Library of Congress, 2005). Some of the efforts that are being made to contain this challenge include afforestation and reforestation programmes by the government and NGOs such as the Green Belt Movement. The endeavours are not only expected to cater for energy needs but also to reduce pressure on the environment by cutting down on deforestation. .

For the environment, one of the positive aspects is that there are enough water resources to cater for current electricity needs through hydro-electric generation. Geothermal resources with significant potential also exist in the parts of the country within the Great Rift Valley. For future energy demands local renewable energy resources are being explored. In addition, plans are being made to import power from countries within the region, some of which have an enormous hydro-power potential.

As one moves from the urban centres to the rural parts of the country, there is a notable drop in the level of economic development. Conversely, the population increases appreciably towards the rural areas. It is estimated that 67% of the country's population is rural, and more than half of the rural dwellers live below the UN's poverty level of 1 USD per day (Freeman *et al*, 2004; World Bank, 2006). Consequently, there is a growing rural-urban migration and urban slums are increasing in numbers and sizes. Overall, the poverty level in the country is growing due to factors like adverse climatic and political conditions, and unemployment. Statistics show that officially the unemployment stands at 15%, but the actual level could be as high as 40% (Library of Congress, 2005).

Administratively, the country is divided into eight provinces, namely: Coast, Eastern, North Eastern, Central, Rift Valley, Nyanza, Western, and Nairobi (encompassing the capital city). Further sub-divisions include districts, divisions, locations, and sub-locations. It is through these administrative structure that the government exercises authority, and full power at village or community level is vested in a Chief, who is the head of a location.

Initially, there were forty districts overall, corresponding to the forty main ethnic groups to which Kenyans belong. The number of districts has subsequently been increased to about 160, the number being inexact because the allocation of some of the districts is disputed. The large increase in the number is in response to political demands for the larger ethnic groups to be given more districts.

Although each ethnic group has its own language or set of languages (depending on sub-ethnic present), most Kenyans speak Kiswahili. This is the second national language after English. It is also the *de facto lingua franca* of east Africa and serves as a uniting factor in this sub-region. Some central and southern Africans understand the language due to ethnic ties among the peoples of the sub-regions.

3.5.2 Detailed study locations

The two locations selected for study consist of Mumias, within reach of Mumias sugar cane milling factory; and Isoge, which is a short distance from the Nyansiongo tea processing factory. The choice of these locations that are in close proximity to the factories is deliberate, and the criteria for selection is as explained in the methodology section (3.4) of this thesis report.

Mumias

This rural market centre, occupied by people of the Luyia ethnic group, is about 480 km to the north-west of the capital city of Nairobi. As shown in Figure 6 (a), it lies close to the Kenya-Uganda border, and less than 100 km from Lake Victoria (the largest lake in Africa). Most importantly, the centre is at a distance of less than 5 km from the principal sugar production factory in Kenya, namely Mumias Sugar Company factory.

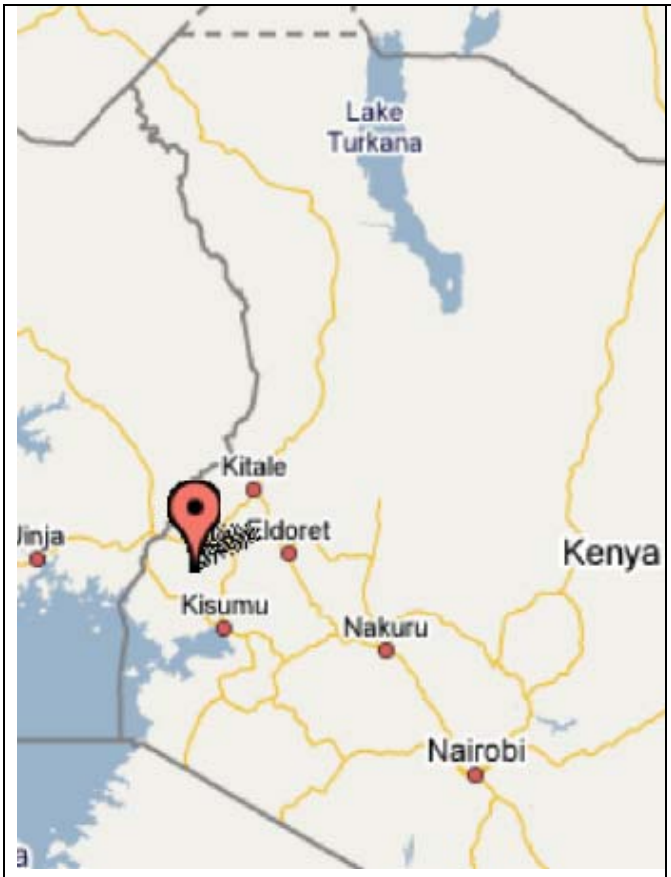


Fig. 6(a): Location of Mumias
(Source: SatelliteViews.net)

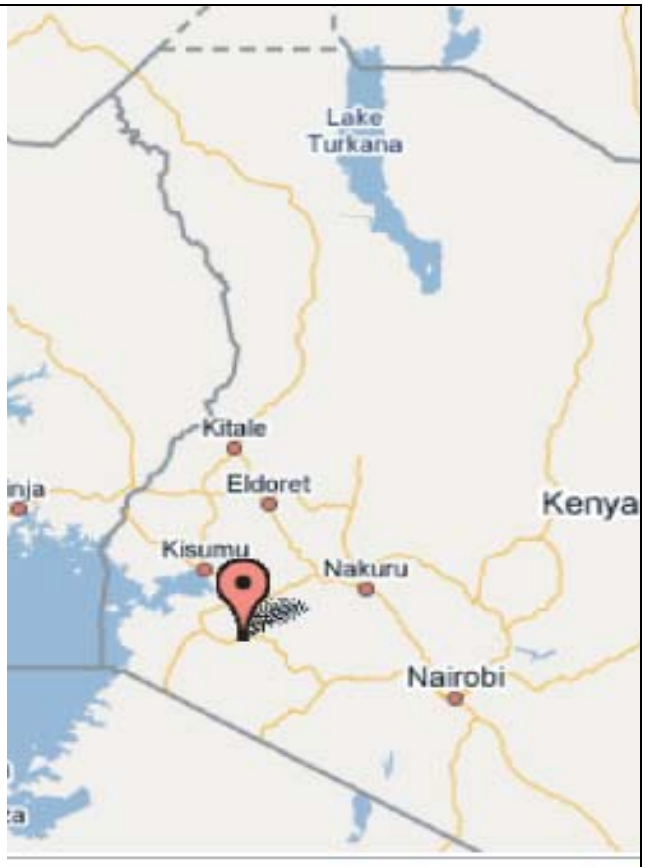


Fig. 6(b): Location of Isoge
(Source: SatelliteViews.net)

The community studied in this location is within the periphery of the market centre, and has for purposes of the thesis been given the name "Nucleus Community". This is because the people here are associated with the Mumias Sugar Company's nucleus estate. The nucleus label in turn arises from the fact that for nearly 90% of its cane supply, the company relies on small-holder farmers (out-growers), scattered over several districts. However, the balance of approximately 10% of its cane requirements comes from its own sugar cane farm (the nucleus estate), in the vicinity of the factory (see Figure 15 in Chapter 5). In addition, the government administrative unit occupied by the "Nucleus Community" is called the Nucleus Sub-location.

The people in the study area are generally engaged in peasant farming. They own between five and ten acres of land and sugar cane growing is their main source of income. A private company, the Mumias Outgrowers Company (Moco) assists them in sugar cane farming through supply of inputs, harvesting, and transportation. The company meets the costs involved and treats the costs as loans to the farmers, to be recovered from payments for cane

they deliver to Mumias Sugar Company. The company therefore acts as a credit supplier and agent for the farmers.

A small fraction of the "Nucleus Community" has minor businesses at the market centre, where there is electricity. They however find the cost of renting premises at the business centre too high, and would prefer to conduct their businesses at their farms. They are constrained by the lack of electricity at their farms.

On account of the sugar cane growing, the community members are able to meet their basic socio-economic needs. They are therefore not within the category of the very poor. On the other hand, they are still within the bracket of poverty due to cash flow and other problems associated with sugar cane business. It takes 18 months on average from planting to harvesting of the cane. After harvesting there are delays in receipt of payments, such that counting from planting time it can take more than two years for a farmer to get an income from the cane. Moreover, incomes earned are small as there are many deductions on payments receivable, for recovery of credits provided to the farmers mainly by MOCO.

Isoge

This is an area occupied by a community of farmers within the Kisii ethnic group who moved into the place within the last twenty years. It is referred to as a settlement scheme due to the fact that the farmers were moved from a water-logged nearby area and settled here by the government. The distance from Nairobi to the area is about 350 km, and about three km away is Nyansiongo or Kijauri market centre which serves the community. Maps showing the locations of Isoge area and Nyansiongo market are in Figure 16 (Chapter 5)

Isoge is located in a tea growing zone with fertile land, but the farmers in the settlement scheme have generally not taken up tea farming. There is a tea processing factory at Nyansiongo market and any tea from Isoge can conveniently be handled by the factory. Instead of tea farming the farmers, who are largely poor compared to neighbouring communities, engage in dairy production. Previously, they were involved in pyrethrum farming but due to marketing frustrations they replaced their pyrethrum with subsistence crops.

Apart from having a lower level of economic production than their neighbours the Isoge community members do not have an electric power reticulation. They are therefore forced to do without services that need electricity or have to go to Nyansiongo centre for some of the services.

3.5.3 Rural electrification setting

For a clear visualization of the context, the setup of the power sector in Kenya is presented first. This is according to knowledge acquired by the author while working as a power engineer

for the country's main power company (the Kenya Power & Lighting Company Ltd, or KPLC) for over two decades, and information available from public documents (e.g. KPLC, 2006; and Ministry of Energy, 2004).

Matters of energy in the country are all within the jurisdiction of the Ministry of Energy. The power sector is one of the two major divisions of the ministry, the second one being the oil sector. Further, after recent unbundling of the sector, key responsibilities are on three principal entities, namely: the Electricity Regulatory Board (ERB) whose mandate is regulation of the sector, the Kenya Electricity Generating Company Ltd (KENGEN) which is the largest power producer and a public company, and KPLC which is the sole transmission and distribution company in the country. Other notable constituents of the power sector are the independent power producers (IPPs) who, together with KENGEN, are KPLC's suppliers. Then there are those who cater for non-grid power supplies at the individual level, and those who are involved in electrical equipment vending and installation.

Up to the end of last year, there were several laws that specifically governed activities in the energy sector. One of the laws was the Electric Power Act (1997), which brought with it the unbundling of the power sector to create separate generation functions on one hand, and transmission and distribution functions on the other. It also provided for liberation of the generation business such that KENGEN and IPPs took over the business from KPLC, and the same KPLC became their sole customer. Under the law no producer was allowed to sell power to other customers either at bulk or retail level, except with special approval from the Minister for Energy. This aspect of the law is in force up to now.

A new law, the Energy Act (2006), was enacted at the end of last year, and it takes over all the other energy sector laws. This is the law that has provided for the formation of the Rural Electrification Agency as mentioned in section 2.2 of Chapter 2 of this report. Rules for the law are being formulated, and there is expectation that the rules may introduce liberalization in power distribution, where power producers would be free to sell and distribute electricity to customers of their choice.

With reference to Table 2 the types of electricity sources are large scale hydro, thermal or oil-based, geothermal (natural steam), and others (mainly renewable). The contributions from these categories to the total electrical energy production are: 53.5%, 28.5%, 17.8%, and 0.2% respectively. In terms of capacity, the total from all sources is 1135 MW, against a recorded maximum demand of 920 MW. There is therefore enough power to meet the country's known demand. However, during droughts that occur periodically, sharp drops in hydro-power generation are experienced, leading to widespread power rationing or increased use of expensive thermal generation.

Table 2: KENYA ELECTRIC POWER SOURCES AND PRODUCTION

[Source: KPLC (2006)]

	Hydro Power	Thermal (Oil Fired)			Geothermal		Renewable	
	KENGEN	KPLC	IPPs	Government REP*	KENGEN	IPPs	Bagasse	Wind
Capacities (MW)	657	135	208	5	115	13	2	0.4
Totals (MW)	657			348		128		2.4
Totals (%)	58			30.5		11.3		0.2
Overall (MW)								1135.4
Max** Demand (MW)								920
Production (GWh)	3025	626	977	11	886	117	9	0.4
Totals (GWh)	3025			1614		1003		9.4
Totals (%)	53.5			28.5		17.8		0.2
Overall (GWh)								5651.4

* REP is Rural Electrification Programme

**Max is Maximum

Based on KPLC statistics, by June 2006 there was a total of 802,249 electricity consumers in Kenya, with 13.8% of them being in rural areas. At the same time, the total national electricity consumption was 4,606 GWh out of which 4% was attributable to rural dwellers. By slightly earlier statistics (GOK, 2005; and Ministry of Energy, 2004) the proportion of the total population with access to electricity countrywide was estimated at between 9.5% and 15%, while in rural areas the corresponding access rate was about 5%.

The heavy electricity consumption by the urban people relative to those in non-urban localities is a reflection of the level of urban/rural economic imbalance. It is also a comparative indicator of the extent to which the electricity grid has been developed in the cities and towns relative to the farms and villages. Indeed, the levels of development of different parts of the country are depicted by the spread of the grid as shown on Figure 7.

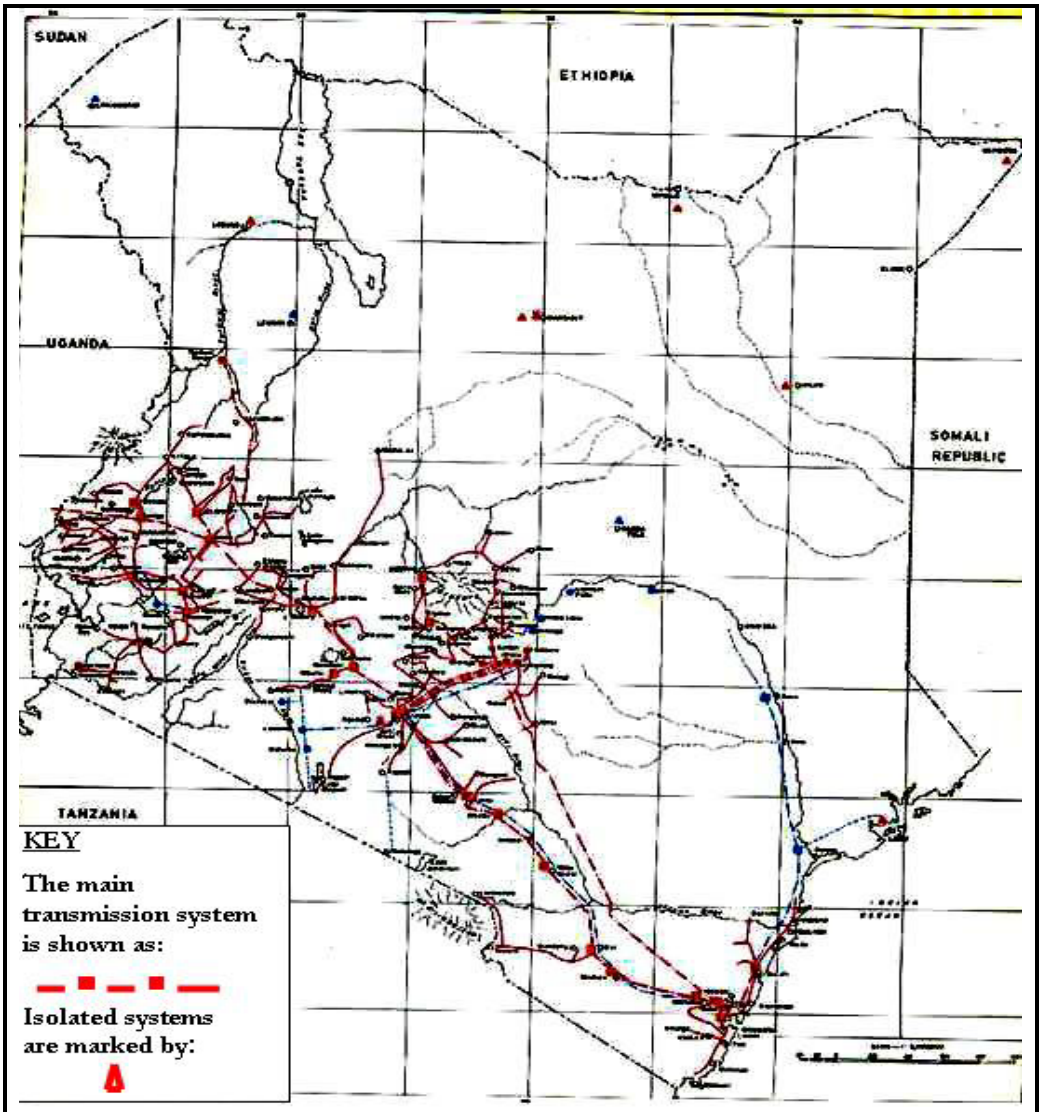


Fig. 7: Overview of the Kenya Power Transmission System

[Source: KPLC(2006)]

It is important to note that the majority of urban centres are like islands of high development surrounded by poor rural conditions. Electricity supplied to the islands bypasses many rural residents along the power line routes. Why then are rural areas so disadvantaged? An explanation can be found in the following.

Towards the end of the first ten years of the post-independence period, it became evident that amalgamated plans for supplying electricity to urban as well as rural areas were biased towards the former. Therefore, a Rural Electrification programme was started in 1973 to ensure accelerated and more effective electrification for rural people (Ministry of Energy, 2004). The programme was and

continues to be under the Ministry of Energy. However KPLC is its implementing agency. Funding for the programme comes from international aid, and a rural electrification levy. The latter source is paid for by every KPLC consumer through a deduction of 5% of monthly electricity bills. REP funds are applied in the construction of power grid extensions for supply to rural consumers, and for operation and maintenance costs of the rural power system. In turn, those who are fortunate to be supplied through the programme are charged highly subsidized connection costs, but pay bills under the same tariffs as their urban counterparts. No subsidization is available to urban consumers.

The thesis author was involved in the programme while working for the Kenya Power & Lighting Company Ltd (KPLC). During the exposure to the programme, it became clear to the author that the undertaking has great potential in boosting socio-economic development within the countryside, and for the nation as a whole. Substantial gains were made by the people who were fortunate to get electricity under the programme and were also ready for opportunities provided by the power.

The primary target for electrification under the programme has been public service and social welfare facilities, and individual community members are served alongside the facilities. Since the emphasis has been more on the social aspects, the economic dimension has not received much attention, and poverty has therefore been one of the aspects that have not been impacted by the programme.

Since REP funds are very limited and large capital resources are needed due to the high costs of extension of the grid to rural areas, priority criteria are applied in selecting beneficiaries of the programme. Each district in the country is given the opportunity to draw up a list of its high priority through its District Development Committee (DDC). The latter is a general purpose development group chaired by the district head (commissioner), and attended by political as well as other leaders in the district.

Proposals from the DDCs are forwarded to a special committee of the Ministry of Energy, known as the Electricity Development Committee. This is a team of government officers, civil society representatives, and leaders appointed and given the responsibility of filtering the proposals from districts and other sources. Their output is supposed to be a list of rural electrification projects for implementation, taking into account the need for equitable balancing of socio-economic development nationwide. Rural electrification master plans are prepared on the basis of the committee's decisions.

Unfortunately, judging from the nature and spread of the electrification that has taken place in the rural areas, there is a clear lack of equitability in the selection of REP beneficiaries. There are indications that political power has been influencing the selection. Yet another problem is the non-involvement of many potential beneficiaries in planning for electrification. While deserving people with pressing needs for electricity are often left out of electrification schemes, there are others who are not ready to take power and yet they get supply up to their door steps. It is not uncommon to find supplies provided under such circumstances remaining unutilized for years.

Apart from unbalanced electrification under REP, there has been a problem of low rate of connection. For example, according to statistics from KPLC annual reports and accounts, from 1995 to 2006 the number of REP connections has risen from about 44,000 to 110,700, giving an average annual connection rate of about 6000 per annum. Within the same period the non-rural connections have risen from about 327,000 to 802,200, indicating an average connection growth of about 43,200 per annum.

Evidently, very concrete steps are necessary for accelerated and equitable rural electrification. This may not be possible under the current arrangement where power supply to rural areas is marginalized and political considerations override fair play. Although elaborate rural electrification master plans have been prepared and executed earlier, and new ones are in the pipeline, the impact of these plans will continue to be minimal for as long as the *status quo* in the institutional and policy setup remains in force.

Perhaps, some of the problems would be addressed by the proposed Rural Electrification Authority, which is in the process of being created after provision for it was made in the new Energy Act 2006. There is a chance that the authority can make a difference as, unlike KPLC, its sole concern would be provision of power for rural people, and it can therefore be expected to perform better in serving the people. Definitely, if it is properly supported and left to perform its functions without undue influence, it is bound to make a major impact in electrification and socio-economic advancement of rural areas.

Another positive development is the granting of ministerial authority to rural communities that undertake private power generation and distribution for their own power needs. To-date, these community ventures have come up and been permitted on an *ad hoc* basis. Some of these are briefly described in Chapter 5 of this report. It is most desirable that the new energy legislation be applied towards institutionalization of such ventures.

3.5.4 Project Setting

The thesis study project is incorporated in a virtual hybrid project with three components, namely: GTIEA (Greening the Tea Industry in East Africa), Cogen A (Cogeneration Africa), and PACEAA.(Poverty Alleviation through Cleaner Energy from Agro-industries in Africa). The conceptual linkages of the projects are depicted in Figure 8, and are derived from UNEP Risoe (2006) information.

The first two components are primarily for development of power generation from renewable energy sources available at or around agro-industries. The power produced at the industries would be available for the needs of the industries, and the production above these requirements would be sold to the national power grid. There would also be a further possibility for excess power to be used under rural electrification for supply to communities neighbouring the industries

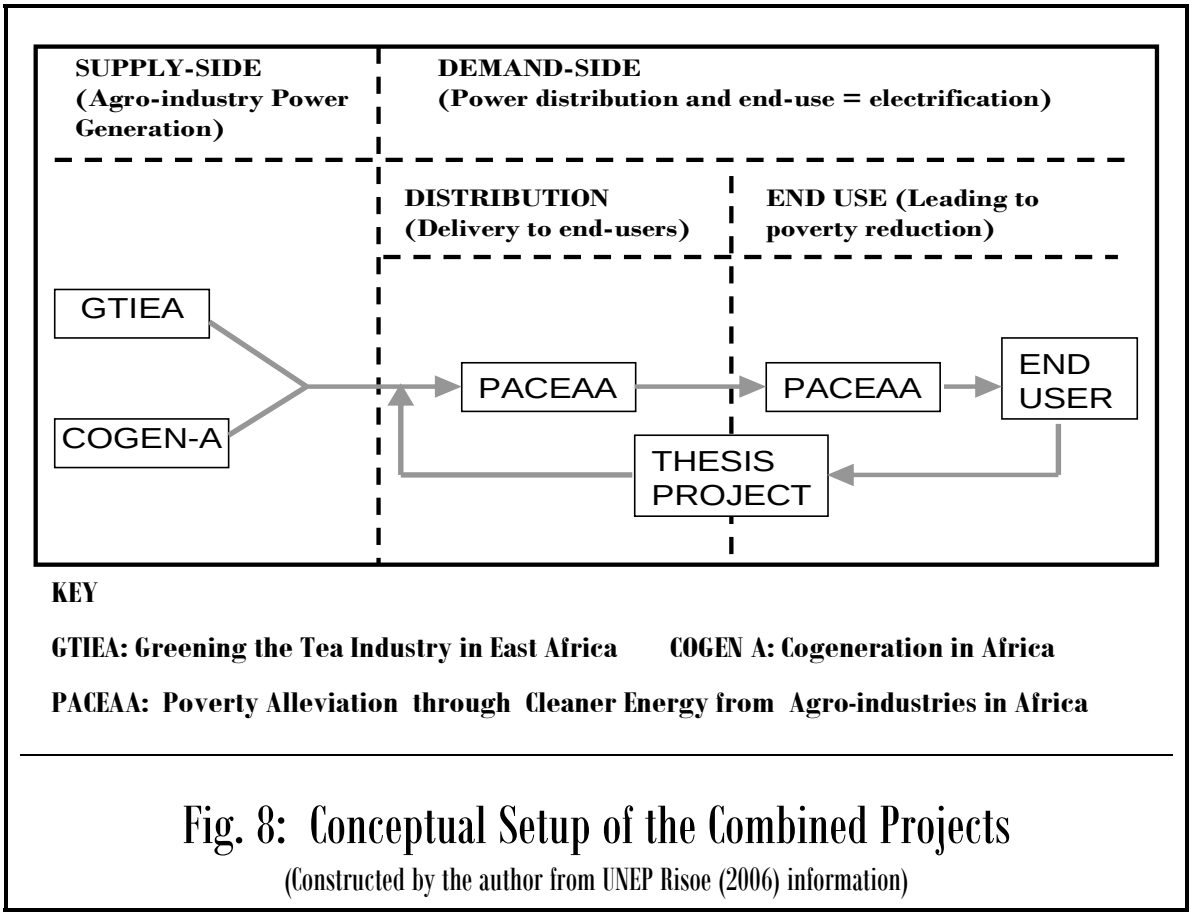


Fig. 8: Conceptual Setup of the Combined Projects

(Constructed by the author from UNEP Risoe (2006) information)

The third (PACEAA) component aims at facilitating the rural electrification aspect, particularly with a view to enabling communities obtain electric power that would lead to poverty alleviation as indicated in arguments presented previously. For meaningful sustainable poverty reduction it would be prudent to involve the benefiting communities in the electrification activities. Most importantly, it would be necessary for the communities to join together for purposes of undertaking electrification in an organization that would enable them to attain maximum benefits. Therefore the thesis project was instituted to look into an appropriate organizational model that would achieve the desired goal.

An elaboration of the components of the hybrid project follows in subsequent sections.

Greening the Tea Industry in East Africa

Tea is one of the most important cash crops in eastern Africa countries, and contributes a sizeable part of export earnings. For instance in the case of Kenya, the leading tea producer in the sub-region, about 20% of all the earnings is contributed by tea exports (UNEP Risoe, 2006). On this account, a great deal of attention is being paid to development of the tea industry in the sub-region. One of the initiatives being pursued towards this end is provision of adequate energy for tea

processing, which is one of the most energy intensive agricultural industry activities. Unfortunately, tea factories in the sub-region are not able to get steady electricity supplies from the supply authorities, and have to rely on fossil fuels or scarce wood-fuel to meet some of their energy requirements. As a consequence, energy development pursuits are to a large extent being directed towards improvement of electricity supplies.

According to UNEP Risoe (2006) information, the search for an energy solution has led to the identification of the possibility for generating power from within the tea estates. The possibility arises from the fact that tea growing areas are endowed with rivers that have enough water and gradient changes that are suitable for small hydro-power production. It is estimated that the hydro-power resources are sufficient for generating enough power to meet the needs of tea factories, and an excess that can be sold to other parties.

As a result of studies on the feasibility of power production in the tea farming areas in eastern Africa, the GTIEA project has been mooted to support the tea industry in tapping the power potential. The project seeks to build the capacities of tea industry stakeholders and remove policy, regulatory, financial and other constraints impeding uptake of the small hydro power production opportunities. Implementers of the project are the East African Tea Trade Association (EATTA) with the facilitation of AFREPREN/FWD (the African Energy Policy Research Network/Foundation for Woodstove Development).

Although the core countries in the project are within eastern Africa, there are some southern African ones included, and in all the following are listed by UNEP/GEF (2005): Burundi, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe. Funding for the project has been secured from GEF through UNEP, and implementation is expected to start from the middle of this year. Availability of electricity from hydro power sources would substantially reduce use of energy from fossil fuel sources, thus cutting down on carbon dioxide emissions. It is on the basis of the emissions reduction that GEF funds have been obtained for the GTIEA project.

Cogen Africa

Drawing from the UNEP Risoe (2006) PACEAA proposal document, and the UNEP/GEF (2006), studies show that the potential for energy cogeneration in African sugar industries has been recognized for sometime, and pioneers in tapping the potential have been companies in South Africa and Mauritius. Recent new comers are, for example, Mumias Sugar Company in Kenya, and Kakira Sugar Works in Uganda. The latter two have been motivated to start cogeneration mainly by shortage of reliable and clean energy supplies in the respective countries. Although in East Africa it has been proven that the sugar industries can produce power for their own requirements and excess for sale, the market for the excess has not been sufficiently attractive. Development of cogeneration has also been constrained by low technical and business capacities of developers and other stakeholders, and absence an appropriate policy and regulatory climate.

The Cogen Africa project was conceived with a view to promoting cogeneration in sugar industries in eastern and southern Africa with particular regard to removal of the identified barriers.

Implementers of the project are AFREPREN/FWD, and countries covered by the project are: Ethiopia, Kenya, Malawi, Sudan, Swaziland., Tanzania, and Uganda.

Funding for the project has been secured from UNEP and GEF. As such activities for implementation are underway, and full execution is expected to commence from the middle of this year. Since reduction of carbon dioxide emissions is expected from implementation of the Cogen (A) project, GEF funds have been obtained in the same way as for the GTIEA project.

PACEAA

Again drawing from UNEP Risoe (2006) information, there is good potential for clean power production from agro-industries like tea and sugar factories. However, there are significant limitations on the use of the power outside the industries. This is in spite of the dire shortage of power in rural areas where the industries are located, and the need for injection of power to stabilize the national power grid. Action towards overcoming the limitations would therefore be very desirable.

In the PACEAA project the need for promoting the use of energy from agro-industries for the benefit of both industrialists and potential rural energy users has been recognized. The project aims at facilitating use of power produced through the GTIEA and the Cogen (A) projects for rural electrification, with the ultimate aim of poverty reduction among the local communities. It is intended that the industrialists will through relevant policy, regulatory, and capacity support mechanisms be involved in electrification whilst partnering with benefiting communities and public authorities.

The project is being implemented by two European institutions, namely: UNEP Risoe Centre of Denmark which is coordinating all the activities, and IED (Innovation Energie Developpment) of France which is an independent energy and engineering consultancy firm. Locally in Africa, there are two partners, i.e. AFREPREN/FWD and EATTA who are the coordinators of Cogen (A) and GTIEA projects respectively.

The countries to be covered by the project are: Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Sudan, Swaziland, Tanzania, Uganda, and Zambia. In support of the project, funding has been secured from the European Commission under the COOPENER programme, and from UNEP – using GEF funds that are tied up with those available for the GTIEA and Cogen (A) projects. The funding is on the basis of a co-financing arrangement by the two bodies. Since the project contract has been finalized, preparations are underway to start execution by the middle of this year. The author has been assisting as an intern at the UNEP Risoe Centre, specifically in the preparations for the PACEAA project. This thesis study is being conducted in conjunction with the assistance so that in due course the findings of the study may be incorporated into the project.

4

COOPERATIVE EXPERIENCES

The genesis of the cooperative form of business organization can be traced to the 19th Century, as mentioned in Chapter 3 of this thesis report. Birchall (1994) goes on to explain that the beginning was closely associated with the industrial revolution in Europe within the century. People who had been driven to economic misery by conditions that prevailed then were at the core of the establishment of cooperatives. The motivation for starting the cooperatives was the conviction that this type of organization would rescue them from the exploitations of the rich, and would be a means for getting them out of poverty. Peasants and other people in the lower classes of society were to varying degrees involved with the formation and running of cooperatives, with little or no intervention from the state. However, over time the character of the cooperative changed. In this chapter, the cooperative transformation is tracked generally, specific experiences from electricity cooperatives are explored, and the cooperative movement in Kenya is considered.

4.1 General experiences

4.1.1 Industrialized countries

From a historical perspective, literature on cooperatives (e.g. Birchall, 1994) associates the first successful attempt at organizing the cooperative type of business with the British workers commonly known as Rochdale Pioneers. Prior to the emergence of the pioneers, towards the end of the 18th century, there were people like Robert Owen who tried the idea of uplifting socio-economic conditions of communities around Britain using collective organizations. However, little was achieved as many political realities were not taken into account.

The success of the textile workers at Rochdale stemmed from the fact that the workers were enlightened, were very familiar with the business they ventured into, and were already organized along trade union lines. Thus when in 1844 they broke away from their employers and started their own business, the pioneers were well prepared and were able to prosper. They in addition set pace for organization of other cooperatives, through a set of guidelines that came to be known as the Rochdale Principles. These are the principles that laid the foundation for the Cooperative Principles that today form the basic tenets of all cooperative organizations.

The appeal of the cooperative form of business was very quickly identified by other working class people and peasantry around Britain in the 1800's. As noted by Birchall (2003), the industrial revolution around then had forced skilled trades people into working class conditions, and were impoverished. Industrialists took advantage of the high levels of under-employment and unemployment to pay low wages. They also underpaid farmers for their produce leading to poverty among farmers as well. The ultimate result was a struggle by the less privileged to break away from the stranglehold of the industrialists, and cooperative societies became the solution to the workers and peasants problems.

