

**THE IMPACT OF IGAS IN FINANCING PUBLIC SECONDARY  
SCHOOLS**

**A CASE STUDY OF MURANG'A SOUTH DISTRICT IN MURANG'A  
COUNTY, KENYA**

**BY**

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**DECLARATION**

This research project is my original work and has not been presented to any other examination body. No part of this research should be reproduced without my consent.

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## **DEDICATION**

My sincere dedications go to my family especially my husband Evans who has always believed in me and for seeing me through the project.

Thank you all and may God bless you.

## **ACKNOWLEDGEMENT**

I acknowledge the Almighty God for all the good things he has done in my life. He has been my comfort, hope and strength.

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May God reward you bountifully.

## **ABSTRACT**

The Kenya government recognizes education as a critical tool in transforming the society. It spends a lot of funds on education in relation to the national budget. However, despite the continued increase in government investment in secondary education, education resources are never adequate to match the ever increasing enrolment rates. In connection to this, several public secondary schools have mobilized their scarce resources to establish IGAs in order to supplement the government expenditure on education. The purpose of this study was to establish the impact of IGAs in financing public secondary schools in Murang'a South district, Murang'a County. The specific objectives of this study were to identify the IGAs in schools, determine contributions of IGAs, establish the use of generated income, find out challenges faced by the school management in managing IGAs and to establish the measures that can be instituted to enhance IGAs. The study was expected to benefit education planners as they can use the findings to determine how they can increase teaching/learning resources in order to match enrolment needs in public secondary schools. Parents, communities, donors and other interested groups who contribute towards educational resources may get information on how well these resources are utilized. The research study employed a descriptive research design that involved use of frequency distribution tables, pie charts and bar graphs. The target population was secondary school principals and teachers of 27 secondary schools in Murang'a South district, Murang'a County. The study sample was 60 respondents from 10 randomly selected public secondary schools in Murang'a South district, Murang'a County. Simple random sampling was used to come up with right sample size because the population under study was heterogeneous; divided into different categories. Data collection was done using questionnaires, interview schedules and observation checklists. Responses from questionnaires, interview schedules and observation checklists were organized according to pertinent aspects of the study, analyzed and reported using descriptive statistics such as frequencies, charts, graphs and percentages. The results considered the impact of IGAs in public secondary schools in Murang'a South district, Murang'a County. The study findings were that some schools engaged in IGAs including dairy, poultry keeping and fish farming, to raise income to boost school finances and carry out school activities. The main challenges were inadequate land and funds. The study concluded that the impact of IGAs was minimal in schools and therefore recommended that further research be carried to determine the effect of IGAs in all secondary schools in Kenya, and that the Ministry of Education mounts training programs for school managers and teachers to equip them with knowledge and skills for effective implementation of IGAs.

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## **ACRONYMS AND ABBREVIATIONS**

<b>BOG</b>	Board of Governors
<b>EFA</b>	Education for All
<b>FPE</b>	Free Primary Education
<b>FSE</b>	Free Secondary Education
<b>GDP</b>	Gross Domestic Product
<b>GER</b>	Gross Enrolment Ratio
<b>IGAs</b>	Income Generating Activities
<b>KIPPRA</b>	Kenya Institute of Public Policy Research and Analysis
<b>MOE</b>	Ministry of Education
<b>NER</b>	Net Enrolment Ratio
<b>PEAS</b>	Promoting Equality in African Schools
<b>PTA</b>	Parent -Teachers Association
<b>SAP</b>	Structural Adjustment Program

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

It is widely accepted that education is vital to the process of development as it is necessary for skills development suitable for economic growth and better quality life. Owing to its importance, Kenya has undertaken rapid and massive expansion of education at all levels since independence and therefore education sector has continued to consume a great proportion of total national budget. Indeed, the share of education's recurrent budget to the total national budget rose from 22.5% at independence in 1963 to 37.7% in 1987. Republic of Kenya, (1988).

The majority of nations have not been able to meet the rising cost of education which has led them to seek alternative ways for funding education including cost sharing and grants. The Kenya government in an attempt to cope up with the high cost of education introduced cost sharing in education through Sessional paper No. 6 of 1988 on education and manpower policy for the next decade and beyond. Republic of Kenya, (1988).

The cost sharing policy required the cost of education to be shared between government and service recipients. The government provided professional and sometimes administrative staff while other costs e.g. tuition, food, text books and development funds were to be provided by parents and community at large. According to the 2008 budget estimates, the education sector consumed Kshs 117 billion compared to other sectors of the economy like agriculture Kshs 3.7 billion, health Kshs 7.0 billion, and labour 4.14 billion.

The issue of financing secondary school education has become very crucial today. Whereas, the cost of education is borne by the public and private sector of the economy, the share of

public expenditure on education is becoming a major issue, now than ever before, given that it is weighing heavily on the exchequer. Republic of Kenya. (2009).

Enrolment throughout the country's education system has improved markedly. The rate of transition from primary to secondary has registered particularly impressive growth. Primary to secondary transition increased from 57.3% in 2005 to 59.9% in 2007. Following the introduction of free day secondary education that commenced in 2008, primary to secondary transition rate increased remarkably to 66.9% in 2009. Gross Enrolment Rate (GER) and the Net Enrolment Rate (NER) increased from a low of 28% and 19.4%, respectively in 2005 to a 38% and 24.2% in 2007 before increasing remarkably to 45.3% and 35.8% in 2009, respectively. In order to meet training requirements, as well as standards of a rapidly industrializing country, these positive trends will have to be sustained (Republic of Kenya, 2006).

The current situation is likely to undermine the country's efforts towards realization of Education for All (EFA) goals due to high wastage rates and low quality education resulting from inadequate school places and facilities at the secondary school level. Njeru & Orodho, (2003).

The educational needs for secondary education are on the increase in Kenya. Today for instance, between 2002 and 2006, secondary schools' enrolment increased from 778,601 to 1,030,080 while the number of schools increased from 3,687 to 42,215 within the same period. At the lower level, the Free Primary Education (FPE) programme introduced in 2003 has already increased enrolments in primary schools from 6.06 million in 2002 to 7.63 million in 2006 Republic of Kenya(2006).

In 2008 the Kenya government introduced a Free Day Secondary Education (FDSE) programme with a target of raising students' enrolment to 1.4 million by the end of the year

Republic of Kenya. (2009). Therefore due to increased needs of education in Kenya, public expenditure on education has been on the increase as illustrated in Table 1.1 below:-

**Table 1.1 Central government expenditure on education 2004-2009 in (Kshs, million)**

<b>Year</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>
Recurrent expenditure	80,239.9	88,357.5	99,806.4	11,106.4	122,028.2
Development expenditure	4,770.5	4,002.8	10,020.8	14,984.2	14,750.3
Gross total expenditure	85,010.3	92,010.3	109,827.2	136,044.3	136,778.5

**Source: Kenya Economic Survey (2009)**

Kenya's total expenditure on education according to Table 1.1 has been on the increase since 2004/05 with tremendous increase in 2008/09 financial year mainly attributed to the implementation of FDSE. According to Kenya Institute of Public Policy Research and Analysis (KIPPRA), financing secondary education will continue to pose a big challenge to the stakeholders unless deliberate measures are taken to restructure resources allocation and use. The Free Secondary Education (FSE) introduced in 2008 led to average teaching load of 23 hours per week, 43077 teachers and 33026 classrooms were required in 2008 alone. This translates to a financial requirement of Kshs 28 million annually. According to the 2008 plan, the government only pays Kshs 10,265 per student annually. This leaves day scholars with only uniforms, building, lunch and activities fees to pay. Their boarding counterparts, however pay a minimum of Kshs 18,000 to meet the extra requirements which are still high for most parents. KIPPRA (2007) said, with the average teaching load up, and the number of teachers expected to rise to 49,538, the wage bill will remain a sticking point for the government.

The idea of additional income generation by educational institutions should not be viewed as encroaching on their central academic mission. If the education sector is to rise from the



current financial doldrums that have impacted negatively on its capacity to offer quality education, then the idea of educational institutions generating additional income to meet their financial needs instead of total reliance on government, parents and donors through production units is one whose time has come.

Despite the increased government expenditure in public secondary schools educational facilities have not been adequate. Therefore there is need for the schools to look for ways of supplementing government expenditure in order to increase teaching/ learning resources to match enrolment rate. In an effort to make up to the shortfalls and enhance productivity, schools just like universities have to mount innovative IGAs (IGAs) by engaging in business and productive ventures (Non academic commercial units) without compromising the core functions. This can be undertaken for the purpose of increasing Gross Enrolment Rate, graduation rate, transition rate and reducing wastage in education (Kilemi et al 2007).

This study was therefore designed to establish the impact of the IGAs in financing public secondary schools in Murang'a South district, Murang'a County.

## **1.2 Statement of the problem**

In Kenya, education has continued to consume an increasing share of the government's budget and parents' money in form of school fees. Despite the increased government expenditure, educational facilities are never adequate. With enrolment rising, there is need for the schools to look for ways of supplementing government expenditure to increase teaching/ learning resources to match enrolment. The Ministry of Education (MOE, 2005b) has made efforts in encouraging schools to engage in IGAs that can fill the gap for the purpose of increasing enrolment, graduation and transition rates.

Proper utilization of available resources in schools could ease the financial burden on parents and make the secondary education affordable and accessible to an increased number of

school going children. Therefore, there was need to establish the impact of IGAs that public secondary schools have put in place as a supplementary source of income to ease the cost of education and increase Gross Enrolment Rate (GER).

### **1.3 The purpose of the study**

The purpose of the study was to establish the impact of IGAs in financing public secondary schools in Murang'a South District in Murang'a County.

### **1.4 Objectives of the study**

The specific objectives that guided the systematic collection and analysis of data were:

- i) To identify the nature and type of IGAs established in public secondary schools in Murang'a South District Murang'a County.
- ii) To determine the contributions of IGAs on the schools' income level.
- iii) To establish the use of the revenue from IGAs in public secondary schools in Murang'a South District in Murang'a County.
- iv) To find out the challenges faced by school management when running the IGAs.
- v) To find out the strategies that should be put in place to enhance IGAs.

### **1.5 Research questions**

- i) What is the nature and types of IGA's in public secondary schools in Murang'a South district Murang'a County?
- ii) What percentage of total school revenue is contributed by IGAs?
- iii) How is revenue generated from IGA's utilized in financing school activities?
- iv) What are the challenges faced by the school management in managing the IGAs in public secondary schools in Murang'a South district in Murang'a County?
- v) What strategies should be undertaken to enhance the contribution of IGAs in financing public secondary schools in Murang'a South district in Murang'a County?

## **1.6 Assumptions of the study**

- i) The principals gave true information on IGAs and how the revenue obtained from them is utilized.
- iii) The school management has the requisite knowledge and skills necessary for effective management of IGAs.
- iv) The IGAs have a significant effect on the schools' financial resource base.
- v) The contribution of IGAs is quantifiable.
- vi) Principals and teachers regard IGAs as necessary sources of revenue for the schools.

## **1.7 Limitation of the study**

The study was limited to Murang'a South district in Murang'a County where 10 public secondary schools were considered for this study. This was because time and finances were not adequate to allow all public secondary schools in the district to be covered.

## **1.8 Significance of the study**

This study may help the educational planners in seeking use of experts and business-like management styles in order to generate substantial revenue in a sustainable manner.

The study would be useful to policy makers and scholars as a reference material and source of data needed for training school managers and administrators in resources utilization, management, and coordination of IGAs.

Introduction of IGAs in learning institutions would significantly contribute towards increased access of education, retention and also contribute to generating valuable income to the institutions.

It would also provide information to the parents and community members who contribute educational resources on how well these resources are utilized as well as donors who may be interested in assisting in establishment of IGAs.

The study was of significance because it would expose students to entrepreneurial skills necessary to enable them start businesses after school with or without further business training. The study helped school managers and administrators to know the benefits and challenges associated with the IGAs and how best to mitigate them.

