

**AN INVESTIGATION OF FACTORS INFLUENCING PERFORMANCE OF
AGRO-INPUT ENTERPRISES IN KAKAMEGA COUNTY, KENYA**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT
FOR THE AWARD OF MASTER OF ARTS DEGREE IN PROJECT PLANNING
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2012

DECLARATION

I declare that this is my original work and has not been presented for a degree or any other award in any university or any institution of higher learning for examination

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DEDICATION

This research project is dedicated to my late parents, David Misiko and Fanice Awinja

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I am grateful to God for good health, courage and for all resources I needed during my studies. I sincerely thank my supervisor Dr. Dismus Bulinda for his guidance. Special gratitude to my brother Dr. Michael Misiko for diligent support and sacrifice throughout my studies, along with his wife Victoria, my three sisters (Irene, Miriam and Violet), my other two brothers (Simon and Leonard) and my sister in-law Anne for their encouragement, moral and financial support. May Almighty God bless you all in exceptional ways.

TABLE OF CONTENT

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS.....	iv
TABLE OF CONTENT	v
LIST OF FIGURES	ix
LIST OF TABLES	x
ABBREVIATIONS AND ACRONYMS	xii
ABSTRACT	xiii
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background of the study	1
1.2 Statement of the problem	4
1.3 Purpose of the study	5
1.4 Objectives of the study	5
1.5 Research questions	5
1.6 Significance of the study.....	6
1.7 Limitation of the study	6
1.8 Delimitation of the study	6
1.9 Basic assumptions of the study	6
1.10 Definition of significant terms	7
1.11 Organisation of the study	7
CHAPTER TWO.....	9
LITERATURE REVIEW.....	9
2.1 Introduction	9
2.2 Entrepreneurship in agriculture	9
2.3 Agricultural entrepreneurship development	10
2.4 Agricultural entrepreneurship in Kenya -challenges.....	11
2.5 Agricultural marketing in Kenya.....	12
2.6 Agricultural credit and inputs.....	13
2.6.1 Credit.....	13

2.6.2 Inputs.....	13
2.7 Agriculture in relation to development and gender.....	14
2.8 Sustainable agriculture	16
2.9 Agriculture and the economy	18
2.10 The Kenya Agro-dealer Strengthening Programme (KASP)	20
2.11 Conceptual framework	26
CHAPTER THREE	27
RESEARCH METHODOLOGY.....	27
3.1 Introduction	27
3.2 Research design.....	27
3.3 Target population	27
3.4 Sample size and sampling procedure	28
3.5 Research instruments.....	28
3.5.1 Validity.....	28
3.5.2 Reliability	28
3.6 Data collection procedures.....	29
3.7 Data analysis	29
3.8 Ethical issues.....	29
3.9 Operational definition of variables.....	30
CHAPTER FOUR.....	31
DATA ANALYSIS, PRESENTATION AND INTERPRETATION.....	31
4.1 Introduction	31
4.2 Demographic characteristics of the respondents.....	31
4.2.1 Gender composition	31
4.2.2 Age composition	32
4.2.3 Education level of agro-dealers.....	32
4.2.4 Duration of enterprise existence.....	33
4.2.5 Number of employees	34
4.2.6 Nature of enterprise operation.....	34
4.2.7 Form of business	35

4.3 Enterprise environment: Characteristics and services	35
4.3.1 Product range.....	36
4.3.2 Services offered.....	36
4.3.3 Business constraints	38
4.3.4. Demand for various products and services.....	41
4.3.5 Longest distance covered by farmers to the agri-businesses.....	42
4.3.6 Constraints faced by farmers.....	42
4.3.7 Confidence level among agro-dealers	43
4.3.8 Presence of shop outlets	44
4.4 Financial performance.....	44
4.4.1 Profits	44
4.4.2 Profits performance	45
4.4.3 Business bank accounts and sources of capital	46
4.4.4 Access to business loans.....	47
4.4.5. Amounts of loans accessed by the businesses.....	48
4.4.6 Demand creation activities	48
4.4.7 Number of farmers served by the agribusinesses.....	49
4.4.8 Output marketing.....	50
CHAPTER FIVE.....	54
SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND	
RECOMMENDATIONS.....	54
5.1 Introduction	54
5.2 Summary of findings.....	54
5.3 Summary discussions of study	57
5.4 Conclusions	59
5.5 Recommendations	61
5.6 Areas of further research	61
REFERENCES.....	63

APPENDICES	70
Appendix 1: Letter of Transmittal.....	70
Appendix 2: Agro-dealer Questionnaire	71

LIST OF FIGURES

Figure 1: Policy Issues Relating to Sustainable Agriculture.....16

Figure 2: Components of KASP.....20

Figure 3: Conceptual Framework.....26

LIST OF TABLES

Table 3.1: Target population.....	27
Table 3.2: Operational definition of variables	30
Table 4.1 Gender of the respondents	31
Table 4.2: Age categories of agro-dealers	32
Table 4.3: Education level	33
Table 4.4: Duration of operation.....	33
Table 4.5: Categories of enterprises based on number of employees.....	34
Table 4.6: Nature of enterprise operation	35
Table 4.7: Form of business.....	35
Table 4.8: Products stocked	36
Table 4.9: Services offered	38
Table 4.10: Constraints faced by agro-dealer businesses in Kakamega	39
Table 4.11: Demand for agro-enterprise products/ services	41
Table 4.12: Longest distance covered.....	42
Table 4.13: Constraints of acquiring inputs among smallholder	42
Table 4.14: Agro-dealer confidence	44
Table 4.15: Presence of agribusiness outlets	44
Table 4.16: Profits.....	45
Table 4.17: Changes in profits among agro-businesses.....	46
Table 4.18: Bank business account.....	46
Table 4.19: Sources of capital for agribusinesses.....	47
Table 4.20 Access to bank loan	47
Table 4.21: Amount of loan	48

Table 4.22: Companies that carried out demonstration activities.....	49
Table 4.23: Number of farmers served by the studied agro-dealers	49
Table 4.24: Provision of market information to client farmers	50
Table 4.25: Output marketing.....	50
Table 4.26: Crops purchased by agro-dealers.....	51
Table 4.27: Quantity of farm produce marketed by agro-dealers	51
Table 4.28: Proportion turnover.....	52
Table 4.29: Number of farmers who sold produce to agro-dealers	52

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ABBREVIATIONS AND ACRONYMS

AGMARK: Agricultural Market Development Trust

AGRA: Alliance for a Green Revolution in Africa

ASALs: Arid and Semi Arid Lands

BMGF: Bill and Melinda Gates Foundation

CAADP: Comprehensive Africa Agriculture Development Program

CNFA: Citizen Network for Foreign Affairs

COMESA: Common Market for Eastern and Southern Africa

FAO: Food and Agricultural Organisation of the United Nations

FISL: Farm Inputs and Savings Loan

KASP: Kenya Agro-dealer Strengthening Programme

MoA: Ministry of Agriculture (Kenya)

NAAIAP: National Accelerated Agricultural Input Access Programme

NEPAD: New Economic Partnership for Africa's Development

WFP: United Nations World Food Programme

WHO: United Nations World Health Organisation

ABSTRACT

Kenya relies heavily on the agricultural sector for economic growth, employment creation and foreign exchange generation. Agriculture accounts directly for 30% of the Gross Domestic Product (GDP), and a further 27% indirect contribution through linkages with manufacturing, distribution and other sectors. About eighty percent of Kenyans live in rural areas and depends directly on agriculture. However, only 18% of them use certified and improved agricultural farm inputs like seed and fertiliser and have adopted modern production practices and technologies. These rural farmers are often unable to access certified farm inputs, essential services, especially at the opportune time and place. The key issues are often availability, unaffordable quantities or inappropriate qualities. Smallholders therefore often rely on less productive skills and technologies due to inaccessible or lack of modern production knowledge and techniques. This condition is made worse by the often unfavourable input-produce price ratios. This ratio is negatively influenced by difficulties among key agro-processing industries in accessing critical inputs, and the resultant low quantities and qualities of produce.

Through questionnaire survey, direct observation, key informants and literature review, the current work studied the factors that influence performance of agro-input enterprises. Findings show that KASP played a decisive role in influencing performance of agro-input enterprises. The three KASP components (that is, building agro-dealers capacity to serve farmers, financial services for agro-dealers and farmers, and finally, advancing agricultural policy) that were implemented were successful. Findings show that the demand-creation activities such as trainings, demonstrations and table banking among farmers groups, resulted in a more favourable business environment for the performance

of the enterprises. KASP intervention increased awareness and knowledge among farmers on benefits of using certified inputs, facilitated the creation and sustainability of agro-enterprises and therefore brought inputs and made them more accessible. KASP created linkages among farmers and agro-dealers, and between them and input supply companies. This is an essential component of good business environment.

Findings of the current study have several implications, such as the following. One, the participation of agro-dealers in the implementation of projects right from the baseline is essential to enhance sustainability. Two, mechanisms for closer monitoring of similar projects are required, including after their closure as suggested by agro-dealers. Agro-dealers felt that project implementers pulled out suddenly, or without necessary backstopping. Three, there is need for keen consideration of equity and neediness during dispersing of grant equipment. Besides, more support needs to be focused on the Farmer Inputs and Savings Loan schemes (FISL) component to boost farmer-agro-dealer relationships.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Through literature and field based research, this study explored the factors that influence performance of rural based enterprises (agro-dealers). These agro-dealers provide the missing linkage between rural farmers and supply companies (or manufacturers), agricultural specialists, researchers and extension officers (AGMARK, 2010). In view of the foregoing, this study analysed success factors of the KASP project, which addressed the above constraints.

In a bid to return the country to food self-sufficiency, the Government of Kenya has been spearheading strategies for a 'Green Revolution' in the food producing sector as spelt out in the Strategy for Revitalising Agriculture (SRA), a 10-year plan launched in 2004 and entrenched in Kenya's *Vision 2030*. Key among these strategies is the increased generation, promotion and use of modern farming inputs and technologies, particularly improved seed and fertiliser. Small scale, independent stockists, referred to as agro-dealers are seen to have a crucial role in distributing these inputs in a liberalised economy. As key actors in the new 'Green Revolution', agro-dealers are thus at the centre of the current policy discussion about the future of Kenya's cereal sector (Republic of Kenya, 2004).

According to McElwee (2005) the critical factors for the success of agro-dealers are: Entrepreneur profile which covers passion, education, age, ability to network, risk

management and responsiveness; enterprise environment which include location, population density, product range, farmer loyalty (customer); value chain relationships among farmers, input supply companies, MOA, distributors and development agencies.

The root cause of food insecurity in developing countries is poverty. While the rest of the world has made significant progress towards poverty alleviation, Africa, in particular sub-Saharan Africa continues to lag behind. Projections show that there will be an increase in this trend unless preventive measures are taken (FAO, 2009). Many factors have contributed to this tendency including the high prevalence of HIV/AIDS, civil wars or strife, poor governance, frequent famine resulting from droughts/ floods, and high dependency on the climate/ natural environment for farming. Food security on the continent has worsened since 1970 and the proportion of the malnourished population has remained within the 33% to 35% range in sub-Saharan Africa. The prevalence of malnutrition on the continent varies by region. It is lowest in Northern Africa at 4%, and highest in Central Africa at 40% (Mose *et al.*, 1997).

Kenya relies heavily on the agricultural sector as a base for economic growth, employment creation and foreign exchange generation. Agriculture accounts directly for 30% of the Gross Domestic Product (GDP). It is estimated that the sector further indirectly accounts for about 27% through linkages with manufacturing, distribution and other service related sectors. In Kenya, about 80% of the population lives in rural areas and depends directly on agriculture for sustenance, only 18% of smallholder farmers use certified and improved agricultural farm inputs like seed and fertiliser and have adopted modern production practices and technologies (Republic of Kenya, 2009).

Regardless of the high potential for agricultural production, that is availability of labour and arable land in Kenya, there is vast depletion of key natural resources to the extent that they can no longer support the full productivity potential. There must be intervention through introduction of better practices, technologies, and modern services such as agro-vets (German *et al.*, 2012).

