

**INFLUENCE OF SCHOOL FEEDING PROGRAMME ON PUPILS  
PARTICIPATION IN PUBLIC PRIMARY SCHOOLS IN FLOOD PRONE  
AREAS OF GARSEN DIVISION, TANA DELTA DISTRICT, KENYA**

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## DECLARATION

This research project is my original work and has not been presented for award of a degree in any other university

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## **DEDICATION**

I dedicate this project to my beloved husband Niven Mwashighadi Mghanga and my daughters Emmah Wanjala, Doreen Saru and Linet Tenge.

## **ACKNOWLEDGEMENT**

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## **TABLE OF CONTENTS**

Title page .....	i
Declaration .....	ii
Dedication .....	iii
Acknowledgement .....	iv
Table of contents .....	v
List of figures .....	vii
List of tables .....	viii
Abbreviations and acronyms .....	ix
Abstract .....	xi

## **CHAPTER ONE**

### **INTRODUCTION**

1.1 Background to the study .....	1
1.2 Statement of the problem .....	3
1.3 Purpose of the study .....	4
1.4 Objectives of the study .....	4
1.5 Research questions .....	5
1.6 Significance of the study .....	6
1.7 Limitations of the study .....	7
1.8 Delimitations of the study .....	7
1.9 Assumption of the study .....	7
1.10 Definition of significant terms .....	7
1.11 Organization of the study .....	9

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

2.1 Introduction.....	10
2.3 School feeding programme and pupils' participation in public schools.....	17
2.4 School feeding programme and active class involvement.....	19
2.5 School feeding programme and school enrollment .....	21
2.6 School feeding program and class attendance .....	23
2.7 School feeding program and pupils dropout.....	26
2.8 Summary of literature review .....	27
2.9 Theoretical framework.....	27
2.10 Conceptual framework.....	28

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

3.1 Introduction.....	30
3.2 Research Design .....	30
3.3 Target Population.....	31
3.4 Sample Size and Sampling Techniques .....	31
3.5 Research Instruments .....	32
3.6 Instrument Validity .....	32
3.7 Instrument Reliability .....	33
3.8 Data Collection Procedures .....	34
3.9 Data analysis techniques.....	34

## **CHAPTER FOUR**

### **DATA ANALYSIS, INTERPRETATION AND DISCUSSION**

4.1 Introduction.....	35
4.2 Questionnaire Return Rate .....	35
4.3 Demographic Information.....	35
4.4 Influence of School Feeding Programme on Enrolment .....	38
4.5 Findings on the Influence of School Feeding Programme on Attendance .....	46
4.6 Findings on influence of school feeding programme on class participation ..	50
4.7 Findings of Influence of School Feeding Programme on Dropout of Pupils .	53

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

5.1 Introduction.....	57
5.2 Summary of the Study .....	57
5.3 Major Findings of the Study .....	58
5.4 Conclusions of the Study .....	60
5.5 Recommendations.....	61
5.6 Suggestions for Further Research.....	62
REFERENCES .....	64

## **APPENDICES**

Appendix I: Letter of introduction.....	70
Appendix II: Questionnaire for head teachers .....	71
Appendix III: Questionnaire for teachers .....	74
Appendix IV: Questionnaire for pupils .....	77
Appendix V: Research permit.....	78
Appendix VI: Authorisation letter.....	79

## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
Figure 2.1 Influence of SFP on Pupils' Participation in School.....	29



## LIST OF TABLES

<b>Table</b>	<b>Page</b>
Table 3.1: Sample size.....	33
Table 4.1: Distribution of Respondents by Gender .....	38
Table 4.2: Age of pupils.....	39
Table 4.3: Education Qualification of Headteachers and Teachers.....	40
Table 4.4: Headteachers' and Teachers' Response on Trends of Enrolment	41
Table 4.5: Headteachers' and Teachers' Response on Flooding and Enrolment	42
Table 4.6: Headteachers' and Teachers' Response on SFP and Enrolment...	43
Table 4.7: Pupils' Reasons for Enrolment.....	44
Table 4.8: Headteachers' Reasons for Pupil Enrolment.....	45
Table 4.9: Teachers' and Headteachers' Response on Children Enrollment...	46
Table 4.10: Teachers' Reasons for Non Enrolment.....	47
Table 4.11: Teachers' and Headteachers' Description of Attendance .....	49
Table 4.12: Response on Flooding and School Attendance.....	50
Table 4.13: Response on School Meals and School Attendance.....	51
Table 4.14: Pupils' Reasons for Attending School .....	53
Table 4.15: Teachers Responses on Level of Participation of Pupils in Class...	54
Table 4.16: Teachers Response on Meals and Pupils Level of Participation....	55
Table 4.17: Headteachers and Teachers Description of Dropout Rate .....	56
Table 4.18: Response on School Meals and Pupils to Retention in School.....	57
Table 4.19: Headteachers' and Teachers' Reasons for Dropout .....	58

## **ABBREVIATIONS AND ACRONYMS**

<b>FPE</b>	Free Primary Education
<b>GOK</b>	Government of Kenya
<b>MOE</b>	Ministry of Education
<b>NACOSTI</b>	National Council of Science, Technology and innovation
<b>NCST</b>	National Council for Science and Technology
<b>PSR</b>	Poverty Status Report
<b>SFP</b>	School Feeding Programme
<b>SPSS</b>	Statistical Package for Social Sciences
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization

## **ABSTRACT**

The advocates of the School Feeding Programme (SFP) lay claim on relationship between SFP and improved attendance of school and minimized drop-outs. The purpose of this study was to determine the influence of school feeding programme on pupils' participation in flood prone areas of Garsen division in Tana River County. The study was guided by the following objectives: to assess the influence of school feeding programme on the pupils' class attendance, pupils class involvement, pupils' enrolment and pupils' dropout in flood prone Garsen Division, Tana Delta District. The study sought to find answers to four research questions which were formulated to guide the study. The research methodology for the study was descriptive survey design. The target population for the study included all the 12 head teachers, 141 teachers and 3,172 pupils in Garsen Division. The sample consisted of 12 head teachers, 48 teachers and 288 pupils. The research instrument was questionnaires. It was used to collect data from the head teachers, teachers and pupils. Data was analysed using descriptive statistics and content analysis. The study established that school feeding program influenced the enrolment of pupils in primary school in Garsen division. The study also established that the school feeding programme influenced the attendance of pupils in schools in Garsen division. The study established that SFP enhanced the participation of the pupils in class as their participation was described as lively. The SFP also influenced the dropout rate of the pupils as hunger was number one reason for dropout. The study therefore concluded that school feeding program influenced the enrolment of pupils in primary school; the attendance of pupils in schools; enhanced active participation of the pupils in class; and influenced the dropout rate of the pupils in Garsen Division as hunger was number one reason for dropout. The study recommended that the government should increase the coverage of the areas under school feeding programme especially the regions prone to floods with the view to improving the enrolment rates; the government should ensure there is a constant supply of school meal so as to maintain the pupils attend school regularly; the government and the donors should ensure the school meal has the right nutrients so as to keep the children alert in class to actively participate in the learning process and the government should ensure that all the schools in the flood prone regions have SFP so that hunger does not force any child to drop out of school.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

Education is upheld as a fundamental human right globally. It is recognized as pivotal for the attainment of self-fulfillment and national development (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2010). Education is therefore touted as the most important factor for achieving sustainable development and used as an important means for changing attitudes and behaviours. The Hyogo framework for action, which was adopted by 168 nations in January 2005 recognize this and encourages government and civic society to use education which facilitate knowledge and innovation, in order to build a culture of safety and resilience at all levels of the nation (Nakileza, 2007). As a result, governments have placed enormous resources both financial and human to enhance education in their respective countries (UNESCO, 2010). Individual parents have also placed emphasis on the education of their children as the only good inheritance they can give their children.

However, many gains in primary education have diminished due to situations of national, international conflicts, natural disasters and extreme poverty (World Bank, 2004). Various disasters have seriously affected education systems today and will continue to have a negative impact in future due to the effects of globalization and climate change (Lavell, 2007). These have impoverished many families to the extent that it has interfered with schooling of children.

In the recent times, flooding has been a recurrent phenomenon. Most parts of the world have suffered the devastating effect of floods such as China in June 2010 where 230 million people were affected. In July 2012 heavy rains in Japan caused flooding in which more than 32 people lost their lives. In Kenya, flood prone areas such as Nyando area, Budalangi, Baringo and Tana River have year in year out displaced people including school going children who have to stay out of school for several weeks before resuming as their schools remain closed (Omukuti, 2008).

Floods have been known cause devastating damage to the economy both of the country and that of individual households (Yande, 2009). The education sector has not been spared either. The floods which rock the country during the long rains damage the classrooms, the pupils are displaced from schools and property worth millions of shillings destroyed and the households are left with nothing. This has resulted to increased poverty levels in the affected regions (Douben, 2006).

In many poor households, hunger has been a barrier to school participation. A hunger-stricken child is not only unable to enroll in school at the right age but also cannot attend properly even if enrolled. Besides, such children are also likely to quit school because they have to deal with their immediate subsistence needs before they get ready for schooling (Douben, 2006).. Thus, low school enrollment, low class attendance and high student drop-outs are recurring

problems in child education among poor households especially in areas of high food insecurity. Due to these reasons the level of education attainment has also been low in many developing countries although both private and social returns to education are recognized to be high (Adelman, Alderman, Gilligan & Lehrer, 2009). However there is no doubt that other manifestations of poverty-than hunger-also affect school participation among poor households.

School feeding programmes can help to safeguard households' investments in education by defraying some of the costs of schooling and encouraging parents to enroll their children in school and ensure that they attend class regularly throughout the complete cycle. This helps protect children from the risk of both formal and informal child labour and facilitates social integration (Paruzzolo, 2009). School feeding is a well-recognized safety net that transfers significant value to households with children enrolled in school or with school-age children (Bundy, Burbano, Grosh, Gelli, Jukes, & Drake, 2008). The value transfer from school feeding frees up resources within households, allowing families to buy food and invest in productive assets, and ultimately improving their livelihoods, nutrition and education.