The situation in Britain occasioning the start of cooperatives was also present in a large number of countries in Europe in the 18th and 19th centuries, and later in the USA. It was therefore logical that formation of cooperatives followed suit in the affected countries. Nevertheless, different countries largely adopted specific categories of cooperatives depending on their type of economies; for example, Denmark had a predominantly agricultural (rural) type of cooperative. This is due to the agrarian orientation of the country during the formative years of the cooperative style of organization.

In subsequent years, people in the West saw opportunity in cooperative societies beyond the poverty reduction and welfare advancement ideals (ibid). The societies were increasingly seen as organizations through which pooling of resources from large numbers of people could be achieved, with a view to using the resources for business pursuits. The societies therefore attracted more of the people in the middle class. Concurrently, their sizes grew tremendously and they came into direct competition with commercial enterprises. Hence, the societies gradually shed their social and democratic character and adopted a more profit-oriented approach. Some of them even converted to private companies so as to pursue profits unrestricted. It is only in countries like Spain, France, Belgium, and Italy where cooperatives retained their social form.

The development of cooperatives in the West called for inter-linkages not only among cooperators within nations, but also globally. The international networking came as a result of close interaction of cooperatives among nations, especially involving industrialized countries. Thus originated the need for association of cooperators worldwide, and on this basis the International Alliance of Cooperatives (ICA) was conceived in 1895, with offices in the United Kingdom. The aims of the ICA are information dissemination, definition and defence of cooperative principles, and development of international trade. Additionally, there is an allied apex organization known as the World Council of Credit Unions, Inc (WOCCU). The latter organization specializes in providing technical assistance to savings and credit societies (SACCOs) in developing countries, and coordinates the activities of SACCOs all over the world.

4.1.2 Developing and Former Communist Countries

With recourse to analyses by cooperative development observers (e.g. ILO, 2001; and Birchall, 2003), it is noted that cooperatives have a fairly recent history in the developing world. The majority of the organizations were started by colonialists in the 20th Century, when they occupied lands in their empires; and the main aim of forming the cooperatives was for

organizing growing and marketing agricultural products destined for overseas consumers. The colonizers ensured that the cooperatives were in their control, unlike in the colonizers' countries where cooperatives remained fully free from such domination. The controls were considered necessary not only in exercise of economic power, but also to stop the cooperatives from becoming sources of political opposition.

During the colonial era, there was comparatively limited growth of cooperatives in the occupied lands. It was in the 1950's and 60's after grant of political independence when an explosion occurred in the number of cooperatives (ibid). The new governments took the responsibility of starting and promoting cooperatives as a way of stimulating economic production, and propagating political rule. Little attempt was made to sensitize the citizens on the need to form cooperatives on their own, and run the enterprises as people-driven units in line with cooperative principles. The government led organizations were therefore what Rouse (1995) calls pseudo-cooperatives. Ultimately, the situation was such that people, especially in the rural areas, came to view cooperatives as government instruments of power.

One reason why cooperative societies thrived in the beginning of the post-independence period was the abundance of economic aid. Governments of the new states were able to get foreign aid easily, and they channeled some of the assistance to economic production through cooperatives. The situation continued until late in the 1980's when in many developing countries there were sudden cuts in economic aid. At the same time, structural adjustments and economic liberalization were imposed on the countries. Consequently, governments were forced to relinquish the greater part of control and support to cooperatives.

With the advent of liberalization, cooperatives found themselves in competition with commercial enterprises carrying out the same trade as they did. This was due to removal of government protection that shielded cooperatives previously. The end result was widespread decline and winding up of cooperatives and a great deal of hardships for cooperative members. Some cooperatives that went down during that time have not recovered up to now.

Unlike in developing countries, cooperatives existed in the communist countries long before the 20th Century. The organizations were however not cooperatives in the sense understood by the capitalist world. They were what were called Collectives, and their design was that of state agencies acting as vehicles for articulating communist policy (ILO, 2001). They also catered for the welfare of the masses, and their economic objectives were minor. Nevertheless, the ICA recognized the Collectives and treated them as cooperatives.

Upon the break-up of the Soviet Union, and the adoption of free market policies by former communist states, Collectives started embracing the capitalist form and are becoming cooperatives as those in non-communist countries. Many of the new cooperatives are still in their transformation stages, and they retain some of the socialist characteristics. The ILO (2001) notes that the transformation is a difficult one after many decades of dependence on welfare support. It is therefore, to be expected that the conversion process will take a long while.

4.2 Electricity Cooperatives

4.2.1 The early starters

Some of the best documented and successful electricity cooperatives can be found in the USA and Denmark. In the USA they started in the 1930's as indicated by Woolman (2003), who also points out that in those years the rural areas in the states were very similar to those found in many developing countries today. The rural population had limited access to electricity and, while only 10% of the people had the privilege of this form of energy, in urban areas the access level was around 84%. Power utilities had no interest in rural electrification, thus leaving farmers and others located in remote areas to fend for themselves. In fact, the words of one power utility official punctuated the situation when he remarked: *"rural electrification is a relatively unimportant and very difficult business undertaking, if not outright utopian ambition to remake rural life"* (ibid).

As cooperatives in USA had already been well established in farming and other rural ventures, some rural entrepreneurs took the challenge of electrification through this type of organization. They started individual rural electric cooperatives (RECs), but soon found it necessary to join hands so as to achieve economies of scale, and thus the Rural Electrification Administration was created with the help of a government order. Subsequently, they formed the National Rural Electric Cooperatives Association (NRECA), which became a strong lobby and marketing body; and with funding support from national bodies like USAID, the body also became a financier for the RECs. It is worth noting that the RECs were given impetus through very high level support. The backing included that of the then American President, Franklin Roosevelt, who saw "electricity as a means to human happiness", and was the one who issued an executive order setting up REA (ibid).

Other motivations spurring on RECs included: the proper functioning of the organizations through close observance of the cooperative principles, low cost financing from government, provision of electrical appliances by NRECA, and in later years diversification of the business to electricity generation. The last factor was especially important as it enabled RECs to take control of prices at the production end, and not be subject to manipulation by power utilities. (ibid). Tumiwa (2002) adds that membership in RECs was actively promoted by NRECA permanent representatives located around the countryside.

The momentum of RECs continued to a level where, by 1953, almost 90% of rural USA farms had obtained electricity. NRECA (2007) goes on further to report that to-date 40 Million people in 47 states are receiving electricity through the cooperatives, about 99% of farms have electricity, and 12% of total national power supply comes from these organizations. At the same time, the USA model of RECs, unlike equivalents in the developed world, has been widely

promoted amongst developing countries, and a number of these nations have firmly adopted the model.

Although the Danish type of REC's has been confined to Denmark, impact of the cooperatives on the state economy has been substantial. Based on accounts by Danish electricity industry analysts (e.g. Hadjilambrinos, 1999; see also Olsen and Skytte, 2001; and Vleuten and Raven, 2005), cooperatives are intrinsic to the Danish system. Due to the strong belief that the Danish people have in this type of organizational form, and the egalitarian nature of the population, the whole power industry is built on a cooperative framework. 75% of the power industry is owned and controlled by a national cooperative partnership of consumers, municipalities, and central power utilities. The balance of the power industry is in the hands of unaffiliated consumers consisting mainly of large farms and industries.

At the base of the national partnership structure are rural cooperatives, which form 50% of all the distribution utilities in the country, and municipal power utilities which make up the rest of the power distributorship. At the second or regional level, cooperative and municipal distribution utilities join up to form regional associations that own and run power plants. Then, at the apex of the national structure, regional associations form two national organizations (ELKRAFT and ELSAM), which are cooperative in nature. While ELKRAFT owns and manages the main centralized power plants and transmission system in one part (East) of Denmark, ELSAM is the owner and operator of the key central power plants and transmission system in the other part (West). Through a hierarchy of representation, consumers or electricity cooperators in the country have a stake in the entire power industry.

It is obvious that there are fundamental differences between the USA and Denmark REC's. Like developing countries' REC's, the ones of USA were created so as to provide an electricity service that the government and other power suppliers were unable or unwilling to provide. On the other hand, Danish REC's were stimulated by the potential of REC business that was envisioned by the Danish cooperatives' enthusiasts (ibid). Additionally, the cooperative organizational style was started from the bottom by consumers, and propagated upwards to reach the owners of centralized power plants and transmission systems. For both the USA and Denmark, cooperatives were fostered by an enabling political environment and a high general level of enlightenment that permeates urban as well as rural populations. Thus, there are important lessons in the two countries that can be useful to developing countries like Kenya.

4.2.2 Follow-on in developing countries

Extensive literature (Gullberg et al, 1999; see also Tumiwa, 2002) traces replication of the USA REC model around the world, and notes that the model found favour particularly in places where the USA had strong political and economic influence. The usual approach to the introduction has been an NRECA study of the feasibility of starting RECs in the candidate country. One or several pilots would be part of the study, and if successful USAID assistance would be given to commence REC creation activities. Subsequently, USA support would continue until RECs are well established, or for as long as the assistance is needed.

The first region to benefit from the USA model was Latin America where studies started around 1964. Included in this group of countries were Nicaragua, Colombia, Ecuador, and Costa Rica. Then followed Asian countries which were led by The Philippines, where RECs were established initially through pilots in 1966. India's turn was in 1969, while Bangladesh came much later in 1976. In Africa, cases that have followed the USA example are hardly known. One case that can be considered an REC, but with little similarity to the USA type, is Urambo Electricity Consumers' Cooperative Society in Tanzania (ibid).

The RECs in developing countries have had mixed levels of success. On average, the most successful are those in Costa Rica and Bangladesh. According to World Bank (1999), between 1964 and 1995, Costa Rica RECs helped to raise the level of electricity access in rural areas from 43% to 95%, and to-date membership in the RECs has risen to 140,000.

The case of Bangladesh does not seem impressive when access rate improvement is considered in percentage terms. Between 1978 and 2004, the rate had increased from 8% to 24% (Barnes 2004). However, it is important to remember that Bangladesh is one of the most densely populated countries in the world, currently with a total population of about 140 Million and a population density of approximately 1050 per sq. km. (USAID, 2006). Therefore, in absolute terms, the number of people with access to electric power has risen considerably, and literature (eg. Zomers, 2001; see also Tumiwa, 2002) gives the number of RECs' consumers at over 15 Million in 2001.

RECs in the Philippines started quite well, but due to accumulated indebtedness and general indiscipline they came to a near total collapse by the end of 1980's. At their peak in the late 1970's, there were 120 healthy cooperatives with about 3 Million members, and the rate of access had improved from about 15% to 76%. The viable cooperatives had reduced to about 25 when the overall performance hit the bottom, and just before the ongoing revival attempts and reforms were started (adapted from World Bank, n.d.). A similar situation beset India's RECs. However, the main reason why performance was poor in India was because the cooperatives were under the control of State Electricity Boards (power utilities organized on a federal basis), and political influences present in these boards were detrimental to the RECs (Core International, 2002).

The Urambo cooperative is one among the very few in Africa. As Gullberg (1999) reports, it was initiated through the joint efforts of the Swedish Environmental Institute (SEI) and Tanzania Electricity Supply Company (TANESCO). The point of the initiative was to pilot local management of power supplies in Tanzania. It had been observed earlier that the local community in the pilot area had made an effort to run a government owned diesel-powered local electricity business that had stalled. Through the joint initiative, the community members were organized into a cooperative, and they were given support to buy out and continue with the business in 1993, as consumers and suppliers. By the standards of the RECs in Asia and Latin America the cooperative is very small having just about 250 consumers, and it took time to get the cooperative approach inculcated into the community. Nevertheless, the effort is a good starting point and the power business has remained afloat, a sign that the cooperative may be sustainable in the long run.

4.2.3 Government role and national organization

Most analysts of electricity cooperatives (eg. Tumiwa, 2002; see also Barnes, 2004; and Foley 1999) are in agreement that for these organizations to be successful, it is necessary for them to have strong support from state and national governments, as well as umbrella bodies or major power utilities. This is especially so for cooperatives in developing countries, and may be attributed to the low capacities of its members, and the large resources that are needed for developing and running electricity systems. In any case, as indicated in sections of this thesis report on the general organization of cooperatives, governments of developing nations have largely been instrumental in starting and controlling cooperatives.

Even in the case of industrialized nations, the hand of the government has to come in firmly for electricity cooperatives to thrive. Where the government does not intervene directly, at least it plays a part through legislative empowerment. Woolman (2003) clearly comes out with this fact where he affirms that, in the case of USA, it was after President Roosevelt facilitated the establishment of the Rural Electrification Administration through an executive order that the RECs picked full momentum. Provision of USAID loans and other assistance through NRECA also contributed enormously to the success of RECs.

Another example is that of electricity cooperatives in Denmark, which is cited in literature, by e.g. The Danish Wind Industry Association (2007). In this country, local communities cooperatively, and acting on their own initiative, made large investments in small wind turbines from the 1970s. The investments were spurred by among other things an unequivocal support for wind power cooperatives by the Danish government through investment and tariff subsidies. It was to a large extent due to the encouragement given to the cooperatives that the wind power programme became one of the most successful the world over. The programme performance continued on an upward trend up to 2001 when reduction in subsidies started.

Since then, and as shown in Figure 9 an appreciable drop in wind power investments has taken place.

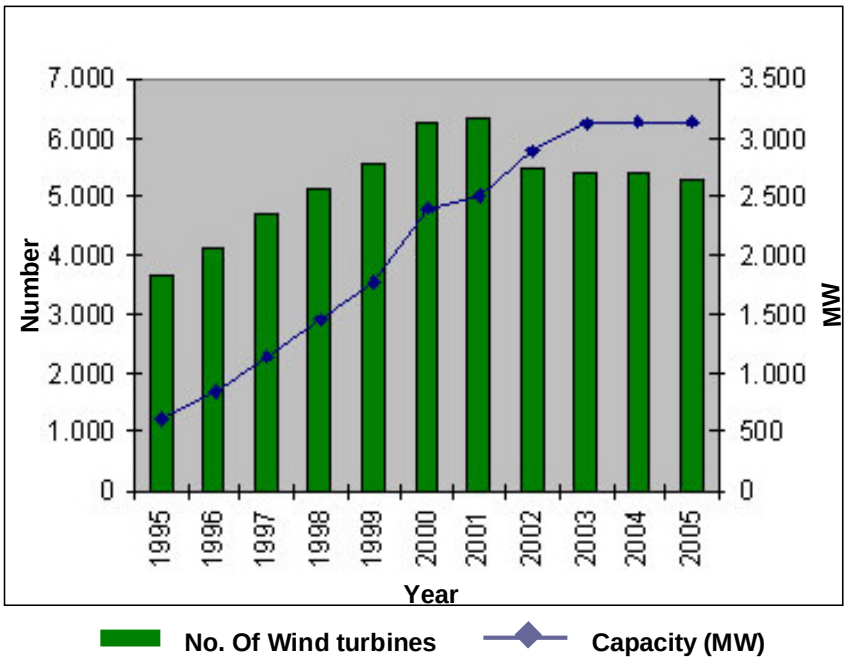


Fig. 9: Danish Cooperatives' Wind Turbines

[Source: Danish Wind Power Association (2007)]

Literature by, for example, Tumiwa (2002) and Barnes (2004) indicates that government facilitation of electricity cooperatives in developing countries takes different forms, including securing bilateral and multilateral aid for the cooperatives, formation and maintaining efficiency of quasi-government umbrella bodies like the Rural Electrification Board of Bangladesh, getting national institutions to give the necessary backing, and creating the right policy and legislative frameworks. Nearly all these lines of support are present in countries with successful RECs such as Bangladesh and Costa Rica. An interesting example of decline of RECs as a result of weakening government backing occurred in the Philippines towards the end of 1980's. The weakening was not caused by the state's own decision, but by withdrawal of bilateral funds from USAID.

4.2.4 Other common features

Besides the factor of government facilitation, there are a number of other features that determine the performance of electricity cooperatives. These are widely documented by scholars and practitioners (ibid), and they include those listed in the following.

a. Application of cooperative principles

Where rural communities are enlightened, like in industrialized countries, it has been possible to start electricity cooperatives or RECs on the initiative of members themselves. Since the members are aware of their rights and obligations within the context of the cooperative principles, they participate effectively in the democratic formation and running of the RECs. Voluntary membership is exercised, attendance at general meetings is normally good, and voting is done by most of the members. Therefore, generally the RECs perform well, and this has been the case with RECs in the USA, and to a small extent in those developing countries that have RECs with a high degree of autonomy.

However, the majority of RECs in non-industrialized countries are formed on the basis of pseudo cooperatives (Rouse, 1996), where cooperative principles are only partially applied. The organizations are usually originated by governments or other bodies, and are structured in a top-down manner. Therefore, those that do well are strongly dependent on the effectiveness of government or agency representing the RECs at the national level. In the latter category are RECs in Bangladesh and Costa Rica.

The lack of effectiveness of the controlling body is illustrated by the unsatisfactory performance of RECs in India; and the Urambo Cooperative in Tanzania is an example of a case where imposition of an organization on the people caused many teething problems. In India, State Electricity Boards many of which are inefficient on account of their bureaucratic nature manage RECs. Their inefficiency is passed on to the RECs, and performance of these cooperatives is therefore wanting (Core International, 2002)

In the Urambo case, TANESCO, the state power utility in Tanzania, with external assistance initiated the formation of a cooperative society for power supply to the local people. Recruitment became a problem since there wasn't enough done to convince potential members to join. Attendance at general meetings and voting were also way below expectations. Consequently, in the initial years after formation of the cooperative there was poor performance by the organization. The situation was corrected much later after lengthy training of members (Gullberg, 1999)

b. Political support and interference

Where political support is provided to RECs, this is most likely the same thing as government backing described above. The support is desirable and has helped many RECs to prosper. However, in some instances involvement of politicians and the government in the affairs of RECs is accompanied by undue influence or interference. Problems arise when the controlling forces dictate how the RECs should be run; or when the forces try to win favours from the RECs for themselves and their friends or kinsmen.

RECs in some countries have been particularly affected by political interference, examples of which are in India and the Philippines. Tumiwa (2002) analyses the RECs in India and concludes that the RECs that are under State Electricity Boards (SEBs) fare badly not only because of bureaucracy of the SEBs but also due to political patronage. He contrasts these RECs with those that were started and guided by NRECA. In the case of Philippines, the World Bank (n.d.) traces the decline of RECs in the 1980's to among other things political interference, where power lines were built and financial discipline sacrificed at the behest of politicians.

The exemplary performances of Bangladesh and Costa Rica RECs are attributed in part to protection against politicians' influences. Choudury (2003) gives an example of the protection by stating that under REB (Rural Electrification Board--of Bangladesh) they ensure REC directors are not affiliated to any political parties. The many international aid donors who support Bangladesh RECs also put pressure on REB to ward off undue influences. Rural Infrastructure Services (1999) report similar type of protection for RECs in Costa Rica.

c. Support from international sources

As pointed out above, the origin of many RECs in Third World nations is stimulus from USA through NRECA. The stimulus is partly through financial and other support for setting up the RECs. Indeed, nearly all electricity cooperatives are started and run through funding from international aid. An example of a country with a very large number of supporters in this regard is Bangladesh. According to e,g. Choudury (2003) the country receives assistance for REB from among others: USAID, World Bank (IDA), Japan (JDRG and OECF), OPEC, Asia Development Bank, Canada (CIDA), Norway (NORAD), Netherlands, and Arabic countries.

So far the dependence on aid seems inevitable. Bad experiences have been had by some countries which have had withdrawal of large donors. A case in point is the Philippines, whose RECs suffered a substantial decline when USAID cut off support (World Bank, n.d.). Further research in this matter is needed to find out the possibility of weaning off developing countries from continued aid for its RECs.

d. Technical and financial success factors

A major consideration in the extension of power systems to rural areas is the high cost involved and low if any returns on investment. This is one of the main reasons why commercial firms and utilities are usually reluctant to undertake rural electrification. However, there are ways of reducing the costs and make power more affordable to rural consumers. Based on empirical evidence (e.g. Foley, 1999), one of the ways to lower costs is to use single wire earth return systems. In these systems, a single wire takes the place of the usual two or three wires, with the ground being used as an electricity return path.

Other methods used are for example extensive use of single phase low loss transformers, and single pole instead of multi-pole supporting structures. Where RECs are in a position to generate their own local power they have substantially lower costs due to the avoidance of costs associated with purchased power, and in some cases doing away with costs of long lines that may have to be extended from utility grids. In Bangladesh, RECs have had a history of high costs and unreliability problems associated with power purchased from national utilities. It is for this reason that they set up their own independent power producer in 1998, and from this source the RECs are able to get up to 140 MW (Mahmood, 2002)

Interestingly, according to Woolman (2003), when RECs were started in the USA they were able to construct power lines at nearly half the costs of equivalent lines built by commercial power utilities. Applying low cost construction designs, the RECs constructed lines at about USD 800 per mile as opposed to USD 1500 per mile for lines built by commercial utilities. The same USA technical standards have been cost-effectively used in Bangladesh and other countries with similar RECs.

Another factor affecting performance and survival of RECs is a suitable financial policy, encompassing the right tariffs and revenue management. Tumiwa (2002) puts forward some requirements of the policy. He underscores the need for tariffs that recover costs in full, and the avoidance of masking costs through subsidies. He rightly argues for the use of subsidies to offset construction costs, which are normally the main obstacle in rural electrification. Also critical is the REC's effectiveness in collecting revenues, and he makes it clear that a culture of discipline must be inculcated in consumers and revenue collectors for the revenues to consistently flow into the RECs. Gullberg (1999) confirms the policy requirements through citation of experiences of the Urambo Cooperative. She points out that the cooperative was able to set up a functional business through proper design of tariffs, and collection of dues.

Although many RECs are set up as profit-making entities, few of them actually end up making profit in their businesses. This is understandable in the light of the risky nature of the REC business, and the satisfaction that social services are delivered even in the absence of financial return. In the case of Bangladesh, Choudury (2003) quantifies low business performance amongst RECs, by stating that only 20 out of 67 RECs are having a positive balance sheet. The ones that are not making a profit are fully dependent on government assistance and a revolving fund that relies heavily on the financially sound RECs.

e. Technical and business capacity building

Taking into account that a major aim of an REC is to cater for the socio-economic dimension of poverty reduction, it is important to develop through the REC suitable human capacity within the communities. The measure would achieve the twin goal of having a sustainable human capacity for the REC, and providing a livelihood for members of the communities.

Technical and business skills are critical for proper functioning of the RECs, but unfortunately there is an inadequate supply of these skills in rural areas. Therefore, assistance to RECs usually has a training component to cater for these skills.

Choudury (2003), among others, acknowledges the essential nature of the training given by NRECA to staff of the Rural Electrification Board and RECs in Bangladesh. The training not only provided the right caliber of staff for the entities but also ensured high technical and commercial standards. The same can be said of the Urambo Cooperative, which Gullberg (1999) affirms has performed well due to good training from TANESCO and international sources.

4.3 Cooperatives in Kenya

Through the cooperative movement, Kenya has in the past achieved substantial economic and social gains. On the basis of available information from Nyatichi (2006) and WOCCU (2006), the movement is ranked as topmost in Africa and seventh in the world. From the same sources, in the African context, the number of cooperatives in Kenya constitutes 67% of the continent's total, and stands at about 11,000.The International Cooperative Alliance (2007) also places Kenya in the list of those that have large segments of the population holding cooperative membership, with 1:5 ratio of membership to population, and 20 Million out of a total of 33.4 Million people being directly or indirectly economically dependent on cooperatives.. It would therefore be pertinent to examine the movement to determine forces driving the success. Equally important will be the need to find out if the momentum can be sustained in the face of weaknesses in the movement that have been observed in recent times (by eg. Gamba and Komo, 2005). Ultimately, with the information obtained from examination of the movement, it would be possible to gauge the feasibility of diversifying the cooperatives' line of business to electricity supply. The feasibility will be discussed towards the end of the thesis report.

As part of the introduction, the setup of the cooperative movement in Kenya is shown on Figure 10. Within the country, individual cooperators (cooperative members) are at the base, while at the apex is the Kenya National Federation of Cooperatives. The latter is the top organ responsible for the affairs of cooperatives. Although for the sake of simplification the Ministry of

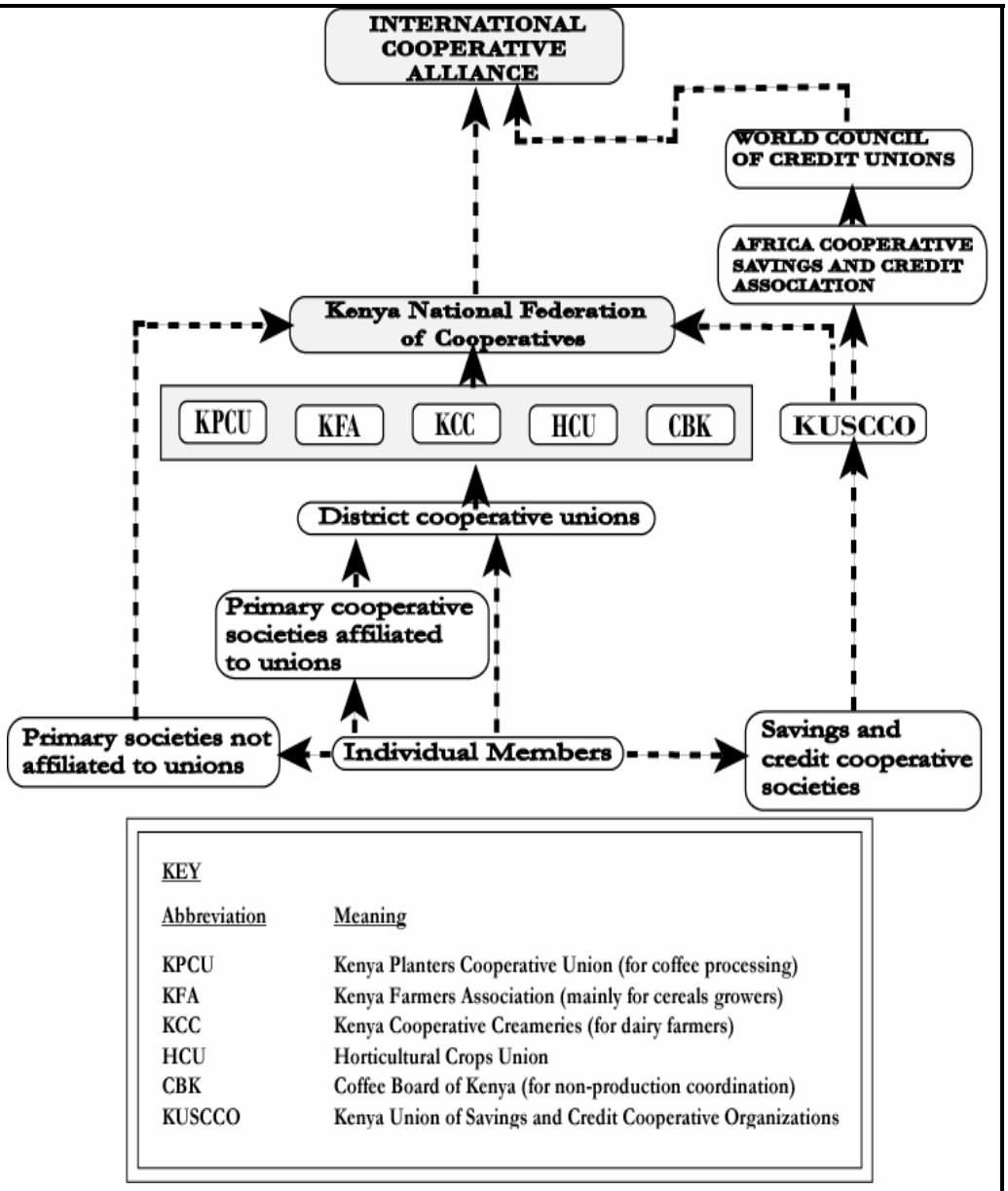


Fig. 10: Hierarchy of the Kenya Cooperative Movement

(Courtesy of Ouma 1980)

Cooperative Development and Marketing is not included in the illustration, the ministry is the regulator and top policy making entity for the entire cooperative movement. Within the government's administrative hierarchy at the local level, there are representatives of the ministry who supervise and coordinate cooperative activities. The International Cooperative Alliance, the World Council of Cooperative Unions, and the Africa Cooperative Savings and Credit Association are bodies to which the cooperative movement is affiliated outside the country.

Within the movement, there are three distinct groups of cooperatives, namely, those in the agricultural, SACCO, and other categories. The agricultural ones are of greatest interest in this thesis study as they are producer organizations with a fully rural representation, and may therefore be appropriate for conduct of electrification by rural communities. At district level, the agricultural cooperatives are represented by unions; while at the national level their processing and marketing operations are handled by secondary cooperatives like the Kenya Planters Cooperative Union, and the Kenya Cooperative Creameries. In turn, the secondary cooperatives are coordinated by the Kenya National Federation of Cooperatives.

For the thesis study, SACCOs are also of interest since they support agricultural production. Some farmers who are SACCO members obtain from these cooperatives loans or other assistance for their farming activities; and in a similar manner financing for shares in an electricity cooperative can be secured. It is however important to note that the majority of SACCOs has working class members who are based in urban areas.

4.3.1 Historical perspective

Literature on Kenya's cooperatives (eg. Ouma, 1980), indicates that the movement was introduced to the country when European settlers started agricultural produce and marketing associations in the early 1900's. The cooperatives were initiated along the lines of the British equivalents. They remained outside government control until 1946, when a cooperative department was formed. Subsequently, the department was placed under various ministries, until 1974 when the Ministry of Cooperative Development was established.

The first enactment of a law for government's specific regulation of cooperatives took place in 1966. The law was known as the Cooperatives Societies' Act, CAP 490 of the Laws of Kenya (1966). The law was also an embodiment of socio-economic development ideals that were mooted by the government soon after Kenya's independence in 1963. Some of the ideals were contained in a key government paper: *Sessional Paper No. 10 of 1965 on "African Socialism and its Application to Planning in Kenya"*, which essentially indicated that Kenya's planning path would be a middle one, lying between capitalism and communism (Nyatichi, 2006). Another important ideal that was embraced in the law was the rallying call of *Harambee*, which was undescored by the first president of Kenya, Jomo Kenyatta.

The *Harambee* ideal, is one that calls for people to "pull together" in a self-help effort. It was in existence in many Kenyan ethnic groups well before the first president popularized it as a national call (Ngau, 1987). In essence, the president used the motto or ideal to have Kenyan people pool endeavours and resources with a view to attaining common development and other goals, or to assist the less advantaged in society. Through the ideal, the Kenyan people have been able to contribute tremendously to socio-economic development. Many and some huge social facilities and infrastructure have been put up through the ideal. The cooperative spirit is clearly evident in the contributions as the rich and poor give whatever they can, in cash, in kind, or through labour.

From mid 1960's up to the end of 1980's the cooperative movement went through rapid growth, when the government put up a number of measures to stimulate its growth. According to Ouma (1980), the measures included the enactment of the Cooperative Societies' Act of 1966, and the setting up of a full-fledged ministry to cater for development of cooperatives and marketing of their products. The government also spread its presence in the cooperative sector to the rural areas, where it could effectively coordinate and control cooperative activities. It was during the same period that there was very active support from international donors to the cooperative sector and the country's economy generally.

While growth of cooperatives was generally upwards, that of agricultural cooperatives proceeded in tandem with that of the national economy. This is because of the close linkage between agriculture, which is the basic economic activity in the country, and national development. Thus, when the economic downturn of the 1990's occurred many such cooperatives also experienced problems. Gamba and Komo (2005) have traced this history, and they indicate that the cooperatives that were most affected were those dealing in coffee, pyrethrum, and milk. Marketing for these products was in the hands of quasi-government bodies, which like many government agencies were ran down by the political mismanagement noted in chapter 2 of this report. The wave of liberalization that swept the country during the period of economic distress did not make matters any easier. As cooperatives were exposed to competition from private sector firms, their business practice shortcomings and previous reliance on government protection presented a sizeable handicap.

Literature and mass media sources (e.g. Gamba and Komu, 2005) further point out that the Kenya Cooperative Creameries (KCC), which processes and markets milk and related products, was closed down in the later half of 1990's. Unfortunately, the closure affected the majority of Kenyan farmers, as many of them own dairy cows and have been selling milk to KCC. Other bodies affected by the economic decline of the 1990's were the Coffee Board of Kenya (CBK), which regulates and organizes marketing of Kenya coffee; and the Pyrethrum Board of Kenya (PBK), which processes and markets pyrethrum. The PBK ceased operations within the last six years, and up to now it has not been revived. The CBK is still functioning but is faced with a lot of leadership problems and cannot fetch previously good prices for coffee. Many small holder coffee farmers have been disillusioned by low returns and long delays in payments for their produce, and have uprooted their coffee plants.