High population density and over-cultivation of smaller pieces of land have exhausted the formerly good soils in many high potential agricultural areas. This is especially due to loss of soil nutrients through leaching, chronic soil erosion and unreliable rainfall. The constant and escalating problem of soil fertility demonstrates Kenya's need for sustainable and adequate food production, especially at the smallholder household level. This can only come with increased access to improved farm inputs as well as adoption of better farming practices and technologies. Use of certified and improved seed varieties, fertiliser and enhanced soil fertility practices will raise agricultural productivity that will in turn boost rural household incomes and ultimately improve food security in Kenya. The challenges for these are many. However, of immediate concern is improving availability of inputs to farmers who need them (Pretty, 1995).

Despite regional differences of scale in climatic, soil fertility and demographic challenges, farmers in most parts of Kenya face similar agricultural problems, including availability of agricultural inputs at the right time. For instance, while seed may be available in many shops, the issue may be the unavailability of adapted or drought resistant seed varieties suitable to specific areas or often this seed may be far away from smallholders and in inappropriate quantities that are inaccessible, expensive or heavy to

transport. This scenario can be tackled through agro-dealers, which are appropriate channels and actors that can avail key inputs to rural farmers.

1.2 Statement of the problem

Rural smallholder farmers are often unable to access certified farm inputs, essential services, especially at the opportune time and place. When these inputs or services are available, they regularly exist in unaffordable quantities or in qualities that are inappropriate. Therefore, smallholders have to search for and transport the right farm inputs from a far distance, which is a major challenge. Otherwise, they must rely on less productive skills and technologies due to lack of modern production knowledge and techniques that are out of their reach. According to the Kenya Government's first medium term Plan 2008-2012, the 2007/2008 post election political unrest disrupted normal economic activities in many parts of the country. The agricultural sector has not been immune to these economic disruptions as evidenced by lower farm production figures reported in the first two months of 2008. This has been compounded by increasing prices of inputs especially fertiliser prices which further affect agricultural productivity, and in turn food security efforts in the short run. Moreover, key agro-processing industries have also reported difficulties in accessing key inputs and hence lower outputs during the same period. Other emerging challenges that had a bearing on the sector are the escalating energy prices, increasing commodity prices in the world market and increased competition from other agricultural producing countries (Republic of Kenya, 2008).

This research investigated factors influencing performance of agro-input enterprises in Kakamega County where 24 agro-input enterprises were funded through the KASP project.

1.3 Purpose of the study

The purpose of this study was to investigate factors that influence performance of agro-input enterprises in Kakamega County.

1.4 Objectives of the study

The specific objectives of this study were to:

- i. assess suitability of business environment for performance of agro-input enterprises in Kakamega County
- ii. explore the extent of performance of agro-enterprises supported by KASP in Kakamega County
- iii. evaluate the role of KASP in influencing success of agro-dealers in Kakamega County.

1.5 Research questions

The specific research questions were:

- i. how suitable is the business environment for the performance of agro-input enterprises in Kakamega County?
- ii. what is the extent of performance of agro-enterprises supported by KASP in Kakamega County?
- iii. what is the role of KASP in influencing success of agro-enterprises in Kakamega County?

1.6 Significance of the study.

This study generated knowledge that is likely to be used to sensitise policy makers explore the role of rural based enterprises (especially agro-dealers) in attaining food security in Kenya by providing the missing linkage between rural farmers and supply companies (or manufacturers), agricultural specialists, researchers and extension officers.

1.7 Limitation of the study

The main limitation of this study was acquiring/ sharing of secrets or information of confidential nature of the businesses especially on matters of business finances and turnover. To conquer this, the researcher assured the respondents of the confidentiality of the information given and that it was to be used only for academic purposes.

1.8 Delimitation of the study

This study was about factors influencing performance of KASP-supported agro-input enterprises in Kakamega County because this region had the highest number of successful agro-input enterprises funded by KASP. The respondents were mainly agro-dealers who were the main beneficiaries of the KASP project. A total of 24 agro-dealers were studied; this was the total population of all KASP-supported agro-dealers in Kakamega County.

1.9 Basic assumptions of the study

This study assumed that the respondents possessed information on their financial status of their enterprises and were willing to discuss part of it.

1.10 Definition of significant terms

Agro-dealer refers to ‘small farm retailers’ or ‘trained and certified stockists’, through whom farm inputs such as seeds, fertiliser, and knowledge about their safe and efficient use are channelled to smallholder farmers.

Smallholder refers to cultivators practicing intensive, permanent, diversified agriculture on relatively small farms in areas of dense population and the family household is the major corporate social unit for mobilising agricultural labour, managing productive resources and organising consumption.

Enterprise refers to a project or undertaking that is especially difficult, complicated, or risky. It entails readiness to engage in daring or difficult action. It is a unit of economic organisation or activity especially a business organisation or a systematic purposeful activity

Performance refers to ability of KASP agro-vet enterprises to stock relevant certified farm inputs, serve smallholder farmers adequately by availing farm inputs and technical advice and make profit.

1.11 Organisation of the study

Chapter one comprises the following sections; background of the study, statement of the problem, purpose of the study, objectives, research questions, significance of the study, limitations, delimitation, assumptions, definitions of key terms and organisation of the study.

Chapter two comprises the following sections; introduction, entrepreneurship in agriculture, agricultural entrepreneurship development, agricultural entrepreneurship in Kenya –challenges, agricultural marketing in Kenya, agricultural credit and inputs, agriculture in relation to development and gender, sustainable agriculture, agriculture and the economy, KASP and conceptual framework.

Chapter three comprises of the research design, target population, research instruments, validity, reliability, piloting, data collection procedures, data analysis, ethical issues and operational definition of variables.

Chapter four presented data analysis, presentation and interpretation of research findings.

Chapter five discussed the summary of study, recommendations, areas of research and suggestions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two comprises the following sections; introduction, entrepreneurship in agriculture, agricultural entrepreneurship development, agricultural entrepreneurship in Kenya –challenges, agricultural marketing in Kenya, agricultural credit and inputs, agriculture in relation to development and gender, sustainable agriculture, agriculture and the economy, KASP and conceptual framework.

2.2 Entrepreneurship in agriculture

Entrepreneurship is a concept that has to be defined clearly because of the large range of interpretations that exist in the literature, as demonstrated by the literature review. Some elements of the key concept of entrepreneurship are as follows: entrepreneurship is connected to a person (the entrepreneur) and his or her activities and tasks; entrepreneurial tasks and activities are focused on starting, developing and continuing a profitable business, the entrepreneur has to be able to find ways and means of creating and developing a profitable business (McElwee, 2005).

Entrepreneurship is therefore different from professional and management tasks and activities, although it affects all professional and management activities. McElwee (2005) quotes Corman & Lussier (1996), who state that the ability to operate an organisation requires different skills and abilities than those required for being an entrepreneur.

Agricultural entrepreneurs are important particularly in developing nations. The entrepreneur helps to provide education and employment opportunities to people especially those located in struggling regions. Agricultural entrepreneurs strive to develop agrarian prosperity while also focusing on sustainable development. Agricultural entrepreneurs utilise education that includes practical application as well as lectures and reading material to develop necessary skills. This combination of techniques allows individuals to gain not only knowledge but also technical skills. Agricultural entrepreneurs are particularly useful in transforming rural communities (Oxfam, 2002).

Entrepreneurs in the international agricultural complex are constantly faced with social and policy changes. The Agriculture and Entrepreneurship research field is the knowledge partner for questions affecting businesses in the primary agricultural sectors. The performance of the different farming sectors at the international, national and regional levels is plotted from year to year (IFPRI, International Food Policy Research Institute, 2002).

2.3 Agricultural entrepreneurship development

Widespread and increasing rural poverty in sub-Saharan Africa (SSA) has been of great concern to the development community. Compared to other developing regions of the world, the low use of farm inputs by smallholder farmers in SSA is responsible for the gap between potential farmers' yields and actual crop yields at farm level. A comparison of fertiliser consumption trends in SSA and developing countries of Asia shows that while average annual fertiliser consumption increased by 182% in the latter between 1980 – 1989 and 1996–2000, it increased by only 16% in the former (FAO, 2009).

The slow growth in the use of modern agricultural inputs in the farming systems of SSA has resulted in missed opportunities to increase Africa's agricultural production, productivity, and household incomes and welfare. Fertiliser use in SSA is the lowest in the world and is actually less than 10% of the global mean (about 93 kg ha⁻¹) (IFDC, 2006).

This study surveyed agro-input dealers in order to ascertain how their inputs and other services offered influenced their general performance. An important element of the study was to assess the main farm services provided by agro-input dealers, the factors influencing their performance and the policy and institutional frameworks to be implemented in order to enhance the environment for a sustainable expansion of their areas of coverage and the access of smallholder farmers to farm inputs and the other services that they provide (Stringfellow *et al.*, 1997).

This type of study has a great potential to contribute in the attainment of the goal of the Comprehensive Africa Agricultural Development Program (CAADP) that calls for a 6% annual growth in agricultural production as a framework for restoring agricultural growth, food security and rural development in Africa and a key step towards attainment of first Millennium Development Goal of halving poverty by 2015 (CATAD, 1994).

2.4 Agricultural entrepreneurship in Kenya -challenges

Kenyan Small scale entrepreneurs in agribusiness face limitations to fully participate in commodity markets due to problems related to: small scale level of the businesses coupled with low productivity in agriculture, risks related to input sourcing owing to irregular input supply, lack of transport/poor infrastructure leading to high freight costs when shipping products to the market, competition from other countries due to high cost

of production, lack of transparency in the supply chain, lack of coordination and communication between the trading partners, disconnect between the farmer and the market (Pinstrup-Aderesen 2002).

These problems have one binding factor; lack of capital and access to finance by the small scale entrepreneur. Other challenges include the advent of liberalisation, changing political environments (pre and post election disturbances in Kenya), vagaries of weather (*el nino* and *la nina*), globalisation of economies (leading to environmental awareness hence health conditions for commodities targeted for world market) that make the playing field in the market uneven for the small scale entrepreneur. The small scale entrepreneur's problems are further compounded by the lack of securities (title deeds, shares etc) for accessing loans in the mainstream commercial banks. The commercial banks further discriminate against the small scale entrepreneur by charging high interests (Latham, 1997).

2.5 Agricultural marketing in Kenya

Marketing of agricultural produce and products is critical to increasing agricultural productivity and commercialization of enterprises so that farming is perceived as a business. Generally, marketing chains for the different commodities are long, not transparent and consist of many players making them inefficient and unresponsive to producer needs (FAO, 2006).

Marketing of agricultural produce and products within the country is carried out by the private sector either as formal marketing companies or as brokers. National and regional markets have great potential to expand with better marketing infrastructure and quality assurance. The export markets mainly deal with raw commodities and have become

stringent on issues of traceability, safety, sanitary and phytosanitary standards, and maximum residue limits (ACDI/VOCA, 2009b).

2.6 Agricultural credit and inputs

2.6.1 Credit

Access to bank credit by agro-dealers is still a major challenge despite the fact that Kenya has a relatively well-developed banking system. Risks associated with agribusiness coupled with complicated land laws and tenure systems that limit the use of land as collateral make financing agriculture unattractive to the formal banking industry. In addition, corruption, political interference in the operations particularly of State-owned banks, and a dysfunctional court system in the past, gave rise to a culture of defaulting that led to high numbers of non-performing loans. Limited competition in the banking industry despite the large number of banks also ensures interest rates remain high. The cost of bank credit and the limited number of banks in rural areas are some of the factors that make it difficult for agro-dealers to access bank credit (Republic of Kenya, 2004).

