

**THE IMPACT OF SCHOOL FEEDING PROGRAMME ON PRIMARY DAY  
SCHOOL ATTENDANCE IN TURKANA CENTRAL DIVISION, CENTRAL  
DISTRICT, TURKANA COUNTY.**

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**The Project Report Submitted In Partial Fulfilment of The Requirement of The  
Degree of Master of Education in The School of Education, The University Of  
Nairobi**

**2016**

## **DECLARATION**

This is my original work and has not been presented for examination in any other university.

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## ABBREVIATIONS

<b>BMI:</b>	Body Mass Index
<b>CAADP:</b>	Comprehensive African Agriculture Development Programme.
<b>D.E.O:</b>	District Education Office
<b>ECDP:</b>	Early Childhood Development Program
<b>EDP:</b>	Extended Delivery Point
<b>ESFP:</b>	Expanded School Feeding Program
<b>FAO:</b>	Food Agricultural Organization
<b>FDP:</b>	Final Delivery Point
<b>GDP</b>	Gross Domestic Product
<b>GOK:</b>	Government of Kenya
<b>HGSMP:</b>	Home Grown School Meals program
<b>JAM:</b>	Joint Aid Management
<b>KCPE:</b>	Kenya Certificate of Primary Education
<b>KCSE:</b>	Kenya Certificate of Secondary Education
<b>KNBs</b>	Kenya National Bureau of Statistics
<b>LIFDC</b>	Low Income Food Deficit Country
<b>MDG:</b>	Millennium Development Goals
<b>MoEST:</b>	Ministry of Education, Science and Technology
<b>NEPAD:</b>	New Partnership for Africa's Development
<b>NGO:</b>	Non -governmental organization
<b>NSFCK:</b>	Nation School Feeding Council of Kenya
<b>OAU:</b>	Organization of African Unity
<b>PPP</b>	Purchasing Power Parity
<b>SFP:</b>	School Feeding Program

<b>SHN&amp;M:</b>	School Health Nutrition and Meals
<b>SMC:</b>	School Management Committee
<b>UNDP</b>	United Nations Development Programme
<b>UNESCO:</b>	United Nations Education scientific and cultural organization
<b>UPE:</b>	Universal Primary Education
<b>USA:</b>	United State of America
<b>USDA:</b>	United States Department of Agriculture
<b>WFP:</b>	World Food Program

## ABSTRACT

School feeding program as a social safety net has been popular in developing countries as an instrument for achieving the millennium development goals touching on education. These program target populations that are food insecure and reside in areas with high concentrations of families from low socioeconomic status and targets schools that experience poor attendance and enrolment of students. The main purpose of this study was to establish the relationship between school feeding program and attendance in public primary schools in central division of Turkana County. Specifically the study sought to establish the relationship between schools feeding program and enrolment in the Central District. To identify the relationship between school feeding program and dropout rate and in Turkana Central division. Descriptive research design was employed to carry out the study. The target population was 15 school committee members, 30 teachers and 75 pupils and data was collected by the use of questionnaires. The analysis extracted from these studies shows that school feeding programs enhanced pupils' attendance as there were many pupils' attending school when there was food in schools' food store. The study therefore concluded that school feeding program influenced the enrolment of pupils' as lack of food in schools was number one reason for dropouts. The study recommended that government: the donors and stakeholders in education should ensure the schools have constant supply of food with the view of improving attendance and enrolment; both county government and national government through ministry of education should allocate more funding to SFP to lessen the dropout rates; and finally, the government should set up committee to survey hardship areas and recommend areas that need to be covered with SFP to ensure that areas that are prone hardship receive SFP to ensure that pupils' attend schools.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Background of the Study**

The global food, fuel and financial crisis have new prominence in school feeding as a potential safety net and as a social support measure that helps keep children in school. It is believed that school feeding program provide both an explicit and implicit transfer to households and most likely to increase school attendance, cognition and educational achievement, particularly if supported by complementary actions such as de-worming and food fortification.