Although the KCC was revived with the incoming of the current government, farmers' confidence in agricultural cooperatives has up to now been seriously undermined by the fate that befell marketing bodies. Farmers have also stopped or considerably reduced production of crops that were affected by the failures of the bodies. On the other hand, the functions that were previously performed by KCC have to a large extent been taken over by private companies. Overall, therefore, productivity and performance of agricultural cooperatives have dropped appreciably.

Fortunately for Kenya, the overall situation in the cooperative sector continued on a positive path even as agricultural cooperatives experienced problems. Nyatichi (2006) observes that this trend can be explained by the continued good performance of SACCOs, which in terms of membership form a major part of the cooperative movement. Most workers in urban centres and farmers in rural areas have been attracted to the SACCOs due to the affordable savings and credit terms that they offer. This has especially been so because commercial banks that could offer alternative financial services prefer large and corporate customers, and they have increasingly adopted policies that drive away small savers. The problem posed by commercial banks to the savers became particularly acute when during the peak of the economic upheaval the banks closed many of their branches in rural areas. This move by the banks forced rural people to turn to SACCOs in large numbers, and the latter experienced a windfall.

Also associated with the economic shakeup of the 1990's were demands for liberalization of the cooperative movement, to cut down on government control and allow cooperatives to run their affairs freely. Mude (2005) puts it more plainly by indicating that some cooperators felt government meddling was responsible for bad performance of some of their cooperative societies, and therefore government hold on the societies should be removed. As a result, a new cooperative legislation was passed and came into force in 1998, where the cooperative movement was given the desired freedom. Government support for cooperatives was also reduced significantly.

However, the liberalization change brought with it another set of problems (ibid). The worst consequence of the change was the emergence of cooperative leadership that took the opportunity of reduced government attention to lay their hands on cooperative resources. Within a short time after freeing of the cooperatives, corrupt directors and management staff got themselves elected or appointed to key positions. They then went on to siphon out funds and convert cooperative property to their own use.

Gamba and Komo (2005) add that it was during the same period of newly found liberty that splintering of cooperatives accelerated. They quote one case of Mathira Cooperative Society that split into ten separate cooperatives. The purpose of the splits was to create more fiefdoms or domains for rival leaders. The whole situation was so politicized that through power plays within the cooperatives leaders were able to get elected to parliament or secure similar positions (ibid). What was witnessed was a clear manifestation of the use of social capital, which is embedded in the cooperatives, as a source of power. This is in line with the social capital view of Bourdieu and Waquant (1992), who associated social capital with power. Unfortunately, the ultimate result of the quest for power in Kenya was rapid decline of cooperatives, and eventual collapse of some of them. This led to a call for reintroduction of government control.

By the time the current government in Kenya came to power in 2002, demands for reforms in the cooperative movement to curb malpractices within its leadership had intensified. The government therefore responded by passing new cooperative societies rules in 2004 which, together with a new bill drafted the same year, are expected to regulate cooperative business

and check mismanagement (GOK, 2004). The effects of the new legislative measures are not clear yet. However, as mentioned in chapter 2, the new government has shown commitment to fight corruption at all levels of society. The commitment has slowed down corruption in most institutions in the country, and errant cooperative leaders may have stopped or drastically reduced their illegal activities at the cooperatives.

4.3.2 Activities

The various types of Kenyan cooperatives and hence cooperative activities are indicated in Table 3. The most dominant in terms of financial earnings and number of societies are the agricultural ones. On the other hand, SACCOs have the largest membership at about 66% of the total. The relatively low membership and high number of societies for agricultural cooperatives implies that the number of members per society is low. Conversely, there are many more members per society for SACCOs. As mentioned in the last section, leadership maneuvers in the agricultural cooperatives have led to multiple splintering of the organizations. It is therefore plausible to attribute the very large number of agricultural cooperatives and low membership to power struggles and intrigues.

TABLE 3: TYPES OF COOPERATIVE SOCIETIES AND THEIR MEMBERSHIP IN YEAR 2000

(Source: Department of Cooperatives, Ministry of Agriculture and Rural Development, cited in Nyoro (2001))

Type of Cooperative	**Number**	**Membership '000'**	**Turnover KSh Million**
Coffee	366	732	7741
Cotton	86	29	43
Pyrethrum	73	70	129
Sugar	112	23	345
Dairy	337	350	1529
Multipurpose	1560	200	129
Farm Purchase	731	76	60
Fisheries	82	14	7
Other Agricultural	1002	60	292
Total Agricultural	**4369**	**1554**	**10275**
SACCO's	3627	3538	3389
Consumer	197	15	9
Housing	468	27	8
Timber and charcoal	47	4	2
Craftsmen	104	20	43
Transport	36	6	26
Other Non Agricultural	526	37	56
Total Non Agricultural	**5005**	**3647**	**3533**
Total	**9443**	**5336**	**14006**

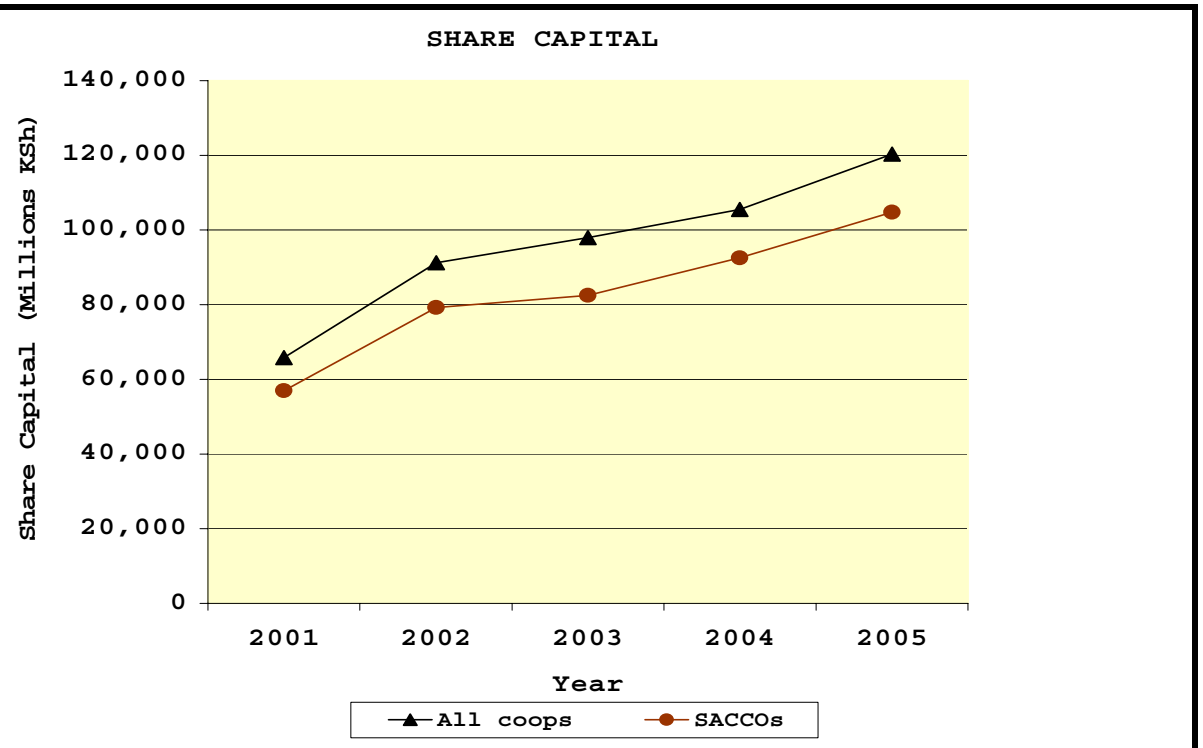
Coffee growing is the largest contributor to financial earnings, and there has been considerable interest in this agricultural activity. Before the 1990s, coffee was the largest foreign exchange

earner in Kenya (Mude, 2005). Farming of the crop is done mainly in the relatively rich parts of the country, such as Central and Eastern provinces. Processing of the coffee has to be done close to where it is grown, and since about three-quarters of the crop is grown on small-holdings, processing plants are in large numbers. High processing costs are therefore involved, and they are one reason why it makes sense to organize the growers into cooperatives. In fact, it is a legal requirement that every small-holder coffee grower joins and does coffee business through a cooperative (ibid). Due to the money and hence power involved in the coffee business there has been a great deal of struggle for leadership, in order to secure influential positions in the coffee cooperative business. Indeed, the political jostling mentioned in the previous section mostly takes place in coffee cooperatives.

The other high stake cooperative activity is production of milk and other dairy products. This is to be expected, as the rearing of dairy cattle is a widespread practice in the country. Most farmers believe in producing milk for their own consumption and sale, and dairy farming takes place in marginal lands where the majority of pastoralists live, as well as in rich agricultural areas. The farmers who belong to cooperatives are mostly small scale ones. Although the number of farmers selling their milk through cooperatives is not so high, there are many more who sell directly to milk processors. The number in the latter category increased when KCC, the largest buyer of milk from cooperatives, went into liquidation as indicated above (Gamba and Komo, 2005).

Other agricultural activities are many and diversified, but the earnings from them within the scope of cooperatives are comparatively low. The cooperative aspects of them therefore receive less attention from politicians and other sections of the population. However, processing and marketing of some farming produce takes place outside cooperatives. For example, sugar cane production is handled by a few cooperatively organized farmers, many of whom after growing the cane leave the rest of the sugar business to private companies. The latter process includes cane harvesting and transportation; sugar production, marketing, and sale; and payment to farmers. There is a sizeable volume of business and earnings in the ex-farm activities, and this attracts power players who make good financial and political capital out of the sugar business.

SACCOs are the most important non-agricultural type of cooperatives. They have their main strength in urban membership, which to a large extent is composed of salaried workers. Due to the enlightened nature of the workers, management of the cooperatives is relatively professional. Consequently, performance of the cooperatives is generally good, and the level of infiltration of politics is low. As indicated in the previous section, there has been steady growth of the societies, even when the Kenyan economy went through a very difficult phase. A sample of their performance is indicated in Figure 11.



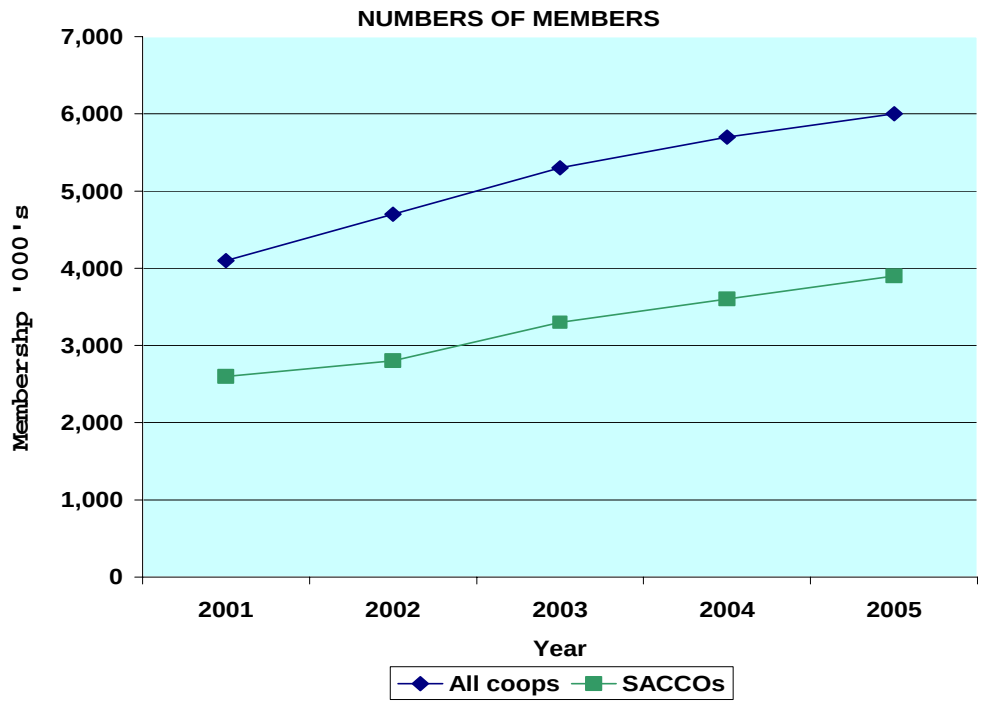


Fig. 11: Sample Performance of Cooperatives in Kenya

[Compiled from Nyatichi (2006) data]

4.3.3 Distinguishing features of Kenya's cooperatives

From the foregoing information, the characteristics of the Kenyan cooperatives that distinguish them from many similar organizations can be discerned. It is evident from the information that the following are the basic positive and negative factors that have influenced development of the cooperative movement.

Positive factors

A pre-existing culture of working together communally and for common welfare

Long before the introduction of cooperatives to Kenya, local people have been associating with each other as is African custom generally in the pursuit of economic, social, and cultural endeavours The *Harambee* motto nationalized the communal spirit, and through it a great deal of development has been achieved. The cooperative movement built upon the communal tradition and national aspiration.

Strong government support and control

The Kenya government's active stimulation of the cooperative movement has contributed greatly to the movement's success. Through various forms of assistance, and policy and legislative measures it has been possible to facilitate growth of the movement. In addition, through control and actual participation in implementation activities, the government has guided and provided direction for cooperative development. Although there has been some resentment for government intervention, the measures taken have been helpful in protecting the interests of the vulnerable cooperative members, who are the majority in the movement.

International support

International donors and associates of the cooperative movement have played an important role in the prosperity of the cooperatives. By means of financial and other assistance provided through the government and other arrangements, the movement has been able to thrive. This was particularly so in the early years of the movement when it was facing teething problems.

Availability of suitable economic resources

From a rural perspective, the availability of agricultural products that can be handled through cooperatives has been a contributory factor in the development of the movement. Production of coffee, dairy products, and other agricultural commodities with high economic value has given rise to the need for cooperatives. On the other hand, SACCOs, which mainly cater for salaried staff in urban areas, flourish due to the existence of income for a large number of low to middle-level employees. Similarly, informal sector and other categories of cooperatives depend on the economic production of the rest of contributors to the movement.

Small-holder nature of the majority of farmers

Due to the relatively high population and scarcity of arable land, farms have had to be subdivided repeatedly. It is on the small pieces of land, measuring about 5 acres (approx. 2 Ha) or less, that much of cash crop farming is done by the majority of people. In this situation, it is uneconomical to have each of the farmers single-handedly organizing for crop production, harvesting, transporting, processing, and marketing his/her produce. Economies of scale are achieved when the farmers join together in a cooperative or similar organization, for the purposes of undertaking all the processes in the product chain.

Professionals' interest in cooperatives

Cooperatives have for a long time been the preserve of low income workers and farmers or business people. This cadre of people has also been mainly composed of people without professional or similar training. This is why it has been necessary for the government to play a key role to ensure cooperatives are run effectively, especially in rural areas where illiteracy and low levels of education abound. However, the situation is changing as the number of educated people is increasing with the overall development of the country. Some low income, and a few highly placed, people are professionals who now use their knowledge as they participate in cooperative affairs, either as members or management staff. This has happened chiefly in urban SACCOs, and as a result of the professional's involvement the standards of cooperatives are rising.

Alternative to commercial financial institutions

Economic hardships that peaked within the previous two decades have forced a greater section of the population into the lower income bracket. At the same time, financial institutions led by banks have made it more difficult for the low income earners or customers to save and secure credits with the institutions. Consequently, the customers have increasingly found refuge in SACCOs, which offer greatly affordable savings and credit terms. The numbers and sizes of SACCOs are therefore experiencing rapid growth.

Negative Factors

Lack of independence

For reasons indicated above, there has been strong intervention by the government in the affairs of the cooperative movement. While the intervention provides support for cooperators, and was of great importance in the nascent stages of the cooperatives, its strong presence is now unnecessary. Actually, it has amounted to interference as cooperatives are unable to make any important decision without involving the government. Some government officers have also taken advantage of the situation to emasculate the cooperatives.

Need for protection

The powerful level of control of the government on cooperatives has also given rise to a culture of dependence of cooperators on the government. It is particularly noteworthy that when in 1998 the government relinquished much of its control, there was an immediate rush to take advantage of the cooperatives by corrupt leaders, and an outcry followed calling for restoration of government intervention. What is needed is a slow withdrawal of the intervention.

Minimal or no cooperative education

Knowledge of the powerful features of cooperatives vehicles for self-induced collective advancement of the people is woefully lacking. From field studies, carried out during this thesis investigations, it is evident that the general notion among the people is that cooperatives are organizations for promotion of government interests. Although cooperative extension officers are provided for by the government, and their duty is to educate the public on all aspects of the cooperative movement, there is hardly any extension work going on. Similarly, education of cooperative staff that is supposed to take place at the Cooperative College of Kenya is given to very few individuals. With increased levels of knowledge among cooperators it will be possible for the members to take control of their organizations and make them more effective.

Potential for manipulation

Due to lack of knowledge about their rights and obligations, members of cooperatives have often fallen prey to manipulators. This is why without government protection the members are helpless, and elites out to lay their hands on cooperative resources wrestle leadership roles out of the members, and position themselves to exploit the cooperatives.

Openings for access to power and advancement of status

Again through manipulation, some leaders seek power that comes with positions in cooperatives. Since it is possible to use resources and influence bestowed by cooperative leadership, political pursuits are made through cooperatives. The election of politicians to parliament through their positions in cooperatives is a case in point.

Corruption and patronage

In general, the potential for corruption and patronage in cooperatives is high in view of the good economic and power resources available in the organizations, and the ignorance of many of the cooperators. Not only are leaders known to enrich themselves and secure power, but they actively engage members, management staff, and government officers in their malpractices. In turn, those involved by the leaders do their own exploitation, and overall the cooperatives sink under the weight of manipulation.

5

FIELD OBSERVATIONS AND FINDINGS

The higher levels of the general perspective of this thesis study have been expounded in previous chapters covering theories, contextual setting of the study, and global experiences of cooperatives. Together with the general perspective, some evidence of cooperative and electrification practices in Kenya as a whole has been provided. Now follows in this chapter specific evidence relating to the two units of analysis selected for closer study (Yin, 2003). The units are represented by the rural communities of Mumias and Isoge, as explained in chapter 3. Within these communities, personal interviews, focus group discussions, and other qualitative study procedures were conducted. The report in this chapter starts with giving an indication of the themes that emerged out of the field work, and relations between the themes and those derived from theory. Then a presentation of the evidence falling under each theme is submitted. Also included in the chapter, is physical and technical evidence collected from the sites visited, and which may be used in planning for provision of electricity to the communities considered in the study. Furthermore, at the end of the chapter, secondary data that complements the primary evidence is incorporated.

5.1 Primary investigations results

Based largely on interviews, the two focus groups' meetings, site observations, and other general observations, the evidence that was revealed by the field study can to a large extent be grouped under various emergent themes, as inspired Kurt *et al* (2006). These themes, which are included in Table 4 tended to place very little weight on the formal cooperative organization; were heavy on the studied communities' eagerness to get electricity; and showed readiness for formation of community groups for purposes of getting electricity. The themes are therefore divergent in a number of ways from the *a priori* or predetermined themes derived from theory in Chapter 3 of this report. In Table 4 the latter themes that correspond to the emergent ones are indicated, and some remarks regarding the observed divergence are given. Then, following the table, the evidence relating to each emergent theme is individually presented with reference to the associated theoretical point of departure.

Table 4: Study Themes		
Emerging themes	**Corresponding theoretical or predetermined themes**	**Remarks**
1. General desire for electrical energy	Investment Issues	Cooperatives not seen as an investment means, but people eager to invest in electricity due to demand
2. Frustrations in getting electricity	Investment Issues	Electricity suppliers do not recognize people's readiness to invest, and frustrate people's efforts
3. Readiness of communities to act in groups	The cooperative concept	People are already working cooperatively, but mostly do so in semi-formal groupings –not cooperatives
4. Lack of awareness and unfavourable experiences with cooperatives	i. The cooperative concept ii. Cooperative Principles iii. Empowerment	There is little awareness about the attributes of the formal cooperative, and the little known tends to be negative
5. Some positive trends in cooperatives	Investment Issues	SACCO type of cooperatives help in small investments, but SACCOs not viewed as cooperatives by people
6. Uncertainty in business capacity and relations with industries	Investment Issues	Despite proliferation of communal business activities, business is not very formal due to lack of appropriate skills. Industries are therefore not confident in partnering with communities in business activities
7. Continued need for government direction and support	i. Cooperative Principles ii. Empowerment	Since cooperatives have been steered by government all along, there will be need for continuation of the stewardship, until communities' cooperative capacity is built

5.1.1 General desire for electrical energy

As has been explained in chapter 3, rural electrification has been provided rather haphazardly to some parts of the country. This was evident in the Mumias area, which was the first one visited for detailed field study. Here, there is the Mumias market centre which has for nearly two decades been served with electricity under the Rural Electrification Programme (REP). Yet a short distance away (approximately 2.5 km), the community studied (the Nucleus Community as explained in Chapter 3) has been struggling to get electricity for over six years. There are about 3500 people within the community and there is a significant demand for electricity to power needs for farming, cottage industries, home use, and other activities.

The target of the REP was the centre because it was believed that by supplying the centre all communities surrounding the centre would benefit, through income generating and other services that take place at the centre. Granted, there is thriving activity at the centre as it is a business hub, and those who can afford to operate their commercial activities here are generally happy. However, this being a rural area, electricity is needed on the farms where most of the people are, and where farming activities and economic production can be facilitated at low cost. At the centre, premises are expensive to rent and there is congestion due to the number of people competing to operate from there. These are sentiments that were expressed by members of the Nucleus communities that were interviewed.

Although the farmers are only about three kilometers from the centre, their area is considered to be outside the coverage of the REP. Strangely, when they seek electricity from KPLC, which is the authority implementing the REP, they are asked to pay for electricity connection at the same rates applicable to people who are in cities and other urban areas. People here wonder why they cannot be charged for the connections at the same subsidized rates as those who are included in the REP. The relatively high charges they are expected to pay are indicated in a later part of this chapter.

For the time being, the farmers remain anxious to get electricity and have prepared themselves in any way they can to receive the energy. The pictures in Figure 12 demonstrate examples of requirements for electricity, one being for an unconnected house that has an internal wiring installation already, and mushroom seedlings that need controlled lighting and heat through electrical means. Crude ways are being used for substituting electricity in the latter example. Overall, the farmers are willing to contribute to any reasonable charges, or do whatever it takes to get connected. Their indication during interviews was that their interest in electrical power is so strong that it can in itself serve as a uniting factor in matters of cooperative endeavours.

Fig. 12: Waiting for Electricity Supply

House with electrical installation but no power

INSET 1---Switches in house, INSET 2----Meter box in house
INSET 3---Mushroom seedlings culture behind the house
(Pictures by author)

It was interesting for the author when he approached the Nucleus Community for the first time to seek discussions with them. The initial contact was a key informant who after the discussion went to speak with potential interviewees. Due to language translation and other communication distortions, or may be because of the emotional state that people were already in concerning electricity, the people contacted wrongly understood that the author was carrying out a study that would lead to power connection in their area. There was therefore a huge response by people wanting to come for interviews. There had to be a lot of explaining to get the people to understand that the study was only exploring possible ways of rural electrification through community organization.

The situation at Isoge (Nyansiongo), where the next community was studied was similar to the one at Mumias. Despite clarifications, people were preoccupied with matters of when and how they would get electricity.

5.1.2 Frustrations in getting electricity

Besides being denied the opportunity of getting supply under the REP, the communities studied were subjected to a great deal of hassling in their efforts to get power. They were made to understand that there is no way they can get electricity apart from making applications to KPLC as commercial consumers. This category of potential electricity consumers is one that is expected to meet the full cost of extending and connection of power, without subsidies as given under the REP. Therefore, they were treated as though they were non-rural consumers.

The community members went ahead to apply for electricity. Under the commercial procedure for getting power from KPLC, an application is made indicating the applicant's power requirements. Then follows a site survey by staff of the utility to determine how power can be supplied, and the cost that would be involved. A quotation is prepared on the basis of the full cost of the proposed supply, and the applicant or consumer is served with a letter indicating the amount required. Arrangements for putting up the power system necessary for provision of supply are made, and implementation is carried out only after the consumer pays the full amount of the quotation.

Unfortunately, the applicants are made to wait endlessly for a quotation and, as receipt of applications may or may not be acknowledged, the application may even be lost in KPLC's bureaucratic system for processing of applications. A case in point is an application that was made by one group in the Mumias Nucleus Community, under the name Ekama Electrification Self-help Group Project. The application was made in November 1999, and the quotation was given in August 2001, that is over a period of more than 20 months. Samples of copies of documents relating to the power supply project are included in the Appendix (Mum-E1 to Mum-E23), and similarly copies of documents for an electricity project at Isoge are appended (Isog-E1 to Isog E-2)

Even after going through the torment of waiting for a quotation for so long, the quotation that was given to the Ekama group amounted to Ksh 14.4 Million. This sum was supposed to be paid by 29 people who were in the group, regardless of the fact that the same supply system when constructed would be able to cheaply serve other people in the neighbourhood of the group. The most difficult part is that each of the 19 people was being asked to pay an amount of about Ksh 500, 000.00.

Just to gauge the ability of the Ekama group to meet the quoted cost of supply, it may be noted that the group together with others decided to collect funds from interested members. The money collected would go to meeting the cost of supply in their area, and each individual's

target contribution was Ksh 3000.00 for men, and Ksh 2000.00 for women. Other contributions would be sought from potential institutional and individual donors. The amount that was collected by 40 people between November 1999 and January 2005, was approximately Ksh 104,000.00, or at a rate of collection of about Ksh 42.00 per month per person. This means that on average it would never be possible to meet the quoted amount of Ksh 500,000 per person. Obviously, there are some among the members of the group who can afford the amount, but even then they would take many months to reach the total.

To further illustrate the difficulty of affording the cost of power, information from the field visit pointed to a request for assistance to the Ekama project, sought from the local constituency leadership. The Kenya government has been setting aside some money for each constituency in the country, to be used for development projects selected by a constituency committee. The fund so created is known as the Constituency Development Fund (CDF), and the chairman of the CDF committee is normally the area member of parliament. It is from this fund that the Ekama group requested for a contribution, and they were fortunate to have an allocation. However, the only amount they could get from this source was Ksh 787, 227.00, which is barely what each individual in the Ekama group was expected to raise.

There were other groups within the Nucleus Community who separately sought power supply, and copies of documents relating to their cases are in the Appendix; but in all the cases studied the groups have remained without supply up to now. The main reason for the lack of supply is the prohibitive cost of supply and the absence of the right support for the community's effort towards electrification. The same can be said of the Isoge Community which was also studied, and it is very pertinent as it went through similar experiences as the Nucleus one. In the Isoge case, endeavours have been going on to provide electricity to the people since 1992. As copies of documents in the Appendix show, the community has been having a group of about 150 people, who have been asked to pay an amount of about Ksh 32 Million for power supply.

An important point for this thesis study is the dominance of the belief in national or grid-based power supply amongst the communities. Despite the frustrations that the studied communities have been going through, there appears to have been little or no thought about alternative ways of getting power, apart from the established grid. To a number of those interviewed, the idea of the communities coming up with their own supplies seemed to be far-fetched. They also did not seem to attach importance to off-grid alternatives like solar Photo-Voltaics power, which is commonplace in peri-urban and some rural areas of the country. The alternatives were not appealing because they cannot provide enough power for the communities' farm and business use

5.1.3 Readiness of communities to act in groups

Due to the strong community spirit that exists in the areas studied there has been a proliferation of community groups created for various purposes, most of which were developmental. In part, the groups were there to provide services that the people felt were not forthcoming from

governing and other authorities. However, the groups were mainly what are referred to as Self-help Groups (SHG's). Considering Mumias Nucleus Community alone, which has about 3500 people, there were over 200 such groups; and some of the groups have been in operation for ten years and over.

These entities are not as formal as other community–based organizations; preference for them being on account of their uncomplicated structure and requirements, which can be easily understood and acted upon by the generally semi-educated community members. An insight into the nature of SHGs can be gained from the following excerpt from Mumma (2005), who considered the possibility of using such grouping for community-based water supply, and who with a little paraphrasing said:

> *"Statutory law provides for various systems for registering organizations, which could be adopted by communities. These can be categorized broadly into membership based organizations and non-membership based organizations.*
>
> *Membership based organizations are typified by the society, also known as the association. The Societies Act, Chapter 108 of the Laws of Kenya provides for the registration and control of societies. It defines a society as an association of twelve or more persons. Registration of the association as a society grants the association legal personality under the laws of Kenya, and it may be noted that the cooperative is considered as a form of society. However, the cooperative society is registered and regulated by the Cooperative Societies Act, Chapter 490 of the Laws of Kenya*
>
> *Unlike self-help groups, and excluding cooperatives, societies are registered by the Registrar of Societies, whose office is under the Attorney General and located in Nairobi.* ***This makes it difficult – and expensive - for the marginalized rural communities to register a society as they would have to travel to Nairobi or engage an agent – often a lawyer - in Nairobi to carry out the registration on their behalf****. Therefore self-help groups are preferred by the communities as their registration is done within the districts where the communities are, under the Ministry of Gender, Sports, Culture, and Social Services. …… …… In the Provisions Act, Chapter 2 of the Laws of Kenya, the word "person" refers to legal or natural person. As the self-help group is not a legal person, it would not qualify to be a water services provider"*

Thus the SHGs can carry out activities that do not have rigorous legal and other requirements, but risk loss in case of legal suits. For the same reason, the groups have been operating through loose arrangements, where such practices as record keeping, auditing, and general management are not done professionally. Most of them survive because of the strong element of community trust that characterizes them. Furthermore, the communities have little interest in other forms of CBO's such as cooperatives, because they feel the SHGs serve their socio-economic pursuits well enough. In any case, organizations like cooperatives are in their view tainted as will be explained in the following section.

An example of an SHG is the Ebumanyi Community Power Project, which has 43 members. It was formed by some members of the Mumias Nucleus Community whose aim is to get electricity to the participants in the project. Copies of the SHG's documents illustrating a Certificate of Registration, list of members, Constitution, and minutes of a meeting are included in the Appendix (mum-G1 to Mum-G11). Each member of the SHG is required to register at a fee of KSh 100.00 (one hundred Kenya Shillings), and contribute at least KSh 3,000.00 towards the cost of electrification.

In some respects, the SHGs act as community financial institutions. Many of them receive and bank members' contributions or shares, along with any revenues from business activities and donations. On the strength of the deposits, members are able to get loans as needs arise. This is one facility that attracts many members, as through the loans they are able to meet emergency needs such as meeting hospital bills and funeral expenses. Members can also meet commitments like payment of school fees. In the interviews, there were many references of "Merry-go-rounds", which mean a revolving fund arrangement for assistance of members..

Although this SHG is a single-purpose one, others are usually designed to serve multiple functions. The range of activities undertaken by SHGs in the communities studied include: poultry and bee keeping, bread baking, cane-cutting, bicycle taxi transportation, looking after orphans, and craftsmen works (*Jua Kali* or Hot Sun). The last activity involves a host of sub-activities within the metal, wood, and building fabrication lines; and is known as *Jua Kali* because the men or women who do the work operate in the open where they are often exposed to the hot sun.

The SHGs are to some extent divided according to different age groups and genders. There are those that have a majority of women, such as those engaged in bakery and orphanage activities. Then, there are those that are almost solely patronized by young men of between 20 and 30 years. The latter include those carrying out bicycle taxi transportation, *Jua Kali*, and cane-cutting businesses. Overall, the scope of the SHGs is very wide, and there is no doubt that if organized more effectively and professionally, these groups can improve the communities' livelihoods substantially. They also stand a good chance of being sustainable as they are initiated by the people and have a high degree of community commitment.

Those interviewed contend that there are only a few SHGs that entirely depend on donor support. They, in any case, attribute the occurrence of most group failures to such dependence. What they consider essential is capacity development for the SHGs. If external assistance is focused on the development, it is reckoned that the groups can thrive on self-drive. Indeed, at Mumias the issue of capacity building is given high merit, and an NGO known as the Community based Tuition Agency exists precisely to cater for the required uplifting.

Elsewhere in Kenya, the SHG type of organization has been tried in community electrification initiatives. The cases, as analyzed by Balla (2003), are three community-based small-hydro power projects undertaken in Meru (Tangu Kabiru), and Kirinyaga (Thima and Kathamba)

areas of the country. So far, there is good progress of electrification through the initiatives. Some details of the electrification are given towards the end of this chapter.

5.1.4 Lack of awareness and unfavourable experiences with cooperatives

Depending on whom you ask in Kenya, you will be given different versions of what a cooperative is all about. A rich coffee farmer who has acquired his or her wealth through a cooperative will give a glowing account of cooperatives, and is bound to see the organization as "our society". The implied ownership will however be seen as a joint ownership between the people and the government. To a worker in a city or town, depending on the amount of shares he or she owns in a cooperative and the size of loans obtainable, the cooperative is most likely a good source of investment. Nevertheless, the worker will be in agreement with the average rural person in the view that the government is behind the cooperative.