2.6.2 Inputs

According to USDA, (2009) the major inputs in agriculture are seed, fertilizer, pesticides, feed, farm machinery, breeding animals and building materials. The volume of various inputs has increased steadily over the last 5 years. Large increases were noted for fertiliser, purchased seed and animal feed. This change indicates increased demand of inputs triggered by increased crop farming and livestock-keeping activities. The annual fertiliser demand increased from 329,449 tonnes in 2002/03 to 410,214 tonnes in

2006/07. Production of certified seed for various crops increased from 12,998 tonnes in 2002 to 34,682 tonnes in 2006, while the volume of imported seed increased from 1217 tonnes to 4773 tonnes over the same period. The inputs are distributed through a wide range of stockists and merchants all over the country. Also, some cooperative societies and commodity boards supply inputs to members (Institute of Economic Affairs, 2008). The use of improved seed has remained low due to poor distribution systems and the monopoly of the supply of seed by the Kenya Seed Company (KSC), which concentrates its operations in high-rainfall areas. The use of fertiliser is low due to its high price, attributed to the high cost of transportation and distribution systems. Fertiliser use in Kenya is about a third of the level used in India and a quarter of the level used in Indonesia. In addition to the high cost, adulteration by merchants, which affects the quality of fertiliser, seed and pesticides, has limited the use of these inputs. Only about 24.3 per cent of farmers use manure to improve soil fertility (Republic of Kenya, 2009).

2.7 Agriculture in relation to development and gender

According to Robert Chambers (2005), development is equated with economic development, and economic development in turn with economic growth, often abbreviated simply as growth. The underlying meaning of development is positive change. Change is continuous in what changes and how it changes, and in what we see as good and are all reflected in words and meanings. These are both formative and adaptive; they both influence and express conditions, ideologies, perceptions, practices and priorities (Chambers, 2005). Wherever communities mobilise themselves and start solving their problems, development is happening. The role of the development agencies

is to observe carefully what the communities discuss and decide to do; and then to assist the communities where they need, and request for assistance (CATAD, 1994).

Gender is relational; involving the interaction of men and women, structured through norms and institutions, reconfigured through individual agency. Gender is seen as salient within policy and practice across a variety of scales and within institutions central to natural resource governance, from gendered property relations to the gendered positions of actors within organisations charged with governing or managing natural resources (Resurreccion & Elmhirst, 2008).

Despite the numeric advantage of Kenyan women and their significant contribution to the economy, they are poor because of their relatively low access to key development resources compared with men. Although Kenya has a development-policy commitment to balancing access to development resources for women and men, this has not translated into reality (Rathgeber & Adera, 2000).

Women are key in farming, food production and natural-resource management. They account for 60-80% of domestically produced food, provide nearly half the farm labour, and shoulder over 90% of domestic responsibilities. Women work almost twice as many hours as men. Nearly all rural women (96%) work on family farms, providing 75% of the farm labour and 60% of farm-derived income (Netting, 1993).

Despite these contributions, women face major constraints in terms of time, access to and control over production resources, and the benefits they generate. By and large, women have much less contact with extension agents, control very few agricultural technologies and farm inputs, and rarely take part in making decisions within the household or in

institutions. Without this kind of support, their productivity and enthusiasm can be severely eroded (Van Mele *et al.*, 2005).

2.8 Sustainable agriculture

For agriculture to be sustainable, it must take into account not only the physical environment (soils, climate, ecosystem), but also local social and economic conditions. Efforts to promote sustainable farming often use community-based research and extension approaches (IIRR, 1998).

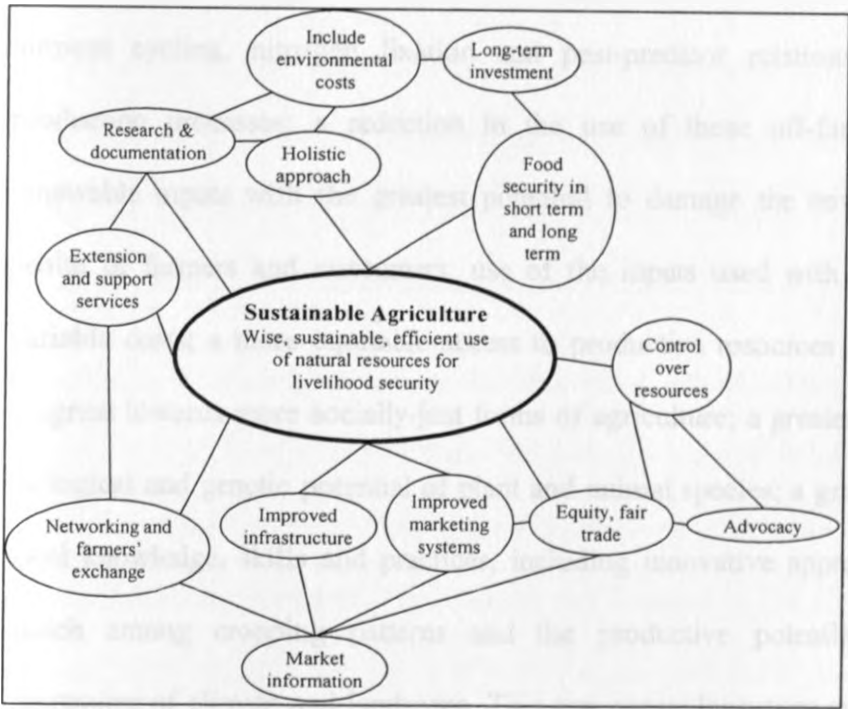


Figure 1. Policy issues relating to sustainable agriculture (Source: IIRR, 1998, *Sustainable agriculture extension manual*. IIRR, Nairobi, P. xiv)

In sustainable agriculture, it should be ensured that opportunities exist for a wide ranging debate on the appropriate levels of external and internal resources and processes for a reproductive, environmentally sensitive and socially acceptable agriculture (Pretty,

1995). Sustainable agriculture needs an integrated use of a wide range of pest, nutrient, soil and water management technologies. These are integrated at farm level to give a strategy specific to the biophysical and socioeconomic conditions of individual farms, combined with increased linkages and flows between them. By-products or wastes from one component or enterprise become inputs to another. As natural processes increasingly substitute for external inputs, so the impact on the environment is reduced.

Sustainable agriculture is any system of food or fibre production that systematically pursues the following goals: A more thorough incorporation of natural processes such as nutrient cycling, nitrogen fixation and pest-predator relationships into agricultural production processes; a reduction in the use of those off-farm, external and non-renewable inputs with the greatest potential to damage the environment or harm the health of farmers and consumers, use of the inputs used with a view to minimising variable costs; a more equitable access to productive resources and opportunities, and progress towards more socially-just forms of agriculture; a greater productive use of the biological and genetic potential of plant and animal species; a greater productive use of local knowledge, skills and practices, including innovative approaches to improve the match among cropping patterns and the productive potential and environmental constraints of climate and landscape. This can ensure long-term sustainability of current production levels, and even enhance profitable and efficient production with an emphasis on integrated farm management, and the conservation of soil, water, energy and biological resources (Pretty, 1995).

2.9 Agriculture and the economy

Kenya is an East African country with a land mass of 580,376 sq km. Most of the country (at least 85%) is classified as Arid and Semi Arid Lands (ASALs); receive low, unreliable rainfall with great spatial and temporal variation. The population of Kenya is estimated at about 40 million (Omanga & Rossiter, 2004).

Agriculture is a major contributor to socio-economic development in the country. In 2008, the sector contributed about 23.8% of the GDP, with industry at 16.7% and services accounting for 59%. However, the sector recorded negative growth of -4.1 and -2.6% in 2008 and 2009 respectively. Most of the labour force about 75% especially in the rural areas is employed through agriculture, industry and services accounts for the remainder. The labour force was estimated at 17.3 million in 2007, and growing, while unemployment is very high estimated at 40% (Kibaara, 2006).

Republic of Kenya (2010) shows that less than 10% of Kenya's land mass is arable. About 1,000 sq km of land is under irrigated agriculture. Although farming is slowly being encouraged as a commercial activity, majority of farmers are engaged in peasant and subsistence farming. Agricultural production is largely dependent on the unpredictable rainfall that is typically low, while periods of good or high yields often result in massive post-harvest losses or extremely low prices that discourage farmers from investing in subsequent years (Kinyua, 2004).

The Government of Kenya's blue print that is guiding the country's development for the next 18 years, that is *Vision 2030*, identified agriculture as a key pillar for economic development. At the regional and continental levels, the role of agriculture has been

given prominence as a means of enhancing rural livelihoods and providing employment. This has seen processes such as the Comprehensive Africa Agriculture Development Programme (CAADP, a programme of the New Partnership for Africa's Development – NEPAD) adapted by several countries including Kenya (Kibaara *et al.*, 2009b).

AGRA was formed to spearhead a “green revolution”, and there is renewed commitment by many development partners and donors to support this through financial and technical contributions (COMESA, 2009). More recently, the Obama administration has zeroed in on agricultural growth and development as a key strategy in unlocking the growth and development potential in the continent with focus on economic growth, food security, and empowerment of women, peace and development in its recent strategy of Feed the millions (USAID, 2009).

However, agricultural growth (production, productivity, sustainability and consistence) is plagued with many challenges. Among these are: inadequate access to quality farm inputs, technology, markets, extension and information services and poor policies that stifle rather than enable growth and investments. Also, many small holder farmers have poor knowledge of husbandry techniques, while deep seated encumbering attitudes closely linked to cultural practices have stifled the participation of many in productive farming (Razavi & Miller, 1997).

Despite concerted efforts, agricultural production in Kenya has largely stagnated (especially production of food crops), posing a huge food insecurity risk, lost employment opportunities and opportunity costs in the associated value chain activities (Van Mele, 2005).

2.10 The Kenya Agro-dealer Strengthening Programme (KASP)

The Kenya Agro-dealer Strengthening Program (KASP) was implemented by Citizens Network for Foreign Affairs and Agricultural Market Development Trust (CNFA/AGMARK) (www.cnfa.org/kasp) between June 2007 and May 2010. KASP was funded by the Alliance for a Green Revolution in Africa (AGRA, www.agra-alliance.org) through a grant from the Bill and Melinda Gates Foundation (BMGF, www.gatesfoundation.org). The main objective of KASP was to improve farmer incomes and productivity by increasing smallholder access to improved agricultural inputs and better production practices through the strengthening of a rural agro-dealer network (AGMARK, 2010).

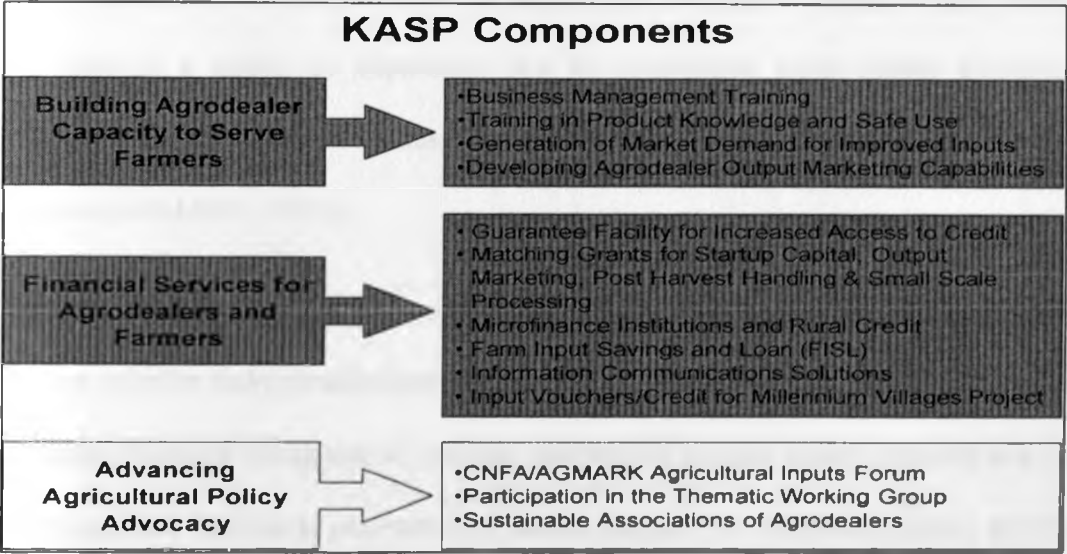


Figure 2. Components of KASP (Source: *Matching Investment Magazine 'Improving the rural economy by empowering rural entrepreneurs', pinnacle productions East Africa. Nairobi, Kenya. Pp. 6)*

The Kenya Agro-dealer Strengthening Program (KASP) was aimed at improving the input supply and output marketing distribution channels available to smallholder farmers in rural Kenya by expanding a commercially viable network of rural retail enterprises known as agro-dealers. The three-year project, funded through the Alliance for a Green Revolution in Africa (AGRA) aimed at strengthening Kenyan agro-dealers by providing training in business management and productive farming methods (AGMARK, 2008).