### **1.9 Theoretical framework**

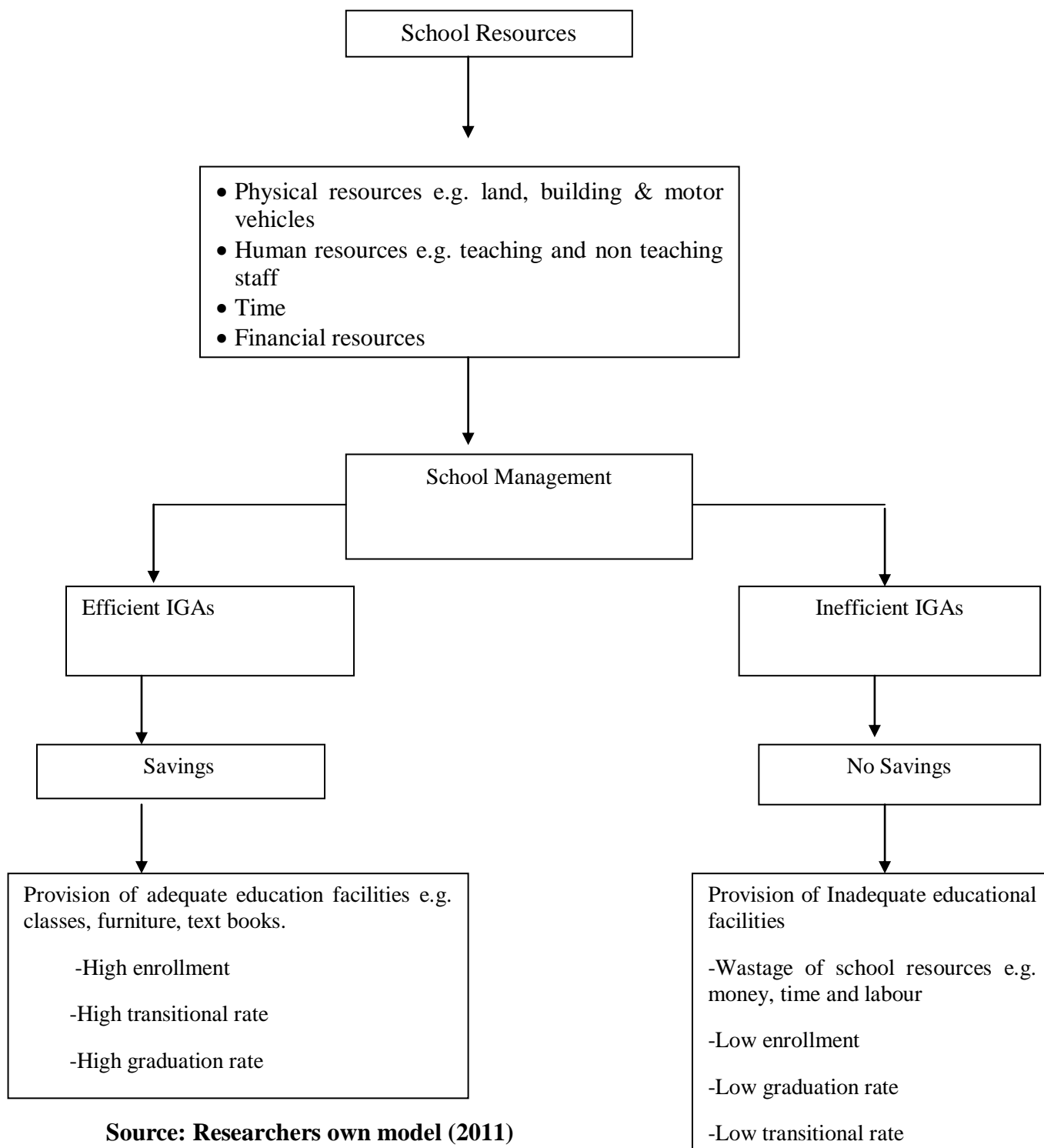
This study was based on the theory of production. Production refers to the economic process of converting inputs into outputs. Education is a production process which uses scarce financial, physical and human resources in the production of educated people. In education, the school is considered as a firm that processes students into desired graduates.

According to Woodhall (2001), there are two main types of inputs that go to education. These are exogenous and endogenous. Exogenous inputs are those inputs in which the school has no direct control e.g. political, environment, number of siblings, parents' income and poverty levels. Endogenous inputs on the other hand are those inputs on which the school has direct control that is, students, teachers, books, salaries, non teaching staff, catering, accommodation services and other facilities.

These resources can be utilized by the institutions to come up with viable IGAs that can supplement government funding in such institutions. This enables the schools to increase teaching/ learning facilities to match high enrolment rate.

### 1.10 The Conceptual Framework of the impact of IGAs in Public secondary schools

The study is illustrated by school financing evaluation models in figure 1.1



**Figure 1.1 The Conceptual Framework of the impact of IGAs in public secondary schools**

According to the conceptual framework schools must exercise high levels of financial discipline in an effort to improve utilization of the available scarce resources in order to

expand the level and diversity of their income. In this regard, prudent use of the basic school resources including physical, financial and human resources is paramount.

Effective and efficient use of available physical resources like land, buildings and motor vehicles as well as the limited school finances is crucial in realization of the full impact of the IGAs. In order to achieve efficiency in the use of the school resources for the IGAs school managements must use management styles that may help save costs other than those which put excess pressure on the available resources leading to massive loss of revenue.

In this study, the dependent variable is the impact of the IGAs on secondary schools which may be both positive and negative depending on the interaction of the independent variables. For instance, low enrolment, transition and graduation rates are results of a poor management system.

The school management plays a pivotal role in ensuring maximum and efficient use of the available resources. The conceptual framework indicates that proper management of IGAs leads to minimal costs of operating and thus generation of more revenue. The revenue generated supplements the government expenditure and eases the burden of education on parents. The savings that can be made could be used to improve the quality of education by increasing teaching/ learning resources and other support services such as laboratory, library and workshop while some may be left for expansion (Musoga, 2005).

On the other hand, improper management of IGAs may result in high unit costs as a result of high wastage of resources. This would make education unaffordable and inaccessible to a large number of people. No savings will be made hence educational facilities would not be increased, contributing to low enrolment. This study therefore focused on establishing the impact of IGAs in financing public secondary schools in Murang'a South district Murang'a County.

### **1.11 Definitions of operational terms**

**Adequate-** having the requisite or sufficient resources to meet educational needs e.g. classrooms, laboratories, textbooks, finances, and teachers.

**Boarding school-** is a self contained learning institution where learners reside or stay away from family and home, obtaining instruction and endowment of education at the same place.

**Cost sharing-** refers to partnership in sharing responsibilities in provision of secondary education by all the stakeholders including the government, parents, communities, Non Governmental Organizations, church organizations and any other interested group.

**Efficiency-** refers to the planned use of resources in public secondary schools in order to generate revenue at minimal cost.

**IGAs-** refer to the ventures or projects that are undertaken by public secondary schools to generate revenue used to supplement government funding.

**Public secondary schools-** post primary schools whose general responsibility for maintenance is met by the MOE or local authority.

**Recurrent expenditure-** refers to regular expenses that are incurred by the government in the provision of education. These involves costs that recur regularly and cover expenditure on goods and services that bring immediate and short life benefits including consumables and salaries for the education sector financed from current income or revenue of the country.

**Supplementary funds-** These are additional finances that are obtained from school projects such as the school farming projects, hiring of the school bus and halls.

**Variability-** refers to the wide range of outcomes of a given situation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The chapter presents review of related literature under trends in financing education, international studies on IGAs, African studies on IGAs and studies on IGAs in Kenya.

#### **2.1 Trends in Financing Education**

Trends in educational development in Kenya point to the need for more competence of management at the school. Considering the fact that public expenditure on education is a matter of great concern given that it is weighing very heavily on the exchequer. The need for institutions to generate their own income has become a matter of grave concern that has been motivated by the 8-44 system of education. Government fees guidelines and the cost sharing system still leave a financial gap in the school. The government initiated Kenya Education Sector Support Program (KESSP), an investment program for the entire education sector (Republic of Kenya, 2005) and FPE in 2003; and FDSE in 2008 (Omukuba, Simatwa & Ayodo, 2011).

However, it is still evident that there are financial gaps that need additional funding. To find a way out of this fiscal distress, the government has advised schools managers to mobilize available institutional resources such as land, physical facilities and equipment to generate income to provide the necessary learning resources, to enable the schools run efficiently.

Over the years, countries all over the world have continued to experience rising cost of education, with the rapid expansion in secondary school education, in response to the demand for secondary education as pointed out, the issue of financing education has become very crucial today, whereas the cost of education is borne by both public and private sectors of the economy (MOE, 2006).



The budget report of 2008, indicated that the heavy commitment by the government in 2008 to provide Free Day secondary Education (FDSE) has contributed significantly to the government deficit and hence becoming a major constraint to the government efforts to stabilize the economy. The government of Kenya came up with the move of controlling the burden of financing education by coming up with fees guidelines that school principals have found it very difficult to run school with (Republic of Kenya, 2009).

However, from the 1980s most governments began grappling with political and economic crisis that came to be characterized by stagnant or declining budget, rapid population growth and widespread poverty and unemployment (Woodhall, 2001). Consequently, in order to meet the changing budgetary needs and cope with the increased pressure on limited resources, school management boards were advised to consider alternative sources of enhancing financing of Education in order to supplement the government and parents efforts (Republic of Kenya, 2009).

In an attempt to address, the problems, the Kenya government through Sessional Paper No. 1 of 1986 on Economic growth Management for Renewed Growth to reduce the budget, commonly known as the Structural Adjustment Program (SAP) or cost sharing in education, which directed the shifting of the burden of payment to the individual who are recipient or beneficiaries of the services provided. In line with the Structural Adjustment Programme, the government of Kenya in 1988 recommended increased cost sharing between government, parents and communities in provision of educational services. The cost of education has however continued to rise despite cost sharing, Free Day Secondary Education and other sources of financing education like donors (Walumbe, 2008).

Public financing of secondary education has not received as much favour as that of primary education. Woodhall (2001), reports of a significant shift that has taken place recently in the attitude of governments, international agencies, and donor towards higher education, in that

higher education was a priority in 1960's and 1970's. Donors in the 1980's switched emphasis to primary education partly as a result of arguments that primary education was a more social investment than higher education. While funding under the FPE programme and higher education receiving grants, student loans, and private sector support, financing of secondary education has been to a large extent for parents and communities to finance, Republic of Kenya (Republic of Kenya, 2005).

With a poorly funded bursary scheme and lack of loan and scholarship schemes, parents at secondary school level have a big burden to carry. Although the bursary scheme was introduced as one of the safety-nets to cushion the poor and vulnerable schools, Njeru and Orodho (2003) reported that this was still inadequate, inefficient and ineffective.

In 2008, the Kenya government introduced FSE programme in order to ease the burden of education on parents. According to this programme, the government would only pay Kshs 10,265 per student annually. This leaves day scholars with only building, uniforms, and lunch and activity fees to pay. Their boarding counterparts would however pay a maximum of Kshs. 18,000 to meet extra requirements which is still high for most parents. As a result, there was substantial increase in enrollment by 17.1 per cent to 1.38 million students in 2008. The increase was mainly recorded in day schools that required minimal fee levies to cater for development and lunch only. The GER increased from 38.0 per cent in 2007 to 42.5 per cent in 2008. NER improved from 24.2 percent in 2007 to 28.9 percent in 2008. Despite the implementation of free tuition secondary education, the costs of secondary education still remain prohibitively high due to boarding expenses which are not catered for by the grants provided. This leads to more than half of the school age population not accessing secondary education (Republic of Kenya, 2009).

The government of Kenya came up with a move to control the burden of financing education on parents by providing fees guidelines. Principals have found it very difficult to run schools

with the limited amount of money collected from school fees. In response to this issue, the principals were called upon by the government to initiate appropriate strategies such as IGAs aimed at raising extra revenue for effective running of the schools.

Therefore, there is need for secondary schools to look for supplementary sources of funds to supplement government expenditure. This is supported by policy option of the MOE which includes promoting IGAs at the school level to raise funds for various purposes to benefit learning resources , quality improvement, school projects and where possible supplement students fees requirements (Republic of Kenya, 2005b).

### **2.3 International studies on IGAs.**

Financing secondary education is important as it constitutes an investment in education that yields considerable social and private returns despite being a burden to all countries in the world (Bregman & Tallmeister, 2002; IBRD, 2005). Different countries with different resources endowment have tried different methods of running the IGAs.