## **1.2 Statement of the problem**

The proponents of school feeding programme claim that providing food in schools would ostensibly attract vulnerable children to school, improves their

attendance and minimizes drop-outs (Adelman, Gilligan et al. 2008; Hanushek 1986; Schultz 1988). According to the United Nations World Food Programme, School Feeding Programme is an incentive for vulnerable families to invest in children's education and encourages affected households to send children to school and helps to keep them there (WFP 2008). Empirical studies have revealed that School Feeding Programs indeed have significant positive impact on pupils' participation in school (Ahmed, 2004; Bennett, Crawford, Cartwright, 2003; Del & Marek, 1996). Despite the fact that various studies have been done on the effect of school feeding programme, no study known to the researcher has been done of the effect of school feeding programme on pupil participation in school in flood prone area of Garsen Division in Tana Delta District, hence a knowledge gap. It is this gap that the researcher sought to fill.

### **1.3 Purpose of the study**

The purpose of this study was to investigate the influence of school feeding programme on pupils' participation in public primary schools in flood prone areas of Garsen Division, Tana Delta District.

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

The study was guided by the following objectives:

- i) To assess the influence of school feeding programme on the pupils class attendance in flood prone areas of Garsen Division Tana Delta District.

- ii) To determine the influence of school feeding programme on public primary school pupils class involvement in flood prone areas of Garsen Division, Tana Delta, Tana District.
- iii) To establish the influence of school feeding programme on public primary school pupils' enrolment in flood prone areas of Garsen Division, Tana Delta District.
- iv) To establish the influence of school feeding programme on the dropout rate of pupils in primary school in flood prone Garsen Division, Tana Delta District.

### **1.5 Research questions**

- i) How does the school feeding programme influenced pupils' class attendance in flood prone areas of Garsen Division Tana Delta District?
- ii) How does the school feeding programme in public primary school influence pupils' class involvement in flood prone areas of Garsen Division, Tana Delta, District?
- iii) How does the school feeding programme in public primary school influence pupils' enrolment in flood prone areas of Garsen Division, Tana Delta District?



iv) How does the school feeding programme influence the dropout rate of pupils in primary school in flood prone Garsen Division, Tana Delta District?

### **1.6 Significance of the study**

The findings from the study could be used by policy makers in the education sector when formulating policies on the pupils participation in schools such as construction of boarding schools and improving the school feeding programme in the region which could enhance the achievement of intended educational objectives. The study could be of importance to the communities living in flood prone areas as it could highlight how the pupils could remain in school despite the challenges and difficulties posed by flooding. The government, non governmental organizations and donors could also use the findings in the identification and elevation of the factors influencing participation of pupils in public primary education in flood prone areas in Kenya. The study could therefore become a base for further research on the area of pupils participation in enhancing curriculum implementation.

School communities can also find strategies they could undertake to ensure more students benefit from basic education programme hence empowering the local communities to come out of the cycle of poverty.

### **1.7 Limitations of the study**

Some schools in Garsen were inaccessible due to the poor road network and absence of adequate transport made accessibility a challenge. The researcher however sought the services of a motorcyclist who was also a local who to the researcher round the schools.

### **1.8 Delimitations of the study**

The study was carried out in Garsen Division, Tana Delta District. Garsen Division was chosen as an area of study, due to the fact that it had a sufficient sample representative of the communities on the region based on the population density. The study was done in public primary schools in the division. Participation was measured in terms of enrolment, attendance, participation in class and drop out.

### **1.9 Assumption of the study**

The researcher made the following assumptions as the study was conducted;

- i) That the information provided was accurate and reliable.
- ii) That the weather condition was favourable as at the time of study, it was raining.

### **1.10 Definition of significant terms**

The following are the terms in the study;

**Active participation:** refers to the active involvement, either by a pupil or groups of pupils in the class and other learning activities in class.

**Dropout** refers to stopping to attend school of a pupil who had been enrolled in a certain school before completing a course for example; eight years primary course.

**Enrollment** refers to the number of children registered in a school.

**Flood** refers to an overflow of water that submerges land which is normally dry.

**Pupils' involvement** refers to the pupil active participation in the class learning activities.

**Participation** refers to the pupils actively and lively taking part in teaching-learning activities. This encompasses pupils' enrolment, daily attendance, class learning activities and completion of course.

**Pupil attendance** refers to both daily going to school of a pupil and available in class to learn.

**School feeding programme:** is defined targeted social safety nets that provide both educational and health benefits to the most vulnerable children, thereby increasing enrollment rates, reducing

absenteeism, and improving food security at the household level.

### **1.11 Organization of the study**

The study is organized into five chapters; Chapter one focuses on background to the study, statement of the problem, purpose and objective of the study, research questions, significance of the study, limitations and delimitations of the study, basic assumptions of the study and definitions of significant terms as used in the study.

Chapter two deals with the literature review which is divided into the following sub-topics; the concept of pupils participation in schools, school feeding programme on class involvement, school enrolment, class attendance and dropout. The review also presented the summary of the literature review, theoretical framework and conceptual framework. Chapter three focuses on the research methodology divided into; research design, target population, sampling and sampling procedures, research instrument, data collection and data analysis.

Chapter four deals with the findings of the study and discussions from data analysis. While Chapter five contains the summary of the findings, conclusions, recommendations and suggestions for further research studies.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

In this chapter, related literature with regard to the factors influencing participation of pupils in public primary schools is reviewed. The areas which were reviewed include: participation of pupils in school, school feeding programme on class participation, school enrolment, class attendance and dropout. Other areas highlighted include the theoretical and the conceptual frameworks.

#### **2.2 The Concept of School Feeding Programme**

School feeding programs are a visible social safety net used by political leaders around the world (Adelman et al. 2009). Communities that participate in these programs can see the tangible benefits to their children, such as their children being fed regularly or families supplied with additional food, and the visibility of such programs can be attributed back to the politicians who support them. Food for Education programs are typically targeted towards populations that are food insecure, reside in areas with high concentrations of low socioeconomic status families, or that face poor attendance and enrollment. In developing countries, SFP is usually not set up to target specific children at a school, but rather all students attending a school are recipients of the program. This may reduce the cost effectiveness of the program if not all students receiving the food from the

program belong to families who are food insecure or of low socioeconomic status (Adelman et al. 2009).

The take home ration programs, on the other hand can be more easily targeted to specific families, such as those of lower socioeconomic or food security status or to families with girls. Both programs, however, may not be able to target all the children who are facing food insecurity. Since school children are the target of these types of interventions, children who are younger than five years old are left out. This is considered one of the limitations of FFE programs as a nutritional safety net. It is now well established that the first one thousand days of a child's life, from conception until the second birthday, is the most vital period during which undernutrition may have its largest impact. Nutritional interventions that occur within this time line are much more powerful in impacting upon a child's survival, health and development (Adelman et al., 2009). Due to the greater impact that pre-natal and pre-school programs may play, and due to their higher cost-benefit ratios, it has been pointed out that FFE programs should be considered (and categorized) as educational interventions and not as nutritional interventions, so as to not undermine budgetary resource allocations for nutritional interventions (World Bank, 2006).

The potential impact goal of targeting children through Food for Education programs is to increase their educational achievement so as to improve their potential future productivity and earnings. However, improvement in educational

achievement due to serving food in SFPs is thought to occur through three pathways. First, FFE programs increase school attendance by lowering the opportunity costs of attending school and providing additional incentives to engage in formal education. This leads to more time spent in school and more time spent towards learning. The second is through the alleviation of short term hunger which improves children's cognitive functioning and attention span. The third path is through the improved nutritional status of children by providing them calories and nutrients in addition to their regular diet. This leads to better health and better resistance to infections diseases and illnesses that would keep children from attending school (Buttenheim Alderman, Friedman & Arnold, 2011). Thus, better nutrition indirectly improves educational achievement by increasing school attendance by children.

In stable situations, school feeding programmes are often designed to enhance academic performance and cognitive development. Improved nutritional status of school-age children leads to better attention and cognition, and thus, better educational outcomes (Levinger, 2005; Glewwe, Jacoby & King, 1996). The objectives of school feeding have also been expanded to include food security, providing an income transfer to caregivers and reducing the opportunity cost for parents of sending children to school (Hicks, 1996).

Improved nutrition and school attendance, however, present particular challenges in the context of crisis and conflict. School feeding can improve attentiveness in class by reducing short-term hunger many children come to school on an empty stomach, yet they remain surrounded by the distracting and disturbing facets of the crisis. Although school feeding can provide an incentive for increased school attendance, such crises also tend to pull children into the workforce either as formal labour or as child soldiers. In the case of formal labour, successful school feeding programmes in emergency situations should constitute an income transfer sufficiently large enough to outweigh an alternative income that children might earn elsewhere (Glewwe, Jacoby & King, 1996).

Keeping schools open in times of crisis provides children with a sense of normality, an unbroken routine and a friendly and structured environment (UNICEF, 2005). This is why, where at all possible, children should continue to go to school. School feeding may itself provide an incentive for keeping schools open. However, in times of crisis, school feeding is more than just an incentive, otherwise programmes that are less costly could be an alternative. Being tied to education, school feeding has the potential to preserve a generation of human capital, an advantage measurably more important in complex emergencies than in normal situations. In situations when other social support structures may be broken down, school feeding could also enhance the role of schools as social support structures for children. It may then be possible for educational, nutritional



and Psychological gains to emerge from this existing school infrastructure with benefits accruing synergistically. Various studies have reveal that SFP have indeed positive impact on school participation as measured by school enrollment, class attendance, and student drop-out status (Meng & Ryan, 2003; Ahmed 2004; Vermeersch & Kremer, 2004). However, most of these findings are based on empirical data obtained from schools where the program was popular and has been relatively effectively implemented.