Food and Agricultural Organization (FAO, 2007 estimates, 923million people in the world were chronically hungry. This was an increase of about 75 million people from the 2003-05 estimates (FAO, 2008). A greater percentage of these are children found in developing countries. These numbers significantly indicate the Millennium Development Goals related to hunger and malnutrition may not be met by 2015. The incessant hunger, malnutrition and micronutrient deficiencies can have long lasting effects on the health status and productivity of people and their nations. When Malnutrition sets in early in a life, it can adversely affect physical, mental and social aspects of a child's health which in turn leads to underweight, stunted growth, lowered immunity and mortality. Broca and Stimulus (2003) state that physical effects of malnutrition as measured by indicators such as body mass index (BMI) have significant impact on an individual's productivity and wages. According to Jomaa et al (2011), childhood malnutrition imposes significant economic costs on individual and nations and that improving children's diets and nutrition can have positive effects on their academic performance and behaviours at school as well as their long-term productivity as adults. Another study carried out by Alderman et. al, 2006) found that malnutrition led to delayed entry to school, less overall schooling, smaller stature, and 14% lower earnings as adults.

This study of school Feeding program focused on in-school feeding program, in which the school pupils who attend school are provided with food while at school. This food could be provided as breakfast, snacks and/or lunch. The quantity of food provided and

nutritional content varies. In some cases the food may be fortified for example with vitamin C, Iron or Iodine. For on-site preparation, kitchen facilities cooking staff, eating and serving utensils, and a space at the school for consuming the meal (Dining Hall) are highly required.

In-school meals are effective at increasing school attendance rates because children receive the meals only on days when they attend school. The three aspects of nutrition which influence school attendance through in-school feeding include: short term impact which alleviates a child's short term hunger during the school day, by providing more nutrients to the child, providing the child with a meal when she/he would not have had one or replacing a meal that would have been received after school with one during school hours. A hungry child may not be able to perform well in class (Grantham et al 1998). Hence the value of school feeding to attendance.

The other nutrition related influence of school feeding on school attendance is through the long run benefits of program-induced improvements in nutrition. Nutrition improvements through feeding could improve a child's physiological capacity for learning. Finally in-school meals may improve attendance through nutrition by reducing morbidity (Scrimshaw and Sam Gino Vanni 1977).

United Nations Education scientific and cultural organization (UNESCO) estimates 18% of school children in Kenya suffer from chronic stunting with a further 34% showing mild to moderate growth retardation. Nutritional deprivation was found to be much more prevalent in arid and semi-arid land areas. In these areas of Kenya, it is very rare to have more than one meal in a day and to some school going children getting breakfast is an uphill task. Therefore provision of meals to schools in Kenya indicates food as an effective incentive to lure children to school (WFP 2006).

### **1.1 School Feeding Initiatives in Africa**

The first school feeding initiative in Africa was established under the auspices of the New Partnership for Africa's Development. The New Partnership for Africa's Development (NEPAD) is a vision and strategic framework for Africa's renewal that was adopted by the organization for African unity (OAU) in 2001 (Tomlinson 2007:22-23). Among the

activities or initiative of NEPAD is school feeding program. One of the NEPAD'S key programs are food security and nutrition.

NEPAD's aims to increase children's direct access to food through school feeding program with a target of 50 million children of school going age by 2015. NEPAD'S school feeding program is tailored to arouse and maintain local production through the purchase of locally produced food for school. Local small-scale famers were to be given the opportunity to provide schools with the necessary food products. The logic behind this kind of reasoning was that locally produced food products may be used comfortably by many local children. The home grown school feeding program aimed at ensuring sufficient nutrition for school going children through diet supplementation was a complete meal that is adequate in energy, protein, vitamins and minerals (NEPAD 2003).The reason NEPAD gives for this focus on school going children is the improvement of nutritional status in the formative years. Since primary education is compulsory in most African countries, children can be easily reached through the school. Therefore primary schools feeding enhances enrolment and attendance, which improves literacy (particularly for girls), an improved component of poverty reduction (Bowley, 2005/3:4, Tomlinson 2007:22-23).