There exists abundant literature on financing education showing that African countries, Kenya included, are faced with three basic policy options for addressing the resource needs for secondary education and indeed all the levels of education (IBRD, 2005; LeBel, 2000, Lewin & Calloids, 2001; United Nations Scientific and Cultural Organization (UNESCO), 2006). First, the country needs to consider whether to retain and sustain the baseline or existing financing scenario, including maintaining existing institutional frameworks and allocating piecemeal levels of educational resources to an ever growing secondary school population or considering whether to raise the share of allocation of resources to secondary school education based on expansion of existing schools and programs or considering structural reforms. Given, the options, learning institutions are encouraged to initiate income generating programs that may not be easy to implement but may require both political and technical support (Gropello, 2006).

In China, Chang and Lewin (2001), state that school running businesses is an old phenomenon whose main function was to generate income to cover the running expenses of schools. School buildings are also being rented to generate income.

Lewin and Calloids (2001), states that in Latin America and the Middle East, school premises are rented and the strategy has extended to secondary schools facilities. This can also be done in secondary schools in Kenya since they have various school facilities e.g. buses, halls, furniture, uncultivated land among others. This would help them to generate funds to supplement government expenditure.

Bray (2000), states that Singapore a country with buoyant economy and continued budget surplus in the 1990s brought a philosophy that higher education institutions should develop their own sources of revenue and reduce dependence on government.

In Kenya, basic education financing options are examined from an economic perspective considering the financing options and cost reduction strategies (KIPPRA, 2007). Kilemi, et al, (2007) noted that while education institutions, in an effort to make up the financial shortfalls and enhance their missions, many face serious constraints in implementation of the IGAs including failure of the public institutions to convince both the consumers and staff who provide them of the potential advantages of having these activities in the schools. More so, those involved mainly use the IGAs for individual benefit.

The secondary schools in Kenya can also use the internal entrepreneurial activities to generate revenue in order to supplement government funding. In Vietnam, rural institutions have generated income by raising poultry, producing vegetables, managing restaurants and tailoring clothes (Bray, 2000). The secondary schools in Kenya can also raise funds from such activities.

## **2.4 African studies on IGAs**

Studies have also been carried out in various countries in Africa on IGAs. In some African countries today, secondary education is in a state of crisis. While quality, access and curricular are forming public policy debate, educational policy makers are confronted by increasing constraints in allocating scarce educational resources to meet present and future levels of social demand for education (LeBel, 2000). Identifying sustainable financing options that maximize cost effectiveness in utilization is therefore critical (KIPPRA, 2007).

The need for schools to seek alternative sources of income generation, including the use of school facilities (Musoga, 2005) and seek to enhance quality and efficiency in resource allocation and utilization. The demand for education cannot be made readily by the traditional means of financing. In an attempt to close the gap, schools seek to employ in house and private financing of education through the IGAs (Republic of Kenya, 2005c).

Studies by the Promoting Equality in African Schools (PEAS) (2010) charity organization indicate IGAs give PEAS students a chance to learn a vocational skill and provide extra income for schools. PEAS currently has a number of IGAs running in schools and are looking to set up more this year. For instance, Onwards & Upwards Secondary School not only has a bee-keeping facility but also produces Interlocking Stabilized Soil Bricks (ISSB), which provides bricks to build classroom blocks across the PEAS school. More so in most PEAS schools engage in lucrative IGAs including brick making, forestry and dairy/Biogas. PEAS schools also have an internal market for school uniforms. Therefore, it makes sense to set this up as an IGA in at least one of our schools. PEAS schools require hundreds of uniforms for new students every year and this is a project that could generate a lot of revenue for a school, which could be then reinvested. Tailoring also teaches students a skill that could be very useful to them after they leave school and look for employment. Studies by the PEAS organization

indicate that PEAS focuses on business ideas that can exploit the existence of the PEAS internal market, as well as socially or ecologically responsible enterprises (PEAS, 2010). These are ventures which schools in Kenya can also borrow to generate income with minimal costs.

Bray (2000), contend that, many schools raise money through their own productive activities. The school undertakes contracts on carpentry and metal work, grow, produce and rear animals for sale. Other schools run stores, which serve the neighborhood and others. In urban areas some schools supplement their incomes by collecting empty bottles for return to drink manufacturers. In addition, children usually organize dances, drama and other fund raising events. They give an example in Rwanda where the use of organic fertilizers on small plot enables eight and nine years' old pupils to grow potatoes, worth the equivalent of US\$ 120 and makes six times what the school receives from the government for equipment.

This was supported by Oduogi (2003), where he said that the publications of teaching materials are gaining prominence in Kenya secondary schools. However, commercial accommodation facilities set in commercial towns could still be reliable sources of generating incomes. Schools can set income generating departments to run such IGAs Oduogi ( 2003).

In Egypt, parent associations contract private holdings company for building school facilities and renting them to the government. The government pays rent to parent association as the parents pay the holding company. This is because private or public holding companies participate in schools development by building their own facilities as has been mentioned in case of Sony Sugar Company Limited (Oduogi, 2003). However, banks and other financial institutions have not come with a policy of mortgage to finance development of schools in Kenya.

IGAs in educational institutions in Kenya are an initiative that is considered to be invaluable in supplementing financing of education at all levels from pre-school to university (Omukoba, et al, 2011). Kilemi, et al, (2007) notes that while IGAs like introduction of parallel programmes, running of tuck-shops and hotels have managed to bring some additional income, the income does not yet seem to offset, the costs involved.

## **2.5 Kenyan studies on IGAs**

Studies have been conducted locally to establish the contribution of IGAs in Kenya. Ogada (2005), points out those IGAs are old in secondary schools than in the universities, although the latter have expanded rapidly in the last few years to become models in education development. The idea of IGAs in secondary school was also supported by former minister of Education, Joseph Kamotho. He urges schools to utilize idle land for agriculture to reduce their food bill. He cited example of Gitongu Secondary School in Mathioya district in Murang'a country which earns Kshs 3,000 from its coffee trees and meets part of its milk requirements from three dairy cows. He observed that schools with idle land could use it commercially through farming or putting up rental houses.

Oduogi (2003) in a study designed to look into resources available in secondary schools in providing additional sources of finances found out that secondary schools in Suba District had financial inadequacies and depend on parents' fees and community harambee as major sources of finances. IGAs are still far from solving financial burden in secondary schools because they lack proper planning. He further, generalized that there is need for secondary schools to find ways and means that may help them in setting up viable IGAs that can raise adequate income to support secondary schools management.

Kangubiri Girls High school in Tetu District Nyeri County has ventured in several IGAs which have supplemented government funding as shown in the table 2.1.

**Table 2.1 IGAs in Kangubiri Girls Secondary School in Nyeri**

<b>Project</b>	<b>Income(Kshs)</b>	<b>Cost Incurred(Kshs)</b>	<b>Variance(Kshs)</b>
Poultry keeping	35,655	25,450	10,205
Crop farming (maize)	42,350	10,400	31,950
Bus hire	82,600	12,000	70,600
Bakery	1,460,686	111,320	1,349,366
Dairy farming	626,120	404,662	221,868
Hall hire	60,000	2,500	57,500
<b>Total</b>	<b>2,307,411</b>	<b>566,332</b>	<b>1,741,489</b>

**Source: Kangubiri Girls' Secondary School (2011)**

The revenue generated has eased the burden on parents in terms of school fees and this has made the school to be one of the cheapest public secondary school in Nyeri County.

**Table 2.2 IGAs in Kangema Secondary School**

<b>Project</b>	<b>Income(Kshs)</b>	<b>Cost Incurred(Kshs)</b>	<b>Variance(Kshs)</b>
School bus	180,000	50,500	129,500
Poultry keeping	75,540	45,000	30,540
Water vending	95,900	20,050	75,850
Photocopying	45,000	25,300	19,700
<b>Total</b>	<b>396,440</b>	<b>140,850</b>	<b>255,590</b>

**Source: Kangema Secondary Kangema District (2011)**

The table 2.2 above shows that Kangema secondary engages in IGAs. These projects are assets to the schools since the total revenue generated by them Kshs 396,440 is enough to cover the total expenses incurred Kshs140, 850 and make some savings Kshs 255,590

## **2.6 Summary of literature review**

The cost of education is increasing to unbearable levels and several schools have come up with supplementary sources of income in order to cut down the cost of education. However, no study has been conducted in Murang'a South District on IGAs. The previous studies conducted have focused on the various IGAs without establishing the real benefits the schools would get to help them to realize the set national educational goals. This study also addressed in more



detail, the prospects and challenges facing IGAs as a method of financing education. The review has highlighted that no school has enough financial resources to cater for all its expenditure and hence the need for them to generate additional finances from IGAs. Many schools have opted for this option to supplement their budgetary allocation. There is support for IGAs by other stakeholders e.g. BOGs, PTAs as important aspect of education. The literature review proves that IGAs are real supplements of government expenditure. It also indicated some challenges encountered in running IGAs. This study therefore established the impact of IGAs in public secondary schools in Murang'a South District, Murang'a County

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter is a description of the procedures that was used in conducting the research. It focused on research design, Target population, Sample and Sampling procedures, research instruments and techniques, data collection procedures and analysis.

#### **3.2 Research Design**

The study used the descriptive survey design that used both qualitative and quantitative approaches to collect data from the members of the population. The qualitative aspects involved drawing inferences from the research data while the quantitative mainly involved use of descriptive statistics in presentation of the findings (Mugenda and Mugenda, 2003). The design involved determining the contribution of IGAs in financing secondary school education in Murang'a South District in Murang'a County. According to Orodho (2002, 2005 and 2008) the descriptive survey design is used to gather information, summarize, present and interpret data for the purpose of classification (Orodho, 2010).

Descriptive survey helped the researcher to use few schools to ascertain the impact of the IGAs on public secondary schools in Murang'a South district in Murang'a County. The survey research design specifically helped to deal with incidences, distributions and relations of educational, psychological and sociological variables (Orodho, 2008).

#### **3.3 Study locale**

The study was carried out in Murang'a South district in Murang'a county which is one of the 8 districts that makes up Murang'a County. It borders Kigumo District to the North West, Kandara District on the west and Murang'a East District in the north. Administratively it is made up of Makuyu and Maragua divisions which comprise of 12 locations and 34 sub

locations. The district was chosen because the area has a high potential for agricultural based IGAs and that schools in the area have the capacity to effectively run IGAs, in an effort to supplement school finances. More, so the researcher had special interest and concern about the level of educational development in the district given the potential and capacity to engage in IGAs that can help in poverty reduction. If schools in Murang’a South District in Murang’a County took the initiative of starting IGAs, this would impact positively by helping to improve internal efficiency, reducing dropout rates and increasing transition and completion rates leading to overall economic prosperity in the County.

### **3.4 Target population**

A target population is one that the researcher wants to generalize the result of the study and a population defines a complete set of individuals, case or objects with some common observable characteristics (Mugenda and Mugenda, 2003). The target population of this study was 27 public secondary schools, 27 principals and 432 teachers in Murang’a South District. Therefore, the target population was 459.

**Table 3.1 Target population for the study**

<b>Category</b>	<b>Target Number</b>
Principals	27
Teachers	432
<b>TOTAL</b>	<b>459</b>

### **3.5 Sampling Technique and Sampling Size**

#### **3.5.1 Sampling Technique**

Sampling is the process of selecting a suitable representative part of a population for the purpose of determining characteristics of the whole population (Kombo & Tromp, 2006).

Sampling units consisted of individuals' schools. The study sample consisted of 10 public secondary schools selected by random sampling from the 27 public secondary schools in the district thus representing 37 per cent of the study population. This number was appropriate to facilitate data collection and analysis within the time and resources available. It was also a suitable size that was representative of the population characteristics from which inferences were made with a low sampling error.

### 3.5.2 Sample Size

Orodho (2005) defines sampling as the process of selecting sub sets of cases, people and objects from selected target population. Samples may help in drawing conclusions, if well chosen.

Simple random sampling was used in coming up with the sample size of the study because the population under study was heterogeneous i.e. divided into different categories (Mugenda and Mugenda, 2003).