Vermeersch and Kremer (2004) conducted a field-study in Western Kenyan preschools between 2000 and 2002 to evaluate the impacts of School Feeding Program on school participation and achievement. Preschoolers, in this context, are defined as children between ages of 4 and 6 who lived within walking distance of school. They found that children in the treatment group participated 35.9 percent of the time compared to 27.4 percent in the comparison (control) group and this difference was statistically significant (Vermeersch & Kremer, 2004). The program increased participation of both children who were previously enrolled (what they call intensive margin) and children who would have gone to school in absence of the program (extensive margin). But they emphasize that any increase in school participation in the absence of qualified teaching falls short of better educational achievement since there are strong complementarities between teacher characteristics and school meals (Vermeersch & Kremer, 2004).

Nevertheless, their study was on preschools and hence this may not have much relevance for primary school children. Besides, preschoolers are early-age

children and may not have family obligations like many primary school age children might have in poor areas. Thus preschoolers are relatively free of duties that could keep them away from school (Adelman et al., 2008).

Kenya's school feeding program has experienced continued expansion and refinement, especially during the past decade. Since the introduction of free compulsory primary education for all Kenyan children in 2003, the WFP-assisted feeding program has developed alongside national policies of increased student health, attendance, and performance (MoE, 2003). From its inception, it has targeted food inequality in the most vulnerable areas of Kenya, including school districts in the ASAL and the informal urban slums of large cities such as Nairobi and Mombasa (Espejo, 2009).

To address historical primary school absenteeism among Kenya's most impoverished and traditional communities, free meals are used as an incentive to attract school-aged children to class. Within rural communities in which food is scarce, this daily meal provision relieves much of the burden of childrearing. The beneficiaries of the program are extremely poor families that are largely unable to provide the minimum recommended daily allowances (RDA) of calories, protein, and essential micronutrients to their children. These poor conditions may irreversibly stunt the mental and physical development of young children, resulting in wasted potentials and lifelong difficulties (Galal, 2000). The nutritional importance of the school meal (usually around 700kcal) is immense,

representing more than half of the consumed RDA values for 40 percent of the participating students (Finan, 2010).

According to field studies, the “magnet effect” of the meal programs has greatly increased school attendance rates especially among young children. Rural schools that provide meals show higher attendance rates and lower initial dropout rates than schools that do not (Espejo, 2009). The immediate financial and nutritional benefits provided by schooling attract parents struggling to support their children on low yielding subsistence farming. On average, participating families save between four and nine percent of their annual income by taking advantage of school meals and avoiding added food expenditures (Finan, 2010).

Additionally, many rural parents have been able to utilize schooling as a form of subsidized childcare, which gives them more time to engage in household chores, farming, or other income-generating activities. The short and long-term benefits to the child are even more pronounced. Studies tracking the impact of school feeding have shown improvements in IQ, immunity to illness, height, and weight among participating children (Galal, 2005). Micronutrient fortification, malaria treatment, and annual de-worming initiatives have been implemented alongside school meal programs and have had considerable effect on increasing overall student health (Galloway, 2009). No longer distracted by hunger and the crippling effects of extreme malnutrition, the students are better able to concentrate, understand new material, and socialize with both teachers and peers.

According to firsthand teacher accounts, children who receive meals are generally healthier, more receptive, energetic, and easier to teach (Galal, 2005). Following WFP recommendations, some ASAL school districts have begun providing fortified morning biscuits to get a jumpstart on the cognitive and nutritional benefits of feeding (Finan, 2010; Galal, 2005). Though significant gains have been achieved throughout the country in terms of educational expansion and accessibility, rural Kenyans continue to lag far behind their urban counterparts. Between the years 2002 and 2007, although Kenya's net primary school enrollment increased from 77 percent to 92 percent, enrollment in the ASAL increased from 17 percent to 29 percent (Finan, 2010).

### **2.3 School feeding programme and pupils' participation in public schools**

School nutrition programs have been in place in many countries for over a century. While there are several studies of their effects on student health and academic performance, there is less evidence on how their availability has influenced parent and child incentives to attend school. This relationship has been difficult to establish empirically in part because the effective enforcement of compulsory attendance laws in most of Western Europe and North America ensured that children were attending school regularly in these countries before school lunch programs began. The early debates over school meals, therefore, centered on how hunger affected learning, and more recently on childhood obesity and the nutritive content of these meals. In poor countries, however, low school

enrolment, irregular school attendance and malnutrition persist and remain interconnected. The World Bank reports nearly 30 per cent of children under five malnourished and only 65 per cent completing primary school at the appropriate age in low income countries (Ahmed, 2004).

Studies suggest that programs which reduce the cost of schooling can be effective in improving participation rates in developing countries (Behrman et al., (2001). Although several existing studies have found positive effects of school transfer programs on school enrollments (Schultz, 2004) very few of them can adequately estimate the effects of transfers on daily attendance (Levy & Ohls, 2007; Pianto and Soares, 2004) because transfers in these programs either do not vary with daily attendance systematically (viz. free uniforms and textbooks) or because attendance is already high prior to program implementation.

Rawlings and Rubio (2005) consider conditional cash transfer programs that simultaneously address health and education concerns in six countries. The well-known Mexican Progresa program is one example. It provides sizable cash transfers to households if their children attend school for a minimum of 85% of school days. The program has resulted in substantial changes in middle school enrollments and calorie intakes (Schultz, 2004; Coady, 2003) but insignificant change in the attendance of already enrolled students (Schultz, 2000). While not all such programs have been this successful, most require pre-determined levels of minimum attendance and do not therefore allow us to learn much about whether

those transfers would encourage already enrolled students to attend school more regularly. Proponents of on-site school meal programs, therefore, argue that such a program is more likely to improve daily school participation while reducing costs of schooling in poor regions with low initial student participation rates.

#### **2.4 School feeding programme and active class involvement**

Vermeersch and Kremer (2004) conducted a field-study in Western Kenyan preschools between 2000 and 2002 to evaluate the impacts of School Feeding Program on school participation and achievement. Preschoolers, in this context, are defined as children between ages of 4 and 6 who lived within walking distance of school. They found that children in the treatment group participated 35.9 percent of the time compared to 27.4 percent in the comparison (control) group and this difference was statistically significant (Vermeersch & Kremer, 2004). The program increased participation of both children who were previously enrolled (what they call intensive margin) and children who would have gone to school in absence of the program (extensive margin). But they emphasize that any increase in school participation in the absence of qualified teaching falls short of better educational achievement since there are strong complementarities between teacher characteristics and school meals. Nevertheless, their study was on preschools and hence this may not have much relevance for primary school children. Besides, preschoolers are early-age children and may not have family

obligations like many primary school age children might have in poor areas. Thus preschoolers are relatively free of duties that could keep them away from school.

Another study conducted in Jamaica shows that school meals indeed improve education of beneficiaries (Grantham-McGregor, et al., 1998). They found that school performance indicators (enrollment, attendance, drop-out rate, repetition of grades, school attainment levels, cognitive function, and class-room behavior) have all improved in response to school feeding. This is because the provision of school meals reduces the parents' cost of sending children to school thereby promoting early enrollment and improving attendance. The more time children spend on learning in response to school meals, the more they will learn and the less they repeat school or drop-out (Grantham-McGregor, et al., 1998).

Other studies on school meals have cast doubt and they doubt if there is any positive impact on school participation. He (2009) for instance found that WFP assisted School Feeding Program (what he calls the standard program) does not increase enrollment at any level compared to control schools (He, 2009). In the following subsections, some of the literatures in relation to the three aspects of school participation (school enrollment, class attendance, class participation and student drop-out) were discussed.

## **2.5 School feeding programme and school enrollment**

As was discussed previously, the availability of subsidized in-school meals will increase school enrollment if the program changes the household's schooling decision for some children who would not have been enrolled in school otherwise. And for these households to enroll their children, they need to be convinced that the net benefits of participating in the program exceed the gap between direct and opportunity cost of schooling and the expected benefit of schooling (Adelman, et al. 2008). In other words, households usually compare the size of the transfer relative to the size of the cost-benefit gap and these comparisons ultimately determine the magnitude of the increase in enrollment rates.

Another important point is about the roles that school meals play in encouraging early enrollment. Even though in-school meals are believed to affect age at entry through an income effect, i.e., by increasing household income and raising the benefit of attending school, yet this income effect should be large enough to make households send their children to school. Adelman, et al. (2008) show that school meals affect the age at entry in different ways. First, the provision of food offsets the cost of educating children by making available additional income for households, and consequently raising the benefits of attending school. This is called an income effect of school feeding. When this income effect is large, it can cause households to send their children to school at a relatively younger age thereby minimizing the possibility of late entry. Secondly, the 'neighborhood effect' resulting from School Feeding Program may also influence the age at



entry. That means the act of households to send their children to school earlier with the commencement of School Feeding Program would create a social pressure and prompt similar action on the part of those who haven't enrolled their children yet (Adelman, et al., 2008).

Ahmed (2004) conducted a study in food insecure areas of Bangladesh to see the impact of School Feeding Program on school participation. The data collection took place in 2003 after children in the treatment schools received a mid-morning snack of fortified wheat biscuits every school day for one year. To determine whether the increases in enrollment (and attendance – as well shall see in the next section) were indeed due to the program, he carried out econometric analysis to isolate other potential explanatory factors. Thus Ahmed's study found that School Feeding Program have statistically significant positive impacts on both gross and net enrollment rates with 14.2% and 9.6% increases respectively (Ahmed, 2004). However, this finding does not take account of other unobservable characteristics of households in the treatment area that could affect household's decision to enroll children. Therefore, it appears inconclusive to claim that the difference in enrollment between treatment and control groups was the result of the program without considering unobserved factors.