The average rural person is the one who forms the largest portion of the Kenyan population, and he or she is the most frequently encountered one in the communities studied in this thesis. Those interviewed within the communities see the cooperative as the government organization that assists farmers in getting inputs for their crops, collecting their produce, carrying out processing and marketing, and finally paying for their production. In their areas, there is now drastically reduced level of activities at the farming related cooperatives, and there are private companies doing most of the work that was being done by cooperatives. Mention was made of the fact that a community like the Mumias Nucleus Community is served by less than 5 cooperatives.

In discussions with members of the communities studied, it also became apparent that they have some faith in SACCOs operating in their areas. Although these societies are still "government related", they have been providing much needed advances for meeting personal expenses and development. Since most community members are farmers, and payments for their produce is usually delayed, they can borrow money from their SACCOs against the security of the expected payments. Still, their faith in the societies is partial because they do not see the societies as their own, and past failures have caused losses in their savings.

In fact, there was plenty of evidence observed in connection with the negative perceptions of cooperatives. During a focus group meeting in Mumias, one prominent community member produced a list of people who are expected to be surcharged for misusing SACCO funds. A copy of the list is included in the Appendix (Coop-Q1 to Coop-Q8), and it shows amounts irregularly acquired or sums that people have borrowed and failed to repay. People in the list include members, management staff, and directors. The amounts involved are substantial, and they could certainly lead to closure of the cooperative if it was a small one.

During an interview with one official of a farmers' cooperative society within the Isoge Community, it was learnt that the society is surviving only marginally, and is recovering from a

near collapse. This is the only agricultural cooperative in the community. A look around the society offices showed signs of dilapidation, and it was learnt that directors double up as management staff since the society is unable to hire workers. It was explained that some of the causes for the poor state of the society were non-payment for pyrethrum and milk delivered more than three years back, and some funds misuse.

A most telling piece of evidence explaining the negative perception of cooperatives in large sections of the Kenyan population came from a government minister. In a widely publicized meeting in Nairobi, the Minister for Cooperative Development and Marketing, who is in charge of the entire cooperative movement in the country, posed the following question:

> *"Where do you think their campaign money is going to come from?"*
>
> The question was in response to a journalist's question which sought to find out why the minister ordered cooperative officials to relinquish positions in their societies before engaging in campaigns for elected posts they wish to vie for in this year's Kenyan general election. What the minister meant was that if the officials remain in their positions during campaigns they would use society money to fund their activities, thus acknowledging existence of malpractices in cooperatives.

While the negative portrayal is gaining ground, there is very limited effort being made to endear cooperatives to the people, especially at the grassroots. There used to be cooperative extension services by government officers, but these have virtually stopped. Additionally, member education at the community based cooperatives is receiving minimal attention. Thus, it is not surprising that most of those interviewed have no idea about cooperative principles, and to them a cooperative is not their organization. Some of those who have the right idea see problems in adopting the cooperative form of organization. One enlightened community member said:

> *"The integrity of a cooperative is about leadership, if you get good leadership a cooperative will do well, if there is bad leadership the cooperative will fail"*

The main import of this statement is that the right leadership is what is lacking, mostly from those who should be promoting cooperatives amongst the communities.

5.1.5 Some positive trends in cooperatives

As indicated in the previous chapter, there are developments that augur well for the future of cooperatives in the country. Government's improvement of cooperative legislation and favourable response to cooperators' wishes are some of the trends that will facilitate desired growth of the cooperative movement. The rising level of professionalism in the movement will also help in reducing mismanagement and misuse of resources. It may also be possible to have

accelerated adoption of the cooperative type of organization once the steering and running of cooperative societies is done increasingly correctly.

With regard to increased professionalism, some evidence was obtained at one of the rural SACCOs visited during field studies. The society, known as the Mumias Outgrowers Cooperative Savings and Credit Society (MOSACCO), draws most of its membership from sugar cane farmers in the cane growing zones of Mumias, Butere, Kakamega, Busia, Bungoma, and Siaya districts. The area served is within a radius of over 50 Km, and the society offices are located in Mumias market centre. The society is the banking arm of the Mumias Outgrowers Company Ltd, which provides sugar cane farming services like inputs provision, harvesting, transportation, and payments.

MOSACCO is duly registered by the Commissioner for Cooperatives, and up to 31st December 2005 had a total membership of 43,515. Observations made during the field visit showed good organization of the offices, staff, and record keeping. It was learnt that the society had serious problems before the current management team took over. Indeed, the surcharges that were mentioned in the preceding section are for recovery of MOSACCO dues and irregular expenditures. Copies of documents giving facts about the society are in the Appendix (MOSC-1 to MOSC-8). Additionally, available records indicate growth in membership, share capital, and turnover as given in Figure 13.

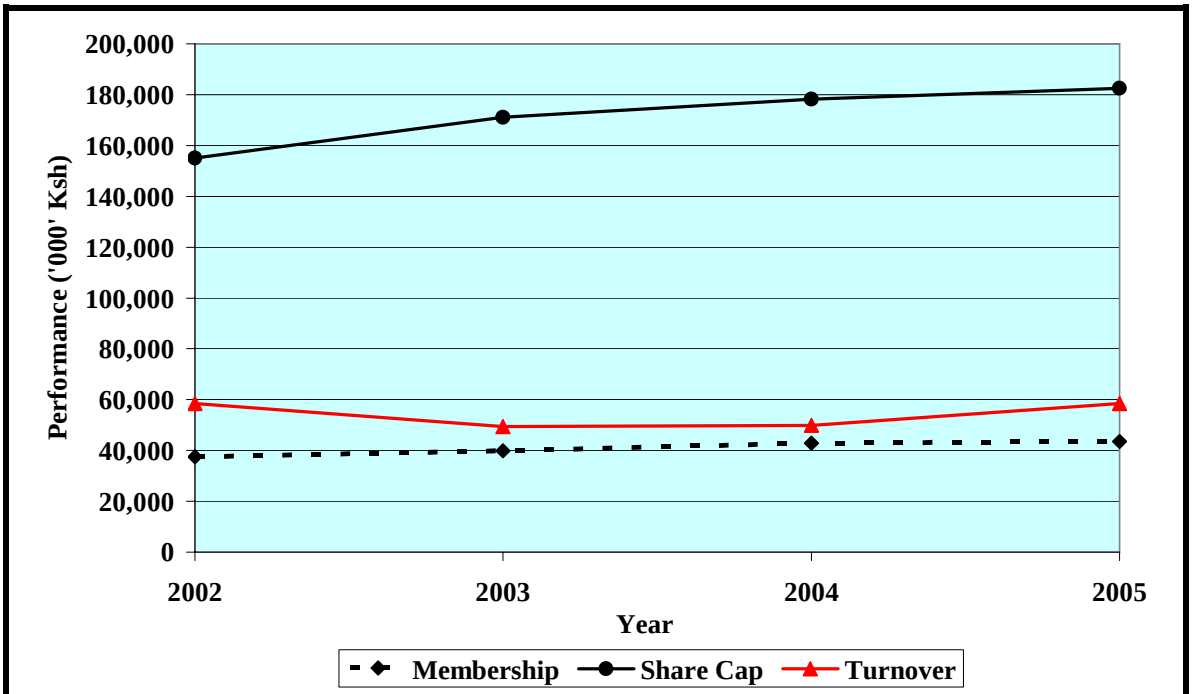


Fig. 13: MOSACCO 4-Year Performance

(Source: MOSACCO records)

5.1.6 Uncertainty in business capacity and relations with industries

Typical business activities undertaken by the communities largely on their own are those that fall within the scope of self-help groups (SHGs). As mentioned earlier, these activities include poultry and bee keeping, bread baking, cane-cutting, bicycle taxi transportation, fabrication and building, and micro-financing. It is generally evident that these business endeavours provide occupations and livelihoods for many community members. They are therefore very important for socio-economic development.

On the contrary, just as the SHG form of organization under which the activities are undertaken is informal, the business pursuits are not systematic. Documentation and record keeping are not done consistently, auditing of accounts is partial, and reporting is irregular. It is therefore difficult to ensure efficiency in the community businesses, and sustainability is uncertain. Evidently, this situation can be explained by the general lack of business training among the community members. This fact has been recognized by most of those providing assistance to the communities, especially NGOs. The thrust of many programmes of assistance has therefore been business capacity building.

Another difficulty with community businesses is that the dividing line between economic or commercial pursuits on one hand, and social welfare promotion on the other, is very hazy. It is definitely necessary for communities to strike a good balance of the two aspects as indicated in the theory section of this report, but where economic efficiency is paramount community businesses score poorly. This explains why public- private partnerships involving private companies and rural communities do not do well where business has to be carried out within the partnerships.

To illustrate the view about community linked public-private partnerships, some evidence collected during the field study is worth mentioning. In this case, the author tried to explore the possibility of the Mumias Nucleus Community partnering with the Mumias Sugar Company (MSC) to extend power supply from the company's facilities to the community. From MSC the author sought a comment on the company's willingness to participate in such a partnership, especially with application of its social responsibility policy. After writing to the company, and making many futile attempts to get a reply, the first response was that legislation has to be changed to accommodate sale of power by MSC and other private power producers in the country.

It is true that the current electric power legislation does not allow sale of electricity at retail level. However, the point the author was making was not about starting an electricity business, but assisting the community to get electricity supply particularly from the renewable energy source at MSC. This was made clear to the company, and it was also pointed out that where assistance towards socio-economic development is targeted, the government can give special dispensation for retail supply to the community. In response, MSC gave a reply that essentially amounted to saying they are in commercial business and would not wish to engage in a developmental venture. A plausible explanation of this is that they do not want to compromise their economic efficiency, by getting involved in the suggested partnership with the community.

On the part of the community, those interviewed expressed varied views about possible electrification through joint efforts between MSC and the community. Some were happy that in the past the company has exercised its social responsibility well by, among other things, improving roads, contributing towards construction of schools, and employing community members at the MSC factory. Others complained that despite the community providing much of its land to the MSC factory and its estate, there was very little assistance given in return. However, all were in agreement that the company's policy towards the community has changed drastically since the company was privatized.

The general perception of the community members was that MSC has become highly commercial. One member was very emphatic about this and said:

> *"See how they have constructed extensive street lighting and advertising bill boards in the major town of Kakamega, which is over 32 Kilometers away, and yet they cannot assist us here"*

Such views are supported by scenes like the one depicted in Figure 14. The shop with the large advertisement of MSC sugar is at a market near Mumias, but the whole market has no electricity supply. It is the feeling of the community members that MSC is ready to use opportunities provided by its members, like the one for the advertisement, but what the company gives back is minimal.

Fig. 14: Mumias Sugar Company Sign of Commercialization
(Picture by author)

5.1.7 Continued Need for Government Support and Direction

Evidence noted in the thesis study so far indicates that over the years, a culture of strong dependence on the government has been entrenched in Kenya. This has been particularly so in the expectation for the government to initiate and run or facilitate public services. Amongst the services are those that are provided through cooperative and electrification organizations which are being considered in this study.

The heavy reliance on the Kenya government can be attributed to the way that the services were introduced after changeover from the colonial system to the independent state. It was soon after the changeover that the government undertook to provide public services on the premise that there was a paucity of capacity for citizens to undertake such services themselves. The situation has not changed much for the period of over 46 years since independence was secured.

There are of course services like rural electrification which are capital intensive and cannot be left to the people to undertake on their own, given the widespread poverty among the population. However, there is no strong reason why people's capacities are not being developed, for at least partially engaging in provision of the services. Along with the capacity development, there is also need for education and awareness creation to get people out of the dependence mentality.

During interviews with members of the communities that were studied, there was clear reluctance by the people to think of possibilities for themselves getting involved in electrification. Obviously, their hopes for getting supply through the government have been high since they are in rural areas, and they feel that they deserve to be included in the REP. Although they have been made to understand that they are not among those to be supplied under the REP, they have not considered options other than grid-based power. More importantly, they have not been sensitized about other possible ways of getting electricity, like was done in the case of the communities in Meru and Kirinyaga, mentioned in section 6.3 of this report. The end result has been a futile and endless wait for electric power, and lost opportunities for socio-economic development.

Another example described in Chapter 4, was the case where it became necessary for the Kenya government to re-establish control in cooperatives, after the withdrawal of its strong grip on cooperative affairs. The withdrawal occurred during the push for liberalization, which saw a change of legislation to facilitate freeing of the cooperatives. Soon after the change there was an upsurge of misuse of resources in the cooperatives, and the government was asked by cooperative members to save their societies from invasion by corrupt directors and other leaders. The problem was that the withdrawal was done too abruptly, and cooperators had not been prepared for the takeover of their societies.

It is apparent that the dependency nature would continue for a long time to come, unless early and resounding measures are taken to put the average citizens more in charge of their own public services. However, before the citizens are empowered to take over, there will be need for the government to continue its supportive and guiding role; and the exercise of this duty should be done diligently so that services are rendered effectively. Cooperative and rural electrification services are some of the examples that require focused government attention.

5.2 Physical and Technical findings

Part of the investigation in the Mumias and Isoge areas was directed towards looking into the possibility of getting power supply from the main agro-industries in the areas to the studied communities. This part was constrained by limitation of resources of the thesis study and the concentration of efforts on the socio-economic aspects of the study. However, some indicative information was obtained as presented in the following.

The first study area of Mumias is as indicated on the map in Figure 15; and its principal agro-industry is a sugar factory owned by the Mumias Sugar Company Ltd (MSC).

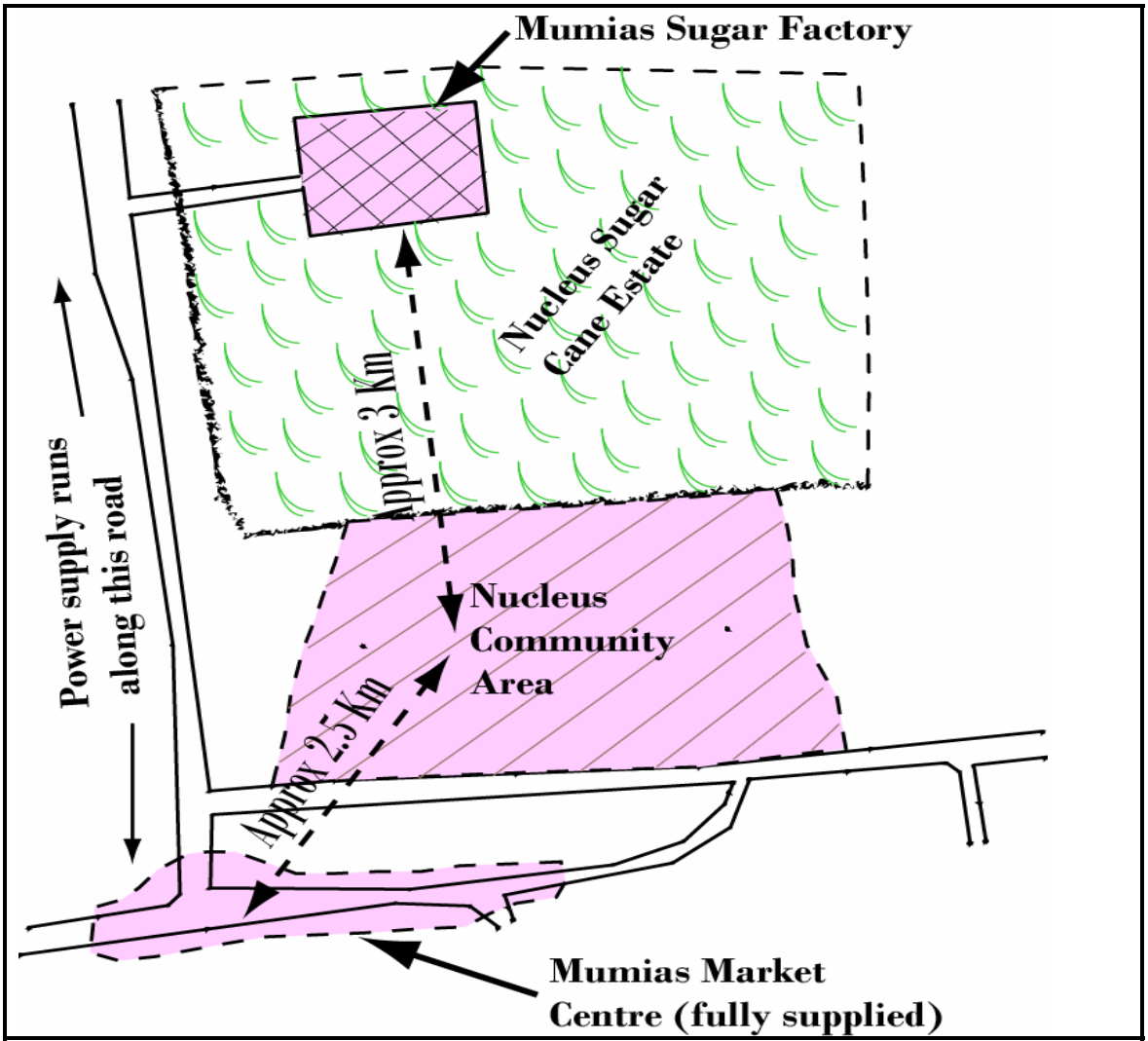


Fig. 15: Mumias Nucleus Community Potential Power Supply Sources
(Drawn from site observations by author)

A great deal of interest in the factory has arisen lately, from people outside the area as well as community members within, the majority of whom are sugar cane farmers depending on the factory for their livelihood. The interest is due to the production of electric power at the factory from bagasse, which is a by-product of sugar cane processing. The electricity produced is a renewable form of energy and is a practical example of energy produced from a rural community source. Therefore, it has a lot of promise in giving a sustainable supply of power, and hence the interest.

Although the factory receives power from KPLC, the external supply is used only for part of the power requirements of the plant. The internal supply is for the most critical requirements, and for non-electrical (heat) energy needs. Another important aspect is that there is so much power generated at the factory that there is an excess that is being sold, the current buyer being KPLC. A total production capacity of 13.5 MW exists at the factory, while only 7 MW is used, and 2 MW is purchased from KPLC. In turn, 2.5 MW is sold from the factory to KPLC. There is therefore another surplus capacity that can be used in supplying other consumers.

As has been indicated previously, the Mumias Nucleus Community, whose members occupy the area shown on the map, has been trying for a long time to get power supply. The community has been hoping to have power extension from KPLC's nearby networks indicated on the map. Unfortunately, the efforts to secure supply have not been successful, for reasons that have been mentioned earlier. Now, with a source of energy present at the MSC factory, there is a possibility for an alternative supply for the community.

A visual inspection of the study area revealed that a high voltage line (11 or 33 Kilo-Volts by Kenyan standards) can be constructed, from the factory to the community area. On a direct route to the approximate mid-point of the area, the distance of the extension would be about 3 km, as opposed to a 2.5 km extension from Mumias Market Centre to the same point. These are indicative figures but they illustrate the alternative possibility. Other physical facilities that would have to be put up to provide power to the community would be additional power equipment at the factory, and low voltage (415 and 240 Volts by Kenyan standards) lines and meters.

There are, of course, a number of policy related issues that would have to be resolved for the alternative possibility to be actualized. Full coverage of these issues is outside the scope of this study, but they are briefly covered in the discussion section and other chapters of this report.

The second study area was the one occupied by the Isoge Community, shown on the map on Figure 16. Here, the situation regarding electricity supply to the community is very similar to the one facing the Mumias Nucleus Community. However, the factory of interest in this case is a tea processing plant owned by the Nyansiongo Tea Factory Ltd. Electricity to the plant is being supplied entirely by KPLC, but there are tentative plans to generate power from one or more small hydropower sources, within the company's tea growing zone. The zone referred to here is

not owned by the company, but is occupied by small-holder tea farms whose owners and farmers are suppliers of the company.

Fig. 16: Isoge Community Potential Power Supply Sources

(Drawn from site observations by author)

Proposals that are being made are for getting power from the hydro-power site(s) to the factory, and supplementing KPLC supply, possibly with a surplus for sale. It is from the proposed renewable supply source at the factory that the Isoge Community may have a source of alternative and sustainable energy.

The community has, like the one at Mumias, made many futile attempts to get electric power from KPLC. The proposed power at the factory could be used to solve their problem. There is a direct distance of about 4 km from the factory to the approximate centre of the community area. It is almost the same distance from the nearest KPLC power supply point at the Nyansiongo Centre to the community. Supply from the factory to the community can be made available along the same lines as the ones suggested for the Mumias Nucleus Community, and the same policy issues would need to be addressed.

5.3 Other Evidence

A relevant set of projects for this thesis study is the group of three community small-scale hydropower initiatives that have been undertaken in Meru and Kirinyaga areas of Kenya. From information by Balla (2003), the areas are around Mount Kenya, which is approximately 170 km to the north east of Nairobi. The first initiative is the Tungu Kabiri project within the Meru area, and located to the east of the mountain. The second and third initiatives are the Thima and Kathamba projects, both of which are within the Kirinyaga area, and they lie to the south of the mountain.

The projects have been carried out as pilots through joint efforts among Practical Action East Africa (formerly ITDG EA), Nottingham Trent University, the Government of Kenya, and the local communities around the project sites. They aim at enabling rural communities to exploit small hydropower resources for meeting their electrification needs. Since there is good potential in the projects to mitigate environmental impacts of energy generation, most of the funding for capital expenditure was obtained from the UNDP/GEF Small Grant Programme.

Significant involvement of the communities has been a major feature of the projects. At the construction stage, and through Self-help Groups (SHGs), the communities provided labour, building materials for the dam structures, and poles for power lines. While some of them contributed through donation of land, all of them made financial contributions through the tariffs that were applied at the operation stage.

Although the amounts of power produced in each project is small (14 Kw, 2.2 Kw, and 1.2 Kw for Tungu Kabiri, Thima, and Kathamba respectively), there was adequate power for the communities. Due to the low level of power requirements, costs were minimized through use of low-cost technologies at the generation plants, and power lines. By matching the technologies with the power requirements in the projects, it was possible to achieve economies that are normally difficult to achieve with power systems provided by large power utilities like KPLC. This is a critical point that makes large power utilities unsuitable for small community power projects.

After construction, ownership of the project assets and businesses was passed to the communities. Since training was also given to community members by the project facilitators, responsibility for operation and maintenance of the power systems was passed to the communities. Where the communities have lacked the necessary expertise, they have been hiring required staff.

It is also important to note that the community served through the Thima project had gone through the hurdles of trying to get power from KPLC before the hydropower project came up. Like those in the Mumias Nucleus and Isoge communities, described in the last two sections, members of the Thima community were asked to pay costs that they could not afford. They abandoned the pursuit of getting power from KPLC, and were later lucky to be included in the new project.

6

DISCUSSION

With evidence from the communities studied, and general facts regarding cooperatives and electrification in Kenya and worldwide, in this chapter an analysis of the thesis study findings is done. At the opening of the chapter a summary of the thesis study up to the end of the data collection stage is given so as to facilitate analysis. Then follows a reappraisal of the theoretical arguments presented at the beginning of the report, and analysis of the study findings is done against the backdrop of the arguments. The information derived from the analysis is linked to the study's conclusions and recommendations that are included in the final chapter.

6.1 Study Summary

At the outset of this study report, the overall goal and objectives of the thesis task were defined. It was stated that the goal is to seek knowledge and action on creation of cooperatively organized and community based rural electrification that can lead to poverty reduction in Kenya. In order to attain the goal, it was planned to investigate the state of rural cooperatives, seek general information about RE cooperatives and the possibility of Kenyan communities forming such cooperatives, explore the possibility of using renewable energy from agro-industries in community based RE, and disseminate information that would lead to action on the study's findings. The study is premised on the likely feasibility of development of RE through community cooperatives; and the idea is inspired by the cooperative culture that is evident in a large segment of the Kenyan society.

Background information on Kenya indicates that the country secured independence from the British colonial powers in 1963. For sometime after attainment of independence, the nation remained under the influence of foreign powers who exercised control through economic aid. In the formative years of the new state, centralized development planning and governance generally was instituted; and despite attempts at decentralization in later years the direction of all activities has remained nucleated. Indeed, it was necessary to have a strong central focus in the beginning, but subsequent neglect of rural parts of the country called for devolution. Resistance to devolution has been encountered and it stems from the existence of patronage and corruption that force the retention of powers at the central level. The new government that

was elected in 2002 has been trying to fight the vices but so far there has been limited success in the government efforts.

The neglect of rural areas arising from excessive centralization has led to among other things a low level of electricity supply outside urban centres. On account of this paucity of electric power, and recognition of the essential nature of electricity in socio-economic development, the REP was formed. It is however unfortunate that the programme has been running for over 30 years, but due to political self-interests it has made very little impact. Hope for improvements in RE is now being placed on a proposed rural electrification authority that is expected to take over the programme, from the commercially oriented KPLC.

Analysis of the problem focused upon in the thesis study indicates that access to electric power in Kenya's rural areas is less than 5%. The low level of power supply contributes significantly to underdevelopment of non-urban areas specifically and the country generally. Through improvement of the availability of power, a measure of poverty reduction and sustainable development, as aimed for in this thesis, can be achieved. One of the major barriers to be overcome so as to make the improvement is lack of the necessary institutional capacity. The barrier can be overcome substantially by involving rural communities in RE, and it is reckoned that cooperatives can be suitably used for the community engagement. The thesis study focuses on exploring the cooperative approach to RE through the communities.

The theoretical framework for the thesis study is based on the deployment of social capital in the advancement of RE, with a view to effectively reducing poverty and enhancing sustainable development. It is deemed that the cooperative form of organization is the right tool for the social capital deployment, and a philosophical perspective for this presupposition is presented. It is shown how the principles upon which the cooperative is founded make the cooperative a suitable vehicle for RE. Guided by the theoretical standpoint of social capital and cooperative organization, the study proceeds via a case study methodology, where Kenya is selected as the case example, and two communities in the country are chosen for closer examination. A qualitative approach to the study is adopted, where interview and focus group discussion methods are employed. There is also extensive recourse to literature and content analysis.

A presentation of the study country shows that economically Kenya ranks highly in sub-Saharan Africa, with an average GDP income per capita of USD 448. However the country is only slightly above the level of the least developed countries. There are very limited natural resources, and most of the commercial energy is imported in the form of petroleum oil. Energy for non-commercial use is mostly obtained from biomass resources, and this has been one of the main reasons for forest cover depletion and environmental degradation. The bulk of the population lives in the country-side where electricity and other forms of modern energy are scarce, and there is a great deal of poverty. Government steered rural electrification has done little to provide power to the rural population, political manipulation being one of the key factors for the low RE coverage. The problem of RE will also be addressed in the PACEAA project, which is looking into ways of serving rural communities from renewable energy

generated or potentially obtainable from agro-industries; and the thesis study is complementary to the project.

Due to the centrality of cooperatives in the thesis study, a fairly detailed historical analysis of the organizations has been made. The widely acknowledged start of the cooperatives was in 19th century Britain, where the industrial revolution caused mass unemployment and poverty among the working class. The struggle for survival motivated workers and peasants to form cooperatives as a means of carrying out businesses that were independent from the exploitative middle and upper class employers and traders. Unlike the purely entrepreneurial businesses that were operated by the rich for profit-making purposes, the cooperatives had the advantage of promoting the economic as well as social wellbeing of the lower classes. They therefore became very popular, and in later years even the middle class adopted them.

The European models of cooperatives were subsequently taken up by the USA and developing countries. Nonetheless, in developing countries their formation and control has been a government affair, and thus they do not conform fully to cooperative principles. In addition, the intended beneficiaries of cooperatives in developing countries do not feel a sense of ownership of the organizations. This is particularly evident in countries like Kenya, where potential cooperators are the unenlightened masses who form the majority of the population. While factors like excessive government involvement and lack of proper ownership have been instrumental in bad performance of cooperatives, in Kenya there has been a counter force stimulating a segment of the same organizations. Stimulation has come from large transfers of small savings and loans businesses from large financial institutions to SACCOs. As a result, the overall trend of performance of cooperatives in Kenya has been upwards. The good performance is partly attributed to a large proportion of professional membership and management of the SACCOs.

Most of the facts indicated above regarding cooperatives apply equally to RE and many other economic activities. Kenya does not have RE cooperatives, and this is one reason why this thesis study is exploring the feasibility of starting them. Due to high capital requirements and low if any return on investments, RE cooperatives depend strongly on government and other support. Therefore, there has to be a trade-off between compliance with cooperative principles and allowing external control in the cooperatives. Other factors that would need to be considered in starting RE cooperatives include: freedom from interference by politicians; cost-effectiveness of design, construction, and operation; and adequacy of technical and business capacities.

Following literature reviews which yielded general information on cooperatives, data was collected in the two rural locations of Mumias and Isoge within north-western and western Kenya areas respectively. Mumias location is pertinent due to the presence of the Mumias Sugar Factory in the vicinity of the location. This factory processes sugar, and is using sugar cane waste to generate electricity. On the other hand, at Isoge there is the neighbouring Nyansiongo Tea Factory which processes tea, and there is a plan to produce electricity from small

hydropower resources within tea estates that serve it. The sugar and tea factories can potentially supply electricity to the Mumias and Isoge communities respectively from their renewable energy production. The other feature of the two locations which is particularly of interest to the thesis study is that the communities in the locations are in rural areas and have no electricity. The communities have made concerted but futile efforts to get power connections, as they have many economic and social activities that require electricity. They are too poor to afford the required connections, but are willing and able to contribute some money towards electrification.

Data collected during interviews and focus group discussions, and through participant and site observations, yielded information that can be divided into seven themes. In abbreviated form the themes are: general desire for electricity, frustration in getting electricity, readiness to act in groups, ignorance about and poor image of cooperatives, some successes in cooperatives, uncertainty about business capacities and relations with industries, and the need for government support and direction. Under the first two themes, it transpired that both the studied communities have for a long time been seeking supply of electricity. Although they are in rural areas, they have not been included under the REP, and therefore they are not eligible for government subsidized electrification. They have been asked to pay amounts of money that are way beyond their humble means to get power connections. They have also been kept waiting inordinately long to get quotations for supply.

Under the third and fourth themes it came to light that the communities are generally not aware that cooperatives are supposed to be their own organizations, free from control from any source including the government. They consider cooperatives to be government instruments of governance and assistance. Moreover, cooperatives have had a poor image among the farmers due to mismanagement that has caused decline or winding up of many of them. There were only a handful of the organizations that are still functioning in the studied locations. On the other hand, community members showed a lot of enthusiasm towards forming informal or semi-formal groupings known as Self-Help Groups (SHGs). There was a proliferation of the groups in the locations, and their activities ranged from farm production, electricity projects, cottage industries, social assistance, to community banking. Members felt comfortable in the SHGs as they did not have to rely on elites to run the groups for them, and there were no complicated or expensive requirements for the SHG operation.

Included in the fifth theme is the fact that the only cooperatives that are operating well in the locations are SACCOs. This category of cooperatives has attracted professional management staff especially in urban areas, and professionalism has spread to SACCO branches and units in rural areas. Although mismanagement affected all types of cooperatives previously, most SACCOs have been able to recover and have a positive growth. Part of the problem facing cooperatives in rural areas is lack of a business orientation in the directorship and management of the organizations. The professionals who are taking over and turning round SACCOs are trained in business skills, and that is why there are successes in SACCOs. The paucity of business capacity is noted in the 6th theme, where in addition the commercial quality of the popular Self-Help groups is seen as being below par. It is also apparent that due to the doubts

that rural industries have about their neighbouring communities' business capacity it would be difficult to have a commercial partnership between the communities and the industries.

On the part of the communities, there is high expectation that the industries in their midst should cater for their welfare through corporate social responsibility. A partnership with the industries is therefore expected and in the process of the partnership the communities' business capacity could be built. The same culture of looking up to the authorities for community development exists between the communities and the government. This is observed under the 7th and last theme. It is clear that the dependency mentality is deeply entrenched and will require a great deal of civic education and government action to change it. Meanwhile, the government should continue supporting and guiding the communities to the extent possible. One area in which support is needed is in subsidization of electrification, and consideration should be made for assisting the communities to get clean energy from the agro-industries producing such energy.

Data collection at the study locations and in Kenya generally also included acquisition of physical and site evidence; informal interviews with public officers, experts in various fields, and members of the public; and perusal of literature and archival information that is specifically available in Kenya. Through site observations at Mumias and Isoge, it was possible to gauge the technical possibility of extending power supplies from the agro-industries at the locations to the communities, and the possibility was confirmed. Extension of supplies could also be done from nearby power grid points, but connection to specific clean energy sources like at the industries would be an innovation that could be a replicable model for the country. Community based RE using clean energy is not new in Kenya, as it has been pioneered in places like Meru and Kirinyaga, but involvement of agro-industries in such RE initiatives has not been done. The studied communities could therefore be the first to get power from community-industry arrangements as are envisaged in the thesis study.

6.2 The Cooperative as a people's tool

From observations made in the study, it has been seen that the cooperative can be a versatile tool for simultaneous economic and social development. This was clearly the case from a theoretical perspective, and from some experiences. The working class people and peasants in industrialized countries were in the early days of the organization able to achieve a high level of prosperity through the tool. Its success also attracted some middle class and upper class people in later years.