**Table 3.2 Study sample size**

<b>Respondents</b>	<b>Target population</b>	<b>Sample size</b>
Principals	27	10
Teachers	432	50
<b>TOTAL</b>	<b>457</b>	<b>60</b>

From Table 3.2 above, the total number for this study was 60 respondents.

The teachers were chosen to participate in the study because they are key to effective implementation of IGAs, while principals play a crucial role in the provision of the infrastructure, financial and human resources necessary for the performance of IGAs.

Sampling was the most advantageous method in data collection as it helped save time, money and was only possible method and practical way available.

The research study adopted a random sampling design, since it gave an equal chance to all the members of a population being selected. It was free from systematic biases that stem from choices made by researchers and enable analysts to estimate the probability of any finding actually occurring solely by chance (Gorard, 2001).

Orodho (2005) argued that simple random sampling is the simplest technique of ensuring that each member of the target population has an equal and independent chance of being selected. A combination of simple random lottery and purposive simple random sampling techniques were used in the study. The purpose random sampling was useful in selection of the principals, while the simple random lottery technique was used to select teachers who participated in the study. These ensured that all the respondents had an equal chance of being selected.

### **3.6.0 Research Instruments**

Mugenda (1999) concurs with Orodho (2008) that the most commonly used instruments in social science research are questionnaires and interview schedules.

Orodho (2005) noted that we can select and adopt a method, instrument or even replicate the entire study already used by another researcher. Knowledge of these helps to guide and enable the researcher to come up with more refined and significant research findings that may help to mitigate the challenges facing the IGAs.

#### **3.6.1 Questionnaire**

The instrument was designed to collect information on IGAs and their impact in public secondary schools in Murang'a South District, Murang'a County. This study used a questionnaire that had both closed and open ended questions. The closed ended questions were used because they are easy to administer and analyze, therefore economical in terms of time

and money; allowing collection of data from a large sample. The open-ended questions on the other hand were easy to formulate and helped collect more in depth responses from the respondents. Gorard (2001) notes that open ended questions are easy and the most natural way of expressing a question in every day conversation while closed ended questions are somewhat harder to design than the open ended but much easier to analyze.

Orodho (2010) argues that open ended questionnaires give the respondents an opportunity to give an insight into the hidden feelings, background, hidden and deeper motivations, interests and much more.

### **3.6.2 Interview Schedule**

The interview schedule was preferred as a device for collecting data because it was a social encounter and respondents were more willing to respond in a socially acceptable or desirable way. A pre set interview schedule of questions were used to help gather information a cross a large number of cases and therefore guaranteed reliability of the comparison between the different sets of data from different respondents, as well as structuring the type of data collected.

Interviews give a higher response rate in a natural setting and the researcher can probe the respondents to express their views freely and openly. The interview schedule was used to collect data from the Principals. The interview schedules were used to conduct face to face semi structured interviews with the principals of the sampled schools. Interviews were effective methods that helped the researcher to understand the perceptions of the participants or learners or meanings they attach to certain phenomenon or events (Gorard, 2001).

Interviews are ideas as they are highly adaptable and can enable more in depth information to be obtained from the respondents as well as clarify vague statements. They are also useful in building trust with respondents and rapport hence providing information not available by any

other method. The interview schedules were used to gather factual information on operation and impact of IGAs. The issues explored ranged from their experiences with deployment of IGAs at school level to the attitude regarding these activities in their respective areas.

### **3.6.3 Observation schedule**

The instrument helped to observe and record the number of IGAs in the schools. It provided a check list for facilities and records that need to be observed in order to verify the information in the questionnaires and interview schedules and establish condition of the characteristics to be identified.

### **3.7 Construction and Piloting of Research Instruments**

The researcher piloted the research instruments in one school in the district. The pilot study was a necessary pre-requisite as it helped identify deficiencies in the questionnaires. For this reason the researcher modified some of the items used in order to reduce ambiguity and misunderstanding on the side of the subjects. Although the results of the pilot study may reveal suitability of instruments the questionnaires still had to be redefined for the final study. The pilot study was therefore carried out to determine; ambiguities, ascertain validity of the instruments, whether data obtained would elicit meaningful analysis in relation to the research questions and elicit type of anticipated data.

The data obtained from the piloting was analyzed to see whether suggested methods were suitable for the study. Piloting of research instruments was carried out in one school randomly selected by simple random sampling, using the lottery technique. The researcher made a pre-visit to the school to establish a rapport and make arrangements for the piloting. On the agreed upon date and time the researcher administered the questionnaires and collected them after the exercise.

### **3.7.1 Reliability**

Reliability of the instruments was measured using the split halves method. Orodho (2005) points out that reliability of instruments is their consistency in producing the same results. The split halves method requires only one testing session. It split the test items into two equal groups by use of odd and even numbers style. A computation of each subject total score from the two groups was made. Eventually, a correlation for the two groups was done using the Spearman Brown Prophecy formula. A high correlation coefficient will be determined. This high correlation coefficient was an indicator of the high level of consistency of the instruments.

### **3.7.2 Validity**

Validity is the degree to which a test measures what it purports to be measuring (Orodho, 2005). To ascertain the validity of the questionnaires, the supervisors were requested to assess the relevance of the content used in the questionnaires developed. They examined carefully each individual questionnaire and provided appropriate feedback recommendations that were incorporated in the final questionnaires.

The pilot study was an opportunity for the respondents criticisms and recommendations for improving the quality of the test items as well as format and scales used. The pilot study thus was useful in enhancing construct validity of the instruments. It also provided ideas, approaches and clues not previously considered before the pilot study relating to administration of the instruments thus increasing the chances of obtaining useful results.

According to Mugenda & Mugenda. (2003) and Orodho (2008) correlation coefficient of 0.6 and above is considered to offer a reasonable reliability for research responses. In the study a correlation coefficient of 0.6 was considered to be valid and the instrument termed appropriate. However, correlation coefficient below 0.6 indicates the questionnaires are not valid and



therefore the researcher may require coming up with other questions and repeating the process again.

### **3.8 Data collection procedures**

The researcher proceeded to the field after obtaining permission from the university, and Permanent Secretary, Ministry of Education (MOE) in form of a research permit; which legally allowed her to carry out the research study in Murang'a South district Murang'a County. The researcher then visited randomly sampled schools to make appointments and establish a rapport after obtaining a letter of introduction from the DEO's office. The DEO informed all the principals, each being given a copy of the letter. Thereafter, the researcher informed the Principals of the schools to be sampled of her intentions of carrying out the research whereby the dates and time were agreed on. The respondents were visited on the agreed dates and the correct instruments were used to collect data. The researcher also accessed relevant documents from secondary schools to obtain more information.

The willing respondents were issued with questionnaires which had a cover letter attached that clearly stated the significance of the activity as well as confidentiality statement. At the collection of the questionnaires, the interview schedule was administered through face-face discussion with the head of institutions as well as observation check list completed by the researcher.

### **3.9 Data analysis**

Data analysis in descriptive survey studies involves a variety of descriptive and inferential statistics. According to Orodho (2008), data analysis is the process of systematically searching and arranging interview transcript, field notes, data and other materials obtained from the field with an aim of understanding and presenting them to others.

The data analysis process involved using the Statistical Package for Social Sciences (SPSS) programme for MS windows to prepare code books, tabulations and drawing statistical inferences. Analysis through tabulations was based on computations of percentages, coefficients of correlation through application of descriptive statistics and inferential statistics.

Percentages were used to compare sub groups that differed in proportion and size. Data from interviews and observation schedules was read carefully paying particular attention to comments, ideas and concerns from the participants. The field notes were edited, coded and written based on content and then analyzed deductively.

In this study voices from various participants were used to draw conclusions from the findings of the study. The assertions made were supported by examples.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.0 Introduction

The chapter presents an analysis of the data collected from the study sample of teachers and principals in secondary schools in Murang'a South District. Data analysis and report of findings was done using descriptive statistics in the form of tables, frequencies, percentages and means; and inferential statistics. Qualitative descriptions were also used in the presentation of data.

The findings of the study were discussed under the following research questions:

- i) What IGAs are public secondary schools in Murang'a South district, Murang'a County are engaged in?
- ii) What percentage of total school revenue is contributed by IGAs?
- iii) How is revenue generated from IGAs utilized in financing school activities?
- iv) What are the challenges faced by school management while running IGAs in Murang'a South district in Murang'a County?
- v) What measures should be undertaken to enhance the contributions of IGAs?

#### 4.1.0 IGAs public secondary schools in Murang'a South district in Murang'a County are engaged in?

The study sought to find out from the respondents the various IGAs the respective schools were engaged in. Although, the expected returns from the IGAs are enormous, it's worth noting that secondary school education financing would continue to face major challenges if no efficient resource mobilization and utilization measures are put in place. Thus there is need to establish which IGAs schools engaged in by carefully examining the school sponsors, type of school and size of land. The use of these resources enabled the establishment of the impact of IGAs.

### 4.1.1 Types of schools and sponsors

Information on the school sponsorship against the type of school was crucial in determining the types of IGAs schools engaged in considering the fact that the education needs for secondary schools are on the increase. Knowledge of these would help the schools identify suitable financing options, that maximize on cost effectiveness in resource mobilization.

**Table 4.1 Type of school by sponsor**

Table 4.1 presents data on the types of school as well as their sponsors.

Type of school by sponsor		Sponsor				Total	
		The church		District Education Board			
		n	%	n	%	n	%
Type of school	Boys	2	20.0	1	10.0	3	30.0
	Girls school	1	10.0	0	0	1	10.0
	Mixed	1	10.0	5	50.0	6	60.0
<b>Total</b>		<b>4</b>	<b>40.0</b>	<b>6</b>	<b>60.0</b>	<b>10</b>	<b>100.0</b>

The study found out that there 3(30.0%) boys schools, 1(10.0%) girls' school and 6(60.0%) mixed schools that took part in the study. However, of the 3 (30.0%) boys' schools, 2(20.0%) are sponsored by the church and 1(10.0%) by the District Education Board (D.E.B). The only girls' school that participated in the study was run by the church 1(10.0%) . 5(50.0%) of the mixed schools were run by the District Education Board while 1(10%) by the church. Knowledge about the type of schools was necessary in helping to determine the sponsors. Schools that are sponsored are least likely to start IGAs. Although, studies have shown that IGAS have been in schools for long,there have been limited efforts in ensuring that the projects remain viable and profitable. Gropello (2006) argues that it is imperative that institutions make choices among the available alternatives although none may be easier to implement. He further notes that the activities require both political and technical support from the government, parents and school administration.

The study found out from 24(48.0%) the teachers that the schools engaged in IGAs with half 25(50.0%) of the teachers saying No. Only 1 (2%) teachers did not response to the question. This finding ascertains the fact that most schools are unable to engage in IGAs.

#### 4.1.2 Type of school in relation to land size as expressed by principals

The study sought to find out how much land the schools have in order to ascertain the type and nature of IGAs that the schools could engage in. This information was sought from the school principals who are the chief executives of the schools and have the overall responsibility of implementing the IGAs.

**Table 4.2 Type of school in relation to land size a expressed by principals**

Size of the land	Type of school						Total	
	Boys		Girls school		Mixed		n	%
	n	%	n	%	n	%		
Less than 1 Acre	0	0	0	0	0	0	0	0
1-5	0	0	0	0	2	20.0	1	10.0
6-10	0	0	0	0	2	20.0	2	20.0
11-15	1	10.0	0	0	1	10.0	2	20.0
16 Acres and above	1	10.0	1	10.0	1	10.0	3	30.0
Others	1	10.0	0	0	0	0	1	10.0
Total	3	30.0	1	10.0	6	60.0	10	100.0

The study found out from two principals that their schools had less than 5 hectares of land, with two mixed schools having 6-10 hectares of land. One head teacher from a boy's school and mixed schools respectively had 11-16 hectares of land. At least one head teacher from boys, girls and mixed schools had over 16 hectares of land 22, 20.5 and 43 hectares respectively as one boy's school never indicated the size of land. The finding shows that some schools have a lot of land and capacity to generate more income if the resource is effectively utilized. However, Omukoba, et al (2011)) observed that different schools had different IGAs

that could raise, as low as Shs 40,000 up to one million with proper management. Ogada (2005) observed that, although schools had such projects most have been overtaken by the universities which have become more aggressive in income generation. Kilemi, et al (2007), agrees that the IGAs would go a long way in helping raise more funds, if only those responsible would use the IGAs returns for the benefit of the institutions.