Another study on 32 Sub-Sahara African countries shows that providing food in school under the Food for Education (FFE) scheme contributed to increasing absolute enrollment in WFP assisted schools by 28% for girls and 22% for boys in

just one year (Gelli, et al., 2007). After the first year, however, enrollment pattern showed variation depending on the type of FFE program; that is whether the provision of food in school was combined with take home rations or was served alone. In those places where on-site feeding and take home rations were offered together, girls' absolute enrollment kept on increasing by 30% subsequent to the first year. Meanwhile, schools that provided only on-site feeding have just recorded increase in an absolute enrollment that was same as before the feeding program was implemented.

Along with enhancing enrollment, School Feeding Programs also help to adjust the age at entry by attracting children during their right age. In poor countries like Ethiopia, children may begin primary education much later than the recommended age for various reasons. For instance factors such as lack of funds, lack of childcare and little awareness about the benefit of enrolling children during the recommended age are some of the causes for late entry (Adelman, et al., 2008).

## **2.6 School feeding program and class attendance**

School Feeding programme has been found to effectively increase class attendance because children receive the meal only when they attend school (Dheressa, 2011). The opportunity cost of allowing a child to attend school varies across school days and seasons and this cost could even be higher than the expected benefit. For instance in places where child labor forms the integral part

of agricultural work during a particular day/season of a year, class attendance could be low. In such cases, school meals may or may not encourage attendance depending on how the beneficiaries value them. Thus, the value of the school feeding programme relative to the difference between the cost and expected benefit of schooling also determines attendance (Adelman, et al., 2008).

Adelman, et al. (2008) shows three aspects of nutrition can influence class attendance. First school meals alleviate short term hunger of school children during the school day by providing more nutrients to the child, providing the child with a meal when he or she would have not otherwise have had one, or replacing a meal that would have been received after school with one during school hours (Ahmed, 2004). Thus this aspect of nutrition targets for short term impact and enables a child concentrate and learn more. A study of the effects of school breakfast in rural Jamaica show that overcoming school hours hunger leads to better concentration and learning (Powell & Walker, 1998). Second, school meals may also generate nutritional improvements for a child over long run. The improved nutritional status as a result of school meals will in turn enhance a child's physiological capacity for learning thereby increasing the benefits of schooling and the child's desire to attend school. Third, school meals can also reduce morbidity through improved nutrition and consequently enhance attendance. Morbidity is a cause of absence in many developing countries and school meals help children overcome this problem and learn longer. In this regard school feeding increases micronutrients intake and hence will strengthen

children's immunity and avoid infectious diseases among children (Scrimshaw & San-Giovanni, 1997).

Ahmed (2004) evaluated the impact of school feeding on attendance in Bangladesh as well and found that the SFP has a statistically significant positive impact. The program increased class attendance of participating students by 1.34 days per month (Ahmed, 2004). However, class attendance from school registers showed attendance increased in both program and control schools during this period, and that the increase was 1.1 percentage points higher in program schools (Ahmed, 2004).

Another study conducted on 814 children in second-through fifth-grade classrooms in rural primary schools in Jamaica where children were randomly assigned to receive a breakfast (576–703 kcal and 27 g of protein) or placebo (orange slice with 18 kcal) each day for one school year found a small improvement in attendance rates for children receiving breakfast over the control group (Powell, Walker et al., 1998). However, this impact is small because the attendance rates in both groups were about 70 percent even prior to the study.

Similarly, a study in Huaraz, Peru found that a school breakfast increased attendance rates of fourth and fifth-grade students by 0.58 percentage points in the treatment schools whereas it declined in control schools by 2.92 percentage points (Jacoby & Cueto, 1996). The evaluation took place 30 days after the start of the

breakfast program and following those 30 days the breakfast program was also implemented in the control schools.

## **2.7 School feeding program and pupils dropout**

Adelman, et al. (2008) present the interplay between school meals on one hand and grade repetition, learning achievement, and school performance on the other. They show that this effect works in two mechanisms. First, because school meals improve class attendance, children will spend more time learning in school. So the more time children spend in school, the better they learn and these interplays ultimately result in improved school performance, which thus minimizes the probabilities of drop-out. This is however dependent on other factors such as school quality, availability of learning materials and teacher quality. Thus, unless properly implemented, school feeding has rather the potential to worsen drop-outs (Dheressa, 2011). Second, improved nutrition may also enhance pupil participation and performance in the short and over long run. In the short run, school meals could alleviate hunger and make children concentrate and learn better so that school performance will be improved and hence drop-out is minimized. In the long run, school meals could enhance learning provided that school meals improve the nutritional status of children and if nutritional status also affects learning (Ahmed, 2004).

Back to Ahmed's (2004) study in Bangladesh, School Feeding Program has a statistically significant negative impact on student drop-out. This study reveals that the primary school drop-out rate in the program rural area was 29 percent and that the overall completion rate in this area is 6 percentage points higher than control rural areas. Controlling for child and household characteristics, he found that school meals reduce the probability of dropping out of school by 7.5 percent (Espejo, 2009).

## **2.8 Summary of literature review**

The reviewed literature highlighted the school feeding programme influence on the pupils participation in class in terms of class involvement, enrolment, class attendance and dropout rate. The reviewed literature shows that interventions through the school feeding programme will enhance the numbers of children attending school as well as actively participating in class. These studies were however done in other areas affected by such calamities as drought and conflict and none was done of the influence of school feeding programme in the flood prone areas hence a knowledge gap.

## **2.9 Theoretical framework**

The study is guided by Vroom expectancy theory of motivation advocated by Victor H. Vroom (1964). According to this theory, the intensity of a tendency to perform in a particular manner is dependent on the intensity of an expectation that the performance will be followed by a definite outcome and on the appeal of the

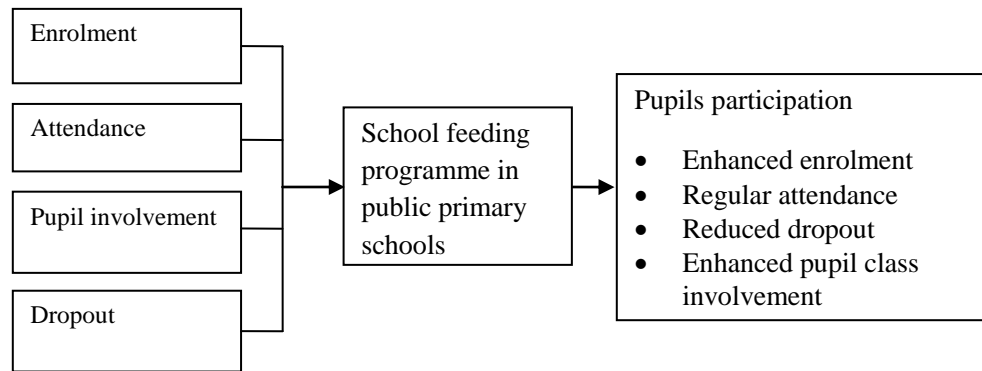
outcome to the individual. Tolman (1932) attributed the results of reinforcement to learning but not regarding reinforcement as a necessary condition for learning to take place. The pupils who mainly faced hunger and starvation due to floods will be motivated to continue with the learning process with the hope of receiving hunger pangs.

However, in Vroom's theory, valence is the emotional orientations toward particular outcomes (rewards) or is the value the person attaches to the outcome. Therefore, it is the attractiveness or performance for a particular outcome of an individual. The school feeding programme is an incentive to attract children to school and enable them to learn. Expectancy is a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome (the belief that better efforts will result to better performance). Then instrumentality that good performance will lead to valid outcome. To the pupils, expectancy is the (internal) beliefs that going to school (regularly) will enable them acquire quality education and the education empowers them to be free from the pains of hunger and flood in future. Therefore, school feeding programme facilitates pupils to learn by solving short-term hunger and making them healthy to cope with class work.

### **2.10 Conceptual framework**

The following is a conceptual framework

**Figure 2.1: Influence of School Feeding Programme on Pupils' Participation in School**



The study is based on the concept that the school feeding programme would help retain pupils in school through increased enrolment, attending school regularly, participating in class and hence lowering the dropout rate. The school feeding programme is the independent variable while participation of pupils in school is the dependent variable. The pupils' participation will be influenced by school feeding programme as it acts as a strong motivating factor to the suffering children who otherwise would not have food and may therefore abandon going to school altogether. Therefore the incentive of SFP on education will lead to increased pupil enrolment, regular attendance, active participation in classroom.

The framework illustrates that participation of pupils in school results from the motivating factor (SFP) and the pupil's interest and expectation of acquiring reward (good meal and education to be successful in future). It will result in participation of pupils in the learning process in school.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter focuses on research design, target population, sample size and sampling techniques, research instruments, instrument validity and reliability, data collection procedures and data analysis techniques.

#### **3.2 Research Design**

The study used descriptive survey design. Descriptive research design determines and reports the way things are (Mugenda & Mugenda, 2003). This approach is appropriate for this study because it involves fact finding and enquiries from the teachers and pupils about the effect of school feeding programme on the participation of pupils in public primary schools in flood prone areas. The design explored and evaluated in details the relationship between the variables (for this matter the relationship between independent variable, school feeding programme and dependent variable; pupils' participation in education - enrollment, attendance, class participation and dropout). Descriptive survey can also be used to investigate a population by collecting sample to analyse and discover occurrences.

### **3.3 Target Population**

The target population for the study included all the primary school pupils and teachers from all the public primary schools in Garsen Division. According to the District Education Office in Tana Delta District (2013) there were 12 public primary schools in the division. The district had 3,172 pupils in classes five, six seven and eight and 141 teachers according to the County Education Office.