However, the success in the western countries increasingly leaned on the economic dimension of the cooperative, than on the social aspect. The cooperative of today's industrialized nations is thus more of a private company than a socio-economic organization in the theoretical sense; and the transformation has taken place gradually. In a way, therefore, the situation in the West

has been such that "The peoples' business", as Birchall (1994) calls the cooperative, is no longer a cooperative but a commercial enterprise.

What seems to have happened is that the ideal cooperative was a useful tool during the transitory period of social turmoil. This was the period of industrial revolution when there was a class struggle; and, in this author's view, the cooperative embodied the struggle between the lower and upper classes of society. Seen from another direction, the cooperative was used by the have-nots to wage a war against the oppressive haves. It was only after the war was won that the weapon was reduced to a simple economic tool with a blunted social edge.

Evidently, the cooperative principles were formulated by thinkers in the West primarily with people in the developed world in mind. Compliance with the principles therefore presented no difficulties and, during the heydays of the socially oriented form of cooperatives, the tenets were used to the full benefit of the western cooperators. There was strong empowerment within and into the cooperatives, and generally no authorities meddled with the affairs of the organizations. Doubtlessly, the general level of enlightenment of the masses helped greatly in ensuring that there was full empowerment and independence. The ultimate outcome of the strong position was a sustainable level of prosperity for cooperative movements.

While it is apparent that the cooperative as a social advancement tool was very necessary for a few decades in the West, it is obvious that the tool has been of essence, and will continue to be so for the foreseeable future, in developing countries. This is because of the long existence of poor masses who need an organization to cater for their social welfare, as well as help them advance economically. The cooperative can be the required solution for the people, but a number of barriers prevent proper adoption of this form of organization. Among the obstacles are: a low level of education and awareness within the masses, use of cooperatives by elites and leaders as a means for political and economic self-advancement, excessive control by governments, and general lack of resources.

The low level of education and awareness makes it difficult for people, especially in rural areas, to know what the cooperative really is and the benefits or privileges that are associated with it. The way that it was introduced to the people gives them the impression that it is a government administration and governance instrument. It is also made to appear too complicated for the people to manage by themselves, and thus elites and sophisticated leaders are required to manage it on their behalf. As a consequence, the latter take advantage of the situation to acquire riches and power emanating from cooperative resources.

Government control in cooperatives has been necessary because of barriers attributable to the lack of enlightenment and elite capture. More significantly, there has been a need for the government to play a supportive role towards nurturing cooperatives as vehicles for national economic development. The government control has in many cases been so strong that its reduction can cause chaos in cooperatives. This is as happened in Kenya, when there was a move to liberalize the cooperative sector through government curtailing its involvement in the

sector's affairs. Also related to government control is support provided to cooperatives to help them overcome the problem of lack of resources. Through governments' own means or with assistance fro donors and international agencies, it has been possible to assist cooperatives in obtaining capital and other means for startup and operations. Withdrawal of government control has often been accompanied by lessening of the required support.

The presence of the barriers to adoption of the ideal type of cooperative is a major drawback to people's initiation and ownership of within the cooperative movements. Instead of people-oriented business enterprises, what exists is generally a government dominated type of organization that supposedly serves economic and social interests of the masses. In such organizations, cooperative principles are being practiced only remotely. Empowerment is also insignificant, and may only take the form of government support to the cooperative.

It is argued here that it is quite possible that had cooperatives in developing countries been structured to conform to the cooperative principles, they would have performed better on the social front than western equivalents. As seen in the case of Kenya, social capital (Putnam, 2001) is abundant among the under-developed communities. It may be expected that the business or economic aspects of the developing nations' cooperatives would in many ways be hampered by lack of business capacity among the people. Still, it can be envisioned that there would be better social and economic balancing than has been the case in the west in recent times.

From a Kenyan perspective, the situation is not very different from that found in developing countries generally. One feature that distinguishes Kenya from many other similar countries, and makes it the topmost in Africa, is the well developed aspect of SACCOs. The involvement of professionals and the conducive environment for SACCOs to act as micro-finance institutions, make this category of cooperatives flourish more than those in non-finance classes. The problems of elite capture through corruption and patronage mostly affect rural cooperatives, where few professional are in charge of the organizations.

Viewed against the perspective of the theoretical standpoints presented in Chapter 3 of this report, the above points are condensed and depicted in the graphic in Figure 17.

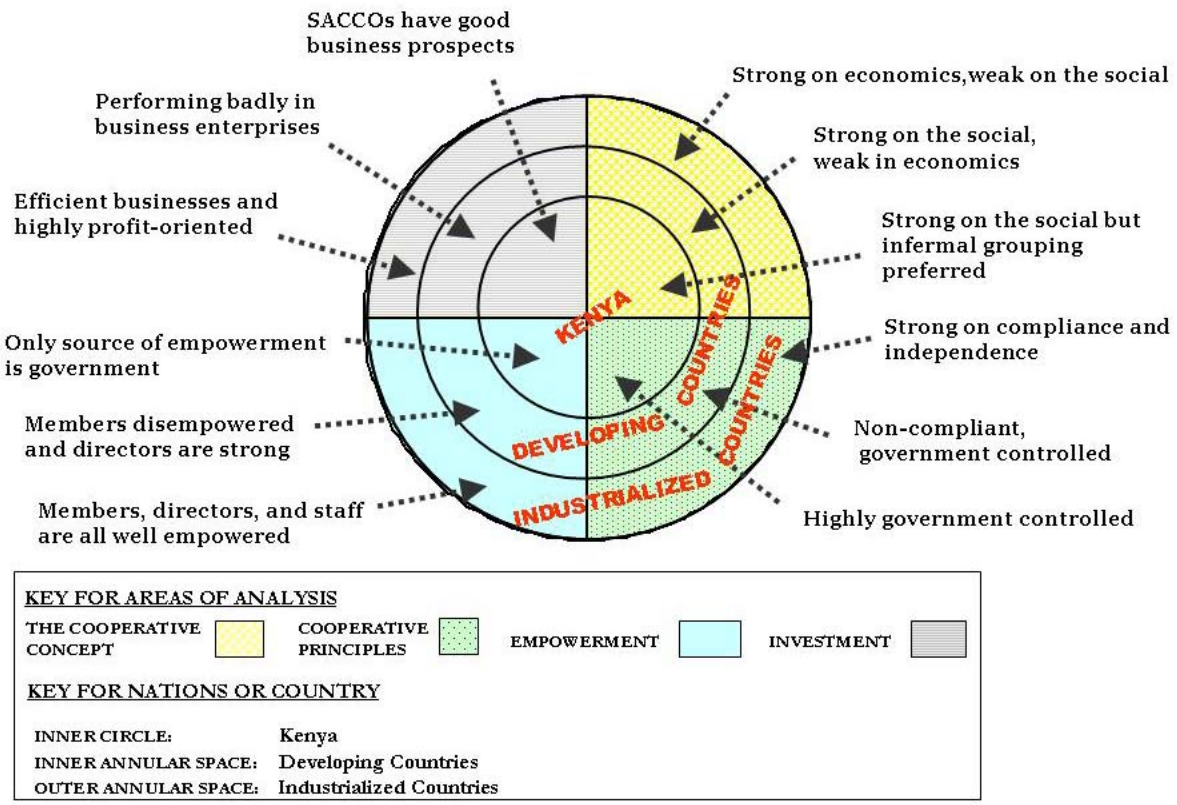


Fig. 17: Principal Characteristics of Cooperatives

(Compiled by the author)

6.3 Cooperatives in Relation to Rural Electrification

Rural Electrification (RE) is a capital intensive undertaking the benefits of which have a strong social element. Therefore, government support is usually required for implementation of RE, one responsibility of governments being facilitation of social development. Additionally, on account of the large investments required, and low or negative returns expected, it is generally not attractive to venture into RE business. Government or development-related intervention is thus necessary to ensure RE is implemented, and people's socio-economic development needs are accordingly met. In this respect, since cooperatives are also designed to promote the same type of development, harnessing of government and cooperative synergies can be greatly beneficial to rural masses.

The complementary nature of governments and cooperatives in RE is applicable to developing as well as industrialized countries. This fact is illustrated by the involvement of government in rural electric cooperatives in the USA. In Chapter 4 of this report, it was noted that 70 years ago

the rural parts of the states were in the same stage of development as the non-urban areas of many developing countries today. Most rural people had no electricity and power utilities that were more interested in defending their bottom lines avoided RE. The level of access to electric power was as low as 10% and it was left to the people to help themselves. It was under these circumstances that cooperatives were formed to carry out electrification within communal groups.

However, the USA electric cooperatives could not by themselves achieve much in RE. Government intervention had to be sought, and indeed there was great success through the Rural Electrification Administration (REA) and NRECA, which connected the cooperatives to the government. In less than 20 years the access to electricity in rural areas rose from 10% to about 90%. Apart from proving that government facilitation in RE is essential the USA case raises the question of whether electricity cooperatives can conform fully to the ideals of the cooperative principles. With reference to the arguments about the proper functioning of cooperatives advanced in the previous section, the question that particularly arises is: "Did the USA electric cooperatives cede control when they depended on government assistance?" The answer is partly yes, as the following slightly paraphrased excerpt from Tumiwa (2002) indicates:

> *"……Many service entities were created to take over the functions that had been served by the REA, as government gradually reduced its role and the New Deal's rural electrification development programme evolved into a distinct segment of the commercial electric utility sector of the U.S. This aspect of the U.S. rural electrification experience has very important implications for the success of similar electric cooperative efforts in developing countries, namely, to develop strategies for transferring functions and responsibilities from government administrators and supervisors to the coops themselves.*
> *In the modern era, many NRECA member coops "opted out" of the REA, marking the end of their dependency on government-assisted financing in exchange for greater independence……"*

The fact that there were government supervisors for the cooperatives, and the cooperators wanted to be free from the dependency indicates that there was government control. Obviously, this was a price to pay for the support received, and in that regard the cooperatives were not free from interference as cooperative principles require. Also to be noted is the fact that the existence of external control makes the USA electric cooperatives an exception to the rule as generally cooperatives have a high degree of autonomy in the country. Furthermore, this aspect of electric cooperatives was transferred to developing countries that have adopted the USA model, and it has been amplified in these countries due to the higher degree of involvement of government in cooperatives generally.

The compromise that was inevitable in the USA underscores the normal difficulty of RE cooperatives. Although it is ideal for cooperatives to run their businesses freely and democratically, when external support has to be relied upon as in the case of RE businesses, the cooperatives are forced to give up some of their autonomy – and full compliance with cooperative principles. The government is usually the main source of support, but donors can

play a major facilitative role as exemplified by the cases of the Philippines, Bangladesh and Tanzania. Unquestionably, RE businesses cannot run successfully with total cooperative principles conformity. It is therefore to be expected that developing countries have to accept pseudo-cooperatives – what the author translates as "half-baked" cooperatives – in the area of RE.

Notwithstanding that government control in RE cooperatives is imperative, and that it has ensured success in some countries, there is need to divorce control from political interference. From available evidence, it is critical that meddling by politicians is avoided in order to run the cooperatives efficiently. Indeed, this should be the case for all RE. However, it requires a strong government will to keep politicians out of RE affairs. The will has been well demonstrated in Costa Rica and Bangladesh, and hence the RE cooperatives successes in these countries. It is reasonable to believe that other developing countries can do likewise.

RE and the cooperative sectors in Kenya have been deeply infiltrated by politicians, to the detriment of rural development. The haphazard and inequitable way in which RE has been carried out so far is testimony to this. There is however hope for reduction, if not elimination, of this malaise as progressive policies of the new government get entrenched. For example, the starting of an RE authority marks the beginning of an opportunity to develop electrification professionally, and with few economic and social distortions. The authority can be shaped into a successful RE body, like the Rural Electrification board of Bangladesh, which coordinates and implements RE through cooperatives. Another positive policy example is that of strengthening of cooperative legislation to, among other things, enhance regulation and eliminate misuse of resources in cooperatives.

With respect to rural people's capacities for organizing and running enterprises successfully, the situation relating to RE cooperatives is the same as, or a little more critical than, that prevailing in developing nations generally. The levels of financial and technical skills needed to run RE businesses are high. Therefore, for rural people to be involved in these businesses, a major effort must be made to develop their capacities. A good example of the required endeavour is the case of Urambo Electric cooperative in Tanzania. In this case, the Tanzanian government through TANESCO, and the Swedish Environmental Institute (sponsored by SIDA), developed and ran an elaborate training programme for the Urambo people. This is a successful example which can be emulated by countries like Kenya.

6.4 Alternative Forms of Organizations

In the primary evidence of this thesis study, it was worthwhile to note that although the popularity of cooperatives in rural areas of Kenya is low, there are preferred alternatives. By far, the leading alternative is the Self-help Group (SHG) type of organization. The fact that at the Mumias Nucleus Community there were close to 200 such organizations in a population of around 3500 is remarkable, especially in view of the existence of less than 5 cooperatives in the

same community. Preference for the SHG can attributed to *inter alia*: the simple nature of the SHG, which the unenlightened community members can comprehend; the possibility for doing without imposition of knowledgeable leaders, who would be necessary if the organization was more formal or elaborate; the ability of members to participate on equal terms; and the relatively low cost and convenience of starting and running SHGs.

The issue of leadership in SHGs and other similar community organizations is a complex one. It poses a dilemma because on the one hand leaders with know-how are required to direct and guide members, especially on matters of a technical nature. Unfortunately, the knowledgeable leaders in many cases impose their will on the majority of members, and even take advantage of their positions to acquire power and communal resources. When the leadership imposition happens, most members become passive and leave affairs of their organizations to leaders. The problem of passivity among members and leadership emasculation is common in the more advanced community organizations like cooperatives. It is one of the main causes of mismanagement of resources, and eventual decline or collapse of the organizations.

Conversely, SHGs do not necessarily require advanced leadership. In the SHGs there is a high level of social capital (Putnam, 2001) as each member feels at par or on equal partnership with other members. Since the cooperative spirit is also high, there is a protective attitude towards communal resources; and due to substantial participation the organizations' output is relatively large. The end result is generally good performance amongst the organizations.

However, due to the informal nature of SHGs and like organizations, the business or commercial side of the organizations is much weaker than the social side. As mentioned earlier, the members may be only partially educated, and they are not adequately prepared for such practices as book-keeping and records management. They would certainly be good in social matters as these are within their capabilities. The good performance indicated above is therefore more on the social dimension than on the commercial respect. It can also be concluded that the preferred type of organization is more suitable for small-scale activities that do not involve any complex issues.

Another drawback of the SHG's is the lack of a good legal standing. According to Mumma (2005), these organizations are not covered by substantive legal provisions. There is therefore a risk of such entities losing out in case of complex legal suits. It has been indicated that the solution to the legal problem is to convert the SHGs to community associations (ibid). This change would cost the community some money. Legal advice would probably be required as well, meaning more money would have to be paid and time spent. However, the organization would be adequately covered legally after the change.

It would seem that the suitability of an SHG as an organization for RE has been recognized in Kenya. This can be surmised from the small-scale community hydropower projects undertaken in Meru and Kirinyaga areas of the country (Balla, 2003). There is however scanty information about why the SHG type of organization was selected. A likely explanation would be that this is

the form of grouping that the communities involved could easily identify with. It would be interesting to know how in due course the projects will perform within the context of the SHG organization type. However, it can be envisioned that progress would be good for as long as the scale of activities remains small, and no legal tussles arise.

A suitable strategy for RE schemes that operate under SHGs could be to start up as such or as community associations, and when they increase their level of activities they convert to cooperatives. If the ongoing efforts to strengthen the cooperative sector in Kenya are successful, there would be good incentive for the SHGs to convert to cooperatives, and for formation of electric cooperatives at all scales of operation. In sum, it is argued here that there is scope for future formation of RE cooperatives in Kenya, provided that the cooperative membership is properly empowered. The necessary institutional arrangements would also need to be established, including an RE body that would serve as an umbrella organization for cooperatives. There would thus be no need for SHGs in the provision of RE.

6.5 General Facilitation of RE in Kenya

It is evident that past efforts to expand RE in Kenya have not achieved much. The fact that over 95% of the population in the country's rural areas does not have access to electricity after 30 years of the RE Programme (REP) is a clear manifestation of the under-achievement of the efforts. There is no doubt that the politicization of the REP, an the inclusion of the programme under KPLC which is a commercial entity, have a great deal to do with failures of the programme. More important still, has been the paucity of innovative ideas on development of RE, or non-implementation of good proposals.

Signs of very positive steps towards RE enhancement are now showing in such developments like the enactment of the new Energy Act, 2006, which has paved the way for creation of an RE authority. This entity should be able to perform much better than KPLC in expanding RE, as it is dedicated to the task. If, at the same time, the level of political interference in RE is at least minimized, the authority is bound to operate professionally and facilitate rural development through electrification.

So far, the only entity that is allowed by law to distribute and sell electricity in Kenya is the KPLC. This situation has been a bottleneck to expansion of RE since, if the law permitted, there are many power producers who could use their electric power to supply rural people near them. An example is the Mumias Sugar Company, mentioned in the previous chapter of this report. Probably, consideration can be made under the rules of the new energy law to facilitate provision of power from such producers to deserving rural communities.

With regard to power distribution by entities other than KPLC, it is noted that the minister for Energy is empowered by law to allow exemption in special cases. The ministerial dispensation was applied in the Meru and Kirinyaga examples indicated in the preceding sub-section. The

justification for such permitting was the stimulation of community-driven electrification using renewable energy. Although the communities are only allowed to distribute power among their members, the measure taken is a significant first step towards facilitating non-utility power distribution and promotion of community-driven electrification.

Another measure that can possibly be taken by the government to stimulate RE by communities is facilitation through subsidy support. Reduction of costs through subsidization of investment and operation, or investment only could greatly ease the communities' burden and make it possible for them to undertake electrification projects. For example, a group like the Mumias Nucleus Community could be aided through subsidies and other financial support to extend power from Mumias Sugar factory to their farms. The government could fund the assistance from the RE levy that is normally charged to existing power consumers and used in electrification projects. The government's contribution could also be used to leverage assistance from other sources such as donors.

The suggested assistance to rural communities would be equivalent to extending power to the communities through the REP, but in an innovative way. Morover, getting power from a renewable energy base as exists at the Mumias Sugar Factory would be promotion of the use of a local sustainable energy source. While the promotion would be good for the economy, it would also be an environmental protection measure. For the latter reason, clean energy funding aid could be secured towards developing the community RE projects.

6.6 The PACEAA Project

Bearing in mind that this project seeks to pave the way for RE through utilization of clean energy generated by agro-industries, the findings of this study are very compatible with the project. The examples of Mumias Nucleus and Isoge communities serve as pertinent cases that can be used in the initiative. In the study, the organizational aspects of electrification for the communities have been explored; and it is clear that with the right kind of support, the communities can effectively participate in providing power for their use. The support can be as was given to the beneficiaries of the Meru and Kirinyaga projects (small hydro power projects in Kenya), and the Urambo people (electricity cooperative in Tanzania). The PACEAA project can make it possible for the communities as well as others in a similar situation to get the support.

At the community level, the support needed is chiefly organizational, financial, and technical. From an organizational perspective, what is required is to strengthen the institutional setup and business capacity of the communities. Through capacity building that may be carried out by government or other supporting agents, the business capabilities of the communities may be enhanced. Since self-help groups already exist, these may be used initially for helping people to get electricity. However, since the groups are loosely formed and legally weak, they should be

assisted to convert to associations. The latter are more formal and have a sound legal status, and therefore would enable the communities to carry out business effectively.

In the long run, it is reckoned that the organizational setup that would ideally serve the purpose of RE leading to meaningful socio-economic development is the cooperative. This is as argued in the preceding sections, and is well worth considering in the PACEAA Project. Although the best starting organizational arrangement is that of a community association, this would be suitable for very small initiatives such as those in Meru and Kirinyaga, and may be applied in larger initiatives as a stop-gap measure. In this regard the Mumias Nucleus and Isoge communities are included within the large initiative bracket due to the greater sizes of these communities.

The starting of RE cooperatives would have to be done carefully in order to achieve the best possible impact. The existing poor image of cooperatives in the rural areas is a significant deterrent factor. A great deal would have to be done first to clear the negative portrayal. What can be done within the PACEAA project is to initially sensitize relevant authorities in the government on the benefits of electricity cooperatives, and the need to have measures towards instituting the cooperatives. The authorities that would be critical in this regard are those in the ministries of energy and cooperative development respectively. At a stage within the project or afterwards, some pilot projects may be undertaken to demonstrate the potential impacts of RE cooperatives.

The financial and technical aspects of the required support to communities are largely outside the scope of this study, and it is expected that they will be addressed in detail in the PACEAA project. The financing aspect may entail looking for ways of subsidizing the cost of extending electricity supply from the agro-industries to the communities. Members of the communities have demonstrated their strong desire for electricity, and their readiness to pay what they can afford towards getting the power. Subsidization is certainly needed for meeting the shortfall between what the people can afford and the full cost of supply.

Also critical in making power affordable to the communities is the need to keep costs low, through appropriate technical and other designs. KPLC, which is responsible for RE and has been the one asking for heavy upfront payments for power to the communities, has not been sufficiently innovative in bringing costs to affordable levels. It would be useful for the PACEAA project to advise on appropriate technical solutions for lowering costs to the communities. Through the project, advice could also be given on possible financial arrangements that may ease the burden of payment by the communities, both capital and recurrent.

It is evident that agro-industries would have no problem in supplying power to the communities if they are assured of full payment for capital and operational costs of service to the people. In this connection, the only assistance that can be expected from the industries to

the communities is the sale of part of the industries' self-generated power to the communities, instead of using it all for their needs, or selling it all to the grid.

Possibly, if the industries are assisted in the production of renewable energy through clean energy funding, then they could in turn assist the communities to get power supply, or the green funds could be provided for community electrification directly. This is a point that is important to consider, especially due to the fact that there is already a proposal for assisting some agro-industries under the UNEP/GEF (GTIEA and Cogen Africa) projects mentioned in Chapter 3 of this report. From an even broader perspective, consideration may be given to providing incentives for private clean power producers to set up power generation for supply to communities, on a public-private partnership basis.

At the policy level, it is imperative that the PACEAA project informs the new RE authority and the setting of rules to the new Energy Act generally. This is in addition to disseminating information that would promote cooperatives, particularly for RE. As indicated in the last section, proper functioning and professional performance of the RE authority is essential for any substantial improvement in access to electricity. This is because business-as-usual working of the body could lead to RE services heavily distorted by politics and other extraneous factors. Rural communities would therefore hardly benefit from the progressive step of the authority formation.

A vital requirement for the supply of power from agro-industries or any power producer wishing to supply at retail level is that legal provisions be made for such supply. This is due to the fact that present Kenyan laws do not allow for power supply to retail customers by any entity apart from KPLC, unless ministerial exemption is obtained. Sale of bulk power supply is allowed, but the only customer legally permitted to receive the supply is KPLC. It is therefore important that in the rules to the new Energy Act, the restriction placed on the potential power suppliers be done away with. Action may be taken under the PACEAA project to have the barrier removed, so that RE supply to communities can be provided directly from private retail power suppliers. The alternative would, of course, be to have exemption sought for each supply from rural producer to community or communities.

7

CLOSURE

In this closing chapter of the thesis report, stock is taken of the accomplishment of the study, the study's conclusion and recommendations are submitted, and future or follow-up action is suggested. To begin with, the research question of the study is revisited, and the answer to it is given and explained. Then the objectives of the study are considered in the light of what has been achieved. A review is also made of the strong features of the study and areas that would need further work. Ultimately, inferences are made from the study findings and proposals are made for actions that are deemed necessary; and indications of next steps following the study are made.

7.1 The Research Question

Based on the central problem of low access to electricity in rural parts of Kenya and the institutional inadequacies causing the low access, the question posed in the study research is:

"Are community cooperatives suitable for development of rural electrification in Kenya, and how can the suitability be achieved or enhanced?"

It is clear from the study findings that the answer to this question is not a straightforward one. In fact, the answer to the first part of the question would be "Yes and No". The *Yes* part stems from the strong cooperative spirit that permeates the Kenyan rural society as a whole. People in the rural communities are ready to work together to promote mutual welfare and livelihood. Through their semi-formal groups, they have been actively involved in initiatives that demonstrate the spirit. Indeed, one of the endeavours that they have been engaged in is pursuit of electricity supply. If they are given proper support they can go to great lengths in obtaining electric power, and using it to uplift their socio-economic standards. By formalizing the existing community groups, it would be possible to use the groups as substitutes for cooperatives in the development of community driven RE.

The *No* part arises because the formal cooperative, as understood internationally and conforming to cooperative principles, does not exist in Kenya. Cooperatives that are

government-oriented rather than people-oriented as would be expected under the cooperative principles do exist, and in addition to non-conformity with the principles some of them are perverted by elite capture. Therefore, until distortions are removed generally, and particularly in rural cooperatives, the cooperative type of organization is not suitable for RE in Kenya.

To answer the part of the question about how suitability can be achieved or enhanced, it would first be necessary to state that the issue of enhancement does not arise, because as indicated the existing type of cooperative is not suitable for RE. What needs to be considered is the achievement aspect, and this has been given attention in the study through recommendations about required action. The key recommendations that are appropriate for the achievement are those that point to the need for action by the government of Kenya. In this regard, the government is urged to gradually withdraw from the cooperative movement, while strengthening cooperative members' ownership and business capacity. Development aid agencies and others who can help in building the cooperative organization capacity of potential and existing cooperative members are also urged to take action. Further, the ministry of energy of the Kenya government is urged to start an RE authority that is innovative enough to develop community driven electrification, through cooperatives or similar people oriented organizations.

7.2 Study Objectives

Briefly stated, the objectives of the study seek to investigate rural cooperatives in Kenya relative to other countries' cooperatives, get information on RE cooperatives, explore possible use of renewable energy from agro-industries for community RE, and disseminate information through the study report. Reflecting on the study work, all the objectives have arguably been met, except the last one which will take time to fulfill. It is through attainment of the objectives that it has been possible to provide an answer to the research question, which is given above; and to reach the conclusions and recommendations included in the previous chapter.

Pursuit of the objective on rural cooperatives in Kenya has revealed that Kenya, like other developing countries, has been having cooperatives that are greatly dependent on government. It also came to light that rural people in Kenya do not have a sense of ownership for cooperatives. Evidence on these facts came particularly from field work in Kenya. Literature on cooperatives worldwide is plentiful and it complements field evidence well, especially on the weaknesses of developing nations' cooperatives.

From literature, there was abundant evidence obtained towards meeting the objective on RE cooperatives information, with the cooperatives being considered on a worldwide scale. Only limited evidence in this regard was obtained in Kenya as there are no RE cooperatives, and the closest initiatives to this sort of electrification are those where rural communities have been involved in hydro-electric based power generation and supplies.

Some difficulties were encountered in meeting the objective of how to provide renewable energy for RE. The main problem was getting a confirmation that agro-industries, which are expected to generate the clean energy, would be able to give power to communities neighbouring them. Apparently, the industries need to be convinced that the communities can successfully be involved in RE business. They also need to be sure that power can be supplied to the communities on commercial terms that would not compromise their profitability. Of course, addressing their concerns is beyond the scope of this study, but it is clear that once they get the necessary assurances, there would be no problem in having power supply from them to the communities. Technically, the study showed that it is largely feasible to get power from the industries to potential electricity consumers in their neighbourhood.

The objective on information dissemination will be met when the study report is completed and circulated to all relevant stakeholders and the public generally. Presentations will also be made as necessary.

7.3 Reflection

While considering the accomplishments of the study, it is worthwhile reviewing the major strong points of the study and areas that were constrained and would need further work. On areas of strength, the following were the most prominent:

Cooperative organization Characteristics

The theoretical and empirical aspects of these characteristics have been looked into fairly deeply. This is particularly with regard to inclusion of the social dimensions in cooperative businesses, to cater for collective welfare of communities. The cooperative principles which foster the collective wellbeing are described in detail, and their applications in various national contexts are analyzed. The historical processes that gave rise to the characteristics are also given a fair level of attention. From the detailed coverage it is possible to weigh the success of Kenyan cooperatives relative to other countries', and the likelihood of these cooperatives being effective vehicles for carrying out RE development.

Analysis of Kenya's Political Economy

The general economic and political factors that shape the development of cooperatives and RE in Kenya have been examined to a reasonable extent. Both historical and current aspects of the economy have been described and analyzed across several chapters of the report. Similarly, the political environment that affects the issues covered in the study has been considered. From the information given, it is clear that the Kenyan economy is a small one but with good potential for growth. However, there are socio-economic and political barriers that need addressing so as to enhance development drivers like cooperatives and RE.

Investigation of Communities' Electricity Concerns

The two communities that were studied manifestly show their desire for electricity and the dedication they have towards getting the energy. Indication of the desire reinforces the wide knowledge that the thesis author has about Kenyan rural communities' great interest in electric power. Due to the studied communities' enthusiasm for getting power supply a good deal of data for the study was obtained from the people. Therefore, the enthusiasm was a source of enrichment for the study.

Consideration of Factors Limiting Kenya's RE

At the centre of the problem that the study is looking into is the low level of electricity access in Kenya's rural areas. In the problem highlight section, and other parts of this report, the factors that limit the access are considered to a reasonable level of detail. The extent of coverage of the factors has facilitated good information on Kenya's RE, and assisted in coming up with recommendations for enhancing the RE.

On the downside, there were various areas of deficit which constrained the study from attaining the highest possible level of success. The most notable areas were:

Depth of Coverage of Financial Issues

It was pointed out in the Problem Background and Highlight Chapter of this report that the main factors impeding access to electricity in Kenya's rural areas are institutional and financial. However, due to limitations of the study, only the institutional factors could be adequately examined. Doubtlessly, in the search for solutions to the rural electricity problem, prioritization of the institutional factors is important as they largely override other factors. On the other hand, financial issues are critical and cannot be ignored. In the study, the issues were briefly taken into account especially where financial information was required to support arguments or trends in institutional matters. An assumption was made that such financial issues as the high costs of rural supplies, affordability of electricity running costs, and securing of financing could be overcome once the right institutional setup is in place. While this is a reasonable assumption, its confirmation would have raised the profile of the study. The confirmation would however have required a sizeable level of investigations and is therefore outside the scope of the study.

Comparisons with Other Alternative Organizational Types

The study was based on the premise that the cooperative form of organization is the right one for community based RE. It was assumed that the alternatives to cooperatives would

have been companies and social groups, and that both the alternatives are less suitable than cooperatives because of problems of balancing social and commercial dimensions of community development. Had there been a wide enough scope for the study it would have been ideal to confirm the validity of this assumption, especially in view of the studied communities' tendency to prefer social groups.

Details of Specific Cooperatives in Study Area

Some of the few cooperatives operating in the study area were visited for purposes of data collection. However, adequate data could not be obtained due to the general lack of transparency in the management of the cooperatives. It is for the same reason that some of the cooperatives could not be visited. Had time and other resources allowed, the study area could have been expanded to include places where there are more cooperatives -- and therefore more chances of getting data

In general, the constraints faced in the study can mostly be attributed to limitations of resources which led to curtailment of the study scope. However, the information obtained is sufficient to come to conclusions that are presented below. The recommendations that follow the conclusions are also backed by sufficient evidence, and bearing in mind areas that are not fully covered by the study further research needs are indicated.

7.4 Conclusions and Recommendations

From both theoretical and empirical perspectives it is manifestly clear that the cooperative is an appropriate form of organization for rural electrification with a sustainable development or poverty reduction objective. Where RE has been carried out through properly functioning cooperatives, there has been a high level of success. Although the true type of cooperative, with full compliance of cooperative principles, does not exist in developing nations, there is a significant number of RE cooperative success stories among these nations. Among them is Tanzania, which is not very different socio-economically from Kenya.

However, in Kenya there are no RE cooperatives, and there is currently a bad image associated with rural cooperatives. Evidence shows that there exists a strong cooperative spirit among rural Kenyan communities, this being in keeping with the *Harambee* culture of the country as described in section 4.3.1 of this report. The spirit is put into action in self-help groups as demonstrated during the study, and as known by the author based on knowledge of other communities in the country. The self-help groups have contributed greatly to socio-economic achievements of the communities, and have been used to seek electricity supply for the communities. They clearly manifest the strong self-drive of the communities, and the same spirit can be used in building powerful cooperatives.

The main problem of Kenyan cooperatives has been elite capture and excessive control by the government. The first element of the problem arises due to the large number of uneducated or semi-educated cooperative members, who rely on educated people to guide them in cooperative business matters. The elites have, unfortunately, been taking advantage of the situation to misuse cooperative resources with resultant decline or collapse of the cooperatives. The problem has been mostly in rural cooperatives, as the urban ones have been saved by the presence of many enlightened members. If the rural communities had a chance to get enlightenment like their urban counter-parts, and thus be free from leaders' domination, they would be able to achieve a great deal through their self-drive. This is why in this thesis study it is found fitting to use the slogan:

"People's development drive struggling to cut the leash"

The excessive government control has created the impression among the general public that cooperatives are government organizations, and therefore members do no feel a sense of belonging. A strong culture of dependency on the government exists in cooperatives, in part due to the perceived ownership of the cooperatives by the government, and also due to vulnerability of members to manipulation by leaders. When government control is reduced leadership malpractices increase, and conversely strong control suppresses members' voices; thus members are subjected to a vicious cycle.