#### 4.2 Types of IGAs in public secondary schools in Murang'a South

District, Murang'a County.

##### 4.2.1 IGAs in public secondary schools

In the study, the sampled schools fell in three major categories; boys, girls' and mixed schools, and it was of interest to the researcher to find out how each of the schools utilized the available resources to generate extra income.

**Table 4.3 IGAs in public secondary schools in Murang'a South**

District, Murang'a County.

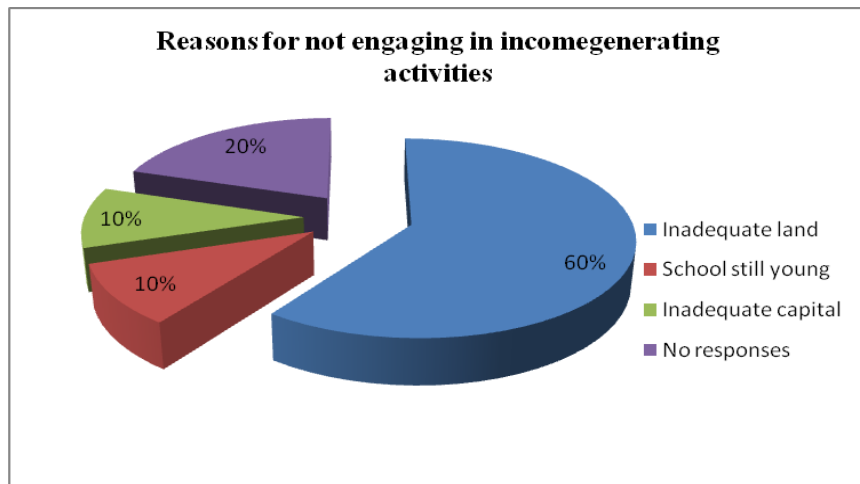
The table presents findings on the IGAs by school type.

IGAs by school	Type of school						Total	
	Boys		Girls		Mixed		n	%
	N	%	n	%	n	%		
Yes	1	10.0	1	10.0	2	20.0	4	40.0
No	2	20.0	0	0	4	40.0	6	60.0
<b>Total</b>	<b>3</b>	<b>30.0</b>	<b>1</b>	<b>10.0</b>	<b>6</b>	<b>60.0</b>	<b>10</b>	<b>100.0</b>

The study found out from 4(40.0%) of the principals that their schools engaged in IGAs with 6(60.0%) saying NO. As Woodhall (2001) asserted since public financing of secondary education has not received as much favour as that of primary education world over, a

significant shift must take place in ensuring that schools change attitude towards IGAs with support from governments, international agencies, and donors.

#### 4.2.2 Reasons for not engaging in IGAs



**Figure 4.1 Reasons for not engaging in IGAs.**

The study found out from 6(60.0%) of the principals that inadequate land was major obstacle that limit the capacity of the schools to engage in IGAs. Omukoba, et al (2011) postulated that the size of the school in terms of acreage was a major determinant of the agricultural potential of the schools. One head teacher reported that the school had inadequate capital to engage in viable IGAs. Another one reported that the school was still too young to start IGAs. However, two principals did not response to this particular item.

#### 4.2.3 Length of time school has been involved in IGAs

It was of significance for the study to find out the length of time the schools had been involved in IGAs, to establish the contributions of IGAs in supplementing school finances. Two principals said they had been involved in the activities for over 18 years, another two (20.0%) reported having less than five years as 1(10.0%) said 13-18 years. These findings agree with the findings of Ho Ming Ng, (2000) who in his study pointed out that: the ability of the schools to create income positively correlates to the school status and period of time. Omukoba, et al,

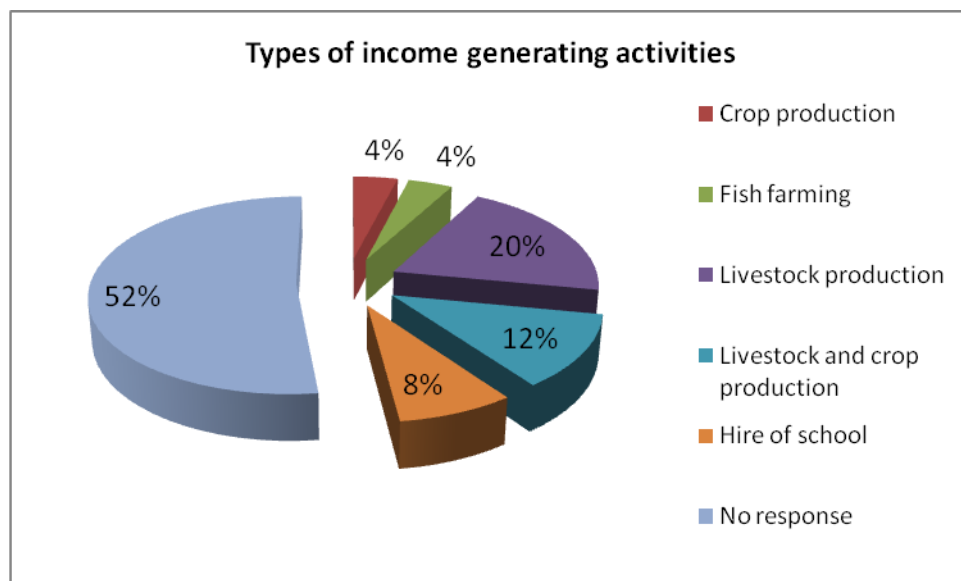
(2011) concurs with Ho Ming Ng (2000) that the types of IGAs that schools engage in largely depends on the type of school, duration of time it has been in existence and status.

**Table 4.4 Length of time school has been involved in IGAs**

Length of time	n	%
Less than 5 years	2	20.0
13-18	1	10.0
More than 18 years	2	20.0
No response	5	50.0
Total	10	100.0

**4.2.4 Type of IGAs towards school income**

The contributions of IGAs towards school income cannot be under estimated, since different schools, exhibit variability in their productive capacity. As Ho Ming Ng (2000) points out, the level of contribution depends on the status, location and type of IGAs the school engages in. The study found out that different schools engaged in different IGAs.



**Figure 4.2 Types of IGAs the schools engage in.**

According to Oduogi (2003) there is need for secondary schools to initiate mechanisms that may help in setting up viable IGAs through which schools can raise adequate income to support programs. The findings of the study indicated that all the schools had the potential to generate additional income from IGAs as pointed out by Getange (2005). The study found out

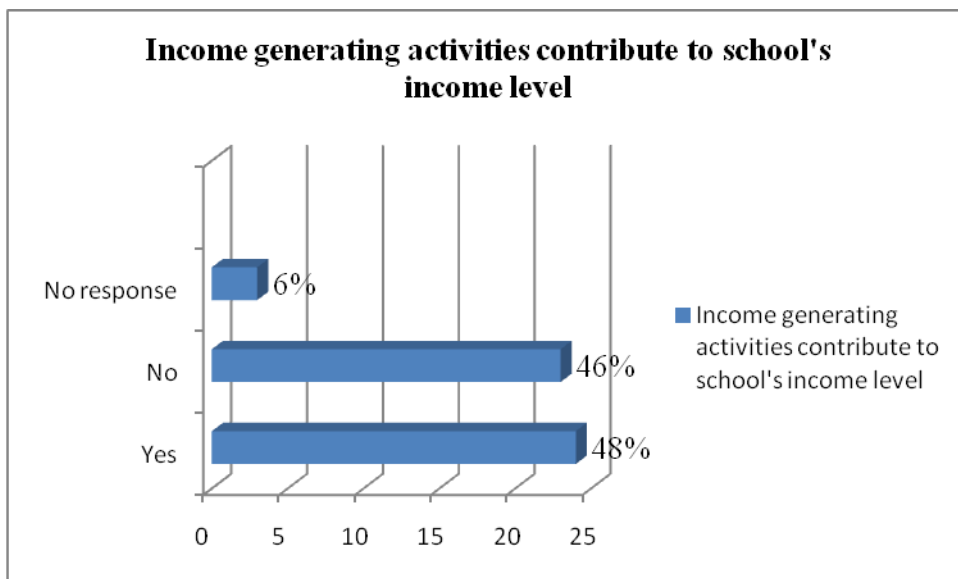


that from the teachers that schools engaged in different types of IGAs. Schools mainly engaged in income generation through livestock production with 10(20.0%) of the schools practising poultry , dairy and fish farming.

The study findings presented in Figure 4.2 indicated that schools engaged in integrated farming activities that involved production of livestock, crops and in some cases hiring of school facilities. It was also the opinion of 6 (12%) of the teachers that livestock and crop production were the main IGAs. An equal number of 2 (4.0%) of the teachers said that schools engaged in crop production and fish farming respectively. Slightly over half of the teachers did not respond to this item. Nearly half 24(48.0%) of the teachers applauded the IGAs as contributing to school income, but 23(46.0%) said ‘No’. A fewer teachers failed to respond to this question.

**4.2.5 Contribution of the IGAs towards income generation in public secondary schools in Murang’a County.**

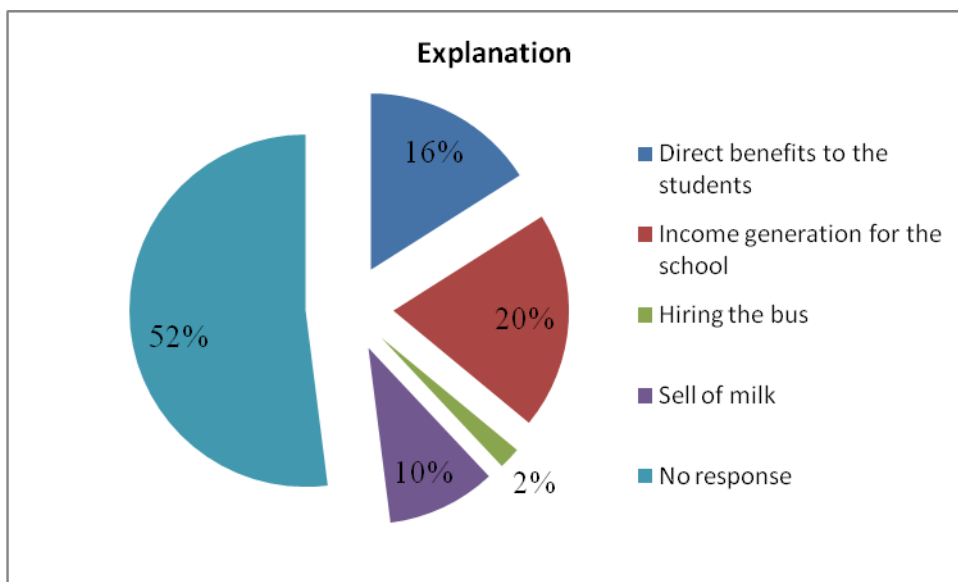
Omukoba et al, (2011) points out that based on the nature and type of IGAs, the activities can make invaluable contribution towards teaching and purchase of learning resources such as textbooks, computers and supplemented payment of salaries of the B.O.G employees.



**Figure 4.3 Contribution of IGAs towards school income levels.**

Figure 4.3 present's information on the effects of IGAs that included direct benefits to the students, school and the community from which the students are drawn. The schools act as intra systems within a super system where . students are processed through teaching, and are expected to give the output back to the society through the use of acquired knowledge ,skills and attitudes.

Oduogi (2003) ascertained that revenue generated would ease the burden on parents in terms of school fees. The parents form the community from which the raw materials (students) come from and are expected to plough back the returns to the community through innovations and creativity which can best be exemplified through IGAs.



**Figure 4.4 Effects of IGAs**

The findings showed that IGAs contributes towards income generation in schools as reported by 10(20.4%) of the teachers. According to 8(16.0%) of the teachers, the activities had direct benefits to the students through provision of subsidized food, student support through payment of fees and minimizing costs incurred by parents. Except for one teacher who never explained how hiring of the school bus had an effect, 5(10.0%) others were of the opinion that milk sales contributed to income generation in schools.

The study, also found out that some of the respondents were not able to state the contribution of the some IGAs like hiring of the school bus. Bray (2002) argued that schools can raise funds through initiating IGAs that can cushion against regular financial deficits.