### **3.4 Sample Size and Sampling Techniques**

Due the fact that there are only 12 public primary schools, the study carried out a census survey as the 12 schools were manageable. The study then used stratified simple random sampling method to select the pupils from the schools according to their classes. The upper classes of five, six seven and eight were considered. Simple random sampling was then used to select 6 pupils from the sampled classes in the sampled schools. The study then purposively sample one class teachers of the four classes sampled classes (five, six seven and eight) and the head teacher of the sampled schools. This brought the total sample size to 348 respondents which represented 10.4% of the total population. According Gay and Airasian (2003) a sample size of between 10% and 20% of the total population is representative.

**Table 3.1: Sample Size**

<b>Category</b>	<b>Population</b>	<b>Sample Size</b>	<b>Percentage</b>
Head teachers	12	12	100
Teachers	141	48	34
Pupils	3172	288	9
<b>Total</b>	<b>3,325</b>	<b>348</b>	<b>10.4</b>

### **3.5 Research Instruments**

Research instruments used in the study consisted of questionnaires developed by the researcher. According to Orodho (2004) questionnaires allow for measurement for or against a particular viewpoint and emphasizes that a questionnaire has the ability to collect a large amount of information in a reasonably quick space of time. The questionnaires were used to collect data from the head teachers, teachers and pupils. The questionnaires were divided into sections with the first section seeking demographic questions of the respondents then the subsequent sections seeking to solicit data to the research objectives.

### **3.6 Instrument Validity**

Validity is the degree to which a test measures what it purports to measure (Borg & Gall, 2003). To test the validity of the instruments, the researcher conducted a pilot study using two schools from a district not part of the study (18 pupils, 6 teachers and 2 head teachers) who were selected using random sampling

(Mugenda & Mugenda 2003). The pilot study data was analysed, interpreted and the instruments reviewed in readiness to the main data collection study. After scrutiny, the researcher amended the instruments according to the supervisors' comments by the use of content validity.

### **3.7 Instrument Reliability**

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials Mugenda and Mugenda (2003). The split half method was used to establish instrument reliability. The researcher administered the questionnaires to the same group of persons after one week. Computation of the correlation between the scores was done by first splitting the tests into two halves. The tests were then assigned odd and even number items. Correlation of scores between the two halves was then computed by using the Pearson r formula (Shiundu, 2008).

To compute the coefficient, the researcher used the formula:

$$Re = \frac{2r}{r + 1}$$

Where Re = reliability of the original test

r = reliability of the coefficient resulting from correlating the scores of the odd items with the scores of the even items.

The research instruments were deemed reliable if the reliability coefficient lies above 0.5. The study got a coefficient of 0.7 which is above 0.5. Hence the instruments were reliable.

### **3.8 Data Collection Procedures**

A permit that authorized data collection was applied for and obtained from the National Council for Science, Technology and Innovation (NCOSTI). A copy of the permit was given to the District Education Officer. The researcher then book appointments with the head teachers to conduct the study. The researcher administered the questionnaires personally to the respondents. The researcher waited for the questionnaire to be filled in and collect them once completed. The researcher assured the respondents of their confidentiality.

### **3.9 Data analysis techniques**

Data was edited to identify and eliminate errors made by respondents. Coding was then done to translate question responses into specific categories. The coded items were analysed with the aid of Statistical Package for Social Sciences (SPSS) software. Quantitative data was analysed by use of descriptive statistics such as frequency distribution and percentages. Frequency and percentage tables, pie-chart and graphs was used to present the data.

## **CHAPTER FOUR**

### **DATA ANALYSIS, INTERPRETATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter deals with data analysis, presentations, interpretation and discussion of study findings. The presentations are done based on the research questions which formed the sub-headings in the chapter.

#### **4.2 Questionnaire Return Rate**

Questionnaire return rate is the proportion of the sample that participated as intended in all the research procedures. In this study out of 12 principals, 48 teachers and 288 pupils sampled, 10 principals 83.3 percent, 38 teachers 79.2 percent and 278 pupils 96.5 percent returned the questionnaires. These percentage return rates were deemed adequate for the study as Mugenda and Mugenda (2003) recommends a response rate of 50% and above.

#### **4.3 Demographic Information**

In this section the study sought to determine the demographic information of the respondents to find out whether the respondents demographic data had any influence of the pupils participation in flood prone areas. First the study sought to determine the gender of the respondents. The findings are presented in Table 4.1.

**Table 4.1 Distribution of Respondents by Gender**

<b>Gender</b>	Head teachers		Teachers		Pupils	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	6	60	22	57.9	142	51.1
Female	4	40	16	42.1	136	48.9
<b>Total</b>	<b>10</b>	<b>100</b>	<b>38</b>	<b>100</b>	<b>278</b>	<b>100</b>

The study established that majority of the head teacher respondents 60 percent were males. The results also show that 57.9 percent of the teacher respondents were male. However the results show that the distribution of the pupil respondents was near equal as the number of the male pupil respondents was slightly above those of female 51.1 percent compared to 48.9 percent female. This means that the primary school administration in Garsen division which is in a flood prone area is male dominated. The findings can also be interpreted to mean that the enrolment of boys and girls is near equal.

The pupil respondents were asked to state their ages. The study findings are presented in Table 4.2.

**Table 4.2: Age of Pupils**

<b>Age</b>	<b>Frequency</b> f	<b>Percent</b> %
9 years and below	3	1.1
10-12 years	18	6.5
13-14 years	155	55.7
15 years and above	102	36.7
<b>Total</b>	<b>278</b>	<b>100</b>

The study findings revealed that most of the pupil respondents 55.7 percent, are in the age bracket of 13 to 14 years while 36.7 percent were aged 15 years and above. This findings mean that most of the pupils who responded were aged more than 13 years.

The study also sought to establish the level of education of the head teacher and teacher respondents. The findings of the study are presented in Table 4.3 Below.



**Table 4.3: Education Qualification of Headteachers and Teachers**

<b>Qualification</b>	<b>Head Teachers</b>		<b>Teachers</b>	
	<b>Frequency (f)</b>	<b>Percent (%)</b>	<b>Frequency (f)</b>	<b>Percent (%)</b>
Untrained	0	0	3	7.9
P1	1	10.0	16	42.1
SII/S1	6	60.0	14	36.8
Graduate	3	30.0	5	13.2
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

The study findings show that majority of the head teacher respondents 60.0 percent have an S1/SII education while 30.0 percent were graduates. The findings further showed that most of the teacher respondents 42.1 percent were PI while 36.8 percent were SI/SII. The study showed that 13.2 percent of the respondents were graduates. The results of the study mean that only a few teachers have pursued higher education which may be attributed to the flooding in the region which makes many teachers to be unsettled to think of pursuing higher learning.

#### **4.4 Influence of School Feeding Programme on Enrolment**

In this section the study sought to determine the influence of SFP on enrolment of the pupils in schools. The findings are presented in the subsequent sections.

#### 4.4.1 Trends of Enrolment in Schools

Respondents were asked to describe the trends of enrolment in their schools. The findings are presented in Table 4.4.

**Table 4.4: Headteachers' and Teachers' Response on Trends of Enrolment**

<b>Enrolment Trend</b>	<b>Head teachers</b>		<b>Teachers</b>	
	<b>Frequency (f)</b>	<b>Percent (%)</b>	<b>Frequency (f)</b>	<b>Percent (%)</b>
Static	1	10.0	2	5.3
Increasing	9	90.0	33	86.8
Don't know			3	7.9
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

The study findings show that majority of the head teacher respondents 90.0 percent described the pupils enrolment in the schools as increasing. The results further showed that according to 86.8 percent of the teacher respondents, the enrolment rate in schools was increasing. These mean that the enrolment of pupils in schools in Garsen Central have been on the increase despite being in a flood prone area

#### 4.4.2 Flooding Influenced Enrolment

Respondents were asked to state whether the flooding in the region influenced the pupil enrolment. The findings are presented in Table 4. 5.

**Table 4.5: Headteachers’ and Teachers’ Response on Flooding and Enrolment**

Response	Headteacher		Teacher	
	f	%	f	%
Yes	10	100	35	92.1
No	67	0	3	7.9
Total	10	100	38	100

The findings show that all the headteacher and majority of the teacher respondents 92.1 percent indicated that the flooding in Garsen influenced the enrolment in the school. Asked to explain their answers, the headteacher respondents stated that due to the flooding, some children end up not enrolling in school as others relocate to other areas. Respondents also indicated that the flooding has in many instances rendered the parents poor as their belongings are most often than not swept away.

#### 4.4.3 Enrolment Attributed to School Feeding Programme

The study sought to determine the extent to which the enrolment rate was attributed to school feeding programme (SFP). The findings are presented in Table 4.6 below.

**Table 4.6: Headteachers' and Teachers' Response on SFP and Enrolment**

Response	Head teachers		Teachers	
	Frequency f	Percent %	Frequency f	Percent %
Small extent	0	0	4	10.5
Moderate extent	3	30.0	7	18.4
Large extent	7	70.0	15	39.5
Very large extent	0	0	12	31.6
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

The results of the study show that 70.0 percent of the headteacher respondents attributed to a large extent the increase in enrolment to the SFP. The results also show that 71.1 percent of the teacher respondents attributed the increase in the enrolment to SFP to a large extent. The study findings mean that the School

Feeding Programme contributed to the increased enrolment in primary schools in Garsen Division.

The pupil respondents were asked to give reasons for attending school and the findings are presented in Table 4.7.

**Table 4.7: Pupils' Reasons for Enrolment**

Reasons	Frequency (f)	Percentage (%)
There is no regular meals at home	27	9.7
Am assured of free meals in school	117	42.1
Education is free	134	48.2
<b>Total</b>	<b>278</b>	<b>100.0</b>

The study findings show that according to 48.2 percent of the pupil respondents, they enrolled in school because education was free while 42.1 percent of the respondents enrolled because they were assured of free meals in schools. The study findings may be interpreted to mean that to a large extent, the pupils enrolment improved because of the free school meals.