There is however hope that a solution to the Kenyan cooperatives problem will be found, as the government has identified causes of the problem, and is taking necessary steps. Corrective measures have started from legislative aspects, as a new cooperative law is being worked out. There is also more interest being taken in cooperatives, especially SACCOs, by professional members. What is still largely lacking is civic education and awareness creation among cooperative members, both existing and potential. It is hoped that this capacity building step once adopted will help to sensitize members on their rights and obligations, the benefits they can get from cooperatives as their own organizations, some business skills needed for running cooperatives, and how to avert misuse of cooperative resources. In future, with the required steps taken, it would be possible for cooperatives to function properly and as such RE can be carried out through them. For the present and immediate future, community associations which are improved versions of Self-Help Groups can be used in development and management of RE.

It has also been seen that electrification for rural communities can be done using clean energy from agro-industries. From an organizational point of view, the study has shown that the RE can be carried out through community associations. There are however institutional, financial, technical, and policy barriers that require to be removed, and these would best be addressed by the PACEAA project.

As a complement and corollary to suggestions made in the foregoing concluding points, recommendations of this study are given in the following (Table 5). The bodies or entities that

would be suitable for taking recommended actions are: the government of Kenya, Ministry of Energy (MoE); GoK, Ministry of Cooperative Development (MoCD); PACEAA project team (simply called PACEAA): Electricity Regulatory Board (REB); Development Aid Agencies (DAAs); KPLC; Consultants; and Researchers.

Table 5: Study Recommendations

AREA OF CONCERN	SUGGESTED ACTIONS	RECOMMENDED ACTORS (see text before the table)
Energy policy and legislation	Complete formation of the Rural Electrification Authority, giving it full autonomy and keep it free from political influences. Also make rules to the Energy Act 2006, allowing for retail power supply from private power producers to rural communities. Have more community-based RE initiatives, and create the necessary institutional framework for them	MoE REB PACEAA
Inconsistency in RE	RE assistance to communities should be applied consistently, and not have some community members supplied with power while others are left out. If funds are not enough to cover a given area, those who cannot be covered should be assisted through other ways, like arranging soft financing for them. This is an area that the new RE authority needs to address seriously	MoE REB KPLC
Cooperative policy and legislation	Accelerate action on the proposed Cooperative Act, so that provisions for curbing of cooperative malpractices can be made as soon as possible. Gradually reduce control on cooperatives, but develop people's capacity for forming and effectively running cooperatives	MoCD
Closer auditing and probes on cooperatives	There will be need for cooperative members to be empowered to take full charge of cooperatives without external controls. However, before the empowerment it is necessary to strengthen auditing and policing of cooperatives to stop misuse of resources, and ensure members' rights are protected. Supervision and monitoring could be done by government and other external agencies without seeming to take charge of the cooperatives. As members' capabilities grow, internal controls should be strengthened and external controls gradually removed	MoCD

…….Table Contd.

Table 5: Study Recommendations (Continued)		
AREA OF CONCERN	**SUGGESTED ACTIONS**	**RECOMMENDED ACTORS (see text before the table)**
Education and awareness	Increased civic education and awareness creation among existing and potential cooperative members are required. The main target of the effort should be to make members aware of the tenets of cooperatives; and members' rights, obligations, and benefits. Ways to fight elite capture can also be addressed. Additionally, business seminars would be needed to build members' capacity for running cooperatives as profitable organizations.	MoCD DAAs
Funding for innovative RE initiatives	Since increased access to electricity in rural areas can be achieved through innovative initiatives like RE through community-based efforts, more electrification funding should be allocated to such initiatives. The GoK and aid agencies should give serious consideration to this in view of the very low impact of past aid to RE.	GoK (MoE and ministries of Finance and Planning) DAAs
Project plans and activities	Under the PACEAA project, it is recommended that clean energy funding for RE supplies from agro-industries be sought. Additionally, if in situations like those at Mumias and Isoge power cannot be obtained from agro-industries, inexpensive ways of supplying power from the nearby grid points to the communities can be designed, involving labour and other inputs from the communities	PACEAA
Closer inter-activity with rural communities	Involve rural communities more in planning and implementation of projects and programmes designed for the people's benefit, and make the initiatives more need-based. Closer interactions between planners and communities are required.	MoE; MoCD DAAs, REB, KPLC, Consultants, Researchers
Further research	With a view to integrating community based RE in energy policy and system, it is recommended that research be carried out, and possibly pilot projects be undertaken, in various parts of the country, using different types of power generation technologies and community settings. The studied Mumias and Isoge communities could be considered for piloting. It is also recommended that research be undertaken in the areas of financial requirements and viability for community based RE, and the feasibility of making Self-Help Groups capable of developing and managing RE.	MoE REB PACEAA Researchers Consultants

7.5 Follow-on

It is intended to have follow-on actions taken by the author to get the study recommendations implemented. The first step will be to draw attention of the relevant people to the study findings and required actions. Then, wherever possible, the author will be involved in implementation of the recommendations. It is hoped that the PACEAA project, which will start soon, would be one of the earliest means for executing the recommendations.

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MASWALI YA UTAFITI JUU YA VYAMA VYA USHIRIKA NA STIMA

[**Mtafiti atawanza kwa kuwaeleza wahojiwa madhumuni ya utafiti na kuwahakikishia wahojiwa kuwa matamshi yao hayatatumiwa kinyume na matakwa yao]]**

Maswali

1 Je ni mifano ipi ya vikundi walivyounda wananchi katika sehemu hii?

2 Ni miradi gani iliyoweza kufanyika kupitia katika hivyo vikundi?

3 Je vyama vya ushirika vimweza kustawi katika sehemu hii?

4 Ni nini kimewezesha vyama vya ushirika kustawi ama kuwa na unyonge?

5 Kama vyama vya ushirika vimestawi, ni faida kiasi gani imepatikana kila mwaka katika miaka iliyopita?

6 Je stima yaweza kuwafaidi wananchi katika sehemu hii kwa njia gani?

7 Ni mipango gani imekuwako ya kuleta stima huku?

8 Ni uhusiano ama ushirikiano gani umekuwako kati ya wananachi na wenye viwanda?

RESEARCH QUESTIONNAIRE:
COOPERATIVES AND RURAL ELECTRIFICATION

[The researcher will start with an explanation about the purpose of the research, and assure interviewees that information they give will not be used against their interests]

Questions

1. What examples are there of groups formed by community members in the area?

2. What projects have been carried out by the groups?

3. Have cooperatives been formed and have they prospered in this area?

4. What has enabled cooperatives to prosper or weaken?

5. If cooperatives have prospered, how much have they been able to earn per year?

6. How can electricity benefit the community in this area?

7. What arrangements have there been to provide electricity in this area?

8. What relationships exist between the community and industries?

Applied in 1999 November.

Appendix Page:
Mum – E1
Kenya RE Study

The Kenya Power & Lighting
Co. Ltd.

West Kenya Area - P. O. Box 151 Kisumu, Kenya
Telephone - 035 - 41263/41264/41265 Telegrams 'ELECTRIC'
Fax: 035 - 41721
NEW STATION ROAD

Our Ref:

Your Ref:
Customer Application No.: E24102001080055

ISMAEL WANGOMA MUCHELULE &28 OTHERS
P.O BOX 202
MUMIAS

Quoted on:21/08/2001

Dear Sir/Madam

ELECTRICITY SUPPLY TO YOUR PLOT NO. 636 - LUREKO

With reference to your application for a supply of electricity to the above premises, we are pleased to advise that a provisional scheme has now been prepared.

The total contribution required towards our cost will be in the region of Kshs. *14,376,000.00* and VAT of Kshs.2,587,680.00 @ 18% of which is payable in full prior to our commencing construction.

The above terms which are based on current cost are for your guidance only and do not represent a firm quotation.

It would be appreciated if you would let us know if you wish to proceed with the scheme so that a detailed design can be undertaken. A token payment of Kshs. 1,437,600.00 will be required which will cover the initial surveying and related costs. Upon receipt of the payments, we will proceed to prepare a detailed scheme and give you a firm quotation. This quotation is valid for a period of 90 days from the date of this letter.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

PETER K WAMBUA
AG. SENIOR CUSTOMER SERVICE ENGINEER, WEST KENYA AREA.

EKAMA ELECTRIFICATION SELF HELP GROUP PROJECT – 2005

FIRST MEETING 09:01: 2005:
The meeting was first opened by Dua – recited by Mwalimu Mohammed Ali (Bossy)
MEMBERS ATTENDED

1. Issah mombo
2. Juma Mombo
3. Sowedi kweyu
4. Suleiman Mugeni
5. Juma liya
6. Ismael Wakhu
7. Ali Mukhwana
8. Osman Ondwasi
9. Malwaza Anyanga
10. Ismael Muchelule
11. Ali Bukach
12. Ismail Wang'ona
13. Yusuf Okwato
14. Mohammed bakari
15. Rajab Ondwasi
16. Mwalimu Mohammed Ali
17. Ramadhan Musotsi
18. Hassan Wandete
19. Juma Kulundu
20. Musa Aura Suleiman
21. Ibrahim Nalianya
22. Ibrahim Mulisia
23. Abubakar Munyendo
24. Suleiman Mulisia

MIN: 1 2005.
Chairman had started reading annual General meeting and was interrupted by Suleiman Mulisia. He wanted to put a full picture of the society since it began before its members. He never proceeded ahead and late on members went on with other discussions – relating society.

MIN: 2/ 2005.
Target amount was most important to talk of and the target for men 3,000/= and for women was 2,000/=. Therefore all members were notified to continued contributing their money. The office or councillors (Ismail and Sowedi) should look for a trusted contractor who can fulfil wiring all Ekama residents' houses – ready for power and find Ekama mosque should be supported by area residents.

MIN: 3/ 22005.
Cllr. Muchelule told members to shun away from misunderstanding each other so that we can work together peaceful as one team in our society.

MIN: 4/2005
Chairman reminded members how we welcomed Hon. Mp Mr. Osundwa who brought and supported our project with Kshs. 787,227/=. He and his staff withdrew Kshs. 4,000/= to spend for the MP's mission for their lunch and soft drinks. They (staff) bought a ram for 2,000/=, 2 crates of sodas 630/= and 1,370 for rice and meat and other kitchen cookings

MIN: 5/2005
There after members came out with matters arising and the most important one was" Mashamba ya Ekama "Cllr. Sowedi Kweyu notified our brothers who are dealing with the case - that they should deal with in 2 ways. One political and two as it is in the court. By political brothers should consult their respective councillors by writing so that councillors should book area Mp and come solution. There after they may go head either to see Attorney General, land commissioner or minister concerned. Sub chief Suleiman Mulisia asked them not to reveal their secrets for once they meet, other colleague go on telling other people in the town.

It gives me great pleasure to have opportunity and thank God who guided us to participate all meetings without – neither difficulties nor misunderstandings since we started our self help group. I also thank all members of Ekama electrification self help group who for their voluntarily efforts have encouraged us to reached where we are. Although the office bearers were not activie but we but we tried a little and as a chairman, I apologise to all members as well as chairman, I pologise,to all members as well as a residents as a whole .

We started our society nealy at the end of 2,000/= thus Aug 200.with 7 members. It was registered on 25th Aug. 2000. Unfortunately, we lost our two honourable members – through shot illness. May God the almigth rest their soul in peace Amen. Senior Chief Juma Mbaya of mathare location at Nairobi died on 27th Nov.2001.His younger brother who was village elder died on 31st Aug. 2003.

Our aim of establishing the project is to start small industry "**JUA KALI ARTISAN**" for youth, so as to increase labour force for self employment. Those 7 members contributed Kshs. 10,500/= for the first time at Cllr. Sowed Kweyu's home same day of 28th Aug. 2000 at Mumias Co-operative bank - under 3 signatories: Chairman, Secretary and Treasurer Kshs. 500/= was used to 37 all from Ekama village. We continued meeting fortnightly a month, but contribution was low and is still very low because of inflation hardship.
At the end of 2000, we had members contributed Kshs. 21940. The year 2001, only 19 members contributed Kshs. 2695. The very year 2001, we had a min Harambee which we managed to raise kshs. 6,800/=. At the end of 2001, we had contributed kshs. 9405/= including Harambee. The year 2002, members became dormant because of money. Only

4 members managed to contribute Kshs. 310 /= for the whole year. The year 2003, we were luck to have been supported by Mumias Municipality. We received 2 cheques from Cllrs. Mr. Ismail Muchelule and Sowed Kweyu.

(1) Cheque No. .....bearing Kshs. 20,000/= (on 15/4/2003)

(2) Cheque No. 1705 bearing Kshs. 50,000/= (on 17/11/2003)

Total all 70,000/= thanks to our honourable Councillors. The very 2003, 10 members contributed Kshs. 1955 put together with that if Municipality comes 71,955/= for the whole year. From 20th Aug. 2000 to 2003, we had in the bank Kshs. 1003, 610/= including bank interest – kshs. 2,990. First survey – people came from Kisumu (KPLC Co.) and treasurer muchelule and secretary Rajab Auma withdrew Kshs. 2,080 for the job. Then they were misled by someone – which resulted that the transformer would cost 14 m Kshs. Including poles. Second survey took place on 10 Jan 2004. On 27th Nov. 2003, we withdrew 90,000/= to go and deposit for power project survey. We deposited Kshs. 82,000/= at Kakamega office (KPL branch Office) .We were 3 people Chairman Wang'ona, Treasurer Muchelule and Fundi Shaban. We had a balance of Kshs. 8,000/= at hand. [illegible]. Transport cost us 300/= for 3 people – go and from. Out of 90,000/= we had a balance of 3,000/= at ahnd which 3 members were loaned for an urgent filling forms for certificates. Chairman Wang'ona 1,500/= secretary Rajab 1,500/= and Trustee Juma Mombo 500/= on 21 Sept 2004, we applied to Mumias Constituency Development Committee for support attaching the quotations from KPL Co. the Development Committee approved it and they gave Hon. Area Mp Mr. Osundwa to us a cheque (No. 241) bearing Kshs. 787,227/= for our project (power rural Development) on 3rd Dec 2004.

Thanks for our Honourable MP Mr. Wycliffe Osundwa.

The year 2004, no any member of the project group could contribute. Ladies and gentlemen, I say thank you for our efforts and a future continue.

Look at page four (4) for each member he/ she have contributed dated.

Amount contributed to date

No.	Name	Kshs.	Cts.
1.	Ismail Wang'ona Muchelule	4110	00
2.	Ismail Muchelule Chibololo	3,000	00
3.	Juma Mombo Opetu	2,150/=	00
4.	Late Juma Mbaya Walichio	2,020	00
5.	Ismail Wakhu @ Funya	2,125	00
6.	Sowedi Kweyu Kassim	1,900	00
7.	Zainabu Wang'ona	1,450	00
8.	Aziza Wang'ona	1,450	00
9.	Suleiman Mulisia Matiro	1,300	00
10.	Ali Bukachi matiro	1,300	00
11.	Rajab Auma Kweyu	500	00
12.	Abdul Mukhwana	500	00
13.	Yusuf Okwato Ondwasi	1,400	00
14.	Late Ramadhan muchelule W.	420	00
15.	Ibrahim Nalianya Osundwa	350	00

16.	Abubakar Munyendo Osundwa	300	00
17.	Juma kulundu Omulisia	320	00
18.	Ramadhan Musotsi Mulisia	300	00
19	Suleiman Mugeni	200	00
20.	Hamis Mulisia Chibololo	300	00
21.	Said kweyu	100	00
22.	Malwaza Kweyu	100	00
23.	Ibrahim Mulisia Wakhutu	100	00
24.	Abdallah Kweyu	100	00
25.	Raja Shibwabo Kassim	130	00
26.	Hassan Wandete Khata	100	00
27.	Omar Temesi Aleith	50	00
28.	Kassim Ali Ondari	30	00
29	Abdul Ibrahim Wesonga	25	00
30	Alima Makokha Kweyu	120	00
31.	Mwajuma Nasonga Bukachi	50	00
32.	Rashid ssegu Sakasa	20	00
33.	Juma Liya Omollo	20	00
34.	Said Kenyatta Shikolio	25	00
35.	Nicolas Mukwana Muchelule	10	00
36.	Juma Ibrahim wesonga	135	00
37.	Amida Atemba Sowedi	10	00
38.	Mumias Municipality	70,000	00
39.	Harambee	6,800	00
40.	Hon. Wycliffe Osundwa- (Rural Dev. Committee)	787,227	00
	Grand total	890,837/=	00

Adapt: 1st proposed by: Mr.....

2nd Proposed by : Mr.....

NB:- This speech was delivered by Chairman for reason that : Since we started our self help group members would like to know how the office bearers are spending money as from 2000 to date on 9th Jan 2005.

SIGNED BY:

CHAIRMAN:.....

SECRETARTY:.....

TREASURER:.....

The Kenya Power & Lighting
Co. Ltd.

West Kenya Sub-Region - P. O. Box 151 - 40100 Kisumu, Kenya
Telephone - 057 - 41263/41264/41265 Telegrams 'ELECTRIC'
Fax: 057 - 41721
NEW STATION ROAD

Our Ref:

Your Ref: **Customer Application No.: E24102003060141**

Quoted on :16/03/2004

IBRAHIM MUCHELULE & 3 OTHERS
P O BOX 202
MUMIAS

Dear Sir/Madam,

ELECTRICITY SUPPLY TO YOUR PREMISES ON PLOT NO.
4 NOS OF ISOLATED PLOTS AT MUMIAS - MUMIAS TOWNSHIP

With reference to your application dated 11/06/2003 for a provision of 12KVA single phase supply of electricity to the premises indicated above, we are pleased to advise that a scheme for the supply has now been prepared as shown on our drawing SK No. KSM 339/1/C , attached herewith.

The supply will be made available by : **establishing a 15KVA transformer substation,constructing a 11KV high voltage overhead line,constructing a low voltage overhead line and providing 3Nos X 16mm squared overhead servicecables.**

For supply to be provided up to your installation, all terms and conditions in this letter and in the attached leaflet should be met.

The required payment is as follows :-

Capital Contribution towards our cost of providing the supply	**KShs. 749,377**
VAT @ 16%	**KShs. 119,900**
Total	**KShs. 869,277**

This must be paid within a period of 90 days from the date of this letter outside which we reserve the right to revise our terms as necessary.

Should your development not be ready to receive supply within a period of six months from the date of this letter wealso reserve the right to revise the terms .

This quotation is subject to our being able to obtain the necessary wayleaves approval and consent for the proposed power supply route.

We recommend that the supply be charged in accordance with the Method(s) of Charge No(s)A0, as detailed in our Schedule of Tariffs and Rates 1999 , shown in the attached leaflet, or as may be amended from time to time.

Before final connection is carried out , a supply contract(s) must be entered into with us by having the contract form(s) attached herewith signed and completed in the name(s) the account(s) will operate. The completed form(s) should be returned to us together with commencement of work notice, completion of work and test

certificates in respect of the your internal electrical wiring, issued by your electrical contractor, who must be nregistered under the Electricity Licencing Board(Power and Duties) 1962.

An account deposit of **Kshs.2,500** will also be required for the contract(s) to be entered.

As you had already made a down payment **Ksh.82,000** we now look forward to receiving your remittance for the balance of **Ksh. 787,277** after which we shall finalise our arrangements and provide the supply at the earliest possible time.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

V O ODHIAMBO
For REGIONAL DISTRIBUTION ENGINEER, WEST KENYA SUB REGION.

VAT Reg. No. :0010608 PIN 000591096X

Appendix Page:
Mum – E8
Kenya RE Study

M

The Kenya Power & Lighting Co. Ltd.

West Kenya Area - P. O. Box 151 Kisumu, Kenya
Telephone - 035 - 41263/41264/41265 Telegrams 'ELECTRIC'
Fax: 035 - 41721
NEW STATION ROAD

Our Ref:

Your Ref:
Customer Application No.: E24102001080055

ISMAEL WANGOMA MUCHELULE &28 OTHERS
P.O BOX 202
MUMIAS

Quoted on:21/08/2001

Dear Sir/Madam

ELECTRICITY SUPPLY TO YOUR PLOT NO. 636 - LUREKO

With reference to your application for a supply of electricity to the above premises, we are pleased to advise that a provisional scheme has now been prepared.

The total contribution required towards our cost will be in the region of Kshs. *14,376,000.00* and VAT of Kshs.2,587,680.00 @ 18% of which is payable in full prior to our commencing construction.

The above terms which are based on current cost are for your guidance only and do not represent a firm quotation.

It would be appreciated if you would let us know if you wish to proceed with the scheme so that a detailed design can be undertaken. A token payment of Kshs. 1,437,600.00 will be required which will cover the initial surveying and related costs. Upon receipt of the payments, we will proceed to prepare a detailed scheme and give you a firm quotation. This quotation is valid for a period of 90 days from the date of this letter.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

PETER K. WAMBUA
AG. SENIOR CUSTOMER SERVICE ENGINEER, WEST KENYA AREA.

Appendix Page:
Mum – E9
Kenya RE Study

Customer Application Notification

MR. JABIR WANDETE MUSINDALO
P O BOX 74
MUMIAS

KISUMU. KENYA
21 OC
00
POSTAGE. PAID

The Kenya Power and Lighting Co. Ltd.

Customer Application Number:
E24102000100092

Date:
09/10/2000

Customer Details

Document Number: 9509119
Document Type: NEW NATIONAL ID
Country: KENYA

Telephone:
Office Telephone:
Fax:

Application Details:

Date of application: 06/10/2000
Supply Reg. No.:
Type of Application: INDIVIDUAL DOMESTIC
Connection Type: SINGLE PHASE OVERHEAD

Commercial Office: 2410 , E/HOUSE, KISUMU
Telephone: 035-41263/6
Address: P.O. BOX 151 KISUMU

We acknowledge with thanks receipt of your application for a supply of electricity which is now receiving our attention under the above application number.

We will be writing to you again soon but if you require any information regarding the progress of your application please call on us quoting the application number.

NB: In the meantime your attention is drawn to the fact that the work on your Internal Installation must be carried out by an electrician registered under the Electricity Licensing Board (Power and Duties) Rules 1967.

Yours faithfully, 12/10
For:THE KENYA POWER & LIGHTING CO. LTD. WEST KE AREA.

The Kenya Power & Lighting Co. Ltd.

West Kenya Sub-Region - P. O. Box 151 - 40100 Kisumu, Kenya
Telephone - 057 - 41263/41264/41265 Telegrams 'ELECTRIC'
Fax: 057 - 41721
NEW STATION ROAD

Our Ref:

Your Ref Customer Application No.: E24102005020202

NORTH GREEN LUKOYE ENVIRONMENTAL GROUP
P.O BOX 25, MUMIAS
MUMIAS

Quoted on:04-03-05

Dear Sir/Madam

ELECTRICITY SUPPLY TO YOUR PLOT NO. VARIOUS - MUMIAS NUCLEAR

With reference to your application for a supply of electricity to the above premises, we are pleased to advise that a provisional scheme has now been prepared.

The total contribution required towards our cost will be in the region of **Kshs. *2,552,000.00*** and VAT of **Kshs.408,320.00** @ **16%** of which is payable in full prior to our commencing construction.

The above terms which are based on current cost are for your guidance only and do not represent a firm quotation.

It would be appreciated if you would let us know if you wish to proceed with the scheme so that a detailed design can be undertaken. A token payment of **Kshs. 255,200.00** will be required which will cover the initial surveying and related costs. Upon receipt of the payments, we will proceed to prepare a detailed scheme and give you a firm quotation. This quotation is valid for a period of 90 days from the date of this letter.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

DANIEL LOMOLER
For REGIONAL DISTRIBUTION ENGINEER, WEST KENYA SUB REGION.

VAT Reg. No. :0010608 *PIN 000591096X*

Before final connection is carried out , a supply contract(s) must be entered into with us by having the contract form(s) attached herewith signed and completed in the name(s) the account(s) will operate. The completed form(s) should be returned to us together with commencement of work notice, completion of work and test certificates in respect of the your internal electrical wiring, issued by your electrical contractor, who must be nregistered under the Electricity Licencing Board(Power and Duties) 1962.

An account deposit of **Kshs.2,500** will also be required for the contract(s) to be entered. A banker's guarantee of this amount will be acceptable in lieu of the deposit and the relevant form will be forwarded if required.

As you had already made a down payment **Ksh.0** we now look forward to receiving your remittance for the balance of **Ksh. 32,480** after which we shall finalise our arrangements and provide the supply at the earliest possible time.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

VINCENT O ODHIAMBO
For REGIONAL DISTRIBUTION ENGINEER, WEST KENYA SUB REGION.

LUKOYE NORTH GREEN ENVIRO
MENTAL GROUP
P. O. BOX 212
MUMIAS

12/02/04.

The chairperson
Christian Community
Mumias

Ref: APPOINTMENT.

Dear Sir/madam

This is to inform you that the above group has plans to visit your office as from 25th February 2004 at 10.am concerning your fealine planed project at their area of operation.

Please bear with our request.

Yours faithfully.

Chairperson for the
Group L.N.G.E.G.

LUKOYE NORTH GREEN INVIRONMENTAL GROUP
P. O. Box 212
MUMIAS.

Customer Application Notification

NORTH GREEN LUKOYE ENVIRONMENTAL C
P.O BOX 25, MUMIAS
MUMIAS

The Kenya Power and Lighting Co. Ltd.

Customer Application Number:
E24102005020202

Date:
10/02/2005

Customer Details

Document Number:	2022	**Telephone:**	
Document Type:	SYSTEM GENERATED	**Office Telephone:**	
Country:	KENYA	**Fax:**	

Application Details:

Date of application: 10/02/2005
Supply Reg. No.:
Type of Application: INDIVIDUAL COMMERCIAL
Connection Type: SINGLE PHASE OVERHEAD

Commercial Office: 2410 , E/HOUSE, KISUMU
Telephone: 057-41263
Address: P.O. BOX 151, KISUMU

We acknowledge with thanks receipt of your application for a supply of electricity which is now receiving our attention under the above application number.

We will be writing to you again soon but if you require any information regarding the progress of your application please call on us quoting the application number.

NB: In the meantime your attention is drawn to the fact that the work on your Internal Installation must be carried out by an electrician registered under the Electricity Licensing Board (Power and Duties) Rules 1967.

Yours faithfully,
For:THE KENYA POWER & LIGHTING CO. LTD. WEST KEI AREA.

0733818364

LUKOYE NORTH GREEN ENVIRONMENTAL GROUP
P.O BOX 1145,
MUMIAS

23RD JULY 2007

TO,
HON. WYCKLIFFE OSUNDWA
MP. MUMIAS CONSTITUENCY

REF: REQUISITION FOR A FORRUM.

We, members of the above group, wish to submit our request to meet you as our area MP.

We have a few issues that we would like to share with you if you don't mind. We wrote to you through the CDF office asking for help on electricity early this year. Up to now we are yet to hear from you, we have therefore, decided to request for your audience, on this and any other business that may arise.

Looking forward to hearing from you any sooner, thanks in advance.

Yours faithfully,

CHAIRMAN	*TRUSTEE*	*SECRETARY*
JABIR WANDETE	JUMA MAKONGOLO	SAIDI ATIBU

Appendix Page:
Mum – E15
Kenya RE Study

LUKOYE NORTH GREEN ENVIRONMENT GROUP

P.O BOX 1145,
MUMIAS

26TH JUNE 2006

THE SECRETARY
CONSTITUENCY DEVELOPMENT FUND (CDF)
P.O PRIVATE BAG,
MUMIAS.

Dear Sir,

REF: FINANCIAL ASSISTANCE OF ELECTRICITY RURAL AREA.

We, the under signed are the officials of Lukoye North Green environmental Group hereby submit our requisition for financial assistance. This shall enable the group to be supplied with electivity.

The KPLC Kakamea branch posted to the group a quotation requiring Kshs.2,960,320.00 which is too high for, the members to pay. Therefore, we kindly ask you to consider our project through your development committee in Mumias Constituency.

Attached to this letter are copies of the groups proposal, certificate of registration and the quotation from KPLC.

Hoping to hear from you a considerable reply.
We thank you in advance.

Yours faithfully,

CHAIRMAN: Jabin Wandete -

SECRETARY: Saidi Atibu - Saidi

TREASURER: _____

PROJECT PROPOSAL

PRESENTED TO

C.D.F

FUNDING FOR

ELECTRICITY

LUKOYE NORTH GREEN ENVIRONMENTAL

GROUP

BUTERE-MUMIAS DISTRICT

MUMIAS DIVISION

NABONGO LOCATION

LUKOYE VILLAGE

DATE 28TH MARCH 05

LUKOYE NORTH GREEN ENVIRONMENTAL GROUP
MINUTES OF THE MEETING HELD ON 27/03/2005
VENUE: JUMA MAKONGOLO

PRESENT

1. SAIDI A. MAKUYUKUYU
2. JABIR WANDETE
3. HAJJ KOMBO
4. MESHACK MUNALA
5. ISMAIL ANGI
6. MOHAMMED MALOBA
7. ABDI WANGA
8. SELINA WANUPI
9. ABDALLA MAKUYUKUYU
10. NICKSON CHEBUCHE
11. JAMES OMORI
12. KASSIM ATIBU
13. MWANAIDI MALALA
14. AGNETA MALALA
15. ELPHAS MAYABI
16. JUMA MAKONGOLO
17. ASMAN E. ATIBU
18. KASSIM C. ALI

APOLOGIES

1. TITUS WAMECHI
2. JACKSON ONGETO
3. GILBERT KWENA
4. ABDALLAH WANGA
5. QUINTO BARASA
6. MESHACK GUTO
7. RAMADHAN OKUMU
8. JONAH OCHILO

ABSENT

1. JAMES OGARO
2. AMINA AHMED
3. KENNEDY OSANDO
4. JOSEPH ATAKO
5. MOHAMMED MUSUNGU
6. SAIDI SUMBA
7. ENDOWMENT GROUP

AGENDA

1. Opening prayer
2. Confirmation of the previous minutes
3. Matters arising from the previous minutes
4. Report from KPLC
5. A.O.B

Min 1/3/05

The meeting started at 8.45 a.m with a prayer from Abdallah Makuyukuyu. The Chairman welcomed members to the meeting and commended them for turning up.

Min2/3/05

The secretary read the minutes of the previous meeting. They were confirmed to be a true record by Hajj Kombo and Abdi Wanga as proposer and seconder respectively.

Min 3/3/05 MATTERS ARISING FROM THE PREVIOUS MINUTES

a) The treasurer displayed a banking slip of Kshs. 2,700 collected in the previous seating. He appealed to members to speed up their payments as the quotation is just about to come.

b) Jackson Ongeto reported that the DDC had meet but a full report on the poverty eradication proposal shall be ready once they meet the D.O himself. He was not available when they went to see him.

LUKOYE NORTH GREEN INVIRONMENTAL GROUP
P. O. Box 212
MUMIAS

MISSION OF ORGANISATION

1. Enable Lukoye residents to get electricity power supply.
2. To start jua kali and light industries.
3. Establish poultry farming using electricity.
4. Establish green houses using electricity.

THE PROBLEMS

A total number of 300 houses are living in darkness due to lack of electricity. This scenario has led to major cases of thuggery and house breaking. These issues have caused residents to become victims of circumstances reducing their meaningful participation in community affairs. It is our believe that the taping of electricity will be a remedy.

THE POPULATION / COMMUNITY TO BE SERVED AND ITS INVOLVEMENT IN DESIGN AND IMPLEMENTATION OF THE WORK.

We target the whole of Lukoye village with a total number of 300 house holds and a population of 3,400 who will be direct beneficiaries of the project.

HOW TO ADDRESS THE PROBLEM

1. Carry out village mobilization meeting on weekly bases.
2. Establish common interest groups on village level whose members to be meeting four times a month then contribute towards savings and credit scheme according to each ones ability.
3. Establish a poultry demonstration farm where the beneficiaries will be exposed to modern farming methods.
4. Each group members to implement the acquired skills on house hold level.

FINANCIAL

FUNDS REQUIRED – KSHS. 2,960,320

MEMBERS CONTRIBUTION – KSHS. 142,748

LUKOYE NORTH GREEN ENVIRONMENTAL GROUP
P.O. Box 212
MUMIAS.

Min 4/3/05 REPORT FROM KPLC
The Chairman handed in the quotation from KPLC Kisumu branch. It showed that the total contribution required towards our cost will be in the region of Ksh. 2,552,000 and vat of Ksh. 408,320 @ 16% of which is payable in full prior to our commencing construction. This showed that the group is to pay a total of Ksh. 2,960,320.