KASP was partly realised through the matching grant facility whose objectives were to: establish agro-dealer shops in underserved or economically distressed areas lacking in basic infrastructure and commercial credit, build the capacity of already existing agro-input enterprises by involving the agro-dealers in the use of modern agricultural technologies like Artificial Insemination services, business and technical trainings and finally stimulate commercialisation of agro-dealer businesses through output marketing activities as a means of expanding new or established input supply business and improving the rural farmers' access to expanding and lucrative cash market for their crop outputs (AGMARK, 2010).

The first component of KASP was to strengthen the business and technical skills of agro-dealers to better serve smallholder farmers. CNFA developed and implemented activities including business management training, training in product knowledge and safe use of chemicals and fertilisers, generation of market demand for improved inputs, developing agro-dealer output marketing capabilities and creating the National Accelerated Agricultural Input Access Programme (NAAIAP), a government-sponsored programme

designed to increase access to higher-yield farm inputs for resource-poor farmers (Republic of Kenya, 2009).

Once agro-dealers were equipped with the needed business and technical expertise, CNFA then worked to improve rural agro-dealer access to finance, which is often difficult to obtain in rural areas due to the high cost of agricultural financing and high perceived risk by lending institutions. Specifically, CNFA/AGMARK created guarantee facilities to stimulate increased access to credit; created matching investment facilities aimed at developing new business start-ups, value addition enterprises and output marketing ventures; promoted the delivery of credit to smallholder farmers through local microfinance institutions; developed the Farm Inputs Savings and Loan (FISL) scheme, which promotes creation of savings groups amongst smallholder farmers in rural villages; and designed a farmer-held voucher system that works through the local agro-dealer network (www.cnfa.org/kasp).

The final component of KASP was to advocate for a favourable agricultural policy environment that would benefit smallholder farmers and agro-dealers. This involved participation in the Thematic Working Group (TWG), a think tank unit of the Ministry of Agriculture that holds discussions on policies that affect smallholder farmers, as well as creating and supporting associations in order to advocate on behalf of small business agro-dealers in various districts. This last component of KASP aimed at ensuring that the programme is self-sustaining and continues to bring increased business for agro-dealers and higher incomes for smallholder farmers (Republic of Kenya, 2009).

AGMARK targets to increase the productivity and ultimately incomes of smallholder farmers and their households in Kenya, by increasing farmers' access to improved inputs, technologies, credit and cash market. It is dedicated to advancing sustainable rural economic development to increase household incomes and reduce poverty. This is achieved through supporting rural entrepreneurs that increase farmers' access to improved inputs technology, credit and markets for surplus production; thereby increasing food security and the rural economy (Reijntjes *et al.*, 1992).

According to AGRA (2009a), 'agro-dealers' are 'small farm retailers' or 'trained and certified stockists', through whom farm inputs such as seeds and soil nutrients, and knowledge about their safe and efficient use are channelled to smallholder farmers. Agro-dealers are stockists of agricultural inputs that include but are not limited to seed, fertiliser, crop protection chemicals, equipment, machines, veterinary products and animal feeds.

The Seed and Plant Varieties Act (Cap 326) interchangeably refers to seed traders as 'persons who deal in seed or 'sellers of seed'; and further defines seed selling as bartering, exchanging, and offering or exposing for sale. (TechnoServe Kenya, 2000). A registered seed merchant means 'a person or firm or institution officially recognised by the Seed Committee as suitable to procure, process or sell seed'. The Regulations further define a licensed seed seller as 'any person or institution licensed to sell Government tested and certified seeds only' (Van der Burg, 1998).

Services of agro-dealers in enhancing smallholder competitiveness include the following: agro-dealers enhance smallholder access to yield-enhancing inputs and technologies;

agro-dealers provide extension support as a “bundled service” through demand creation activities; agro-dealers increase productivity per unit of investment; agro-dealers make it feasible for Input Supply companies to access the “smallholder mass market”; agro-dealers are viable “market access agents” for smallholder farmers and agro-dealers do enhance efficiencies along the value chain, hence overall competitiveness (Inter-Academy Council, 2004).

Republic of Kenya (2004) shows that agriculture remains the mainstay economic activity for most African economies. Eighty percent of Africa’s agriculture is smallholder and rural based. Population growth and land policies encourage smallholdings in Africa and smallholder based production is generally uncompetitive, hence uncompetitive Value Chains. The future of agro-dealer business opportunity is dependent on the future of smallholder production in Africa. Any shift towards trade favours more efficient value chains, need to enhance smallholder efficiency.

Nyandemo & Singh (2004) define a project as an endeavour in which human, material and financial resources are organised in a novel way to undertake a unique scope of work of a given specification within constraints of cost, time and the prevailing environment, so as to achieve beneficial change defined by quantitative and qualitative objectives (Project Management Institute, 2000).

According to the Ministry of Agriculture strategic plan 2005-2009, monitoring is the procedure of checking effectiveness and efficiency in implementation of strategic objectives. In respect of the strategic plan, the monitoring and evaluation parameters

target each strategic objective. These include policy and legal environment, markets and production enhancement; and institutional development interventions (Blank, 1993).

In a bid to return the country to food self-sufficiency, the Government of Kenya has been spearheading strategies for a 'green revolution' in the food producing sector as spelt out in the Strategy for Revitalising Agriculture (SRA). SRA is a 10-year plan launched in 2004 and entrenched in the *Vision 2030*. Key among these strategies is the increased generation, promotion and use of modern farming inputs and technologies, particularly improved seed and fertiliser. Small-scale, independent stockists, referred to as 'agro-dealers', are seen to have a crucial role in distributing these inputs in a liberalised economy. As key actors in the new 'green revolution', agro-dealers are thus at the centre of the current policy discussion about the future of Kenya's cereal sector (Republic of Kenya, 2004).

The main feature of the Kenya's agricultural sector is its domination or emphasis on cereals (Kibaara, 2006). Cereals are the most critical crops for food security in the country. Maize, wheat, sorghum, millet, rice, barley and oats are the seven cereal crops grown in Kenya and of these; maize is the most widely grown, occupying about 50% of total cultivated area and 78% of total area under cereals (Kinyua, 2004).

2.11 Conceptual framework

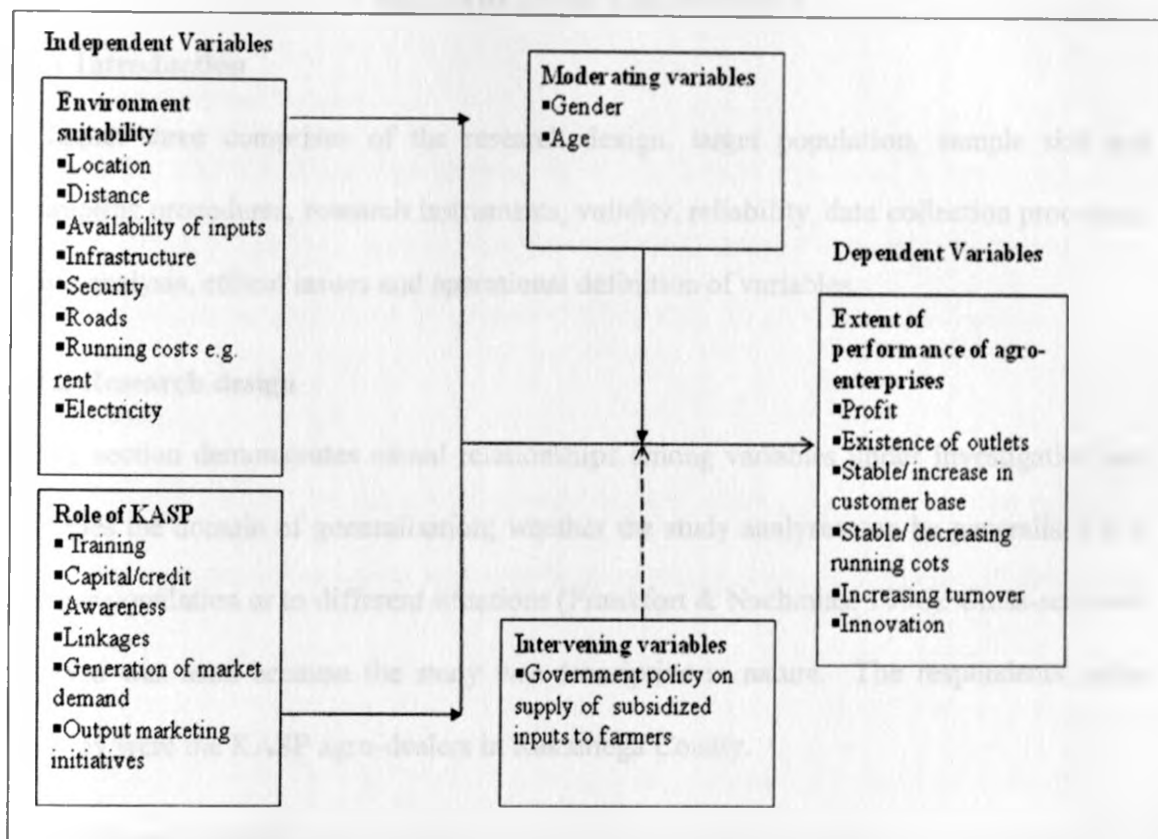


Figure 3. *Conceptual framework*

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three comprises of the research design, target population, sample size and sampling procedures, research instruments, validity, reliability, data collection procedure, data analysis, ethical issues and operational definition of variables.

3.2 Research design

This section demonstrates causal relationships among variables under investigation and defines the domain of generalisation; whether the study analyses can be generalised to a larger population or to different situations (Frankfort & Nachmias, 1996). Cross-sectional design was used because the study was descriptive in nature. The respondents under survey were the KASP agro-dealers in Kakamega County.

3.3 Target population

The target population was the 24 Kenya Agro-dealer Strengthening Programme supported agro-dealers in Kakamega County.

Table 3.1: Target population

Categories	Population
Agro-dealers	24 in Kakamega County

The target population for this study comprised of the 24 Kenya Agro-dealer Strengthening Programme agro-dealers in Kakamega County. The agro-dealers filled the questionnaires from their respective agro-input enterprises.

3.4 Sample size and sampling procedure

A total of 24 KASP supported agro-dealers in Kakamega County will be used to select respondents. The study population was a small number (24) hence no sampling was done.

3.5 Research instruments

This study used a structured questionnaire (with both open and closed ended questions) to gather primary data from Kenya Agro-dealer Strengthening Programme-supported agro-dealers in Kakamega County. The questionnaires were developed by the researcher.

3.5.1 Validity

Validity was ensured by collecting information from trained agro-dealers who possessed key and relevant information, and who participated in the KASP Project in Kakamega County.

3.5.2 Reliability

Reliability was ensured through sampling a manageable size of respondents who participate in the KASP programme, and who therefore had key information about farm inputs and food security (Mugenda & Mugenda, 1999).

The instrument's validity and reliability were ensured through a pilot test, the questionnaire was administered among five agro-dealers. The resultant data was analysed and used to make necessary adjustments to the instrument. Opinion from experts (key informants) in the field of agro-business was also sought to strengthen the instrument.

Field observation, personal and telephone interviews were also conducted. This combination of tools helped to minimise biases that stem from a single methodology (Frankfort & Nachmias, 1996).