#### 4.4.4 Factors Influencing Enrolment

The head teacher respondents were asked to indicate the factors which influenced the pupils' enrollment in school in terms of importance. The findings are presented in Table 4.8.

**Table 4.8: Headteachers' Reasons for Pupil Enrolment**

Response	Most Important		Neither Important or Unimportant				Very Unimportant			
	F	%	f	%	f	%	f	%		
	School feeding meals	5	50.0	3	30.0	0	0	2	20.0	0
Free Primary Education	4	40.0	2	20.0	0	0	3	30.0	1	10.0
Schools' performance	0	0	4	40.0	3	30.0	2	20.0	1	10.0

The findings of the study show that ranked as number one factor which influenced pupils enrolment by the head teachers was school feeding programme 80.0 percent. The study show that ranked number two factor that influenced pupils' enrolment in terms of importance was free primary education 60.0 percent. The results show that past school performance ranked the least. The study findings

therefore mean that the SFP was the major influence of pupils enrolment in Garsen Division.

These findings that SFP increased the enrolment rate of the pupils agree with the findings of Adelman et al., (2008) who noted that subsidizing school meals will increase school enrolment as it will change the households schooling decision for some children who would not have been enrolled in school otherwise.

#### 4.4.5 Children not Enrolled in School - Teachers and Headteachers

The head teacher and teacher respondents were asked to indicate whether there were children they knew who were not enrolled in school. The findings are presented in Table 4.9.

**Table 4.9: Teachers’ and Headteachers’ Response on Children Enrollment**

Response	Head teacher		Teacher	
	f	%	f	%
Knew children not enrolled	10	100.0	17	44.7
Did not know children not enrolled			21	55.3
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

According to the study findings, all the head teacher respondents 100 percent indicated that indeed there were children who were not enrolled in school while

44.7 percent of the teacher respondents also indicated there were children not enrolled in schools. However, most of the teacher respondents 55.3 percent indicated that they were not aware of any child who was not enrolled in school. The study findings mean that there are children not enrolled in schools.

The teacher respondents were asked to indicate reasons they perceived to be the cause of non enrollment of children in schools. The findings of the study are presented in Table 4.10 below.

**Table 4.10: Teachers’ Reasons for Non Enrolment**

Reasons for Non-enrolment	Frequency (f)	Percentage (%)
Lack of motivation	12	31.6
Conflict	4	10.5
Lack of food	5	13.2
Floods	4	10.5
No response	13	34.2
<b>Total</b>	<b>38</b>	<b>100.0</b>

The findings of the study show that 31.6 percent of the teacher respondents indicated that lack of motivation was a reason why some children did not enroll in school. The results of the study further revealed that according to 13.2 percent of the teacher respondents, lack of food was the other cause of children not enrolling



in schools. The results show that 10.5 percent of the respondents indicated that conflict and floods barred children from enrolling in schools in Garsen division. The findings of the study mean that lack of motivation was the major reason why the children are not enrolled in school in Garsen Division.

#### **4.5 Findings on the Influence of School Feeding Programme on Attendance**

In this section the study sought to determine the influence of school feeding on attendance of pupils in school. The findings of the study is presented on the subsequent sections.

##### **4.5.1 Description of Attendance of Pupils in School**

The headteacher and teacher respondents were asked to describe the attendance of pupils in school. The findings are presented in the Table 4.11.

**Table 4.11: Teachers’ and Headteachers’ Description of Attendance**

<b>Attendance</b>	<b>Headteacher</b>		<b>Teacher</b>	
	<b>Frequency (f)</b>	<b>Percentage (%)</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Regular	10	100	30	78.9
Inconsistent	0	.0	8	21.1
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

The results of the study show that all the head teacher and majority of the teacher respondents (100 percent and 78.9 percent) described the attendance as regular. Only a minority of the teachers (21.1 percent) indicated that the attendance was inconsistent. The findings of the study may be interpreted to mean that the pupils' attendance in schools is regular.

#### **4.5.2 Influence of Flooding on Pupils School Attendance**

The respondents were asked to state the extent to which the flooding had influenced the pupils school attendance. The findings are presented in Table 4.12.

**Table 4.12: Teachers' and Headteachers' Response on Flooding and School Attendance**

Response	Headteacher		Teacher	
	f	%	f	%
No extent	0	0	0	0
Small extent	1	10	2	5.2
Moderate extent	3	30	11	28.9
Large extent	4	40	16	42.1
Very large extent	2	20	9	23.7
<b>Total</b>	<b>10</b>	<b>100</b>	<b>38</b>	<b>100</b>

The study findings show that 60% of the headteacher and 65.8% of the teacher respondents indicated that the flooding to a large extent influenced the school attendance by the pupils in Garsen. The respondents explained that during the flooding, the pupils have to move with their parents to a higher ground which sometimes was far away from the school. The findings therefore mean that the flooding influenced the school attendance by the pupils.

#### 4.5.2 School Meals reason for Regular School Attendance

The study sought to determine whether the school meal was the reason for regular attendance of school by pupils. The findings are presented in Table 4.13.

**Table 4.13: Response on School Meals and School Attendance**

<b>Reasons</b>	<b>Head teacher</b>		<b>Teacher</b>		<b>Pupils</b>	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Yes	10	100	34	89.5	97	34.9
No	0	0	4	10.5	181	66.1
<b>Total</b>	<b>11</b>	<b>100</b>	<b>38</b>	<b>100.0</b>	<b>278</b>	<b>100.0</b>

The study findings show that majority of the head teacher and teacher respondents 100 percent and 89.5 percent respectively indicated that indeed the school meals

was the reason for the regular attendance of school by the pupils. However, according to majority of the pupil respondents 65.1 percent, the school meals was not the reason for regular attendance of school by pupils. The results revealed that only 34.9 percent of the pupil respondents indicated that the school means was the reasons for the regular attendance. According to the pupils therefore the regular school attendance was not because of the school meal. Asked to explain their answers, four head teacher and three teacher respondents indicated that because of the school meals, pupils do not leave the school during lunch hours. Three head teacher respondents further stated that since the pupils were assured of the mid day meals, they attended school regularly.

The findings of the study agree with Adelman et al., (2008), who observed that school meals can be effective at increasing class attendance because children receive the meal only when they attend school to alleviate short term hunger of school children during the school day by providing more nutrients to the child, providing the child with a meal when he or she would have not otherwise have had one, or replacing a meal that would have been received after school with one during school hours.

The pupil respondents were asked to indicate the reasons for attending school. According to the findings presented in Table 4.14, Majority of the respondents 93.9 percent indicated that they went to school with a reason to learn and this was the main reason for the regular attendance, to learn. From the findings of the study

it can be interpreted that the pupils have different reasons for regular attendance from that of the head teacher and the teacher respondents.

**Table 4.14: Pupils’ Reasons for Attending School**

<b>Reasons</b>	<b>Frequency (f)</b>	<b>Percent (%)</b>
Want to learn	261	93.9
Education is free	17	6.1
<b>Total</b>	<b>278</b>	<b>100</b>

#### **4.6 Findings on influence of school feeding programme on class participation**

In this section the study sought to establish the influence of SFP on pupils’ class participation in primary schools in Garsen division. The findings are presented in the subsequent sections.

##### **4.6.1 Participation of pupils in classroom activities**

The teacher respondents were asked to describe the participation of pupils in class. The findings of the study are presented in Table 4.15.

**Table 4.15: Teachers Responses on Level of Participation of Pupils in Class**

<b>Response</b>	<b>Frequency (f)</b>	<b>Percent (%)</b>
Very active	5	13.2
Lively	26	68.4
Inactive	4	10.5
Dull	3	7.9
<b>Total</b>	<b>38</b>	<b>100</b>

According to the findings of the study, majority of the teacher respondents 68.4 percent described the pupil class participation as lively while 13.2 percent described it as very active. The study findings show that 10.5 percent of the respondents described the participation of pupils in class as inactive. The findings are interpreted to mean that the pupils are active in class.

#### **4.6.2 School Meals Influence on Level of Participation**

The teacher respondents were asked to indicate the extent to which the schools meals influenced the level of participation of the pupils in class. The findings are presented in Table 4.16.

**Figure 4.16: Teachers Response on School Meals and Pupils Level of Participation**

<b>Response</b>	<b>Frequency (f)</b>	<b>Percent (%)</b>
No extent	0	0
Small extent	3	7.9
Moderate extent	11	28.9
Large extent	11	28.9
Very large extent	13	34.2
<b>Total</b>	<b>38</b>	<b>100</b>

The findings of the study show that according to 63.1 percent of the respondents, the school meals influenced participation in class to a large extent. The results further show that 28.9 percent of the respondents indicated that the school meals influenced participation to a moderate extent. These findings may be interpreted to mean that school meals influenced pupil participation in class.

The findings of the study agree with Vermeersch and Kremer (2004) who found in his study that the school feeding programme increased participation of children in learning activities in classroom. However, they noted that the SFP did not result into better performance of pupils in class.

#### 4.7 Findings of Influence of School Feeding Programme on Dropout of Pupils

In this section the study sought to establish the influence of school feeding programme on the pupils' dropout from school in Garsen Division. The findings are presented in the subsequent sections.

##### 4.7.1 Drop out of Pupils

The study sought to determine the dropout of pupils in Garsen Division. The findings are presented in Table 4.17

**Table 4.17: Headteachers and Teachers Description of Dropout**

Response	Head teacher		Teacher	
	F	%	F	%
Very high	2	20.0	2	5.3
High	2	20.0	3	7.9
Moderate	3	30.0	6	15.8
Low	3	30.0	27	71.0
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>



The findings of the study show that majority of the head teacher and teacher respondents 30.0 percent and 71.0 percent respectively described the dropout as low while 30.0 percent of head teacher respondents and 15.8 percent of teacher respondents described the dropout as moderate. The study findings can be interpreted to mean that the dropout is low in Garsen Division.