#### 4.2.6 Extent IGAs affect school income.

**Table 4.5 Extent IGAs affect school income.**

Contribution	Effects of IGAs on your school's income level?	
	n	%
Contributed to low fee levels	4	8.0
Income generation to the school	5	10.0
Offset costs	5	10.0
No effect	12	24.0
No response	24	48.0
<b>Total</b>	<b>48</b>	<b>100.0</b>

Findings from 12(24.0%) of the teachers showed that IGAs had very little or no effect at all, gaining support from 4(8.0%) who said that IGAS has a very low contribution to the school income. As Jiefang (2000) points out that some schools may raise insignificant income through the IGAs.

However, an equal number of 5(10.0%) differed with the rest by saying that the activities contributed towards income generation and offsetting of debts respectively. Although, the findings presented conflicting views, it is worth noting and accepting that few schools indicated engagement in IGAs.

#### 4.2.7 The extent of IGAs as expressed by teachers

The finding on contributions of the IGAs towards school income stimulated interest in determining the extent to which the IGAs influenced the schools financial resources plans, sources of funds and how well the scarce resources would be put into use.

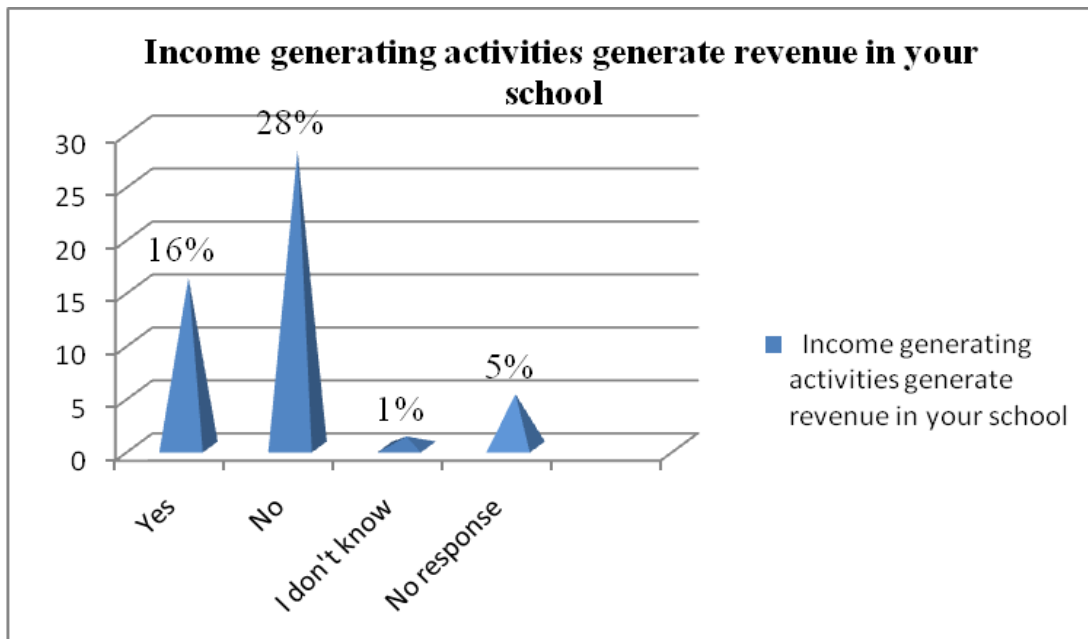
The study sought to find out the extent to which the IGAs affected the school income generation as expressed by the teachers. Considering, the extent IGAs affected income generation would help in ascertaining to what level IGAs cushions or supports the school finance kitty. A view that Ho Ming Ng (2000) says the contribution could be pecuniary or non pecuniary therefore making valuable contributions to school management.

**Table 4.6 The extent of IGAs as expressed by teachers**

Extent of effect	Extent IGAs affect school	
	n	%
Very high extent	1	2.0
Average	8	16.0
Low extent	24	48.0
No response	17	35.4
<b>Total</b>	<b>48</b>	<b>100.0</b>

The findings of the study indicated that IGAs affected the school income generation. However, at least 8(16%) of the teachers said that the IGAs had an average effect on the school income level with one teacher saying that IGAs had a very high effect.

IGAs generated revenue as pointed out by 16(32.0%) of the teachers who said yes while 28 (56.0%) said No. One teacher was not sure whether the IGAS had any effect or not as 5(10.0%) remained silent to the question. At least 16(32.0%) of the teachers agreed that the revenue raised was used in financing school activities. The IGAs would positively contribute to the improvement and completion of school unfinished projects as well as enhances learning materials.



**Figure 4.5 Contribution of IGAs on school revenue.**

Despite the numerous challenges schools faced in income generation, IGAs was used in financing school activities including paying fees, offsetting bad debts and ensuring provision of quality education. Omukoba, et al (2011) notes that IGAs provides discretionary funds that allow principals some autonomy in meeting the cost of emerging needs such as motivational speakers, guidance and counseling experts in specialized areas like drug and substance abuse, and HIV/AIDS. Ho Ming Ng (2000) further part of the profits created from these IGAs are used to supplement recurrent expenditure in schools such water and electricity bill. Funds from IGAs can also be used in prize giving days, academic days and prayer days. Schools also use the funds in paying of debts, transport costs and supplementing salaries for the BOG staff.

#### **4.2.8 Fees payment in public secondary schools in Murang'a South district, Murang'a County**

With the introduction of the SAP in 1986 parents were overburdened leading to many school dropouts due to non fees payment. However, introduction of FPE that commenced in 2003 and the affordable secondary education in 2008, increased enrolment which increased the demand for facilities and equipment in schools. The cost sharing policy made parents to meet the extra costs of educating their children. According to the MOE (2006) report, the government

encouraged the initiation of IGAs in secondary schools as they had a high potential. It was the opinion of the government that income from IGAs can be used to cushion against the deficits and delays in the disbursement of the FDSE funds.

**Table 4.7 Fees payment in public secondary schools as expressed by principals**

Payment of school fees in 2006-2010	Type of school						Total	
	Boys		Girls school		Mixed		n	%
	n	%	n	%	n	%		
Adequate	1	10.0	0	0	0	0	1	10.0
Moderate	2	20.0	1	10.0	3	30.0	6	60.0
Inadequate	0	0	0	0	3	30.0	3	30.0
<b>Total</b>	<b>3</b>	<b>30.0</b>	<b>1</b>	<b>10.0</b>	<b>6</b>	<b>60.0</b>	<b>10</b>	<b>100.0</b>

Except for 1 (10.0%) boys' school head teacher, who said that fee payment was adequate, 6(60.9%) others reported a moderate rate of fee payment as expressed by 2 (20.0%) of the principals from boys' schools, 1(10.0%) from a girl's school and 3(30.0%) from mixed schools. Bray (2000) postulated that secondary schools in Kenya can use the internal entrepreneurial activities to generate revenue in order to supplement government funding and help minimize school drop outs due to poor fees payment.

Due to the raising costs of goods and services, schools are finding it very hard to work within the stipulated limits. The implication for Kenya schools in relation to these findings is that parents are faced with the challenge of paying the extra levies that are meant to cushion the schools against financial deficits. According to Fuller, Elmore, & Orfield (2007), the education systems force the parents to use their knowledge, skills and social connections to have their

children in certain schools and programs. This has the implication in Kenya that parents have to make educational choices based on their ability to pay fees. Schools that have sound IGAs enable parents whose children would otherwise drop out of school to retain them.

#### **4.3 What percentage of total school revenue is contributed by IGAs**

Findings from the different schools indicated that they received funds from different sources; with variations in the amounts involved. It was also found out that most schools generated income from school fees. The proceeds from IGAs were negligible in most of the schools, with indications that schools had no proper records for income from IGAs.

However, some of the schools generated income from IGAs sources including the school farm, house rent, and hire of school bus. Despite all these one school reported having made money from school farm to the tune of Kshs.113, 825 which was only 2.07% of the total revenue of Kshs. 5,500,000 earned by the school in 2010; none of the schools obtained funds from the use of the school buses and hall hire services.

The findings indicated that the three main sources of funds were school fees, grants and donations and CDF fund; and that insignificant income was generated from the IGAs. This dismal performance was recorded in spite of the potential the schools have for income generation.

Except for one school which received Kshs 84,000 in 2010, all the rest had consistency in fees payment with the amounts rising year by year. The increase in fees payment since 2006-2010 was attributed to the raising cost of education and increased enrolment. The total fee collected in one school in 2006 was Kshs. 503,000 with the highest being Kshs 5.5 m which rose to Kshs. 512,000 and Kshs. 5.8m for the two schools respectively. 4 (40.0%) schools recorded over Kshs. 2.0 million, by 2010 respectively, however, much of this revenue was not from IGAs related sources. The variations in income were an indication of the differences that exist among schools. Schools endowed with resources were unlikely to feel the effects compared to

those without a good financial base. The finding is in line with Omukoba, et al (2001) and Ho Ming Ng (2000) who found out in their respective studies that schools with high status had well established and successful IGAs that made valuable contributions towards running of the school.

All the principals concurred that they received no money from fundraisings; this can be attributed to the fact that fundraisings were outlawed in Kenya because of abuse.

At least all the schools reported receiving grants from the government, with the introduction of Free Primary Education (FPE) by 2003 and free day Secondary Education (FDSE) in 2008. The five principals who reported receiving grants from the government noted that they received between Kshs. 200,000 to Kshs. 2,800,000 annually. There were variations from one school to another for example while one school received Kshs. 200,000 in 2006, the highest amount recorded a government was Kshs.298,923. The amounts increased gradually from 2006-2010 a found out from the principals.

Most schools reported that they rarely received funds from donations. However, in 2006 only one school received a donation of Kshs.639, 632, while another school received Kshs. 110,000 in 2010. Another source of funds was the bursary which was reported by 4(40.0%) of the principals. The CDF fund was cited by 7(70.0%) of the school principals. Funds from the CDF were not consistent for the schools with some consistently receiving the money as the others continued to miss the funds. In such cases IGAs serve as a cushion for funds from Constituency Development fund of Free Day Secondary Education which have restrictions that control their use. For instance CDF money can only be used to on purchasing component materials of the project and cannot be used to pay off debts of any kind, transport or labour charges. Similarly FSDE funds cannot be used to buy equipment such as wheelbarrows, shovels and such like (Omukoba et al, 2011).



The findings indicated an overreliance on government subsidy, donor agencies with none engaging in viable IGAs activities. Woodhall (2001) and Economic survey (2009) emphasized that increasing demands for education on public finance at a time when government funds are stagnant or even falling in most developing countries could only be resolved by either finding additional sources of financial support or reducing unit costs through greater efficiency

#### 4.4 How is revenue generated utilized in financing school activities

The study found out that most of the schools were unable to raise funds from the IGAs. However, for the few schools that raised some little funds from IGAs the funds were put to diverse uses including offsetting fees balances for needy students, provision of meals, and supporting co-curricular activities.

Table 4.8 presents the findings on how public secondary schools in Murang’a South District, Murang’a County utilize the IGAs funds as reported by the principals.

**Table 4.8 Use of funds from IGAS as expressed by principals**

Use of funds from IGAS	Always	Often	Sometimes	Rarely	Never	No response
Purchase learning and teaching materials	0	0	30	0	20	50
Development of physical facilities	0		20	0	30	50
Repair & maintenance of physical facilities	0	0	0	20	30	50
Support co curricular activities	0	20	0	10	20	50
Paying staff salaries	0	0	0	30	20	50
School meals/supplement food requirement	30	0	10	0	10	50
Support academic trips	0	0	20	0	30	50
Staff seminars	0	0	0		50	50
Motivate teachers	0	0	0	20	30	50
Lower school fees for all students	0	0	20	10	20	50
Clear outstanding school debts	0	0	0	0	40	60
Offer support to poor and needy students	10	0	10	20	10	60
Others specify	0	20	0	0	20	60

The finding from 3(30%) of the principals was that IGAs funds are used in purchasing learning and teaching materials. Similarly, 2(20%) respectively said the funds were sometimes used in development of physical facilities and for academic trips. Four (40.0%) principals said the funds were used to support poor and needy students. At least two principals 2(20.0%) said that they often used the funds to support co-curricular activities. Most principals 4(40.0%) and 3(30.0%) were of the opinion that income generating activity funds were rarely used for clearing outstanding debts and paying staff salaries respectively. The findings indicate that the funds are used for various purposes within the school. These finding is similar to that by Omukoba, et al (2011) that the funds are used to pay BOG teachers, teacher relievers and for capacity building of teachers through financing of workshops and seminars. The funds were also rarely used for assisting needy students, motivating teachers and repair and maintenance.