3.6 Data collection procedures

After the proposal was approved, the questionnaire was tested for validity and reliability through piloting and discussed with experts, and adjusted following lessons learnt. The respondents were chosen and then the questionnaire was administered in person at the agro-input enterprises.

3.7 Data analysis

Qualitative data were analysed through systematisation of content. Statistical Package for Social Sciences (SPSS) was used for data entry, cleaning, analyses and tabulation of findings. Data were processed and analysed in accordance with the outline laid out in the research plan. This procedure ensured that all relevant data were available for making contemplated comparisons and/ or analyses.

Data processing: editing, coding, classification and tabulation of collected data were done based on objectives of the study. Analysis for trends and summarising of responses to the research questions was also done (Kothari, 2004).

3.8 Ethical issues

This study contributed to knowledge on factors influencing performance of KASP-supported agro-input enterprises. It maintained utmost confidentiality of respondents' identity. Information given was specifically and only used for the purpose of academic

research, and not in any way harmful to the respondents. Prior free informed consent was sought from respondents through personal contacts.

3.9 Operational definition of variables

The researcher identified various behavioural dimensions, indicators or properties denoted by the main variables under study in order to render them measurable.

Table 3.1: Operational definition of variables

Objective	Variable	Indicator	Measurement	Scale
1. Assess suitability of business environment for agro-input enterprises	<u>Independent</u> Suitability of business environment	Location	Distance covered by farmers	Ratio
		Distance	Availability of inputs	Nominal
		Inputs	Availability of good roads	Nominal
		Roads	Presence of burglar-proof doors	Nominal
		Security	Total running costs (KSh)	Ratio
		Running costs (rent)	Presence of electricity	Nominal
		Electricity		
2. To explore the extent of performance of agro-enterprises supported by KASP in Kakamega	<u>Dependent</u> Extent of performance of agro-enterprises (Sustainability)	Profit	Amount of profit	Ratio
		Existence of outlets	Number of outlets	Ratio
		Stable/ increase in customer base,	Increase in customer base	Nominal
		Stable/ decreasing running costs	Level of running costs	Ordinal
		Increasing turnover	Turnover rate	Nominal
		Innovation	Existence of new strategies	
3. Evaluate the role of KASP in influencing success of agro-dealers in Kakamega	<u>Independent</u> Role of KASP	Training	No. of trainings attended	Ratio
		Capital/credit	Amount offered in grant	Ratio
		Linkages		
		Generation of market demand	No. of companies linked	Ratio
		Output marketing initiatives	Number of demonstrations	Ratio
			Presence of output marketing	Nominal

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter analyses data, presents it and interprets it. These follow the overall objective of the study, which aimed to assess factors that influence performance of KASP-supported agro-input enterprises in Kakamega County.

4.2 Demographic characteristics of the respondents

This section gives an overview of the agro-dealers profiles such as age, gender, education level and how these characteristics affect the general performance of the enterprises. It also assesses characteristics of the enterprise themselves in terms of their form/ nature, number of employees and the duration they have been in operation.

4.2.1 Gender composition

This study examined gender composition of the respondents to establish whether it has any influence on the performance of the enterprises. Data in Table 4.1 show that the majority of the agro-dealers were male (75%) compared to only 25% female.

Table 4.1 Gender of the respondents

Gender	Frequency	Percent	Cumulative Percent
Male	18.0	75.0	75.0
Female	6.0	25.0	100.0
Total	24.0	100.0	

One of the key explanations for this gender disparity in Table 4.1 was that property ownership in Kakamega County is male dominated. Capital generation was closely associated with asset accumulation/ inheritance, but also enterprises were mostly registered in names of men/ husbands.

4.2.2 Age composition

The distribution of age categories in Table 4.2 shows that 25% of the agro-dealers fell in the age range of 31-40 years, 25% belonged to the age bracket of 41-50 years, 37% were between 51 and 60 years old, and only 13% are over 60 years of age.

Table 2.2: Age categories of agro-dealers

Age brackets in years	Frequency	Percent	Cumulative Percent
31-40	6.0	25.0	25.0
41-50	6.0	25.0	50.0
51-60	9.0	37.0	87.0
>61	3.0	13.0	100.0
Total	24.0	100.0	

The majority of those under the age of 50 were formally employed, and therefore had employees who managed their businesses on their behalf.

4.2.3 Education level of agro-dealers

Out of the 24 KASP-supported agro-dealers in Kakamega County, the majority had tertiary education (college/ university) as shown in Table 4.3.

Table 4.3: Education level

Level of education	Frequency	Percent	Cumulative Percent
Secondary	5.0	21.0	21.0
Tertiary	19.0	79.0	100.0
Total	24.0	100.0	

Table 4.3 shows that by and large, the level of education among the agro-dealers was high. This had a positive influence on performances of the agro-businesses due to good management skills among proprietors.

4.2.4 Duration of enterprise existence

This study investigated operation period of the enterprises to find out if there is any relationship to performance. Most of the KASP-supported agro-input enterprises were categorised as start-ups. Since KASP was implemented in different faces beginning in 2007, most of these enterprises (67%) had been in operation for less than 5 years. Table 4.4 shows duration of existence of the different enterprises.

Table4.4: Duration of operation

Duration	Frequency	Percent	Cumulative Percent
1-3 years	9.0	37.5	37.5
4-5 years	9.0	37.5	75.0
>5 years	6.0	25.0	100.0
Total	24.0	100.0	

Twenty five percent (25%) of the enterprises that had been in operation for more than 5 years were supported not as start-up businesses, but rather as output marketing and additions like provision of A.I kits for existing agro-dealers trained in vet. Those in operation

for more than 5 years had better performance as they had more turnovers and income due to their reliance on output marketing, Artificial Insemination (A.I) services and value addition other than from the input shops.

4.2.5 Number of employees

The number of staff would determine performance, it is an indicator of amount of work done or more sales under an enterprise. More workers implied a well established enterprise and better chances of sustainability. Table 4.5 shows that the majority (79%) of the enterprises did not have large capacities to sustain more than one employee.

Table 4.5: Categories of enterprises based on number of employees

No. of employees	Frequency	Percent	Cumulative Percent
1	19.0	79.0	79.0
2	3.0	13.0	92.0
>4	2.0	8.0	100.00
Total	24.0	100.0	

Thirteen percent (13%) had three employees and only 8% had four or more workers. More paid employees shows that there were signs of sustainability among these businesses.

4.2.6 Nature of enterprise operation

The study investigated the nature of operation of the enterprises to determine its influence

on performance as shown in Table 4.6.

Table 4.6: Nature of enterprise operation

Nature of operation	Frequency	Percent	Cumulative Percent
Fulltime	22.0	92.0	92.0
Other	2.0	8.0	100.0
Total	24.0	100.0	

The performance is low during off season and high during the planting seasons due to seed and fertilisers requirements. Two (2) of the agro-dealers did not operate shops but were supported in output marketing, one has a cane crashing machine and the other grows mushrooms.

4.2.7 Form of business

This study shows that 67% of the enterprises are sole proprietorships, and 33% operated as family business.

Table 4.7: Form of business

Form of enterprise	Frequency	Percent	Cumulative Percent
Sole proprietor	16.0	67.0	67.0
Family	8.0	33.0	100.0
Total	24.0	100.0	

4.3 Enterprise environment: Characteristics and services

Since the environment in which an enterprise operates influences its performance, we investigated proxy issues such as product range stocked, services offered, demand,

distance covered by farmers, constraints faced and the confidence of the agro-dealers serving farmers.

4.3.1 Product range

Other than the two agro-dealers who had no shops but dealt in sugarcane crushing and mushroom growing, the rest (22) of the agro-dealers stocked seed, fertiliser, crop protection chemicals and veterinary products. Out of the 24 agro-dealers, 18 stocked farm equipment ranging from spray pumps, feeder trays and *jembes* among others. Twenty one (21) of the agro-dealers also stocked other inputs including animal feeds. The findings are as illustrated in table 4.8 below.

Table 4.8: Products stocked

Response	Seeds	Fertiliser	CPC	Vet	Equipment	Others
Yes	22.0	22.0	22.0	22.0	18.0	21.0
No	2.0	2.0	2.0	2.0	6.0	3.0
Total	24.0	24.0	24.0	24.0	24.0	24.0

4.3.2 Services offered

The agro-dealers offer a range of services to their customers other than just selling the inputs to them. As shown in Table 4.9, all the 22 entrepreneurs with agro-input shops offered over-the-counter advice to their client farmers. Since transportation is very costly, only 2 agro-dealers offered transport services to the client farmers. These are large scale agro-dealers dealing widely in output marketing (grain handling and storage) where they collect the farm produce from the farmers' homes to their stores for marketing. The grain is mostly sold to National Cereals and Produce Board (NCPB) of Kenya and the United

Nations' World Food Programme (WFP) which, through AGMARK, trained the stockists in grain handling, storage and warehouse management so as to supply it with clean food for human consumption that is distributed in hunger stricken areas.

The KASP component of "market demand generation for improved inputs" was aimed at creating awareness of the benefits and efficacy of improved inputs that influence farmers' decisions. Broad activities under this component include product demonstrations, field days, agricultural shows and exhibitions. All these activities were undertaken jointly with input supply companies. From the study, 19 of the agro-dealers offer product training through field days and demonstrations organised by the Ministry of Agriculture (of Kenya), AGMARK and Supply companies.

Out of the 24 agro-dealers, 11 offer credit services to the farmers. Most farmers lack sufficient cash money to buy the inputs hence get the inputs on credit and pay later. This is however done only on trust basis, and there are reported incidences of unpaid debts. AGMARK through KASP trained some stockists to promote creation of savings groups amongst smallholder farmers. The scheme, Farm Inputs Savings and Loan (FISL) was a proven methodology that the CNFA/AGMARK established to empower and mobilise rural smallholders to save money for the purpose of purchasing agricultural inputs during the planting period. Under the FISL model, the annual cycle is completed ahead of the agricultural season, thus freeing up the funds for the purchase of inputs. This model recognises the fact that what many rural farmers lack is a place to save and accumulate their savings. The model targets rural communities that are not served by microfinance institutions. This entails *table banking* by the farmers with the stockists who instead of taking their accumulated money take farm inputs during the planting season.

Only 7 agro-dealers offered services by leasing farm equipment to client farmers since most of them did not stock these equipments. The equipment mostly leased included 'money maker' pumps, spray pumps and platform weighing scales. Only 3 stockists offered soil testing services to the client farmers, 2 of them were trained and given soil testing kits through a workshop organised by AGMARK and Tropical Soil Biology and Fertility Institute (TSBF) of CIAT. One agro-dealer did it through the Ministry of Agriculture extension officers. Soil testing was critical in determining which fertiliser to apply and the type of crops best suited for the soils. This guided advice to farmers. Besides these services, farmers in Kakamega North also benefited from lime supplied by Kenya Agricultural Research Institute (KARI). Table 4.9 shows the services offered.

Table 4.9: Services offered

Response	Transportation	Product training	Over counter advice	Credit	Demonstration	Purchase of produce	Equipment leasing	Soil testing
Yes	2.0	19.0	22.0	11.0	14.0	9.0	7.0	3.0
No	22.0	5.0	2.0	13.0	10.0	15.0	17.0	21.0
Total	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0

4.3.3 Business constraints

From the study, 21 enterprises did not have constraints arising from understanding on professional business management because it was mandatory for every agro-dealer to train in business management by AGMARK before they could get support from KASP. The Business Management Training (BMT) was a 6 module six days training that covered: managing working capital, managing stocks, selling and marketing, basic record

keeping, costing and pricing and managing business relationships. However the few cases of 21% were due to counter staff lacking required skills because those who trained were the owners and employed the staffs who have not trained in BMT.

Table 4.10 shows that 22 agro-dealers did not have problems of stock-out due to limited storage facility. The 2 cases of mild and moderate situations were for those who practiced output marketing in grain bulking. Those dealing in grain bulking extensively had large stores to store the grain before supplying to the market (WFP and NCPB).