Members present resolved to seek for financial support from all corners for the quotation was just to high. Three members Jabir Wandete (Chairman), Abdallah Makuyukuyu (Ass treasurer) and Juma Makongolo (Trustee) were asked to see Mr. Mohammed Ahmed. He is to help the group to get financial help from the area M.P through the constituency Development committee CDF

Min 5/3/05 A.O.B
The Chairman reminded members to clear their balances of Ksh. 10,000 each agreed upon as down payment.

A total of Ksh. 1,200 was realized. The next meeting shall be held at Agneta Malala.

LUKOYE NORTH GREEN ENVIRONMENTAL GROUP
P. O. Box 212
MUMIAS

REPUBLIC OF KENYA

MINISTRY OF GENDER, SPORTS, CULTURE & SOCIAL SERVICES

DEPARTMENT OF SOCIAL SERVICES

BUTERE MUMIAS DISTRICT

REG. NO. DSS/SHG/1836/2003

Certificate of Registration

This is to certify that LUKOYE NORTH GREEN ENVIRONMENTAL GROUP

of NABONGO *Location Of* MUMIAS

Division has been registered by the District Social Development Officer in accordance with the policy of the Department of Social Services pertaining to the formation of Sel-Help groups.

DISTRICT SOCIAL DEV. OFFICER
BUTERE-MUMIAS DISTRICT

Signed 17/12/2003

District Social Development Officer *Date*

DISTRICT SOCIAL DEV. OFFICER
BUTERE-MUMIAS DISTRICT

1st Renewal	7/2/2005		
	Date	*DSDO'S Signature*	
2nd Renewal	.....	.....	
	Date	*DSDO'S Signature*	
3rd Renewal	.....	.....	
	Date	*DSDO'S Signature*	
4th Renewal	.....	.....	
	Date	*DSDO'S Signature*	

Appendix Page:
Mum – E21
Kenya RE Study

COUNCILOR'S COPY

Customer Application Notification

ROMAN MAKOKHA MASIMBA & 23 OTHERS
P.O. BOX 74
MUMIAS

EBUMANYI COMMUNITY ELECTRIFICATION PROJECT
DATE 2-2-05
SIGN
P.O. BOX 74
MUMIAS

The Kenya Power and Lighting Co. Ltd.

Customer Application Number: E24202005020050

Date: 11/02/2005

Customer Details

Document Number: 7930329
Document Type: NEW NATIONAL ID
Country: KENYA

Telephone:
Office Telephone:
Fax:

Application Details:

Date of application: 11/02/2005
Supply Reg. No.:
Type of Application: COLLECTIVE DOMESTIC
Connection Type: SINGLE PHASE OVERHEAD

Commercial Office: 2420 , KAKAMEGA
Telephone: 057-41263
Address: P.O. BOX 151, KISUMU

We acknowledge with thanks receipt of your application for a supply of electricity which is now receiving our attention under the above application number.

We will be writing to you again soon but if you require any information regarding the progress of your application please call on us quoting the application number.

NB: In the meantime your attention is drawn to the fact that the work on your Internal Installation must be carried out by an electrician registered under the Electricity Licensing Board (Power and Duties) Rules 1967.

Yours faithfully,
For:THE KENYA POWER & LIGHTING CO. LTD. WEST KEI AREA.

Appendix Page:
Mum – E22
Kenya RE Study

Received
30-4-2005
8:00 am

The Kenya Power & Lighting Co. Ltd.

West Kenya Area - P.O. Box 151 Kisumu, Kenya.
Telephone - 057 - 41263/41264/41265 Telegrams 'ELECTRIC'
Fax: 057 - 41721
NEW STATION ROAD

Our Ref: Customer Application No.: E24202005020050
Your Ref:

ROMAN MAKOKHA MASIMBA & 23 OTHERS
P.O. BOX 74
MUMIAS

Quoted on:15/04/2005

Dear Sir/Madam

ELECTRICITY SUPPLY TO YOUR PLOT NO. VARIOUS PLOTS - EKERO

With reference to your application for a supply of electricity to the above premises, we are pleased to advise that a provisional scheme has now been prepared.

The total contribution required towards our cost will be in the region of **Kshs.** ***3,969,000.00*** and VAT of **Kshs.635,040.00** @ **16%** of which is payable in full prior to our commencing construction.

The above terms which are based on current cost are for your guidance only and do not represent a firm quotation.

It would be appreciated if you would let us know if you wish to proceed with the scheme so that a detailed design can be undertaken. A token payment of **Kshs. 396,900.00** will be required which will cover the initial surveying and related costs. Upon receipt of the payments, we will proceed to prepare a detailed scheme and give you a firm quotation. This quotation is valid for a period of 90 days from the date of this letter.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

VINCENT O ODHIAMBO
For REGIONAL DISTRIBUTION ENGINEER, WEST KENYA SUB REGION.

VAT Reg. No. :0010608 *PIN 000591096X*

KENYA POWER AND LIGHTING COMPANY LTD

LOAD SHEET

NO	NAME	PLOT NO ALL-S/W.	NO OF LIGHTS	NO OF SOCKETS	NO OF COOKER UNITS	OTHER MACHINES	ADM FOR OFFICIAL USE ONLY
1	SULEIMAN WAHIA	554	8	7 4			
2	MARTIN KASALI	2215	8	6 3			
3	JOGOO NGASHIRA	545	8	4			
4	KASSIM CHIBEYI	ISOLATED	6	4	1 Kw		
5	PADHWI WESONGA	ISOLATED	4	3			
6	ABDALLA FIKHULUNYA	ISOLATED	6	2			
7	AKIDA MASIMBA	529	10	6			
8	FITASSY M. SHIJINGA	537	6	4			
9	EKERO MOSQUE	ISOLATED	5	2			
10	EBUMWAY G. PROJECT	ISOLATED	6	2			
11	OJWANGI WASABO	ISOLATED	16	4			
12	ROKEY OMWEMBO	ISOLATED	7	3			
13	GERALD WANGATIA	S/WANGA 531	10	6			
14	MOHAMED OSORE W.	533	18	10			
15	RAJAB MUHIAFU M	ISOLATED	6	3			
16	SOLOMON W. MALICHI	ISOLATED	8	4			
17	KASSIM OSORE	538	7	4			
18	RAMADHAN KHATSWENU	ISOLATED	3	3			
19	JAMIN ABUDIKU	ISOLATED	6	2			
20	ABDALA S. ANDIKA	ISOLATED	4	2			
21	CORNELIUS NDEKA	2362	6	2			
22	RICHARD LINAKHA	ISOLATED	6	2			
23	ERNEST O. SAGALA	ISOLATED	7	3			
			5	4			
			128	85			

ISOGE POWER PROJECT
P.O. BOX 80,
NYANSIONGO

16TH FEBRUARY, 2004.

THE MINISTER FOR ENERGY
P.O. BOX 30582,
NAIROBI.

Dear sir,

RE: ISOGE POWER PROJECT NO

The Isoge power project started way back in 1992. The purpose of the project was to serve individual members, schools churches, dispensaries, tea –buying centres and others.

The project was surveyed and all members picked and are anticipating pegging.

The members raised Kshs. 416,000 (Kshs four hundred and sixteen thousand) which was all receipted by Kenya Power and Lighting Company.

The project was ranked and prioritized by the Nyamira District Development Committee.

The Kenya power and lighting company, gave us a final quotation of Kshs. 3,000,000 (three million Kenya shillings) less the down payment of Kshs. 416,000/= As a Rural project we asked for a donor funding. The Government actually the then Minister for Energy told us to wait until a donor was available. We therefore renew our request that we get assistance from our Government as we have waited for more than ten years.

We confirm that on the strength of our down payment, Kenya Power and Lighting Company came and carried out the picking.

We equally plead with our Member of Parliament Hon. Geoffrey Masanya Okeri to progress this matter.

Yours faithfully,

ALFRED M. ROSASI
SECRETARY

S.O. KIBWAGE
CHAIRMAN

C.C.
Managing Director
Kenya Power & Lighting Co.
Nairobi.

Hon. G. Masanya Okesi M.P
North Mugwango /Borabu

Cllr. D. Rosana Oroo
Nyansiongo Town Council

The Kenya Power & Lighting
Co. Ltd.

West Kenya Area - P.O. Box 151 Kisumu, Kenya.
Telephone - 057 - 41263/41264/41265 Telegrams 'ELECTRIC'
Fax: 057 - 41721
NEW STATION ROAD

Our Ref: Customer Application No.: E24102004030108 (DUPLICATE)
Your Ref:

ISONGE POWER PROJECT
P. O. BOX 6 80
NYAMIRA
NYANSIONGO

Quoted on:09-09-05

Dear Sir/Madam

ELECTRICITY SUPPLY TO YOUR PLOT NO. VARIOUS - NYANSIONGO/GESIMA

With reference to your application for a supply of electricity to the above premises, we are pleased to advise that a provisional scheme has now been prepared.

The total contribution required towards our cost will be in the region of **Kshs.** ***27,714,000.00*** and VAT of **Kshs.4,434,240.00** @ **16%** of which is payable in full prior to our commencing construction.

The above terms which are based on current cost are for your guidance only and do not represent a firm quotation.

It would be appreciated if you would let us know if you wish to proceed with the scheme so that a detailed design can be undertaken. A token payment of **Kshs. 2,771,400.00** will be required which will cover the initial surveying and related costs. Upon receipt of the payments, we will proceed to prepare a detailed scheme and give you a firm quotation. This quotation is valid for a period of 90 days from the date of this letter.

Yours faithfully,
For: THE KENYA POWER & LIGHTING CO. LTD.

Received

VINCENT O ODHIAMBO
For REGIONAL DISTRIBUTION ENGINEER, WEST KENYA SUB REGION.

VAT Reg. No. :0010608 *PIN 000591096X*

Isoge Power Project
P.O. Box 80
Nyansiongo

20/9/2005

C.D.F. Chairman
North Mugirango/Borabu Constituency

Dear Sir

RE: APPLICATION FOR KSH.2771400.00

ISOGE POWER PROJECT NO: E24102004030

We have raised and cashed K.P.L.C. Ksh.416,000.00 under customer application No. E24102004030.

We humbly request from CDF Ksh. 2,771,400.00 (Kenya shillings two million, seven hundred seventy one thousand four hundred only) to enable Isoge Power Project connected. This project covers some members from Nyansiongo, Isoge and Kineni schemes.

Attached find photocopies of:

1. quotation – dated 09/09/05
2. payment receipts totalizing Ksh.416,000.00

Sir, we know you must have received very many applications some of which are better placed than ours but we ask you to think of us most favourably.

Yours faithfully

PASTOR ALFRED M. ROSASI
SECRETARY

ISOGE POWER PROJECT

SHEET 1 6000

	LOT NO	NAME	AMOUNT
1.	109	SAMWEL ONWERI KIBWAGE	6000
2.	87	HEZRON OTOCHI	6000
3.	106	WILLIAM KENYA OKEROSI	6000
4.	150A	WILLIAM MORIASI NDUBI	6000
5.	91	WASHINGTON ONCHIRI	6000
6.	8	JOHN ONDOMU	6000
7.	92	JOHN NYAMONGO	6000
8.	131	SAMWEL ONYARI MACHANI	6000
9.	50	VICTOR KEBASO	6000
10	93	CHARLES MOTAROKI	6000
11.	134	CHRISANTUS OGARI	6000
12.	88C	A. ONGERA OBAGA	6000
13.		NEWTON ORORI	6000
14.	86	PATRICK OMBATI	6000
15.	84	PHYLIS TORORI	6000
16	10	ZACHARIA ONKAGA	6000
17.	9	C MAANGI M.	6000
18	9	T. BIKUNDO	6000
19.	141	WILLIAM NYAMONGO	6000
20.		E. NYABERA	6000
21.	7C	BEN M. CHACHA	6000
22.	101	W. ONGECHI	6000
23	95B	MOKAYA OTWORI	6000
24	40	J. OBIRI M.	6000
25.	99	JONES MOSOKU	6000
26.	90	ISAYA MOGIRE	6000
27.	144	W. SABAGANGA	6000
28.	81	PETER M. SAISI	6000
29.	83	DAVID KARANI	6000
30.		CHARLES ONCHONKA	6000
31		C. NYACHAMA M.	6000
32		MOSES O. ONYAMBU	6000
33	81	MORURI D. MAONCHA	6000
34	141B	ACUMA [illegible]	

		-K. ONGIRI	6000
		EL -N. NCHAGA	6000
36.	81	SHEIKH -A. MADNCHA	6000
37.	101	ONCHANKWA SIKWEYA	6000
38	80	NAFTALI NYAMONKO	6000
39.		MARCO NYASETI	6000
40.		MARTHA OPANKA	6000
41.	79B	DICK RAYORI	6000
42.	149B	GETUMO NYABANDO	6000
43.		MATHEON -M. MOCHAMA	6000
44		ISAYA ISOMBA	6000
45	75	ALEX -M. NYABWARI	6000
46		GERALD ORANKO	6000
47.	146A	NTABO OMUKO	6000
48	142	MORIMBOCHI L. ISABOKE	6000
49	113	DAUDI OISEBE	6000
50	85	BASWETI OMORI	6000
51		PETERSON KIMANKA	6000
52		STEPHEN -M. OPANKA	6000

1. 25
2
3

ISOGE POWER PROJECT

SHEET NO. 3. 3000 AND OVER

	NO	NAME	AMOUNT
53.	1398	GIDEON GIKENYI	3000
54.	77	PAUL NYABUYA	3000
55.	1058	JOHNSON OKWORO	3000
56.		ONDARI ONGATO	3000
57.	1518	S. MOMANYI	3000
58.	9	C. OCHARO	3000
59.		SAMWEL ONKUNDI	3000
60.	137	SERINA MORAA	3000
61.	140	NYARURI MOMANYI	3000
62.		E. MATUNDURA	3700
63.	136	OKWANYO Z. A.	3000
64.	88	OCHWANGI ONACHI	3800
65.	1388	JOHN NYARECHA	3000
66.	100	TOEL ORO	3000
67.	79	KENNEDY RAYORI	3000

ISOGE POWER PROJECT

SHEET NO 4 PAID 2000 AND OVER

	NAME	AMOUNT
68. C	N. MOSONGO	2700
69. 143C	I. AREBA	2000
70. 137B	SIMEON CHANGE	2500
71. 153C	SIMEON O. KEARI	2000
72. 151A	LAWRENCE-M. SAGWE	2800
73. 104	YUKABED ONDARI	2500
74.	OKERO SESE	2660
LOT NO	PAID 1000 AND OVER	
75. 150B	SIMEON AKOMBE	1000
76.	JACKSON OKECHI	1000
77. 195	NAHASHON SAITI	1660
78.	P. ONCHIRI KENYARABU	1600
79.	A. MOKAYA AKUNGA	1660
80.	JOHNSON OBAGA	1000
81.	ENSAKIA S.D.A CHURCH	1480
82.	JOASH OMAGWA	1660
83. 143	DANIEL OGARI	1660
84 149C	KIMANGA GETUMO	1660
PLOT NO	PAID LESS 1000	
85 2348(97)	F. ONDARA ABUYA	500
86. 149	ANDREW GISIORA	660
87. 148	ZACHARIA ONDITI	300
88 138	REUBEN NYARECHA	300
89. 108	BENARD G. ORENGE	200

ISOGE POWER PROJECT – MEMBERS

		SHEET 1	SHEET 2	SHEET 3	TOTAL
1.	KSH 6000	25 ~~24~~	20	8	53
2.	KSH 5000	5	6	2	13
3.	KSH 4000	1	0	2	3
4.	KSH 3000	7	7	1	15
5	KSH 2000	2	4	1	7
6	KSH 1000	0	5	5	10
7.	BELOW KSH 1000	0	2	3	5
				461,000/=	
				45,000	–

– Power Estimate 2.9.M.
– Build up a file — Photostat.

ISOGE POWER PROJECT

SHEET NO 2 5000 AND OVER

	NO	NAME	AMOUNT
90.	235	MOMANYI .A. ROSASI	5280
91.	102	MUSA MOKAND ONTERI	5500
92.	132	NYAKUNDI ABOKI	5000
93.	74	SAUL O MOSA	5760
94.	103	.Z. O MWANGE	5760
95.	140	MILKA NYARURI	5240
96	152	PACIFIKA MORAGWA	5000
97.		JOSHUA .A. BORURA	5000
98.		SESE MORIMBOCHI	5960
99	108	JAMES .O. ORENGE	5660
100	146	.C. OKARI OMUKO	5660
101	145	SAMWEL NYARIGE	5960
102		EVAN .N. ACHIRA	5660
LOT	NO	PAID 4000 AND OVER	
103.	96B	OSINDE ONGIRI	4000
104	146A	BENSON .N. OMUKO	4860
105	94	KABURI NYAMASEGE	4700

ISOGE POWER PROJECT

SHEET NO 2 1000

PLOT NO	NAME	AMOUNT
106. 150B	SIMEON AKOMBE	1000
107.	JACKSON OKECHI	1000
108 195	NAHASHON SAITI	1660
109.	P. ONCHIRI KENYAMBU	1660
110 89	A. MOKAYA AKUNGA	1660
	SHEET NO 3	
111.	JOHNSON OBAGA	1000
112	ENSAKIA S.D.A CHURCH	1480
113.	JOASH OMAGWA	1660
114. 143	DANIEL OGARI	1660
115. 149C	KIMANGA GETUNO	1660
	SHEET NO 2 BELOW	1000
116. 234B (97)	F. ONDARA ABUYA	500
117. 149	ANDREW GISIORA	660
	SHEET NO 3 BELOW	1000
118. 148	ZACHARIA ONDITI	300
119. 138	REUBEN NYARECHA	300
120.	BENARD G. ORENGE	200

ISIOGE POWER PROJECT

SHEET NO 1 2000

PAGE NO	NAME	AMOUNT	
121.	151C N. MOSONGO	2760	
122	143C J. AREBA	2000	
	SHEET NO. 2		
123.	137B SIMEON CHANGE	2500	
124.	153C SIMEON O. KEARI	2000	
125.	151A LAWRENCE SAGWE M.	2500	
126.	104 YUKABED ONDARI	2500	
	SHEET NO 3		
127.	OKERO SESE	2660	

PROJECT

SHEET NO 1 3000

		NAME	AMOUNT
128.	1396	GIDEON GIKENYI	3000
129.	77	PAUL NYABUYA	3000
130.	1058	J. OKWORO	3000
131		ONDARI ONGAYO	3000
132	1518	S. MOMANYI	3000
134	9	C. OCHARO	3000
135		SAMWEL ONKUNDI	3000
		SHEET NO 2.	
136.	137	SERINA MORAA	3000
137	140	NYARURI MOMANYI	3000
138.		E. MATUNDURA	~~3000~~ 3700
139.	136	OKWANYO Z. A.	3000
140.	88	OCHANGI ONACHI	3800
141	1388	JOHN NYARECHA	3000
142	100	TOEL ORO	3000
		SHEET NO 3	
143	79	KENNEDY RAYORI	3000

REPUBLIC OF KENYA

MINISTRY OF GENDER, SPORTS, CULTURE & SOCIAL SERVICES

DEPARTMENT OF SOCIAL SERVICES

BUTERE - MUMIAS DISTRICT

REG. No. DSS/SHG/2910/2005

Certificate of Registration

This is to certify that EBUMANYI COMMUNITY POWERS PROJECT

of NABONGO *Location of* MUMIAS

Division has been registered by the District Social Development Officer in accordance with the policy of the Department of Social Services Pertaining to the formation of Self-Help Groups

Signed .....
District Social Development Officer

17/2/2005
Date

1st Renewal	..... *Date*	..... *DSDO'S Signature*
2nd Renewal	..... *Date*	..... *DSDO'S Signature*
3rd Renewal	..... *Date*	..... *DSDO'S Signature*
4th Renewal	..... *Date*	..... *DSDO'S Signature*
5th Renewal	..... *Date*	..... *DSDO'S Signature*

EBUMANYI COMMUNITY POWER PROJECT

P.O. Box 74,
MUMIAS.

EBUMANYI COMMUNITY POWER PROJECT. DATE 12/10/05 P.O. BOX 74 - 50102 MUMIAS

LIST OF REGISTERED MEMBERS

NAMES	REGISTRATION
1. RAJAB MUNIAFU – Founder member	100/=
2. ROMAN MASIMBA – Chairman	100/=
3. AKIDA MASIMBA	100/=
4. FATUMA OSORE	100/=
5. CORNEL NDEKA	100/=
6. RICHARD LINAKHA – Treasurer	100/=
7. ABDALLA SAFU	100/=
8. SOLOMON WERIMO – Founder member	100/=
9. JOGOO NGASHIRA	100/=
10. KASSIM OSORE	100/=
11. OMAR WANGA	100/=
12. SULEIMAN WANGA	100/=
13. PHASSY M. SHIJINGA	100/=
14. SHABAN KUNYA	100/=
15. RAMADHAN KHATSWENU	100/=
16. GERALD WANGATIA	100/=
17. MARTIN M. KISIA	100/=
18. MOHAMMED OSORE	100/=
19. KASSIM CHIBAYI	100/=
20. SHABAN WASABO	100/=
21. YUSUF A. WASABO	100/=
22. ODANGA MALACHI	100/=
23. SULIMAN KANDIA	100/=
24. BAKARI KUNYA	100/=
25. RASHID OMWENDO	100/=
26. JAMIN ABDIKU	100/=
27. SHABAN SHIYUKA	100/=
28. KASSIM KANUSU	100/=
29. PETER WEYIMI – V. Chairman	100/=
30. ZAINABU IBRAHIM	100/=
31. EKERO JAMIA MOSQUE	100/=
32. ERNEST SAGALLA	100/=
33. INTERNATIONAL FAITH CHURCH	100/=
34. IBRAHIM O. AKIDA	100/=
35. OASIS OF GRACE CHURCH	100/=
36. ABDALLA MASAI	100/=
37. MOHAMMED W. OSIEKO	100/=
38. JOHN MUSAMIA	100/=
39. EMANUEL WAKHUNGU	100/=
40. ABDALLA WAKHUNGU	100/=
41. KEVIN MAKAPIA	100/=
42. KEVIN WEYIMI	100/=
43. JOB MWANZA	100/=

EBUMANYI COMMUNITY PROPOSED PROJECT

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CONSTITUTION

CONTENTS:

EBUMANYI COMMUNITY ELECTRIFICATION PROJECT CONSTITUTION 2005

PREAMBLE

We, the initiators of Ebumanyi Community Electrification project have today 12th Feb 2005 agreed that we shall join hands to support the Get through of the above project. We have resolved to establish this community based organization to function in accordance with the provision(s) of this constitution and in line with the Kenyan constitution.

CONSTITUTION

SECTION 1 – IDENTIFICATION/LOCATION/CONTACTS

The name of the group shall be Bumanyi Community Electrification Project, and the contact address shall be P.O.BOX 74 MUMIAS. Its operations shall be based in Bumanyu village, a part of Nucleus sub-location, Nabongo Location, Mumias Divison in Butere Mumias District of Western Kenya.

SECTION 2 – AIMS AND OBJECTIVES

SUB-SECTION 1 – MAIN OBJECTIVE

The main objective of Ebumanyi Community Electrification project is to unisonly join the entire fraternity/Residents of Ebumanyi for the purpose of attaining Electricity in the area and its environs.

SUB-SECTION 2 – AIMS

a) Initiate Community based Activities that can create employment opportunities to its Residents.
b) Set up a research and outreach center on matters of National interest.
c) Not a political entity, but reserves the right to safeguard the political rights of its members.

SECTION 3 MEBERSHIP/MANAGEMENT

SUB SECTION 1 – MEMBERSHIP

(a) Membership shall be open to all residents of Ebumanyi village who:-
  (i) Are 18 years and above
  (ii) Are of sound mind
  (iii) Ready to abide by the laid down by-laws
(b) Every member is required to pay a negotiation fee of Kshs. 100 or as may be stipulated by the management committee from time to time.
(c) All applications shall be addressed to the management committee through the Secretary to approval by members during the General meetings.

SUB-SECTION 2- MANAGEMENT

The management office shall compose of:-
(a) Chairperson
(b) Vice Chairperson
(c) Secretary
(d) Assistant Secretary
(e) Treasurer
(f) Organizing Secretary
(g) Vice organizing Secretary
(h) Three women representatives
(i) Two committee members
(j) One EX-Official member (Assistant Chief) Nucleus Sub-location
(k) Auditor

SUB-SECTION 3 DUTIES/RESPONSIBILITIES OF OFFICE BEARERS

(a) **Chairperson** (General)
  (i) Preside over all executive meetings and all general meetings
  (ii) Provide general policy related to the affairs of the organization as expressly provided for in the Constitution.
  (iii) The Vice Chairperson shall chair the organization meetings in the absence of the Chairman.

(b) Secretary

(i) The Secretary shall deal with the organization's correspondences under the guidance of the Chairperson.
(ii) The Secretary shall issue notices convening all executive meetings and general meetings
(iii) The Secretary shall keep minutes, preserve and update the organization's records
(iv) The Deputy Secretary shall perform duties of the Secretary in his/her absence and such other duties as shall be assigned to him/her by the General meeting.

(c) **Treasurer**

(i) Receive and disburse under the directives of the chairperson all monies of the organization and shall issue receipts for preserve vouchers for all money paid out.
(ii) Ensure that proper books of accounts are written, preserved and availed for inspection, if and when necessary.
(iii) Open a bank account in the name of the project and provide reports on financial statements of the organization and audited accounts to the executive and general meetings.

d) **Organizing Secretary**

(i) Co-ordinate all the activities of the project.
(ii) Organize and arrange the requirements during both executive and general meetings.
(iii) Maintain order and discipline during meetings.
(iv) The assistant organizing secretary shall perform the duties of the organizing secretary in his absence or as may be directed by the Chairperson.

e) **Women Representatives/Committee members**

(i) Represent the interests of the common residents during the executive meetings.
(ii) Support gender parity in the projects initiatives.

f) **Ex-officio Member**

(i) Safeguard, Represent, and advocate for the projects activities in the legal aspect.

g) **Auditor**

(i) Audit money in an expenditure of the project.
(ii) Give a special report to the general meeting after every 6(six) months.
(iii) Shall not be a member of the executive committee of the project.

Sub – Section 4 – Vacation of Office

Any member of Office shall vacate office if:

a) Fails to attend meetings for a period of three (3) months.
b) By notice in writing to the organization stating reason(s) for his resignation.
c) He or she is removed from office by ¾ of the members.

SECTION 4 – MEETINGS.

Subsection 1 – Executive Meetings

a) The executive meetings shall be held by the executive committee after every one month or as the requirements of the project may demand. Only the executive members will attend.

Sub-section 2 – General Meetings

a) The General meetings shall be held after every two months. The meeting is open to all members.

Sub-section 3 – Annual General Meetings.

a) These meetings shall be held in the first month of the year to reconcile the projects activities and expenditures.

Sub-section 4 – Extra Ordinary Meetings.

a) Whenever deemed necessary the executive shall convene and extra – ordinary meeting and shall specify it as such in the notice convening it.

Sub- section 5 – Resolutions

a) All resolutions discussed and passed during the General meetings shall bind all members (present & absent)

Sub-section 6 – Voting

a) All voting procedures will be by show of hands on one man one vote basis. No voting by proxy.

SECTION 5 – PROJECTS FUNDS

Sub- section 1 – Income

a) The service of the projects funds will be derived from
i) Registration fee
ii) Donations from well wishers
iii) Grants
iv) Any other legal sources
v) Individuals' account subscriptions in the project.

Sub-section 2 – Expenditure

b) The funds above shall be used for;
i) Expenditures aimed at foreseeing the electrification process.
ii) Investing in community-based activities that can generate income and employment to its members.

Sub section 3 – Funds Management

a) All monetary funds received by the treasurer shall be deposited in the name of the project in the Bank approved in the General Meeting

b) The signatories of the Bank account shall be
i) Chairperson
ii) Treasurer
iii) One ordinary member
c) A sum not exceeding Kshs. 1000 (one thousand shillings only) shall be kept by the treasurer as petty cash. Whose proper accounts shall be kept.

SECTION 6 – AMMENDMENT AND DISSOLUTION

These by laws are subject to change by approval of not less than 2/3 majority of the members during an annual general meeting. The changes shall be effected to the department of Social Services for the amendment of those by laws.

The project shall not be dissolved but by reasons un avoidable. If necessary, the resolution shall be passed at an annual General Meeting by the members with advice from the office of Department of Social Services. If no quorum is obtained, a further general meeting shall be held a month later. Notice of the same shall be issued to all members at least 14 days prior to the date of the meeting.

Signed

1. Chairperson
2. Vice Chairperson
3. Secretary
4. Assistant secretary
5. Treasurer
6. Organizing Secretary
7. Ass. Org. Secretary

EBUMANYI COMMUNITY POWER PROJECT. DATE P.O.Box 74 – 50102 MUMIAS

BUMANYI COMMUNITY ELECTRIFICATION PROJECT 2005-~~02-15~~ PROGRAMME OF THE MEETING OF 19TH FEBRUARY 2005 FROM 10.00 AM – 12.00 NOON

THE DAY'S MASTER OF CEREMONY MR. PETER WEYIMI

PROGRAMME

1. Welcoming Visitors by Organising secretary
2. Opening prayer: Mr. Kevin Makapia
3. Opening speech: Chairman
4. Introducing Project Committee – Chairman
5. Brief History of the Project – Secretary

SPEECHES

a). Chairman Mr. Roman Masimba
b). Assistant Chief, Nuclea sub location
c). Invited Guests

- Mr. Andrew Okumu
- Kenya Power & Lightening Expert
- Councillor, Nuclea ward
- Chief Nabongo location

VOTE OF THANKS

- Mrs. Phassy Shitinga

CLOSING [PRAYER

- Mr. Atibu Wanga

MAY THE ALMIGHTY GOD LEAD AND BLESS THE PROJECT

SECRETARY.

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EBUMANYI COMMUNITY ELECTRIFICATION PROJECT 2005

PROJECT PROGRESS MEETING OF 19TH FEB 2005

DISTRICT SOCIAL ... BUTERE/MU... DISTRICT

EBUMANYI COMMUNITY ELECTRIFICATION PROJECT
DATE 22-2-05
SIGN
P.O.Box 74
MUMIAS

ATTENDANCE RECORDS.

NO	NAME	POST	NO	NAME	POST
1.	Roman Masimba	Chairman	22	Phylis Ayako	
2.	Peter Weyimi	Ass. Chairman	23	Akida Masimba	
3.	Shaban Shiundu	Secretary	24	Weyimi Makapia	Pastor
4.	Abraham Juma	Ass Secretary	25	Akida Masinde	
5.	Suleiman Wanga	Org. Secretary	26	Gerald Wangatia	
6.	Richard Linakha	Treasurer	27	Abubakar Wesonga	
7.	Kassim Chibayi	Auditor	28	Mohammed Osieko	
8.	Fatuma Osore	Member	29	Cornelus Weyimi	
9.	Zainab Ibrahim	Member	30	Wasabo Hassan	
10.	Phassy Shijinga	Member	31	Rashid Omwendo	
11.	Alice Kisia	Member (Represented)	32	Bakar Kunya	
12.	Solomon Werimo	Member	33	Idd Kombo	
13.	Suleiman Matiro	Area Sub – chief	34	Josephine Mumbo	
14.	Ismael muchelule	Councilor Mumias ward	35	Omenda Malala	
15.	Shaban Okova	Kenya & lightning contract technicians	36	Joseph Weyimi	
16.	Rajab Mwimali	Kenya & lightning contract technicians	37	Mohammed Kanusu	
17.	Ernest Omumia Sagala		38	Mohammed Okumu Ongiyo	
18.	Atibu Wanga	Sheikh	39	Abdallah Masai	
19.	Zaituna Ongiyo		40	Abdallah Seif Andika	
20.	Azina Marko		41	Mohammed Osore Walibiri	
21.	Bakari Shiundu				

EBUMANYI COMMUNITY POWER PROJECT.
DATE 24/4/05
P.O.Box 74 - 50102 MUMIAS

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EBUMANYI COMMUNITY ELECTRIFICATION PROJECT MINUTES OF 19TH FEB 2005 MEETING 10.00 A.M – 12.00 NOON AT MUMIAS BAPTIST CHURCH.

MEMBERS PRESENT. (THE EXECUTIVE)

	NAME	POST
1)	Roman Masimba	Chairman
2)	Peter Weyimi	Ass. Chairman
3)	Shaban Shiundu	Secretary
4)	Abraham Juma	Ass. Secretary
5)	Suleiman Wanga	Org. Secretary
6)	Richard Linakha	Treasurer
7)	Kassim Chibayi	Auditor
8)	Fatuma Osore	Member
9)	Zainab Ibrahim	Member
10)	Phassy Shijinga	Member
11)	Alice Kisia	Member (Represented)
12)	Suleiman Matiro	Ex – official (Ass chief)
13)	Solomon Welimo	Member

ABSENT WITH APOLOGY

1. Shaban Shiyuka

ABSENT

1. Bonny Abdiku

OPENING PRAYER

The day's opening prayer was lead by Mr. Solomon Werimo.