#### **4.7.2 Meals attract pupils to remain in school throughout the day**

The respondents were asked to state whether the meals attracted the pupils to remain in schools throughout the day. The findings are presented in Table 4.18.

**Table 4.18: Headteachers’ and Teachers’ Response on School Meals and Pupils to Retention in School**

<b>Response</b>	<b>Headteacher</b>		<b>Teacher</b>	
	<b>F</b>	<b>%</b>	<b>F</b>	<b>%</b>
Yes	10	100.0	34	89.5
No	0	0.0	4	10.5
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>0</b>	<b>100.0</b>

The results of the study show that all the headteacher respondents indicated that indeed the meals attracted the pupils to remain in school while 89.5 percent of the

teacher respondents indicated that the meals attracted the pupils to remain in school. The findings of the study may be interpreted to mean that the meals attracted the pupils to remain in schools.

### 4.7.3 Reasons for Dropout

The respondents were asked to provide reasons for the dropout of pupils from primary schools in Garsen Division. The findings are presented in Table 4.19

**Table 4.19: Headteachers’ and Teachers’ Reasons for Dropout**

<b>Reasons for dropout</b>	<b>Head teacher</b>		<b>Teacher</b>	
	<b>F</b>	<b>%</b>	<b>F</b>	<b>%</b>
Hunger	7	70.0	13	34.2
Flooding	3	30.0	8	21.1
Lack of motivation	0	.0	12	31.6
Child labour	0	.0	5	13.1
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>

The study findings show that according to most of the head teacher and the teacher respondents 70.0 percent and 34.2 percent respectively the dropout in Garsen was caused by hunger. The study findings also show that the dropout was

caused by flooding 30.0 percent and 21.1 percent respectively. These findings may be interpreted to mean that the dropout in Garsen Division is largely due to hunger and flooding to small extent.

The findings of the study agree with Adelman et al. (2008) and Ahmed (2004) who argued that school feeding programme enhanced school retention and performance both in the short and in the long run. In the short run, school meals could alleviate hunger and make children concentrate and learn better so that school performance will be improved and hence drop-out is minimized.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary, conclusions, recommendations, and suggestions for further research.

#### **5.2 Summary of the Study**

The proponents of school feeding programme claim that providing food in schools would ostensibly attract vulnerable children to school, improves their attendance and minimizes drop-outs. The purpose of the study was to determine the influence of school feeding programme on the pupils' participation in primary schools in flood prone areas with main focus on Garsen division. The objectives of the study were to assess the influence of school feeding programme on the pupils class attendance in flood prone areas of Garsen Division, to determine the influence of school feeding programme on public primary school pupils class involvement in flood prone areas, to establish the influence of school feeding programme on public primary school pupils' enrolment in flood prone areas and to establish the influence of school feeding programme on the dropout of pupils in primary school in flood prone Garsen Division, Tana Delta District.

Research question one sought to examine how the school feeding programme influenced the enrolment of children in primary schools. Research question two aimed at establishing the extent the SFP influenced the school attendance by primary school pupils. Research question three sought to determine the influence of SFP on pupil's class participation while research question four aimed at determining the influence of SFP on the dropout by primary school pupils.

The study used descriptive survey design in which it targeted 12 principals, 48 teachers and 288 pupils sampled from Garsen Division out of which 10 principals, 38 teachers and 278 pupils responded by completing the questionnaire and returning to the researcher. The data was collected by use of questionnaires. Data was analysed both qualitatively and quantitatively.

### **5.3 Major Findings of the Study**

The following are the major research findings were:

The first objective of the study was to assess the influence of the school feeding programme on the pupils' class attendance in flood prone areas. The study established that according to majority of the respondents (90.0 percent head teachers and 86.8 percent teachers) the schools in Garsen Division experienced increasing enrollments according to the findings. The findings revealed that according to all the headteacher and 92.1 percent of teacher respondents flooding influenced enrolment in the schools in Garsen Division. The study further established that the increasing enrolments was attributed to the school feeding

programme as was indicated that 70.0 percent of the headteacher and teacher respondent. The study however show that majority of the pupil respondents indicated that school meals was not the reason why they enrolled in school. Most of the pupil respondents 48.2 percent indicated that free education was the main reason as to why they enrolled in schools. The study also show that 42.1 percent of the pupils indicated that they enrolled because in school they were assured of meals. One of the factors which were mostly found to influence enrolment were school feeding meals. The study established that one of the factors which kept children out of school was lack of motivation (31.6 percent).

The second objective of the study was to determine the influence of school feeding programme on public primary school pupils' class involvement in flood prone areas. The study also established that the attendance of the pupils was described as regular by 100 percent headteacher and 78.9 percent teacher respondents. The study revealed that the flooding influenced school attendance to a large extent. The study further established that according to all the head teacher respondents and 89.5 percent teacher respondents, school meals was the reason for school attendance. The study however shows that 66.1 percent of the pupil respondents do not believe that school meal is the reason for attending school. Majority of the pupils (93.9 percent) cited desire to learn as the reason for attending school.

The third objective of the study was to establish the influence of school feeding programme on the public primary school pupils' enrolment in flood prone areas. The study findings also revealed that the participation of pupils in class was described by 68.4 percent of the teacher respondents as lively. The study findings show that most of the teacher respondents 63.1 percent indicated that the school meals influenced participation by pupils in class to a large extent. The findings further show that 28.9 percent of the respondents indicated that school meal programme influenced participation in class to a moderate extent.

The fourth objective of the study is to establish the influence of school feeding programme on the dropout of pupils in primary schools in flood prone areas. The study further established that 30 percent of the headteachers and 71.0 percent of teachers respondents described the dropout as low. Asked whether the school meals influenced the dropout, majority of the head teacher and the teacher respondents 100 percent and 89.5 percent respectively indicated that indeed school meals attracted the pupils to remain in school. Hunger and flooding were the main reasons for the dropout of pupils in Garsen Division.

#### **5.4 Conclusions of the Study**

The study made the following conclusions:

The study established that the flooding influenced the enrolment by the pupils in schools in Garsen Division. However, due to the school feeding programme more

pupils enrolled in the schools. From the findings of the study, the study concludes that school feeding program influenced the enrolment of pupils in primary school in Garsen Division.

The study further established that flooding influenced school attendance by the pupils in Garsen Division. With the implementation of the school feeding programme, the pupils were able to attend schools without interruption. The study therefore concludes that the school feeding programme has influenced the attendance of pupils in schools in Garsen Division.

With flooding, the participation of pupil in class was described as poor. However, the school meals have enhanced the pupils' participation in class. The study also concludes that the introduction of SFP enhanced active participation of the pupils in class as it has made the pupils to be lively in class.

The flooding in Garsen Division has resulted into school dropout. However, the school feeding programme has retained the pupils in schools despite the flooding. The study concludes that SFP also influenced the dropout of the pupils in Garsen Division as hunger was number one reason for dropout.

## **5.5 Recommendations**

The following are the recommendations for the study:

- i). The study recommends that the government should setup a committee to survey the flood prone areas and recommend the areas which need



to be covered with the SFP with the aim of increasing the coverage of the areas under school feeding programme especially the regions hard hit with floods to improve the enrolment rates.

- ii). The study further recommends that the government through the Ministry of Finance should allocate more funds to the SFP kitty to ensure there is a constant supply of school meals so as to facilitate the pupils to attend school regularly.
- iii). The study also recommends that the government and the donors, stakeholders in education should ensure the schools have constant supply of food so as to ensure the children do not go hungry and hence keep the children alert in class to actively participate in the learning process.
- iv). The study recommends that the government should ensure that all the structures including logistics are put in place to ensure that the schools in the flood prone regions have adequate food so that hunger does not force any child to drop out of school.

## **5.6 Suggestions for Further Research**

The study suggests the following for further research:

- i). This study was done in Garsen Division only, the study suggests that the study be replicated in other flood prone regions such as Budalangi,

and Kano Plains to determine the effect of SFP of pupils participation in school.

- ii). The study was limited to enrolment, attendance, active participation in class and dropout. The study recommends that further study should be done on other variables such as academic performance.

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## APPENDIX I

### LETTER OF INTRODUCTION

University of Nairobi,  
Dept of Educational, Administration &  
Planning,  
P.O. Box 30197 – 00100,  
Nairobi.  
Date: \_\_\_\_\_.

The Headteacher,

\_\_\_\_\_  
P.O Box \_\_\_\_\_

Tana Delta District.

### REQUEST FOR COLLECTION OF RESEARCH DATA

I am a Master of Education (Med) student at the University of Nairobi. As part of the requirement for the award of the degree, I am expected to undertake a research study. I am requesting for your participation in a study that examines “**influence of school feeding programme on pupils participation in public primary schools in flood prone areas of Garsen division, Tana Delta District, Kenya**”. Please fill in the questionnaires. The research results will be used for academic purposes only and information provided will be treated with confidentiality.

Your cooperation will be appreciated.

Yours sincerely,

Mkanyika Agripina Mwavula

## APPENDIX II

### QUESTIONNAIRE FOR HEAD TEACHERS

#### Instructions

Please respond to the items given as honestly and accurately as possible.

Please read each statement carefully and tick (✓) against the appropriate answer.

Fill in the blank spaces with correct information.

#### Part A: Background Information

1. What is your gender? Male  Female
2. What is your highest level of education?  
Untrained  PI  SI/SII   
Graduate
3. What is the pupil population in your school? \_\_\_\_\_

#### Part B: Influence of SFP on Enrolment

4. How would you describe the enrolment rate in your school?  
Declining  Static  Increasing   
Don't Know
5. To what extent would you attribute the rate of enrolment to the introduction of SFP? Very small extent  Small extent   
Moderate extent  Large extent   
Very large extent
6. In your opinion, what factors mostly influence pupil enrolment in the school ranked in terms of most important as 1 and least important as 5?