Table 4.10: Constraints faced by agro-dealer businesses in Kakamega

Constraint	Not applicable	Mild	Moderate	Severe
Professional business management skills	21.0	2.0	1.0	0
Counter staff lack required skills	14.0	4.0	6.0	0
Stock-out due to limited storage facilities	22.0	1.0	1.0	0
Stock-outs due to supplier stock-out	17.0	3.0	1.0	3.0
Transport costs from supplier to shop	3.0	2.0	9.0	10.0
Time away from business to procure inventory	5.0	2.0	12.0	5.0
Poor farmer perceptions of benefits of inputs	16.0	7.0	1.0	0
Farmers not confident in using improved inputs	19.0	5.0	0	0
Counterfeit products	18.0	3.0	3.0	0
Expiry of products (low turnover)	14.0	6.0	3.0	1.0
Farmers lack sufficient cash to purchase inputs	5.0	8.0	8.0	3.0
Bad debts (among enterprises)	3.0	6.0	10.0	5.0
Security/ theft from shops	18.0	4.0	2.0	0
Insufficient suppliers to compete for market share	16.0	6.0	1.0	1.0
Seasonality-low turnover to keep shop open	19.0	4.0	1.0	0
Low business capital	7.0	6.0	6.0	5.0
Lack of company creditors	8.0	7.0	6.0	3.0

The major constraint faced by these agro-dealers as shown in Table 4.10 is transport costs of inputs from the suppliers to the shops and hence the time spent out of shop to make the

procurements for those who have no counter staffs. Farmers had no doubts using certified inputs, this confidence resulted from technical trainings and demonstrations organised by AGMARK in collaboration with various input supply companies. These happened at agro-input shops and on demo plots. The companies catered for the products/ materials and labour whenever farmers and agro-dealers were invited to be trained.

This demand creation activities (trainings and demonstrations) increased awareness of farmers on using certified inputs hence more sales for the agro-dealers. Through this trainings and demonstrations, agro-dealers are taught how to identify counterfeit products hence few reported cases. Through the technical trainings and the demand created, expiry of products is not a major constraint as only the products on demand are stocked. One severe case was reported by an agro-dealer who ordered a particular product worth KSh.70,000 but was supplied by a different product worth KSh.200,000 which could not be sold within time hence losses as it expired and the supply company denied responsibility.

Due to the high cost of inputs, most farmers lack sufficient cash to purchase the inputs hence bad debts as they are sometimes forced to take products on credit and some of them are unable to pay back. Some of the agro-dealers access the inputs on credit from the supply companies but are unable to pay back due to debts from the farmer customers. KASP supported the agro-dealers to renovate the shops and provided shop equipment while the agro-dealers were required to stock the shops. Part of the renovation covered fixing of burglar proof doors for the shops to improve security for the enterprises. Most of them have employed security men who guard the shops during the night. Two (2) of the reported theft cases were due to counter staffs who disappeared with cash money

from the businesses.

All the agro-input enterprises operated on fulltime basis, hence did not largely face the constraint of seasonality due to insufficient turnover to keep the shop open. However, due to low turnover some shops did not stock certain products that are costly to procure.

Most supply companies did not deliver inputs on credit to the agro-dealers. Some of the agro-dealers were identified as stockist agents by some companies and they therefore got inputs delivered to their shops by the supply companies who got payments after the inputs had been sold.

4.3.4. Demand for various products and services

Findings from this study show that 67% of the agro-dealers described demand for various products/ services as increasing, as shown in Table 4.11.

Table 4.11: Demand for agro-enterprise products/ services

Description	Frequency	Percent	Cumulative Percent
Low	2	8.0	8.0
Moderate	6	25.0	33.0
Increasing	16	67.0	100.0
Total	24	100.0	

One of the agro-dealers related the increase in demand to Syngenta Kenya that advertised its products through his shop and also the Ministry of Agriculture (MoA) extension officers who advised farmers in the area on best farming practices. These entailed encouragement to use certified farm inputs. Other agro-dealers felt the increasing demand was due to confidence in these agro-dealers who had been trained/equipped with management skills.

4.3.5 Longest distance covered by farmers to the agri-businesses

Findings in Table 4.12 indicate that most farmers served by these agro-enterprises covered a distance of less than five kilometres.

Table 4.12: Longest distance covered

Distance range (Km)	Frequency	Percent	Cumulative Percent
0-2	7.0	29.0	29.0
3-4	5.0	21.0	50.0
4-5	6.0	25.0	75.0
>5	6.0	25.0	100.0
Total	24.0	100.0	

This reported reduction in distance to input points is a major achievement by KASP. KASP's main aim was to make certified inputs as close as possible to the smallholder farmer. Most roads within the County are of tarmac and others which are not are well maintained and trouble-free to use by all means of transport including bicycles

4.3.6 Constraints faced by farmers

Responses of agro-dealers indicate that the constraints faced by farmers in trying to access inputs from the shops are as indicated in Table 4.13.

Table 4.13: Constraints of acquiring inputs among smallholder

Constraint	Frequency	Percent	Cumulative Percent
Long distance	2.0	8.0	8.0
Lack of money	6.0	25.0	33.0
Transportation challenges	3.0	13.0	46.0
High cost of inputs	13.0	54.0	100.0
Total	24.0	100.0	

As shown in Table 4.13, lack of finance was the most critical challenge. One of the agro-dealers specifically cited fertiliser as being very costly, to the extent that during the previous season the MoA extension officers advised her to sell Double Super Phosphate (DSP) instead of DAP that is preferred by local farmers. Among the common constraints listed above, high cost of inputs immensely lowered enterprise performance. Most farmers would only afford inputs in smaller quantities. However, companies on packaged inputs in bigger quantities because it is illegal to fragment recognised standardised quantities. For example, a 2kg packet of maize could not be sub-divided into smaller packages, it had to be sold in original company packets.

4.3.7 Confidence level among agro-dealers

The studied agro-dealers had confidence while serving client farmers. This resulted from frequent technical trainings/ workshops conducted by input supply companies on product use and safe handling. This positively influenced the performance of these enterprises by improving sales due to increased awareness of the benefits of using certified farm inputs.

Table 4.14: Agro-dealer confidence

	Frequency	Percent	Cumulative Percent
Agree	10.0	42.0	42.0
Strongly agree	14.0	58.0	100.0
Total	24.0	100.0	

4.3.8 Presence of shop outlets

Out of the 24 agro-dealers, 9 had other shop outlets other than the start-ups supported by KASP. Of those 9, only one case had a new shop outlet opened after KASP project-a third outlet. The other 8 cases had their outlets before the KASP support. The presence of other outlets indicates better performance of the enterprises since they have more sales and turnover.

Table 4.15: Presence of agribusiness outlets

Response	Frequency	Percent	Cumulative Percent
Yes	9.0	37.5	37.5
No	15.0	62.5	100.0
Total	24.0	100.0	

4.4 Financial performance

The financial performance of the enterprises has an influence on the general performance of the enterprises. This is measured in terms of profits, existence of bank account, source of business capital, access to loans and demand creation activities.

4.4.1 Profits

Most of the agro-dealers had their turnovers ranging from KSh.10,000 to KSh.200,000. Table 4.16 shows that 37.5% had their turnover between KSh.10,000 and KSh.100,000,

25% got a turnover of KSh.100,001 to KSh.200,000, 12.5% got between KSh.200,001 and KSh.300,000.

Table 3: Profits

Profit range (KSh)	Frequency	Percent	Cumulative Percent
10,000-100,000	9.0	37.5	37.5
100,001-200,000	6.0	25.0	62.5
200,001-300,000	3.0	12.5	75.0
300,001 – 400,000	0.0	0.0	0.0
Over 400,000	6.0	25.0	100.0
Total	24.0	100.0	

Only 25% got a turnover of more than KSh.400,000 as shown in Table 4.16. These were the well established agro-dealers who also had more than one outlet. Besides, most of the agro-dealers participating in output marketing – grain bulking, were likely to have bigger turnover as they got more from the sales of the grain.

4.4.2 Profits performance

Most of the agro-dealers had experienced an increase in profits over the previous cropping season. As shown in Table 4.17, 33% reported reduced levels of profits citing reasons related to National Accelerated Agricultural Input Access Programme (NAAIAP) of the Kenya government. Under the NAAIAP, selected stockists were given tenders to supply inputs at subsidised levels, especially fertiliser to farmers during the planting season. This disadvantaged other stockists, because they lost sales as a result of farmers preferring to seek the subsidised inputs. In one of the areas, an agro-dealer attributed low turnover to presence of an NGO that provided seed handouts and other free inputs to farmers. Also, delayed onset of rainfall and other climatic challenges affected stock

turnover.

Table 4.17: Changes in profits among agro-businesses

Profits	Frequency	Percent	Cumulative Percent
Decreased	8.0	33.0	33.0
No change	4.0	17.0	50.0
Increased	12.0	50.0	100.0
Total	24.0	100.0	

Table 4.17 shows that 17% had no change in their turnovers, while 50% experienced increased turnovers. In these specific cases, the increases were attributed to improved confidence of farmers in using certified farm inputs and trust in the services offered by the agro-dealers.

4.4.3 Business bank accounts and sources of capital

Findings show that out of the 24 agro-dealers, only 33% had bank accounts dedicated specifically for these businesses, operated under the agribusiness name. Sixty seven percent (67%) of these businesses did not have formal business accounts as shown in Table 4.18.

Table 4.18: Bank business account

Response	Frequency	Percent	Cumulative Percent
Yes	8.0	33.0	33.0
No	16.0	67.0	100.0
Total	24.0	100.0	

Having bank accounts has a direct effect on source of capital for such businesses. This is indicated Table4.19, which shows that 8.3% relied on banking institutions as their

sources of capital.

Table 4.19: Sources of capital for agribusinesses

Source	Frequency	Percent	Cumulative Percent
Banking Institutions	2.0	8.3	8.3.0
Salary	4.0	16.8	25.1
Savings	14.0	58.3	83.4
Family	2.0	8.3	91.7
Other	2.0	8.3	100.0
Total	24.0	100.0	

Other sources of capital included family 8.3% and other (businesses) 8.3%, salary 16.8% and 58.3% from savings.

4.4.4 Access to business loans

Table 4.20 reveals that 37.5% had taken loans while 62.5 had not taken loans before from a bank institution.

Table 4.20: Access to bank loan

Response	Frequency	Percent	Cumulative Percent
Yes	9.0	37.5	37.5
No	15.0	62.5	100.0
Total	24.0	100.0	

Those agro-dealers who had taken loans before the entry of KASP project had acquired them from Barclays Bank of Kenya Ltd., Equity Bank and the Kenya Women Finance Trust (KWFT).

4.4.5. Amounts of loans accessed by the businesses

One of the agri-businesses took a loan ranging from KSh.50,000 to KSh.100,000, 2 agro-dealers took loans ranging between KSh.100,000 and KSh.150,000 and 2 took loans of over KSh.200,000. Nineteen (19) agro-dealers had not taken loans before. Table 4.21 below shows the details.

Table 4.21: Amount of loan

Amount (KSh)	Frequency	Percent	Cumulative Percent
50,000-100,000	1.0	4.2	4.2
100,001-200,000	2.0	8.3	12.5
Over 200,000	2.0	8.3	19.8
None	19.0	79.2	100.0
Total	24.0	100.0	

Table 4.21, however, shows that the majority of businesses did not take loans. This may be as a result of several reasons, for instance because of the existence of other sources as shown in Table 4.19.

4.4.6 Demand creation activities

Most agro-dealers had demonstration plots (either on owned or hired land) next to their enterprises where they demonstrate to farmers the performance of different types of inputs in collaboration with input supply companies. Only 33% had not participated in any demonstration, but 67% had conducted demonstrations in collaboration with different companies as shown in Table 4.22 below.