The findings are also in line with the MOE (2006), efforts of encouraging schools to engage in IGAs that can address challenges associated with access, equity and provision of quality education through increasing enrolment, transition and completion rates. The high enrolment rates in schools put a lot of pressure on the limited and already overstretched school facilities for provision of quality education. To cope with these, school management boards were advised to consider alternative sources of finance to enhance financing of education in order to supplement the government and parents efforts, particularly at secondary school level (District Education Office, 2008; Omukoba, 2011).

#### 4.5 What are the challenges faced by school management while running IGAs in

##### Murang'a South District in Murang'a County?

The study sought to find out from the teachers and principals who participated in the study, the common financial constraints and challenges associated with the IGAs in public secondary schools in the district.

##### 4.5.1 Common financial constraints in implementation of IGAs

The study findings from the teachers and principals indicated that schools faced critical financial challenges that demand for more innovative ways of supplementing and sustaining productivity through investment in education. The study, therefore found out that schools faced constraints in implementation of IGAs.

**Table 4.9 Common financial constraints facing public secondary schools in Murang'a South district in Murang'a County as expressed by principals**

Common financial constraints	Type of school						Total	
	Boys		Girls		Mixed		n	%
	n	%	n	%	n	%		
Delay in fees payment	1	10.0	0	0	3	30.0	4	40.0
High food prices	1	10.0	0	0	0	0	1	10.0
High fees defaulters	0	0	0	0	1	10.0	1	10.0
Unwillingness of parents to pay fees	0	0	1	10.0	1	10.0	2	20.0
Teaching learning support materials	1	10.0	0	0	0	0	1	10.0
No response	0	0	0	0	1	10.0	1	10.0
<b>Total</b>	<b>3</b>	<b>30.0</b>	<b>1</b>	<b>10.0</b>	<b>6</b>	<b>60.0</b>	<b>10</b>	<b>100.0</b>

Findings of the study, indicated that fees payment was the main financial constraint to IGAs as expressed by 4(40.0%) of the principals, with one head teacher from a boys' school citing high food prices. One mixed school head teacher noted that high levels of fees defaulters was a common financial constraint experienced by the schools. Two principals from a girl's school

and a mixed school expressed unwillingness by most parents to pay school fees as a common constraint. However, teaching learning materials were seen as a constraint as established from one head teacher. The findings indicated that finances are a common constraint to the sustenance of school programs. Thus, as set out in the Economic Survey (Republic of Kenya, 2009) report schools must seek for supplementary sources, in order to supplement expenditure and minimize the pressure and bottlenecks associated with non fee payment.

#### 4.5.2 Challenges facing the IGAs as expressed by principals and teachers

The study sought to find out the challenges public secondary schools face in management of the IGAs. Capital investment in education remains an uphill task that most countries including the developing countries grapple with and making attempts to set up suitable strategies that may help address the challenges.

**Table 4.10 Challenges facing the IGAs as expressed by principals**

<b>Responses</b>		<b>Strongly agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>	<b>No response</b>	<b>Total</b>
Lack of adequate capital investment is a challenge	n	6	1	0	0	3	10
	%	60.0	10.0	0	0	30.0	100.0
Lack of qualified personnel is a challenge	n	0	6	1	0	3	10
	%	0	60.0	10.0	0	30.0	100.0
Lack of support from staff is a challenge	n	0	2	5	0	3	10
	%	0	20.0	50.0	0	30.0	100.0
Lack of support from B.O.G is a challenge	n	0	1	6	0	3	10
	%	0	10.0	60.0	0	30.0	100.0
Lack of adequate time for supervision is a challenge	n	0	3	3	1	3	10
	%	0	30.0	30.0	10.0	30.0	100.0

Marketing problems, low pay back is a challenge	n	1	3	2	1	3	10
	%	10.0	30.0	20.0	10.0	30.0	100.0

The study found out that school management boards faced various challenges in the implementation of IGAs. Lack of adequate funds was the main challenge facing IGAs in schools as reported by 6(60.0%) of the principals. The teachers were of the opinion that schools lacked adequate funds and that where funds were available, the high cost of procuring goods and services made it difficult for schools to engage in IGAs. The findings on the challenges faced by public secondary schools in running IGAs are similar to those found by Ho Ming Ng (2000) that managing IGAs like any other business venture faces certain challenges.

The principals further argued that initiation of IGAs required substantial capital investment. Schools that develop IGAs experience marketing problems as expressed by one head teacher, strongly felt that marketing was a major challenge, an opinion that 3(30.0%) other principals agreed with. However, 6(60.0%) disagreed that lack of support from the BOG was challenge, since most of the IGAs activities are in most cases run by teachers and students, under the supervision of principals with minimal influence from the BOG. It was the opinion, of 50% of the teachers that lack of support from the staff was not a challenge to IGAs, since most IGAs in educational institutions are initiated by teachers as teaching aids in addition to supplementing income. However, the schools in most cases lack adequate support staff to handle the IGAs projects considering, the fact that most have other routine duties and responsibilities. Mutegi (2007) argues that school management boards should seek to incorporate participatory planning and innovative technologies, in order to overcome most of the challenges faced in implementation and management of school-based income generating initiatives.

Although, three of the principals agreed that lack of adequate time for supervision was a challenge, three disagreed. Three (30.0%) of the principals never responded to this item. Majority 9(90.0%) of the principals felt that these were the most pressing challenges. Schools experience a wide range of challenges including administrative, human resource, physical and financial resource constraints that act as major impediments to the realization of the full benefits of IGAs.

**Table 4.11 Challenges school management face in running IGAs as expressed by teachers**

Responses on challenges	Challenges in running IGAs	
	n	%
Food shortage	1	2.0
High costs of production	13	26.0
Poor management	5	10.0
Lack of technical knowhow	4	8.0
Lack of good transport and communication	3	6.0
Theft	1	2.0
None	1	2.0
Challenge of Farming	2	4.0
No response	20	40.0
<b>Total</b>	<b>50</b>	<b>100.0</b>

However, as Omukoba (2011) and Ho Ming Ng (2000) agree with 5(10%) of the teachers that state that poor management especially poor record management is challenge, particularly where IGAs accounts are not separated from school funds. More so, most of the school managers do not have the technical know of IGAs as reported by 4(8.0%) of the teachers.

The management likewise, faces challenges of trying to come up with suitable and most agreeable strategies that can make the schools self sufficient through income generation. A critical challenge of mismanagement and misappropriation remain bottlenecks to the realization of the IGAs initiative. However, it is necessary that schools put up financial controls, mechanisms of monitoring and evaluation of the projects, checking on the

feasibility of each program. Kilemi, et al. (2007) argues that the institutions should invest more in the teachers and IGAs implementers by offering reprieves for their services. This can greatly contribute towards boosting the morale and act as a motivation to enhance productivity, reducing the negative effects of using the IGAs for personal gains.

#### **4.6.1 Suggestions for raising funds for IGAs in public secondary schools**

School management teams need to remain focused and seek to implement strategies that can enhance income generation in order to finance the financial gaps. It was found out from the principals who took part in the study that several measures can be undertaken to raise funds for IGAs.

**Table 4.12 Suggestions for raising funds for IGAs in public secondary schools**

<b>Suggestions for rising funds for IGAs</b>	<b>Principals</b>	
	<b>n</b>	<b>%</b>
Organizing fund raising	3	30.0
Seeking parental support	1	10.0
Employing qualifying personnel	1	10.0
Donations	1	10.0
MOE to organize workshops for BOG/PTA	1	10.0
No responses	3	30.0
<b>Total</b>	<b>10</b>	<b>100.0</b>

The study found out from 3 (30.0%) of principals that organization of fund raising is the way to overcome the challenges. Seeking parental support, employment of qualified personnel, donations and organization of workshops by the Ministry of Education were the possible ways schools would enhance IGAs as expressed by 1(10.0%) of principals in each way.

Findings from the interview schedules indicated that there was need for regular evaluation of the viability of the IGAs in order for schools to invest more solvent business ventures. Suggestions were also given that managers of the IGAs should receive adequate training to acquire requisite knowledge and skills. Effective implementation of IGAs in schools can help to promote skills of the students, teachers, support staff and surrounding community for sustainability purposes. As Bregman & Tallmeister (2002) pointed out proper investment in IGAs, secondary education and human resource would contribute to the socialization process of young people among them the youth in and out of school. Through inculcation of job related skills and knowledge that can enable them participate fully in society, take control of their own lives and continue learning.

**Table 4.13 Activities recommended for increase of revenue as expressed by principals**

IGAs	Activities to recommend to school	
	n	%
Hiring of the school bus	1	10.0
Expansion of dairy farming activities	2	20.0
Planting drought resistant crops	1	10.0
Keeping poultry	4	40.0
No response	2	20.0
<b>Total</b>	<b>10</b>	<b>100.0</b>

The findings of the study indicated that most 4(40.0%) of the principals were of the opinion that schools should initiate poultry keeping projects, with 2(20%) suggesting that there is need for schools to expand the existing dairy farming activities. One head teacher said that planting of drought resistant crops was necessary and another argued that hiring of the school bus would help school to raise funds. The finding is in line with Getange (2005), who found out that in Kisii Central District schools with adequate land engaged in agricultural activities including poultry farming and crop production. Engaging in crop production initiatives would help in supplementing the school finances.



2(20%) of the principals were unable to respond to this item. Inability to respond to the questions by principals was attributed to the fact that most schools did not have viable IGAs .

Many are the recommendations but schools need to seek ways in which they can address the challenges without jeopardizing the primary functions of the schools. The dwindling Kenyan economy, calls for collective efforts that would help the schools to generate extra income through IGAs which can supplement the government efforts in provision of quality education, with the learners being equipped with knowledge and skills necessary to make them useful citizens.

However, IGAs strategies that are feasible would focus on interventions that reduce the costs of secondary education both at national and school level (GOK, 2005), instead of adding onto the already overstretched resources.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents a summary of the findings gathered from the analysis of the data. The chapter also highlights various recommendations. Conclusions have been drawn from the study and recommendations put forward that may help to deal with the challenge of schools setting up IGAs.

#### 5.2.0 Summary of the findings

The study sought to find out the types and nature of IGAs that schools engage in, challenges, facing implementation of IGAs and suitable suggestions that may enhance IGAs in public secondary schools on Murang'a South District in Murang'a County. The sample size consisted of 50 teachers and 10 principals from Murang'a South district in Murang'a County. The study found out that:

#### 5.2.1 IGAs public secondary schools in Murang'a South District have engaged in.

The study found out that few schools engaged in IGAs as expressed by 24(48.0%) of the teachers who participated in the study. The main reason for schools engaging in IGAs was to supplement the school finances.

The study found out that most of the schools had expansive tracks of land, as large as 16 hectares, 22 hectares, 20.5 hectares and 43 hectares. For example, all the 3(30%) boys' schools that took part in the study had over 11 hectares of land, which was not adequately used.

Schools practiced integrated agricultural production that involved both livestock and crop production. The main livestock production activities as reported by teachers were dairy cattle

6(12.0%), pigs and poultry 2(4.0%) as well as fish farming 2(4.0%). However, 6(12.0%) schools also grew different types of crops.

### **5.2.2 What percentage of total school revenue is contributed by IGAs?**

The study found out that only 2.07% of the total revenue was raised from IGAs, an indication that IGAs had insignificant contribution to income generation in public secondary schools in Murang'a South District in Murang'a County. With, nearly half 24(48.0%) of the teachers said the IGAs contribute to school income.

A few schools had viable IGAs that generated income that supplemented the school revenue. Income generated from IGAs was negligible in most schools.

The IGAs were used in raising revenue that was used to supplement and run school activities. Milk sales accounted for 5(10.0%) of the total revenue collected from IGAs, this represented a negligible percentage of income.