	1	2	3	4	5
School feeding programme	[ ]	[ ]	[ ]	[ ]	[ ]
Free primary education	[ ]	[ ]	[ ]	[ ]	[ ]
Past school performance	[ ]	[ ]	[ ]	[ ]	[ ]

7. a) In your opinion, are there some children you know of who are not enrolled in school? Yes [ ] No [ ]

b) Explain your answer \_\_\_\_\_

---

### Part C: Influence of SFP on Attendance

8. a) How would you describe the attendance of pupils in your school?

Regular [ ] Inconsistent [ ] Seasonal [ ]

b) Explain your answer \_\_\_\_\_

---

9. a) Did the flooding influence the pupils' school attendance?

Yes [ ] No [ ]

b) Explain your answer \_\_\_\_\_

---

10. a) With the school meals, do the pupils attend school regularly?

Yes [ ] No [ ]

b) Explain your answer \_\_\_\_\_

---

11. In your pinion, how has the school meal influenced the pupil attendance in school? \_\_\_\_\_

**Part E: Influence of SFP on Dropout**

12. How would you describe the dropout rate of pupils in your school?

Very high [ ] High [ ] Moderate [ ] Low [ ]

13. a) Has the flooding influenced the school dropout by the pupils in Garsen?

Yes [ ] No [ ]

b) If yes, give reason(s)\_\_\_\_\_

14. a) Do the meals attract and retain pupils in school?

Yes [ ] No [ ]

b) If yes, give reason(s)\_\_\_\_\_

15. What would be some of the reasons for the dropout?

Hunger [ ] Insecurity [ ]

Lack of motivation [ ] Child labour [ ]

**APPENDIX III**  
**QUESTIONNAIRE FOR TEACHERS**

**Instructions**

Please respond to the items given as honestly and accurately as possible.

Please read each statement carefully and tick (✓) against the appropriate answer.

Fill in the blank spaces with correct information.

**Part A: Background Information**

1. What is your gender? Male [ ] Female [ ]
2. What is your highest level of education?  
Untrained [ ] PI [ ] SI/SII [ ]  
Graduate [ ]
3. What is the pupil population in your school? \_\_\_\_\_
4. Is there school feeding programme in your school?  
Yes [ ] No [ ]
5. When was the SFP introduced in your school? \_\_\_\_\_

**Part B: Influence of SFP on Enrolment**

6. How would you describe the enrolment rate in your school?  
Declining [ ] Static [ ] Increasing [ ]  
Don't Know [ ]
7. To what extent would you attribute the rate of enrolment to the introduction of SFP? Very small extent [ ] Small extent [ ]

Moderate extent [ ] Large extent [ ]

Very large extent [ ]

8. In your opinion, what factors mostly influence pupil enrolment in the school ranked in terms of most important as 1 and least important as 5?

	1	2	3	4	5
School feeding programme	[ ]	[ ]	[ ]	[ ]	[ ]
Free primary education	[ ]	[ ]	[ ]	[ ]	[ ]
Past school performance	[ ]	[ ]	[ ]	[ ]	[ ]

9. In your opinion, are there some children you know of who are not enrolled in school? Yes [ ] No [ ]

10. If yes, what are the reasons

Lack of motivation [ ] Child labour [ ]

Lack of food [ ] Insecurity [ ]

Others (specify)\_\_\_\_\_

### Part C: Influence of SFP on Attendance

11. How would you describe the attendance of pupils in your school?

Regular [ ] Inconsistent [ ] Seasonal [ ]

12. Explain your answer\_\_\_\_\_

13. a) Has the flooding affected school attendance by the pupils

Yes [ ] No [ ]

- b) Explain your answer\_\_\_\_\_

14. a) With the school meals, do the pupils attend school regularly?

Yes [ ] No [ ]

- b) Explain your answer\_\_\_\_\_

\_\_\_\_\_

15. In your pinion, how has the school meal influenced the pupil attendance in school?\_\_\_\_\_

---

**Part D: Influence of SFP on Class Participation**

16. How would you describe the participation of the pupils in class?

Very active [ ] Lively [ ] Inactive [ ]  
Dull [ ]

17. To what extent has the flooding influenced the pupils' class participation?

Very small extent [ ] Small extent [ ]  
Moderate extent [ ] Large extent [ ]  
Very large extent [ ]

18. To what extent does the school meal influence the level of participation of the pupils in class? Very small extent [ ] Small extent [ ]

Moderate extent [ ] Large extent [ ]  
Very large extent [ ]

**Part E: Influence of SFP on Dropout**

19. How would you describe the dropout rate of pupils in your school?

Very high [ ] High [ ] Moderate [ ] Low [ ]

20. a) Has the flooding influenced the school dropout rate by the pupils in Garsen? Yes [ ] No [ ]

b) If yes, give reason\_\_\_\_\_

21. a) Do the meals attract and retain pupils in school?

Yes [ ] No [ ]

b) If yes, give reason(s)\_\_\_\_\_

22. What would be some of the reasons for the dropout rate?

Hunger [ ] Insecurity [ ]  
Lack of motivation [ ] Child labour [ ]

**APPENDIX IV**  
**QUESTIONNAIRE FOR PUPILS**

**Instructions**

Please respond to the items given as honestly and accurately as possible.

Please read each statements carefully and tick (✓) against appropriate answers.

Fill in the blank spaces with correct information.

**Questions**


1. What is your gender? Male [ ] Female [ ]
2. What is your age? 9 and below years [ ] 10 – 12 years [ ]  
13 – 14 years [ ] 15 years and above [ ]
3. Is there school feeding programme in your school?  
Yes [ ] No [ ]
4. Were you attracted to enroll in school because of free meals?  
Yes [ ] No [ ]
5. If yes, give reasons  
There is no regular meals at home [ ]  
Is assured of free meals in school [ ]
6. What are some of the reasons why you attend school regularly?  
I get meals in school [ ]  
Want to learn [ ]  
Education is free [ ]
7. Do the school meals help you attend school regularly?  
Yes [ ] No [ ]
8. Is school meal the only regular meal for you? Yes [ ] No [ ]
9. Do you contemplate dropping out of school? Yes [ ] No [ ]
10. What could be your reason? \_\_\_\_\_

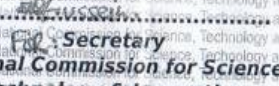


**APPENDIX V: RESEARCH PERMIT**

**THIS IS TO CERTIFY THAT:**  
**MS. MKANYIKA AGRIPINA MWAVULA**  
**of UNIVERSITY OF NAIROBI, 93283-802**  
**Mombasa, has been permitted to**  
**conduct research in Tanariver County**  
**on the topic: INFLUENCE OF SCHOOL**  
**FEEDING PROGRAMME ON PUPILS**  
**PARTICIPATION IN PUBLIC PRIMARY**  
**SCHOOLS IN FLOOD PRONE AREAS OF**  
**GARSEN DIVISION, TANA DELTA**  
**DISTRICT, KENYA.**  
**for the period ending:**  
**31st December, 2014**

**Permit No : NACOSTI/P/14/7762/670**  
**Date Of Issue : 7th February, 2014**  
**Fee Received :Kshs 1000.00**

  
**Applicant's Signature**

  
**Secretary  
National Commission for Science,  
Technology & Innovation**

## APPENDIX VI: AUTHORIZATION LETTER



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No.

Date:

7<sup>th</sup> February, 2014

**NACOSTI/P/14/7762/670**

Mkanyika Agripina Mwavula  
University of Nairobi  
P.O.Box 30197-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Influence of school feeding programme on pupils' participation in public primary schools in flood prone areas of Garsen Division, Tana Delta District, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Tanariver County** for a period ending **31<sup>st</sup> December, 2014.**

You are advised to report to **the County Commissioner and County Director of Education, Tanariver County** before embarking on the research project.

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

  
**SAID HUSSEIN**  
**FOR: SECRETARY/CEO**  
**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION**

Copy to:

The County Commissioner  
The County Director of Education  
Tanariver County.

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY  
STATE DEPARTMENT OF EDUCATION

Telegrams: "EDUCATION OFFICER", HOLA  
Telephone: HOLA, 046-62226  
When replying please quote



COUNTY DIRECTOR OF EDUCATION  
TANA RIVER SUB COUNTY  
P. O. BOX 13 - 70101  
HOLA.

A.2/TRC/ED/GEN/VOL.2/31

18<sup>TH</sup> FEBRUARY, 2014

Mkanyika Agripina Mwavula  
University of Nairobi  
P. O. Box 30197 - 00100  
NAIROBI

RE: RESEARCH AUTHORIZATION

Your letter reference NO.NACOST.1/P/14/7762/679 on the above subject refers.

Authority is hereby granted to carry out research on "*Influence of school feeding programme on pupils' participation in public primary schools in flood prone areas of Garsen Division, Tana Delta District, Kenya.*"

On completion of the research, you are expected to submit one hard copy of the research to his office.

MACHARIA J. N  
FOR: COUNTY DIRECTOR OF EDUCATION  
TANA RIVER COUNTY

C.C  
The District Education Officer  
TANA DELTA DISTRICT



**OFFICE OF THE PRESIDENT  
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL  
GOVERNMENT**

Email: countycommissionertanariver@gmail.com

Telegrams: .....

Telephone: HOLA (046)62448 and 6221

When replying please quote

COUNTY COMMISSIONER

TANA RIVER COUNTY

P.O. Box 1- 70101

HOLA

Ref: TCC/ADM.37/4

Date: 18<sup>TH</sup> FEBRUARY, 2014

TO WHOM IT MAY

**RE: RESEARCH AUTHORIZATION - MKANYIKA AGRIPINA MWAUOLA**

The above named person has been authorized to carry out a research on influence of School Feeding Programme on pupils participation in public primary schools in flood prone areas of Tana River County.

Any assistance accorded to her shall be highly appreciated.

**JOSEPH K. ROTICH  
COUNTY COMMISSIONER  
TANA RIVER COUNTY**