Table 4.22: Companies that carried out demonstration activities

Company/ activity	Frequency	Percent	Cumulative Percent
No demonstration	8.0	33.3	33.3
Kenya Seed Company Ltd	7.0	29.3	62.5
Western Seed Company Ltd	3.0	13.0	75.5
Syngenta Kenya	1.0	4.2	79.7
Ultravetis East Africa Ltd	2.0	8.0	87.7
Coopers Kenya Ltd	2.0	8.0	95.7
International Child Support	1.0	4.2	100.0
Totals	24.0	100.0	100.0

Findings in Table 4.22 show that a wide range of institutions operated in the same area where KASP was implemented. These institutions played a complementary role to that of KASP.

4.4.7 Number of farmers served by the agribusinesses

In the previous cropping season, 8 of the KASP-supported agro-dealers served between 100 and 500 farmers each, 10 agro-dealers served between 501 and 1000 farmers each, while 6 agro-dealers served more than 1000 farmers each. This is shown in Table 4.23.

Table 4.23: Number of farmers served by the studied agro-dealers

Farmers served	Frequency	Percent	Cumulative Percent
100-500	8.0	33.3	33.3
501-1000	10.0	41.7	75.0
Over 1000	6.0	25.0	100.0
Totals	24.0	100.0	

The performance of agro-input enterprises is determined by turnover. Besides the ability of farmers to buy, performance can also be determined by the number of farmers served.

The higher the number of farmers the better the performance, and low performance can be attributed to fewer farmers served.

4.4.8 Output marketing

Even though not all the agro-dealers bought produce from farmers, majority (83%) provided market information to their client farmer, and only 17% did not as shown in

Table 4.24: Provision of market information to client farmers

Response	Frequency	Percent	Cumulative Percent
Yes	20.0	83.0	83.0
No	4.0	17.0	100.0
Total	24.0	100.0	

Out of the 24 agro-dealers, only 7 of them did output marketing. They bought farm produce from farmers and sold them in their shops or found other markets. Well established agro-dealers bought larger quantities and found large markets such as NCPB and WFP particularly for grain produce.

Output marketing was introduced to the agro-dealers to help farmers market their produce. After selling the certified farm inputs to the farmers, high yields were realised and so the surplus produce that was sold.

Table 4.25: Output marketing

Response	Frequency	Percent	Cumulative Percent
Yes	7.0	29.0	29.0
No	17.0	71.0	100.0
Total	24.0	100.0	

Some of the agro-dealers had stores where they stored produce after buying from farmers and to be sold later or to find market for the farmers. Most of the markets that were sought included schools in agro-dealers' neighbourhoods, hospitals and WFP/ NCPB for those with large stores to supply high quantities.

Table 4.26 reveals that 2 agro-dealers did output marketing in maize, 1 in common bean, 4 in both maize and common bean and 17 did not buy any produce from farmers.

Table 4.26: Crops purchased by agro-dealers

Response	Frequency	Percent	Cumulative Percent
Maize	2.0	8.0	8.0
Beans	1.0	4.0	12.0
Maize & beans	4.0	17.0	29.0
None	17.0	71.0	100.0
Total	24.0	100.0	

Engaging in output marketing is likely to boost business performance due to increased sales and growing customer base.

Table 4.27 shows that 8% of the agro-dealers sold between 1,000 and 10,000kgs of produce, 8 sold between 11,000 and 20,000kgs while 13% sold over 20,000kgs.

Table 4.27: Quantity of farm produce marketed by agro-dealers

Volume (kg)	Frequency	Percent	Cumulative Percent
1,000-10,000	2.0	8.0	8.0
11,000-20,000	2.0	8.0	16.0
Over 20,000	3.0	13.0	29.0
None	17.0	71.0	100.0
Total	24.0	100.0	

Volume of crop produce that was marketed had a positive influence on the general

performance of these enterprises. The higher the volume of marketed crop produce, the higher the turnover of inputs sold by agro-dealers.

The 7 agro-dealers who participated in output marketing gave different responses on the proportion it contributes to the total turnover. Table 4.28 shows that 8% had output marketing contributing between 10% and 30%, 4% had between 31% and 50%, 4% between 51% and 70%, and 13% had the proportion more than 70%.

Table 4.28: Proportion turnover

Proportion (%)	Frequency	Percent	Cumulative Percent
10% - 30%	2.0	8.0	8.0
31% - 50%	1.0	4.0	12.0
51% - 70%	1.0	4.0	16.0
Over 70%	3.0	13.0	29.0
None	17.0	71.0	100.0
Total	24.0	100.0	

Table 4.29 reveals that 2 of the agro-dealers got their supplies of output produce from 20 to 30 farmers, 1 got from 30-40 farmers, and 4 sourced produce from more than 40 farmers.

Table 4.29: Number of farmers who sold produce to agro-dealers

Number of farmers	Frequency	Percent	Cumulative Percent
20-30	2.0	8.0	8.0
30-40	1.0	4.0	12.0
Over 40	4.0	16.0	28.0
None	18.0	72.0	100.0
Total	24.0	100.0	

KASP supported the formation of Kenya National Agro-dealers Association (KENADA) which champions agro-dealers issues at the national level, improves agro-dealer networks, and advocates for favourable agro-dealer policies. KENADA has members with smaller groupings at division and district levels which form the National wide umbrella body-KENADA.

Due to the rural electrification programme in Kenya, most of the studied agro-businesses in Kakamega County were connected to national electricity grid. The agro-dealers were therefore able to stock vaccines for poultry. Vaccines need to be kept under frozen temperatures. Chicken farming in the County is prevalent, and so vaccines are on high demand. KASP provided small refrigerators to the agro-dealers for this purpose.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summarised study findings, discussions, and conclusions, suggests areas of further research, and draws recommendations and/ or suggestions.

5.2 Summary of findings

Various factors influenced performance of the agro-input enterprises. The three components of KASP enhanced performance of agro-input enterprises. This study also revealed how entrepreneur's characteristics influence enterprise performance, besides other factors such as business environment and enterprise characteristics.

Moderating factors like gender and age of entrepreneur influenced performance of the enterprise. Due to the influence of local culture, women did not have similar access to/ ownership of land title deeds like men. This led to more enterprises being set up and registered in the names of men, while only few were controlled by women. Out of the 24 KASP-supported agro-input enterprises, only 6 were owned by women.

The agro-dealers' passion is determined by attitude, which has a big influence on client farmers. Entrepreneurs' skills, attitude and knowledge determine how they handle client farmers, and in turn if those farmers buy from the shops. Most smallholders lacked adequate cash to purchase inputs in bulk, and so agro-dealers were forced to package inputs in small quantities. Half of the agro-dealers in this study fell between the ages of

30 years and 50 years, while the other half were above 50 years. This could be so because most youths were in/ seeking formal employment, which left their retired parents to run businesses in rural areas.

Education levels of agro-dealers in Kakamega County were generally high. Education was critical determinant of performance of the agro-dealers. This was so because the technical training on product use was more effective due to the learners better education backgrounds. This also enhanced agro-dealers capacity to pass the right knowledge to the farmers effectively. Seventy nine percent (79%) of the agro-dealers had tertiary level education, while 21% had secondary level education. This means that none of the agro-dealers had below secondary level of education.

Duration of shop operation influenced its performance, because longer period in operation created the advantage of deep rooted customer relationships and bigger customer base. Those agro-businesses that had operated for long were more established, had bigger capacity with more than one employee and would hence perform sustainably.

Characteristics of the enterprises determined their performance. Enterprises that operated on fulltime basis had greater chances of better performance compared to those that functioned on seasonal basis. Operating fulltime indicates dedication, which improves satisfaction and loyalty among clients. Products range stocked in the shops also improved agro-dealers' performance, because client farmers found their needs under one roof. All the shops stocked a variety of maize seeds, fertiliser, crop protection chemicals and vet products. However, only few stocked other inputs like farm equipment and animal feeds.

Agro-dealers' capacities influenced the quality and quantity of services offered to

farmers. All the 24 agro-dealers offered basic services, including over-the-counter advice and training on product use. The well established stockists offered transport services to farmers particularly on output marketing. They collected harvested produce from smallholder farms to their business stores. Few agro-dealers offered inputs on credit to trusted client farmers. The equipments leased to farmers included spray pumps and money maker pumps. Some agro-dealers were trained in soil testing by Tropical Soil Biology and Fertility Institute (TSBF) of CIAT in conjunction with AGMARK and gave them soil testing kits. As part of the KASP component, demand creation was mostly achieved through agro-dealer demonstration plots, on which they collaborated with supply companies to demonstrate different product varieties to farmers for them make informed choices when purchasing the inputs.

Before KASP was implemented, farmers suffered a great deal in accessing farm inputs due to long distance covered to access the certified inputs. Agro-input enterprises were few and far in between. KASP intervened by supporting agro-dealers to put up start-up shops in rural and remote areas closer to farmers. This study shows that only 25% of the agro-dealers served farmers covering a distance of more than 5km to access the agro-input enterprises.

The biggest constraint facing the farmers according to the agro-dealers was high cost of inputs. To cope with this constraint, most agro-dealers implemented the second component of KASP which was on financial services for agro-dealers and farmers. This was developed through the Farm Input Savings and Loan (FISL) Scheme, which promoted the creation of savings groups amongst smallholder farmers in rural villages; and designed a farmer-held voucher system that works through the local agro-dealer

network (AGMARK, 2010).

The most severe constraint that agro-dealers faced was cost incurred transporting inputs. This led to high prices and eventually low turnover. On a positive side, management was not a constraint to KASP-supported agro-dealers. All of them were trained in business management skills which covered 6 modules: Managing Working Capital, Managing Stocks, Selling and Marketing, Basic Record Keeping, Costing and Pricing and finally Managing Business Relationships. All agro-dealers were issued with an AGMARK certificate after fully completing the course.

One agro-dealer in Butere opened a third outlet after KASP start-up. She had had a shop before the implementation of KASP, and opened a second outlet at another market centre under KASP. This indicates growth and sustainability. With most agro-dealers having served at least 500 farmers in the previous season, this showed greater performance due to high outreach to farmers. With the first KASP component of building agro-dealer capacity to serve farmers, developing agro-dealer output marketing capabilities was enhanced in which most agro-dealers bought produce from farmers and found market for it. Some agro-dealers did not buy the produce but offered market information to farmers by directing them to schools, hospitals and other large markets like NCPB and WFP. Most of this produce included horticultural products (vegetables, tomatoes) mostly sold to schools and hospitals and grain (maize and beans).

5.3 Summary discussions of study

Despite the increasing importance of women entrepreneurship in transition economies for employment, poverty alleviation, and social inclusion (Stoyanovska, 2001), there is

limited research and knowledge on gender, management, and organisation (Metcalf & Afanassieva, 2005). In particular, there is limited understanding on the influence of gender on performance of women-owned enterprises. Sporadic empirical evidence suggests that female-owned companies perform poorly than male-owned companies in various transition economies (Drnovsek & Glas, 2006; Aidis, 2006). These studies are however of limited importance because they do not control for other factors that may affect performance, especially in relation to how women and men entrepreneurs and their companies differ.

According to McElwee (2005), the critical factors for the success of agro-dealers are: entrepreneur profile that covers passion, education, age, ability to network, risk management and responsiveness; enterprise environment that includes location, population density, product range, client farmer loyalty; value chain relationships among farmers, input supply companies, MOA, distributors and development agencies.

In general, agro-dealers described demand for various products as increasing as a result of enhanced confidence among farmers. Despite the vagaries of the weather, the impact of climate change and external factors such as high cost of inputs, crop yields on smallholder farms had increased significantly over the previous 5 years. For example, the average yield of maize had increased from 1.5 to 3 tonnes per hectare. This is attributable to better technology transfer and extension services. Furthermore, the yield for medium and large scale farmers had increased by a higher margin due to use of high-yielding varieties and better agronomic practices. Training of farmers by other stakeholders had also improved performance of these businesses. For instance, Food and Agriculture Organisation of the United Nations (FAO) trained farmers in Kakamega central on

farming as a business, International Child Support (ICS) offered training on better farming techniques and many input supply companies trained farmers and agro-dealers on product use and safe handling. However, a section of the agro-dealers suffered low business as a result of the presence of organisations that gave farmers handouts (such as free inputs or on soft credit/ subsidised rates). In addition, agro-dealers who won tenders to supply NAAIAP had an advantage over others. This skewed demand for fertiliser, in favour of subsidised supplies.