The IGAs activities were mainly beneficial to students through provision of subsidized food, payment of fees and minimizing costs of purchasing learning teaching materials.

### **5.2.3 How is revenue generated utilized in financing school activities**

Revenue collected was used to pay school fees for needy students as said by 6(12.0%) of the teachers, offset bad debts and offer bursary. As 4(8.0%) of the teachers acknowledged that the IGAs contributed to low fee defaulting levels.

IGAs funds are used for purchasing learning and teaching materials, development of physical facilities and academic trips as noted by 16(32.0%) of the teachers. It was also evident that IGAs funds were rarely used to clear outstanding debts and pay staff salaries as reported by 5(10.0%) of the teachers respectively.

#### **5.2.4 What are the challenges faced by school management while running IGAs in Murang'a South District?**

Lack of adequate funds and moderate fees payment were the main financial constraint cited by schools which were effects of poor fees payment, high defaults rate and lack of cooperation from parents.

Despite the fact, at least 4(40.0%) of schools had plans of starting IGAs with 3(30.0%) planning to expand the existing projects, as a way of overcoming the challenges.

Most 6(60.0%) of the principals who participated in the study said that inadequate land was major reason. While 5(10.0%) teachers were of the opinion that capital was the main constraint.

It was found out from 4(40.0%) of the principals reported delays in fees payment as a major financial constraint. The study further found out that most schools over depended on fees payment, government grants and donations from donor agencies other than engaging in viable IGAs.

Although the study found out from 7(70.0%) of the principals that schools got CDF funds, consistency of the fund and equity was questionable with some schools receiving and others failing to receive CDF bursary. This was attributed to the conditions under which the CDF fund is disbursed to schools.

#### **5.2.5 What proposals that would enhance the contribution of IGAs**

Schools should initiate poultry keeping projects and expand existing dairy farming projects. Through diversification of the IGAs, the schools could have a continuous income flow.

Appropriate plans have to be undertaken to organize fund raising as a way of overcoming the challenges facing implementation of IGAs in schools. More so, initiation of training and

professional programs for the school managers and other officers would go along way in overcoming the challenges and enhancing effectiveness and efficiency in operation of the IGAs.

Deployment of skilled and qualified personnel by schools would be a necessary pre-requisite in ensuring effective implementation of IGAs in schools.

### **5.3 Conclusions of the study**

The following conclusions were made based on the findings of the study:

Few public secondary schools in Murang'a South District, Murang'a County engaged in livestock and crop production IGAs including; poultry farming, dairy farming, aquaculture, pig farming, and Coffee farming.

Schools in the county used the IGAs to supplement student fees by paying fees for poor and needy students, reducing cost of purchasing learning resources and subsidizing on the school feeding programmes.

The main challenge facing the IGAs was inadequacy of funds, lack of technical know-how and poor management of the activities. Lack of support from the teachers and the Board of Governors were not major challenges. All the schools had the potential to engage in viable and more profitable IGAs.

#### **5.4.1 Policy Recommendations**

Based on the findings of the study, the following recommendations were made for the purpose of policy implementation in relation to the management of IGAs in public secondary schools:

The Ministry of Education through the Kenya Education Staff Institute needs to mount training programs for teachers, principals and support staff playing an active role in the IGAs in schools. The programs should aim at equipping the officers with knowledge, skills and technical expertise useful for effective and efficient management of the IGAs.

Schools should venture into IGAs that are viable and cost effective, suitable for implementation under the schools' conditions. Schools need to engage in viable IGAs including fish farming, poultry and crop production that may contribute towards meeting the costs of the school budget

There is need for shared responsibility between the school management and other stakeholders as a strategy that may help schools address the impending financial, human resource and physical constraints to IGAs. Schools need to borrow entrepreneurial skills from the colleges and universities. Efforts to reduce the financial burden should be made by all the stakeholders including parents, community, government, church organizations, Non Governmental Organizations and all other interested groups.

#### **5.4.2 Recommendations for further research**

The study made the following recommendations for further research;

A nationwide study should be carried out to determine the extent schools have embraced IGAs.

A study to be carried out to determine suitable strategies that should be put in place to mitigate the financial constraints facing schools in implementation of IGAs.

Further research should be carried out to establish the role played by the IGAs in school and community development.

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**APPENDIX A: QUESTIONNAIRE FOR TEACHERS**

This research is meant for academic purposes, it will try to establish the impact of IGAs in financing public secondary schools in Murang’a South District. You are requested kindly to participate in the study by providing all appropriate information in the spaces provided honestly and precisely as possible. Responses to these questions will be treated as confidential. Please tick [√] where appropriate or fill the required information in the spaces provided.

1. Does your school engage in IGAs?

Yes [ ]

No [ ]

2. Briefly explain these IGAs

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

3. Do IGAs contribute to your school’s income level?

Yes [ ]

No [ ]

4. Briefly explain

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

5. What are the effects of IGAs on your school’s income level?

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

6. To what extent do IGAs affect your school’s income level?

Very high extent [ ]

High extent [ ]

Average [ ]

Low extent [ ]

7. Do IGAs generate revenue in your school?

Yes [ ]

No [ ]

8. Is the revenue generated utilized in financing school activities?

Yes [ ]

No [ ]

9. Briefly explain these challenges faced by school management in running IGAs.

.....

.....

.....

**APPENDIX B: THE HEAD TEACHER/PRINCIPAL’S QUESTIONNAIRE**

**a. Background Information**

1. Name of your school.....

2. Category (please tick which is applicable to your school)

a. Is it Boys  Girls  Mixed

b. Is it Boarding  Day  Boarding and Day

c. Please state the sponsor of your school.....

3. How many acres of land does your school have? .....acres

4. How do you rate fee payment level in your school in the period between 2006-2010?

Very adequate

Adequate

Moderate

Inadequate

5. What are some of the common financial constraints that your school experience?

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

6. Does your school engage in IGAs?

Yes [ ] No [ ]

7. If not, why?

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

8. If yes, which IGAs did you have in your school in the period 2006-2010?

i. ....

ii. ....

iii. ....

iv. ....

9. For how long has your school been involved in IGAs?

Less than 5 years

5-8 years

9-12 years

13-18 years

More than 18 years

10. Please indicate below the appropriate amount of income your school received from various sources in the period 2006-2010

**Source** **Approximate Amounts per Year**

	2006	2007	2008	2009	2010
School fees					
Fund raising					
Grants from government					
Donations					
Bursary					
CDF					
School farm					
House rent					
Hire of school bus					
Hire of hall					
Others specify					

11. Please indicate a number from the scale below to show how important each of the following objectives are for IGAs in your school

**Scale**

Extremely unimportant **1 2 3 4 5 6 7** extremely important

IGAs are a cost cutting measure for the school

IGAs earn extra income for the school

IGAs help to meet the budget deficit

12. Does your school have plans concerning IGAs?

Yes [ ]

No [ ]

13. If no, give one reason for that

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

14. If yes choose and tick the items that correctly express these plans

My school plans is to expand IGAs

My school plans is to start new IGAs

My school plans is to terminate existing IGAs

My school has no plans to start IGAs

15. Please indicate by ticking the appropriate space below to indicate how frequently funds from IGAs are used to finance various activities in your school. Tick once for each statement

<b>Use of funds from IGAS</b>	<b>Always</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
Purchase learning and teaching materials					
Development of physical facilities					
Repair & maintenance of physical facilities					
Support co curricular activities					
Paying staff salaries					
School meals/supplement food requirement					
Support academic trips					
Staff seminars					
Motivate teachers					
Lower school fees for all students					
Clear outstanding school debts					
Offer support to poor and needy students					
Others specify					

16. Below are some challenges and difficulties that may be experienced in managing IGAs.

Please indicate by ticking to show how much you agree or disagree with each statement as it applies to your school.



<b>Challenges facing IGAS</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
Lack of adequate capital investment				
Lack of qualified personnel				
Lack of support from staff				
Lack of support from B.O.G				
Lack of adequate time for supervision				
Marketing problems, low pay back from investment				
Others specify				

17. Suggest how funds from IGAs can be increased in public secondary schools

.....

.....

.....

.....

18. If IGAs are well established what would it help your school to do? Please tick in the space that corresponds to your level of agreement to each of the statements below. Tick once for each statement

<b>Use of funds from IGAS</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
Increase teaching and learning resources				
Introduce new subjects				
Set up bursary scheme for the needy				
Increase participation in co-curricular activities.				
Lower school fees or levies				
Give incentives to teachers				
Reduce dependence on government				
Improve physical facilities				
Give incentives to students				
Employ more personnel				

Increase financial stability				
Introduce new teaching strategies				
Reduce dependence on donations				
Raise school annual budget				
Support development projects				
Reduce dependence on fundraising/harambee				

19. What activities would you recommend for your school to increase its revenue base?

**APPENDIX C: OBSERVATION SCHEDULE**

Tick or indicate accordingly

**A. PHYSICAL FACILITIES**

1. Which facilities does the school have? Tick to indicate that conditions  
**CONDITION**

Facility	Number	Excellent	Good	Fair	Poor
Classrooms					
Laboratories					
Halls					
Workshops					
Houses					
Canteen					
Vehicles					
Farm					

**B. PRODUCTIVITY OF IGAS**

Indicate the breakdown of land use on the farm. Indicate type, size of land or number

Crops	Acreage	Livestock No.	Poultry	Number

**C. MANAGEMENT OF IGAS**

a. Records: indicate records that the school maintains

- Farm records
- Rent records
- Hire of halls
- Hire of classrooms
- Hire of vehicles

School canteen

Others specify

b. Personnel: indicate number

#### **APPENDIX D: INTERVIEW SCHEDULE FOR PRINCIPALS**

1. Why do you think the school considered IGAs as a method of increasing income?
2. Does the board of governor support IGAs? If yes, to what extent?
3. Which benefits does the school derive from participating in IGAs?
4. How does the school obtain the capital required to invest in IGAs?
5. What factors that can hinder the IGAs from supplementing secondary education?
6. Do IGAs meet the salaries of the personnel who man them?
7. Do you include income from IGAs in the school's budget? If not, why?
8. Suggest how IGAs can be improved in public secondary schools to play a significant role in supplementing secondary education budget.

## APPENDIX E: RESEARCH BUDGET

No.	Items Description	Sub-Total	Total
<b>1.</b>	<b>Proposal writing</b> Desk Research-from various libraries Stationary, Computer, photocopy, printing and binding.	25,800.00 33,200.00	<b>58,000.00</b>
<b>2.</b>	<b>Research Instruments</b> Questionnaire (typing & Copies) Discussion Guide	25,000.00 10,000.00	<b>35,000.00</b>
<b>3.</b>	<b>Data Collection</b>  Hiring of 8 research assistants @ 8,000.00	54,000.00	<b>54,000.00</b>
<b>4.</b>	<b>Data Analysis (SPSS)</b> Data analysis	15,000.00	<b>15,000.00</b>
<b>5.</b>	<b>Final Draft Printing and Binding</b> Typing, Photocopy, Binding	30,000.00	<b>30,000.00</b>
<b>6.</b>	<b>Transport/Miscellaneous</b> Transport Telephone Stationary Computer service/internet services	32,000.00 10,000.00 28,000.00 25,000.00	<b>95,000.00</b>
	<b>GRAND-TOTAL</b>		<b>287,000.00</b>

**APPENDIX F: INTRODUCTION LETTER**

**KENYATTA UNIVERSITY**

**DEPARTMENT OF EDUCATION MANAGEMENT POLICY AND CURRICULUM  
STUDIES**

P.O. BOX 43844 – 00100 GPO

**NAIROBI**

DATE: 26th June, 2011

Dear Sir/ Madam,

I am post graduate student at Kenyatta University pursuing a Masters of Education Degree. I am undertaking a research study in the field of economics. My research topic is **“The impact of IGAs in financing public secondary schools in Murang’a South District.”** You have been chosen to participate in this study. The questionnaire intends to find out the impact of IGAs in financing public secondary schools. Your co-operation in answering the questions faithfully will be highly appreciated. All the data collected will be treated with utmost confidentiality and will be used only for the purpose of this study. Thank you in anticipation.

Yours faithfully,

**JANE NYAMBURA KIGOTHO**

**M.Ed STUDENT**

**REG. NO. E55/CE/15386/2008**