OPENING SPEECH

Ass Chairman Mr. Peter Weyimi took this chance to welcome all who attended the meeting and thanked them for adhering to the notice of 15th Feb 2005. He thereafter introduced the chairman.

CHAIRMAN: He passed his thanks giving to the Almighty and the rest for allowing him to welcome the invited guests who were:-

1) Area counselor Mr. Muchelule Ismael – Area Councilor
2) Area Sub – chief Mr. Matiro Suleiman
3) Kenya and lightening expert Mr. Shaban Kwova.

AS PER THE DAY'S PROGRAMME.

1. **INTRODUCTION:** The chairman introduced his committee members to the guests naming them and the post they hold as individuals.
2. **BRIEF HISTORY**: The Ebumanyi community Electrification project 2005 history was read to the members and guests in a correct and brief way in kiswahili language.

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3. **SPEECHES:**

) **Chairman:**

After he retired from the Government work Mr. Masimba saw the need of starting development in his area as there was none. For that reason he came up with electrification project of which he introduced to Bumanyi people in the 1st meeting. He also added that since he introduced the project so far 3 meetings had been held and more things done. He said the only way of developing the project was by registering it with the social services and opening a bank account. The main aim of calling upon the guests was that he needed them to educate his people on electricity and different ways of approaching it. He also wanted to present project update records and information officially to the area counselor. He thanked the counselor for his following assistance:

i) Development of education funds to Ichinga primary
ii) Giving of bursaries to students / pupils in his area.
iii) Water projects and the clinic at (Ichinga)
iv) Road network development in the area.

MIN 2/02/2005 ASSISTANT CHIEF

He started by urging all members to have a common interest in development and to do away with useless policies that has no gain at all. To add on 36 registered members he said that more and more should come to the project and the chairman should open a bank account in a week's time.

MIN 3/ (I) 2/2/05 KENYA POWER & LIGHTINING EXPERT: Mr.: Shaban Kwova informed members to do wiring in their houses and survey was on the way to be done. He added that a part from 23 names on the load sweet he added 27 more to reach 50.

N/B:

MIN3 (ii) 2/05

THE AREA COUNCILOR:- MR. MUCHELULE ISMAEL.

Mr. Muchelule Ismael expressed his great concern on the CCO. And social development factors of Ebumanyi community. He said, he was happy that the community had started a development project of electrification. Mr. Muchelule promised to support the project for it was people initiated. He also revealed that the community of Ebumanyi had started right project and at the right time. He said, the Kenya government has set a vote of Ksh. 700,000,000/= for electrification for Western Kenya where we are for this matter.

Having learnt that the subject project had:-

- Registered 36 active members.

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and accepted by Kenya Power lightning on Ref No. E24202005020050 and
et of subscribing Ksh. 3000/= each member to reach Ksh. 100,000/=.

- The councilor proposed that the project opens & maintain its Bank Account. The area Ass chief Mr. Matiro – seconded the proposal. From this the meeting through the project chairman agreed unanimously to open an account with Co – operative Bank of Kenya LTD Mumias Branch on within one week.
- The following were authirized to be the bank signatories:

1. Roman Makokha Masimba	Chairman
2. Shaban Osore Shiundu	Secretary
3. Richard Linaakha	Treasurer
4. Phassy Shijinga	Member

MIN 4/2/05 VOTE OF THANKS BY MRS SHIJINGA PHASSY.

Mrs. Shijinga expressed her gratitude and happiness as member of the project to have been privileged to host the area leaders who turned up for listening and ready to guide and assist the project. She regretted that Ebumanyi had lagged behind in communal Development for ages. She explained that life is impossible without elect and water. She ended up thanking

1) The entire Ebumanyi village residents for uniting for the sec of development.
2) Mr. Masimba ~~or~~ for coming up with this bright idea
3) Mr. Ass Chief Matiro and the area councilor Mr. I. Muchelule for accepting the project committee's invitation.
4) The councilor for his wise leadership and the assistance he has so far extended to this Ebumanyi community.
5) She ended up calling on the leaders to guide and support her project succeed to greater hights.

She wished them nice time as they left the meeting.

MIN 5/2/05 DOCUMENTS PRESENTATION

Mr. Masimba, the projects chairman presented the following project documents to the councilor.

i) The projects constitution
ii) Registration certificate from K. P. lightning.
iii) Acknowledgement letter

CLOSSING PRAYER:- MR ATIBU WANGA

The meeting was adjourned at 12.30 P.M. with a prayer lead by Mr. Atibu Wanga.

Sign:- EBUMANYI COMMUNITY POWER PROJECT DATE: 24/4/05 P.O.BOX 74 MUMIAS

Anwambele

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MINISTRY OF CO-OPERATIVE DEVELOPMENT AND MARKETING
OFFICE OF THE COMMISSIONER FOR CO-OPERATIVE DEVELOPMENT

Telegraphic Address "CO-OPS"
NAIROBI
Telex:
Telephone: 020 – 2731531
When replying please quote

CS/3109
Ref: .....

SOCIAL SECURITY BUILDING
BISHOP ROAD,
P.O. Box 40811 – GPO – 00100
NAIROBI

Date: 28th September, 2006

A. MANG'ULA

INTENTION TO SURCHARGE UNDER SECTION 73 OF THE CO-OPERATIVE SOCIETIES ACT. NO. 12 OF 1997 AND AMENDMENT 2004, CO-OPERATIVE SOCIETIES RULES 2004 AND OTHER ENABLING PROVISIONS OF THE LAW

	NAME	AMOUNT KSHS
1	Mr. George Dipondo	2,357,778.00
2	Mr. Calistus Mukhebi Kolosio	2,346,778.00
3	Mr. Protus Makau	2,446,778.00
4	Mr. Joshua Ongweni Muheba	2,381,778.00
5	Mr. Nicholus Nandonga	965,613.00
6	Mr. Ernest Kuta Kungu	960,154.00
7	Mr. Patrick Barasa	1,054,313.00
8	Mr. James Mapao	265,809.60
9	Mr. Calcanos Ekesa	40,985.00
10	Mr Moses Ongoma	61,985.00
11	Mr. Michael K. Washika	2,314,212.00
12	Mr. David M. Namakhabwa	43,985.00
13	Mr. Athanas Barasa Mang'ula	49,485.00
14	Mr. Andrew E. Okaya	44,985.00
15	Mr. Morris Muleshe	2,020,230.60
16	Mr. Joseph Andati	2,020,230.60
17	Mr. Joseck Wandera	2,014,945.60
18	Mr. Fredrick Ongoma	793,728.40
19	Mrs. Jane Omusula	5,700.00
20	Mr. Mutuli Aswani	8,700.00
21	Staff	1,671,924.20
22	Various Delegates	1,432,315.00
	GRAND TOTAL	**25,302,413.00**

19-9002

This is to forward to you intention to surcharge a sum of **Kshs. 25,302,412.90** in accordance with Section 73 of the Co-operative Societies Act. No. 12 of 1997 and Amendment 2004.

This is in pursuance to the **Mosacco Society Limited** Members' resolutions at a Special General Meeting held on 4th November 2003 at ACK Resource Centre – Mumias where the members of the said society unanimously adopted the findings and recommendations of the inquiry report instituted under Section 58 of the Act.

The inquiry report found you liable on the grounds which are within your knowledge and details attached herewith.

Kindly comply.

P.A. K'oremo
FOR: COMMISSIONER FOR COOPERATIVE DEVELOPMENT

c.c. The Chairman.,
Mosacco Sacco Society Ltd.

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	CS/3109 - MOSACCO SOCIETY LIMITED						
	DELEGATES SURCHAGE						AMOUNT
	NAME		ACTIVITY #	M/NO.			KSHS.
1	STANLEY MAKOKHA WABULITSA	A	01	4350	5,285	3,700	8,985
2	JOSEPH AMUYEKA ODONGO	A	01	13390	5,285	3,700	8,985
3	CHRISTOPHER OBWAKA OBWAKA	A	01	9192	5,285	3,700	8,985
4	MIKE SHIRANDA ODERO	A	01	21477	5,285	3,700	8,985
5	JUSTUS ODUOR AKHWALE	A	01	29061	5,285	3,700	8,985
6	RAPHAEL MAENDE MANYASA	A	01	22356	-	3,700	3,700
7	EMANUEL MAKOKHA MOLA	A	01	37104	-	3,700	3,700
8	HEZRON MUKOLWE WANDOLA	A	01	0103	5,285	3,700	8,985
9	JOSEPH OLOLO OYUGI	A	01	12620	5,285	3,700	8,985
10	DAVID OLWEMEKA OMENDA	A	01	28035	-	3,700	3,700
11	MOSES NABONGO JUMA	A	01	19129	-	3,700	3,700
12	FRANCIS OMENGO KEYA	A	01	17689	-	3,700	3,700
13	JOHN W. LUNYIRO	A	01	11066	-	3,700	3,700
14	JULIUS MASINDE MURENA	A	01	14393	5,285	3,700	8,985
15	KEFER WESONGA WASWANI	A	01	17836	-	3,700	3,700
16	JOHN PATTI NAICCAH	A	01	200300	5,285	3,700	8,985
17	GEORGE AYUB OTIENO	A	01	9586	-	3,700	3,700
18	HENRY MUMALI KHAUKWA	A	01	15958	5,285	3,700	8,985
19	NELSON JOHN OLUBULA	A	01	39883	-	3,700	3,700
20	WILSON NDALUSIA NGANYI	A	01	8265	5,285	3,700	8,985
21	YUSUF INDWALE OMOLLO	B	01		5,285	-	5,285
22	JOSEPH OLOO WATITWA	B	01		5,285	-	5,285
23	WYCLIFFE M. WALIUBA	B	01		5,285	-	5,285
24	PAUL O. AWANGE	B	01		5,285	-	5,285
25	HENRY CHISAKA TULESI	B	01		5,285	-	5,285
26	PETER A. RAWONGO	B	01		5,285	-	5,285
27	JAMES D.O. MULAMA	B	01		5,285	-	5,285
28	PETER MUTSOLI MUSUIA	B	01		5,285	-	5,285
29	JOSEPHAT OTETE WANGASHE	A	02	1417	5,285	3,700	8,985
30	IGNATIUS OPONDO ODIALO	A	02	7518	5,285	3,700	8,985
31	GERVAS O. OMONJE	A	02	10684	5,285	3,700	8,985
32	FEBIE M.M. MAERO	A	02	17548	5,285	3,700	8,985
33	MOSES INJIKA KUSIMBA	A	02	13301	5,285	3,700	8,985
34	NICOLAS KABEYI	A	02	2693	-	3,700	3,700
35	EMANUEL JUMA	A	02		-	3,700	3,700
36	PASCAL M. SHIKUKU	A	02		5,285	3,700	8,985
37	FENZWA MUKENYA	A	02	4659	5,285	3,700	8,985
38	THOMAS OLENGO OPONDO OLENGO	A	02		5,285	3,700	8,985
39	AMBROSE OYATSI	A	02	0531	5,285	3,700	8,985
40	POLYCARP O. NYANG'URA	A	02	3724	5,285	3,700	8,985
41	RENSON JAKOYO	A	02		5,285	3,700	8,985
42	JACTONE O. OLANDO	B	02		5,285	-	5,285
43	FRANCIS N. WAKHUNGU	B	02		5,285	3,700	8,985
44	CHRISTOPHER M. MAKOKHA	B	02		5,285	3,700	8,985
45	NICHOLAS K. OKELLO	B	02	15457	5,285	-	5,285
46	GEORGE O. OMONDI	B	02		5,285	-	5,285
47	MICHAEL O. ADAMS	B	02		5,285	-	5,285
48	JOSEPH KWENA	B	02		5,285	-	5,285
49	MICHEAL A. ADWENYA	A	03	0505	5,285	3,700	8,985
50	JUSTUS WASIKE WERE	A	03	6139	5,285	3,700	8,985
51	JOSECK A. EKESA	A	03	13646	5,285	3,700	8,985
52	PHILPERT MASINDE	A	03	2744	5,285	3,700	8,985
53	JOHN NAKERI	A	03	0144	-	3,700	3,700
54	HUMPRESS ONGAYA	A	03	1691	5,285	3,700	8,985
55	PROTUS OKULI	A	03	46266	-	3,700	3,700
56	PROTUS M OSUNDWA	A	03	1948	5,285	3,700	8,985
57	GEORGE OTSIULA	A	03	3328	5,285	3,700	8,985
58	ALBERT ABWOKA	A	03	12405	5,285	3,700	8,985

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	CS/3109 - MOSACCO SOCIETY LIMITED							
	DELEGATES SURCHAGE							
	NAME		ACTIVITY #	M/NO.				AMOUNT KSHS.
117	CASSIN E. MUNYENDO	B	05		5,285	-		5,285
118	DISMAS W. MUTAKI	B	05	11903	5,285	3,700		8,985
119	PIUS M. MUSUMBA	B	05		5,285	-		5,285
120	JOHN K. MUSUNGU	B	05		5,285	-		5,285
121	CHARLES LUSAMBU	B	05		5,285	-		5,285
122	EIC K. MULAMA	B	05		5,285	-		5,285
123	ALI O. MUTIMBA	B	05		5,285	-		5,285
124	NEWTON M. WEGULO	A	06		-	3,700		3,700
125	PATRICK S. NDOMBI	A	06	12787	5,285	3,700		8,985
126	CRISTOPHER FIBANDA	A	06	4805	5,285	3,700		8,985
127	HENRY W. MATINI	A	06	18030	5,285	3,700		8,985
128	GASSIM MAKOKHA	A	06	14403	-	3,700		3,700
129	FRANCIS J. NGOLWE	A	06	35375	5,285	3,700		8,985
130	ZEBEDAYO N. WAWIRE	A	06	6801	5,285	3,700		8,985
131	FREDRICK N. MAUNGO	A	06	28888	5,285	3,700		8,985
132	GABRIEL ONGERI	A	06	4080	5,285	3,700		8,985
133	AGGREY WEGULO	A	06	258	5,285	3,700		8,985
134	JOSEPHAT M. KENYATTA	A	06	23903	5,285	3,700		8,985
135	FRANCIS E. WASHIKA	A	06	30047	5,285	3,700		8,985
136	JOSPHART BARASA	A	06	2058	-	3,700		3,700
137	DICKSON S. EKESA	A	06	7855	5,285	3,700		8,985
138	PAUL L. ECHESA	A	06	1127	5,285	3,700		8,985
139	BONFACE KOTE	A	06	6220	-	3,700		3,700
140	RICHARD TARI	A	06	19438	-	3,700		3,700
141	JAMES SISA	A	06		-	3,700		3,700
142	MOSES UKHEVI	A	06	23669	-	3,700		3,700
143	HARUN MUSANYI	A	06	3580	-	3,700		3,700
144	REUBEN OKWAKO	A	06	1969	-	3,700		3,700
145	JOSEPH O. BARASA	B	06		5,285	-		5,285
146	EMMANUEL MUNYENDOH	B	06	36759	5,285	3,700		8,985
147	CASSIM M. MAKOKHA	B	06		5,285	-		5,285
148	TEBERIOUS R. WASIKE	B	06		5,285	-		5,285
149	ELIJAH M. WEKHANYA	B	06		5,285	-		5,285
150	ANDREW B. WAKHULUNYA	B	06		5,285	3,700		8,985
151	ALPHONCE AURA NAMAMBA	A	07	1755	5,285	3,700		8,985
152	BASIL KHALUMI	A	07	1702	5,285	3,700		8,985
153	RAJAB D. MAKOKHA	A	07	18844	5,285	3,700		8,985
154	ALOIS OMUTSEMBI	A	07	16974	5,285	3,700		8,985
155	JAPHETH MAKAU OLUCHINJI	A	07	0703	5,285	3,700		8,985
156	JOHN ALUKOYE MWANJE	A	07	26087	5,285	3,700		8,985
157	ANDREW MAKOKHA	A	07	27162	5,285	3,700		8,985
158	PETER OWUOR OMONDI	A	07	6777	-	3,700		3,700
159	JOSEPH BARASA	A	07	20210	-	3,700		3,700
160	METESELA OMUKOKO	A	07	2350	-	3,700		3,700
161	DAVIDSON AUMA	A	07	20711	-	3,700		3,700
162	ELIJA OKOYO	A	07	23044	-	3,700		3,700
163	FRANCIS OYALE	A	07	0465	5,285	3,700		8,985
164	WILTONE OTENYO	A	07	24638	-	3,700		3,700
165	FRANCIS OLAYO OGUTU	A	07		5,285	3,700		8,985
166	MISHACK BARASA	A	07	34952	-	3,700		3,700
167	JACKSON MAKUBA INGALULA	A	07	24057	5,285	3,700		8,985
168	ALPHONCE ONDENYI	A	07	38954	-	3,700		3,700
169	ISAAC OTUNDO	B	07		5,285	3,700		8,985
170	HENRY OLANDO	B	07		5,285	-		5,285
171	GEORGE L. ONDIAKA	B	07		5,285	-		5,285
172	DAVID M. ETEMESI	B	07	21970	5,285	3,700		8,985
173	DANIEL OKUMU	B	07		5,285	-		5,285
174	WHITON O. OTENYO	B	07		5,285	-		5,285

Appendix Page:
Coop – Q5
Kenya RE Study

PAGE #	Particulars	JOSEPH ANDATI	JOSECK WANDERA	FREDRICK ONGOMA	VARIOUS DELEGATES	TOTAL AMOUNT
		Ex-Committee Member	Ex-Committee Member	Ex-Committee Member	Ex-Delegates	
						702,285.80
						230,000.00
						84,579.00
25 & 26	I.O.Us converted to Debtors					557,241.00
32	I.O.Us for campaigns					87,000.00
34	Medical Allowance					540,160.20
41	I.O.Us converted to Debtors			60,017.80		55,000.00
48	Inspection of 2001 Books					35,000.00
48	Donations			5,000.00		1,581,360.00
51	PR to Mgt Committee			8,985.00	1,432,315.00	1,161,999.80
51	PR to Mgt Committee	5,285.00				6,903,367.20
51	Honoraria to Delegates - illegal			575,280.60		11,517,320.00
53	Honoraria to Delegates - fraud		575,280.60			1,300,000.00
92	Mosacco Plaza payments	575,280.60	1,439,665.00			72,100.00
117	Projects Brokerage fees	1,439,665.00		144,445.00		475,000.00
123	Overpaid 1999 Dividends					25,302,413.00
	Unaccounted for Cash			793,728.40	1,432,315.00	
	Staff Bonus	2,020,230.60	2,014,945.60			

Appendix Page:
Coop – Q6
Kenya RE Study

IN THE REPUBLIC OF KENYA

MINISTRY OF COOPERATIVE DEVELOPMENT AND MARKETING

NOTICE OF INTENTION TO SURCHARGE UNDER SECTION 73 OF THE CO-OPERATIVE SOCIETIES ACT NO. 12 OF 1997 AND AMENDMENT 2004, CO-OPERATIVE SOCIETIES RULES 2004 AND OTHER ENABLING PROVISIONS OF THE LAW

IN THE MATTER OF INQUIRY REPORT OF MOSACCO SOCIETY LIMITED CS/NO. 3109 OF THE YEAR 2003

TAKE NOTICE that the Commissioner for Co-operative Development has been notified that you are accountable for monies indicated against your names in relation to the business of **Mosacco Society Limited** particulars which are set out in the Inquiry Report read and adopted in accordance with Section 58 of the Co-operative Societies Act.

	NAME	AMOUNT KSHS
1	Mr. George Dipondo	2,357,778.00
2	Mr. Calistus Mukhebi Kolosio	2,346,778.00
3	Mr. Protus Makau	2,446,778.00
4	Mr. Joshua Ongweni Muheba	2,381,778.00
5	Mr. Nicholus Nandonga	965,613.00
6	Mr. Ernest Kuta Kungu	960,154.00
7	Mr. Patrick Barasa	1,054,313.00
8	Mr. James Mapao	265,809.60
9	Mr. Calcanos Ekesa	40,985.00
10	Mr Moses Ongoma	61,985.00
11	Mr. Michael K. Washika	2,314,212.00
12	Mr. David M. Namakhabwa	43,985.00
13	Mr. Athanas Barasa Mang'ula	49,485.00
14	Mr. Andrew E. Okaya	44,985.00
15	Mr. Morris Muleshe	2,020,230.60
16	Mr. Joseph Andati	2,020,230.60
17	Mr. Joseck Wandera	2,014,945.60
18	Mr. Fredrick Ongoma	793,728.40
19	Mrs. Jane Omusula	5,700.00
20	Mr. Mutuli Aswani	8,700.00

20900

21	Staff	1,671,924.20
22	Various Delegates	1,432,315.00
	GRAND TOTAL	**25,302,413.00**

WHEREOF by way of written submissions you are hereby called upon individually show cause within 14 days from the date hereof why you should not be surcharged accordance with Section 73 of the Act.

TAKE FURTHER NOTICE that unless an explanation is received within t aforesaid period, an order of surcharge shall be issued without further reference you.

Dated at Nairobi this ....18th.... day of ....October.... 2006

F. F. OLUKAMBO, MBS, DSM.
COMMISSIONER FOR CO-OPERATIVE DEVELOPMENT

PAGE #	Particulars	CALCANOS EKESA	MOSES ONGOMA	MICHAEL WASHIKA	JANE OMUSULA	MUTULI ASWANI
		Ex-Committee Member	Ex-Committee Member	Ex-General Manager	Ex-Delegate	Ex-Delegate
25 & 26	I.O.Us converted to Debtors			50,000.00		
32	I.O.Us for campaigns			84,579.00		
34	Medical Allowance				2,000.00	5,000.00
41	I.O.Us converted to Debtors	32,000.00	53,000.00			
48	Inspection of 2001 Books			60,017.80		
48	Donations			10,000.00		
51	PR to Mgt Committee					
51	PR to Mgt Committee					
51	Honoraria to Delegates - illegal	8,985.00	8,985.00	5,285.00	3,700.00	3,700.00
53	Honoraria to Delegates - fraud			89,384.60		
92	Mosacco Plaza payments			575,280.60		
117	Projects Brokerage fees			1,439,665.00		
123	Overpaid 1999 Dividends					
	Unaccounted for Cash					
	Staff Bonus					
		40,985.00	61,985.00	2,314,212.00	5,700.00	8,700.00

Appendix Page:
Coop – Q8
Kenya RE Study

REPUBLIC OF KENYA

MINISTRY OF CO-OPERATIVE DEVELOPMENT

CERTIFICATE OF REGISTRATION

THE CO-OPERATIVE SOCIETIES ACT
(Cap. 490. Section 7)

REGISTRATION No. CS/3109

I hereby certify that the society under the name of

MUMIAS OUTGROWERS CO-OPERATIVE SAVINGS & CREDIT SOCIETY LTD.

and its by-laws have this day been duly registered by me in the Register of Co-operative Societies, in pursuance of the provisions of the Act and the Rules made thereunder.

Given under my hand at Nairobi this 10TH *day of* DECEMBER *,19* 79

R. W. BOMETT

Commissioner for Co-operative Development

CS/3109...MUMIAS OUTGROWERS SACCO SOCIETY LTD.

STATISTICAL INFORMATION

	31.12.2005	31.12.2004
Number of members	43515	42850
Number of employees	59	60

EXTRACTS FROM BALANCE SHEET

Share capital	182,455,701.75	178,165,393
Plaza shares	57,519,687.60	55,952,746
Entrance fee	1,764,300	1,568,600
Poultry shares	75,000	75,000
Reserves	13,073,184.35	11,016,513.90
Capital gain	647,000.75	647,000.75
Appropriation account	7,379,867.90	4,747,525.20
Long term assets	98,346,963.05	101,492,877.40
Current assets	309,537,524.70	310,008,143.55
Current liabilities	143,695,880.40	158,054,377.10
Working capital	165,841,644.30	151,953,766.45
Turnover	58,439,254.75	49,824,335.96
General reserves	1,273,865	1,273,865
Current ratio: current assets/current liabilities	2.15:1	1.96:1
Owners cap. Ratio:members funds/total assets	0.65:1	0.61:1

BANKERS

Kenya Commercial Bank Ltd.
Co-operative Bank of Kenya

AUDITOR

Ministry of Co-operative Devt. & Marketing

MANAGEMENT COMMITTEE

Pius Libendi	- Chairman
Joseph Ayoyi	- V/Chairman
Alexander Donisio	- Hon. Secretary
Kepher Waswani	- Treasurer
Galcanos Ekesa	- Member
George Dipondo	- Member
Mukhebi Kolosio	- Member
James Mapao	- Member
Meshack Barasa	- Member

SUPERVISORY COMMITTEE

Joseph K. Oluta - Chairman
Joseph O. Amuyeka - Secretary
Atanasi B. Mang'ula - Member

MANAGEMENT STAFF

Anerico Chitayi - General Manager
Wycliffe Nambwaya - DGM.-Fin.
Solomn Chirui - Internal Auditor

CS/3109...MUMIAS OUTGROWERS SACCO SOCIETY LTD.

STATISTICAL INFORMATION

	31.12.2004	31.12.2003
Number of members	42850	39941
Number of employees	60	60

EXTRACTS FROM BALANCE SHEET

Share capital	178,165,393	171,712,295
Plaza shares	55,952,746	53,213,471
Entrance fee	1,568,600	1,401,320
Poultry shares	75,000	75,000
Reserves	11,016,513.90	10,778,450.50
Capital gain	647,000.75	647,000.75
Appropriation account	4,747,525.20	1,731,819.55
Long term assets	101,492,877.40	106,282,315.80
Current assets	310,008,143.55	248,253,561.50
Current liabilities	158,054,377.10	115,617,520.50
Working capital	151,953,766.45	132,636,041
Turnover	49,824,335.96	49,363,534.05
General reserves	1,273,865	
Current ratio: current assets/current liabilities	1.96:1	2.14:1
Owners cap. Ratio:members funds/total assets	0.61:1	0.48:1

BANKERS

Kenya Commercial Bank Ltd.
Co-operative Bank of Kenya

AUDITOR

Ministry of Co-operative Devt. & Marketing

MANAGEMENT COMMITTEE

George Dipondo - Chairman
Protus Makau - Vice Chairman
Kalisto k. Mukhebi - Hon. Secretary
Joshua O. Muheba - Treasurer
Fredrick Ongoma - Member
Calcano Ekesa - Member
Nicholas Nandong'a - Member
Ernest Kangu - Member
James Mapao - Member

CS/3109...MUMIAS OUTGROWERS SACCO SOCIETY LTD.

STATISTICAL INFORMATION

	31.12.2003	31.12.2002
Number of members	39941	37421
Number of employees	60	60

EXTRACTS FROM BALANCE SHEET

Share capital	171071295	155090530.6
Plaza shares	53213471	49797939.55
Entrance fee	1401320	1176980
Poultry shares	75000	75000
Reserves	10778450.5	10576627.65
Capital gain	647000.75	453215.75
Appropriation account	1731819.55	1672016.75
Long term assets	106282315.8	113702850.2
Current assets	248253561.5	233493544.9
Current liabilities	115617520.5	128354085.2
Working capital	132636041	105139459.7
Turnover	49363534.05	58415486.15

EXTRACTS FROM SURPLUS & LOSS A/C.

Current ratio: current assets/current liabilities	2.147:1	1.8:1
Owners cap. Ratio members/funds		
Total assets	0.48:1	0.6:1

BANKERS

Kenya Commercial Bank Ltd.
Co-operative Bank of Kenya

AUDITOR

Ministry of Co-operative Devt. & Marketing

MANAGEMENT COMMITTEE

George Dipondo	- Chairman
Protus Makau	- Vice Chairman
Kalisto k. Mukhebi	- Hon. Secretary
Joshua O. Muheba	- Treasurer
Fredrick Ongoma	- Member
Calcano Ekesa	- Member
Nicholas Nandong'a	- Member
Ernest Kangu	- Member
James Mapao	- Member

MUMIAS OUTGROWERS SACCO SOCIETY LIMITED
P.O. BOX 295, TEL.641229/641267 MUMIAS – KENYA

E-MAIL ADDRESS: mosacco@africaonline.co.ke

HISTORY - *MOSACCO was started in December 1979 by Moco Ltd to serve sugar cane farmers and Employees.*

It started 'Front Office Savings Activity [Fosa]' In November 1989.

AREA OF OPERATION - *Mumias Sugar Scheme which is in five districts in Western Kenya; Mumias-Butere, Kakamega, Busia, Siaya and Bungoma.*

STATISTICS AS AT 31.12.2005

MEMBERSHIP	-	*43,515*
SHARE CAPITAL	-	*Ksh.182,455,701.75/=*
MOSACCO PLAZA	-	*Ksh. 57,519,687.60/=*
MEMBERS LOAN OUTSTANDING	-	*Ksh.117,300,364.85/=*
MEMBERS SAVINGS	-	*Ksh.107,491,186.20/=*
NOMINAL VALUE PER SHARE	-	*Ksh. 100/=*
MINIMUM SHARE FOR MEMBERSHIP	-	*Ksh. 50/=*

STRUCTURE AND OFFICE MANAGEMENT

MOSACCO Society Limited is divided into 9 activities- for electoral purposes- and another two: 010 for staff and 011 for non-members. Ordinary members elect delegates to represent them[1 delegate for 200 members] sub-location-wise every three years.

POLICY MAKING

Authority to make policies lies with delegates in a Delegates Meeting- usually the Annual Delegates Meeting. A Delegates Meeting is the supreme organ of the society. Delegates elect a Management Committee of 9 members[one per activity] and 3 Supervisory Committee Members – one per three activities. Delegates meet in Annual Delegates Meeting and Special Delegates Meeting if necessary. Supervisory Committee members are elected annually in an Annual Delegates Meeting.

MANAGEMENT

The Management of the society is done by the Central Management Committee assisted by its Sub-Committee: Executive, Education, Credit, Monthly Control and Staff Sub-Committees. The Central Management Committee meets once a month but may hold Special Management Committee meetings if necessary. The C.M.C. hires and fires staff.

Through delegation however, the day to day management of the society is done by the General Manager who is the Chief Executive Officer of MOSACCO. In this he is assisted by a Deputy General Manager and Branch and Departmental Managers.

SUPERVISION

Supervision of the society is done by the Supervisory Committee – which is a Special Sub-committee of MOSACCO. It is usually assisted by the Internal Auditor. It is subordinate and reports to the Annual Delegates Meeting. It however informs the Management Committee about its findings when the two committees meet.

LOANS AND CREDIT POLICY

There are two types of loans: Emergency and Normal loans. Emergency loans are those to do with illness, death, court cases and destroyed houses. All other loans[including school fees] are normal. Loans are granted to members only. They are recoverable at once from sugar cane proceeds unless the loanee wants to pay by cash before the crop is harvested.

Normal loans are granted when a farmer's sugar canes are at least 8 months old and are granted thrice per share holding. Sacco employees are however granted loans four times per share if recoverable from their salaries but for a maximum period of 48 months.

Emergency loans are granted when a farmer's sugar canes are at least 5 months. These loans are fixed at Ksh.5,000/= only. Unlike Normal loans, there are no additional Emergency loans unless they have been repaid.

Loan Granting Process is as follows:

1. *The General Manager issues Loan Application Forms to the nine Management Committee members.*
2. *The committee members give them to their activity delegates[including themselves].*
3. *The delegates give the forms to members who fill, sign them and return the same to their delegates.*
4. *The delegates return the forms to their committee members who return them to the Credit Manager.*
5. *The Credit Manager registers them. He then sends them to Shares Department to verify and later checks at Mumias Sugar Company regarding details on the applicants' sugar cane contracts.*
6. *After that the checked forms are presented to the Credit Committee for final assessment and loan granting.*
7. *The General Manager then authorizes the Credit Manager to process the approved loans for payment. This process includes signing of irrevocable forms by the Loanees authorizing Mumias Sugar Company to send all their next sugar cane proceeds to MOSACCO where loan money and interest are recovered.*

8. *Rejected application forms are returned to the applicants through CMC-delegate-member.*

DEPARTMENTS

MOSACCO *is divided into the following departments:-*

1. *Administration*
2. *Shares*
3. *Savings*
4. *Credit*
5. *Accounts*
6. *Cashiery*
7. *Control*
8. *Internal Audit*
9. *Computer*
10. *Projects :-*
    - *(a) 49 acres of sugar cane*
    - *(b) Dairy and Poultry processing arrangements*

NOTES: *A. For ease of work, MOSACCO has 2 branches; Headquarters and Malaha Branches and 6 mobile centres which are intended to be turned into branches later on.*

B. The Society is regulated by the Co-operative Societies Act No.2 of 2004, Rules and Circulars and by-laws and of course, the decisions of the Delegates Meeting through the Cenral Management Committee.

C. The Society has computerized its operations for efficiency.

D. We have a sugar cane project and intend to diversify further by having milk and poultry processing projects.

A.O. Chitayi
GENERAL MANAGER
December, 2005