5.4 Conclusions

Based on the findings of the study, it can be concluded that the business environment was generally suitable for the performance of agro-input enterprises through demand creation activities generated through trainings and demonstrations by supply companies. Distance covered by smallholder farmers to access the certified farm inputs was shortened thanks to KASP-supported start-up shops through which availability of inputs had been enhanced. Also through KASP, agro-dealers were supported to renovate their shops including fixing burglar proof doors. As a result, security of the businesses was enhanced, which improved suitability of business environment. KASP-supported agro-input enterprises in Kakamega County were performing better due to increased awareness of farmers on benefits of using certified inputs. Understanding of counterfeit products had improved performance of enterprises because farmers knew where to access the right inputs-from certified agro-dealers and not from other untrained/ uncertified agro-dealers. Due to linkage to markets, performance of these enterprises was enhanced due to increased turnover.

The role of KASP in the success of agro-input enterprises can be evaluated as successful. KASP enabled linkages of farmers to agro-input enterprises, as well linked agro-dealers to supply companies and other stakeholders like MoA/KARI. All the three components of KASP (Building agro-dealer capacity to serve farmers, financial services for agro-dealers and farmers and finally, advancing agricultural policy advocacy) were implemented and effectively achieved. In the first component, all the agro-dealers under KASP trained in the 6 modules of business management training. Most agro-dealers participated in demand creation activities and generation of market demand for improved inputs. Few of the agro-dealers who had the capacity and located in areas that have surplus grain harvest like Lugari were doing output marketing. Through KASP, these agro-dealers had been linked to markets like WFP and NCPB. On the second KASP component, of the 24 agro-input enterprises, 16 were start-ups, 6 were supported in output marketing-grain bulking and 2 were added A.I equipment. At least 5 of the agro-dealers were working with farmer groups through FISL.

Agro-dealers feel that through KASP, AGMARK advised them well on identifying areas for business venture i.e. centres to set up shops where there existed none. It had also boosted the agro-dealers' image among farmers giving them the confidence to serve them hence better performance.

In general, it is concluded that the major factor influencing performance of agro-input enterprises is the environment of operation which comprises enterprise characteristics and services in terms of product range, services offered, increasing demand of products and services and shortened distance covered by farmers to access inputs. These factors favour better performance.

5.5 Recommendations

Based on the findings of this study, the following recommendations are made:

1. Participation of existing agro-dealers in the implementation of projects, including during baseline surveys is critical for project sustainability. This improved agro-dealer competence, knowledge and ownership of the project.
2. Better monitoring of such projects is required to ensure sustainability. There is need for solid project exit plans that sufficiently incorporate most agro-dealers.
3. There is need for transparency and accountability in the dispersion of project equipment. On one hand, few agro-dealers felt that some of their counterparts were favoured over them. On the other hand, other agro-dealers felt some of the equipment supplied to them was not appropriate for their businesses. For example, one agro-dealer had requested for a computer, but was instead supplied with 2 wheelbarrows.
4. The FISL component was crucial in helping farmers save for inputs. However, only few agro-dealers were working with such farmer groups. Better emphasis should be to have each agro-dealer working with a farmer group.
5. AGMARK needs to undertake a countrywide ex-post evaluation in KASP areas to document project impact, establish strengths and weaknesses of this project, do an accounting for used resources so as to determine project sustainability, or do a value for money assessment and draw other lessons for future initiatives.

5.6 Areas of further research

1. How gender of agro-input entrepreneurs and farmers affects performance of enterprises. Also more research on how gender determines access to farm inputs is needed.

2. There is need for in-depth research on credit financing of agro-dealers, because most of them could not access loans from commercial banks. AGMARK had guaranteed agro-dealers to access loan facilities from Equity bank but most of them were turned down. More research is therefore needed on the best ways this can be implemented.

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APPENDICES

Appendix 1: Letter of Transmittal

Anne Andayi Misiko

University of Nairobi

School of continuing and Distance Education.

The Proprietor

P.O. Box _____

Dear Sir/Madam:

RE: ACADEMIC RESEARCH

I am a student at the University of Nairobi pursuing a Master of Arts degree in Project Planning and Management. I am conducting an academic research on factors influencing performance of agro-input enterprises: a case of Kenya Aggro-dealer strengthening Programme in Kakamega County.

Your enterprise (shop) has been selected to provide information on the challenges, coping mechanisms and sustainability of the KASP project. I am therefore seeking your consent to my interview. May I also take this opportunity to guarantee you of full confidentiality of your identity, and to assure you that the resultant data will be used for academic purposes only, and not to harm you in any manner.

Yours faithfully,

Anne A. Misiko

Appendix 2: Agro-dealer Questionnaire

Introduction

This questionnaire is intended to collect data on factors influencing performance of agro-input enterprises, KASP agro-dealers in Kakamega County. Your identity will be treated confidentially and the information you give will be used for academic purpose only. If you agree, then kindly sign and respond to all the questions as honestly as possible.

Prior and free informed consent (of interviewee):

Name: _____ Date: _____ Signature: _____

PART A: ENTREPRENEUR'S PROFILE

1. Gender of proprietor (*tick appropriately*)

Male ☐ Female ☐

2. Age of proprietor (*Tick category*)

☐ 0<20yrs ☐ 21-30yrs ☐ 31-40yrs ☐ 41-50yrs ☐ 51-60yrs ☐ >60yrs

3. Education level

☐ Non-formal ☐ Primary ☐ Secondary ☐ Tertiary

4. Is your business registered? ☐ Yes ☐ No

Registrations/certifications details (*state type, agency, year obtained*):

5. When was the enterprise established and how many full time employees do you have?

6. Business related Formal Training as received by proprietor.

Name of course	Year	Institution offering the service
Business management training		
Advisory/business Counseling		
Seed merchant training		
Technical training in agronomic principals		
Technical training in soil fertility		
Integrated Pest Management		
Other (specify) _____		

PART B: ENTERPRISE ENVIRONMENT: CHARACTERISTICS AND SERVICES

7. Nature of Agro-dealer Business (*tick all that apply*):

☐ Fulltime stockist ☐ Wholesaler (sales to stockists) ☐ Mobile Agent ☐ Seasonal stockist ☐ Other (specify): _____

8. Form of business (*tick all that apply*):

☐ Sole proprietor ☐ Partnership ☐ Family ☐ Society
☐ Company ☐ Other (specify): _____

9. What is the range of product stocked in your enterprise;

Product	Yes/No (<i>tick one</i>)
Seeds	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fertilisers	<input type="checkbox"/> Yes <input type="checkbox"/> No
Crop protection chemicals	<input type="checkbox"/> Yes <input type="checkbox"/> No
Vet products (drugs and vaccines)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Equipment e.g. spray pumps, jembes, e.t.c.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other – specify _____	

10. Services Offered to Farmer Customers:

Service offered	Yes/No (tick one)
Transportation of products	<input type="checkbox"/> Yes <input type="checkbox"/> No
Training on products use	<input type="checkbox"/> Yes <input type="checkbox"/> No
Over the counter advice	<input type="checkbox"/> Yes <input type="checkbox"/> No
Credit to customers	<input type="checkbox"/> Yes <input type="checkbox"/> No
Demonstrations of products	<input type="checkbox"/> Yes <input type="checkbox"/> No
Purchase of produce	<input type="checkbox"/> Yes <input type="checkbox"/> No
Equipment leasing	<input type="checkbox"/> Yes <input type="checkbox"/> No
Soil testing	<input type="checkbox"/> Yes <input type="checkbox"/> No
Contracted farm labor	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other – specify _____	

11. Describe the demand for various products/services over the seasons.

☐ Low ☐ Moderate ☐ Increasing ☐ No change

12. What is the shortest and longest distance covered by your customers to your shop (in Km)? Shortest _____ Longest _____

13. What do you think are some of the constraints your customers/smallholder farmers face in trying to access inputs?

Long distance ☐ Lack of cash money ☐ Lack of technical knowledge ☐
Transportation problems ☐ High cost of inputs ☐

14. I am confident in giving farmer customers advice about how to use the products I sell
(indicate the level of agreement by ticking one):

☐ Strongly disagree ☐ Disagree ☐ Agree ☐ Strongly agree

15. Business Constraints (rate how the following constraints affect the business)

Constraint	Not Applicable	Mild	Moderate	Severe

Understanding on professional business management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Counter staff lack required skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stock-out due to limited storage facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stock-outs due to supplier stock-out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost to transport inventory from supplier to shop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time away from business to procure/transport inventory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farmers doubt benefits of improved inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farmers not confident in using improved inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Counterfeit products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expiry of products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farmers lack sufficient cash for purchasing inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bad debts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security/theft from shop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient suppliers to compete for market share	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seasonality-insufficient turnover to keep shop open	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low business capital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of creditors – companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (<i>specify</i>) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART C: ENTERPRISE PERFORMANCE

16. Do you have other agro-input shop outlets after KASP? Yes ☐ No ☐

If yes, how many? _____

17. What was business turnover during the year that included the 2010-2011 cropping season? (*approximate in KSh*) _____

18. In the 2010-2011 cropping season, has your turnover;

☐ Decreased ☐ No change ☐ Increased

19. If turnover increased or decreased, give the primary reason(s): _____

20. Do you have a bank business account? Yes ☐ No ☐

21. Sources of Business Capital (tick as applicable):

Banking institutions ☐ MFI ☐ Co-op associations ☐ Salary ☐ Savings ☐
Family ☐ Friends ☐ Other ☐ _____ (specify)

22. Business Loans Received from Financial Institutions (after KASP support)

Year of loan issue	Name of institution	Value(KSh)	Interest rate(%)

23. Number of companies that have contributed inputs to support demonstration plots: _____

24. Number of customer complaints received on seed and fertiliser failure during the 2010 – 2011 cropping season: _____ (estimation)

25. Approximately, how many individual customers did the agro dealership business serve in the previous one year? _____ (estimation)

26. Do you provide market information to farmer customers about prices of farm produce/output crops (tick one)? Yes ☐ No ☐

27. Does the agro dealership business normally buy farm produce/output and sell it on to higher value output markets (tick one)? Yes ☐ No ☐

If yes, complete the following table:

Research Permit No. NCST/RCD/14/012/669

Date of Issue 5th June, 2012

Fee received

KSH. 1,000

THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss/Institution

Anne Andayi Misiko

of (Address) University of Nairobi

P.O.Box 30197-00100 Nairobi

has been permitted to conduct research in

Location

District

Kakamega

County

on the topic: Factors influencing performance

of agro-input enterprises in Kakamega County,

Kenya

for a period ending: 30 June, 2012



Applicant's

Secretary

Signature

National Council for

Science & Technology

CONDITIONS

1. You must report to the District Commissioner and the District Education Officer of the area before

embarking on your research. Failure to do that may lead to the cancellation of your permit

2. Government Officers will not be interviewed

with-out prior appointment.

3. No questionnaire will be used unless it has been approved.

4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.

5. You are required to submit at least two(2)/four(4) bound copies of your final report for Kenyans and non-Kenyans respectively.

6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice



REPUBLIC OF KENYA

RESEARCH CLEARANCE
PERMIT

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349
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When replying please quote
secretary@ncst.go.ke

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref: NCST/RCD/14/012/669

Date: 5th June 2012

Anne Andayi Misiko
University of Nairobi
P.O.Box 30197-00100
Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Factors influencing performance of agro-input enterprises in Kakamega County, Kenya,"* I am pleased to inform you that you have been authorized to undertake research in **Kakamega County** for a period ending 30th June, 2012.

You are advised to report to the **District Commissioner and the District Education Officer, Kakamega County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD HSC.
DEPUTY COUNCIL SECRETARY

Copy to:

The District Commissioner
The District Education Officer
Kakamega County.