The second school feeding program in Africa is the Joint Aid Management (JAM). This is a South African-founded, non-profit making Christian relief and development organization with over 22 years' experience in sustainable development (JAM 2004). JAM'S program mainly focus on nutritional feeding, school feeding assistance to orphans and vulnerable children. They have initiated national feeding programs in five different countries namely Angola, Mozambique, Rwanda, South Africa and Sudan. JAM'S national feeding programmes are mainly focused on schools, by supplying nutrition's food at the schools, it hopes to achieve its main objective which is to encourage malnourished children to attend school and broaden their education. These programs prove to be valuable incentives for stimulating school attendance. JAM distributes 100-150 grams of food rations to beneficiaries daily .This food ration is a porridge –type blend made of corn, sugar, soya beans and micronutrient.



### **1.1.1 School Feeding Initiative in Kenya**

Kenya is one of the leading economies in East Africa and ranks 143<sup>rd</sup> on the United Nations Development Program (UNDP), Human Development Index table with an average life expectancy at birth of 57.1 years. It (Kenya) also has an adult literacy rate of 87% and a gross domestic product (GDP) of 2% and purchasing power parity (PPP) per capital of US\$ 1.25 per capital of US\$ 1.542 (UNDP 2011). As a measure of poverty 40% of the population lives on less than US\$ 1.25 per day (World Bank 2011). In demography, Kenya has a population of approximately 40 million people, where over 40% are less than 15 years of age (KNBS). Kenya is also a low – income food deficit country (LIFDC) according to Food and Agriculture Organization (FAO).

UNESCO 2005 estimates 80% of Kenyans live in rural areas and eke out a living as farmers; poor land quality and chronic water shortages have put the country in a constant state of food insecurity. Kenya is a food-deficit country with less than 20% of its land suitable for successful cultivation.

Amalgamating these difficulties, frequent and severe droughts in historically precarious Arid and Semi-arid lands (ASALs) have contributed to high rates of crop loss, malnutrition and violence over limited arable land and scarce water (MOA 2010). The ASAL, which houses roughly 30% of Kenyan population, has greatly suffered from prolonged droughts and food shortages; the most negatively impacted on is the primary school-aged population.

Primary Education is considered as a nation's bedrock of education system. The success of the entire educational system squarely lies upon it. The World Bank (1990) points out the central purpose of primary education as: to produce a literate and numerate population and to lay a concrete groundwork for further education. The World Bank (1990) further accuses the developing countries of not meeting this central purpose thereby jeopardizing national efforts to build a human capital base for development. Kenya has had challenges in her endeavour to develop strong primary education system especially in her northern corridor where the climate is harsh. Just like other developing

world, Kenya has put in place School nutrition programme to fight malnutrition in children.

Today Kenya has three school nutrition programs; namely: The School Feeding Program (SFP), The Expanded School Feeding Program (ESFP) and The Early Childhood Development Program (ECDP). In addition, there is also School Health and Nutrition sections within the ministry of education, Science and Technology (MOEST), established in 1995 to address health and nutrition issues of both pre and primary school children.

This study concentrated on school feeding program which draws its funding from the Kenya government and WFP; currently operate in 47 counties in the Arid and semi-Arid lands (ASAL) region. The implementation of the program is done by the Government of Kenya as World Food Programme sources for funds and also provides both food and non-food materials.

Studies have shown that “magnetic effect” of the school feeding meal program has greatly increased school attendance rates especially among young children. In rural areas schools that provide meals have higher attendance rates and low drop-out rates than schools that do not (Espejo 2009). On average studies show that participating families save between four and nine percent of their annual income by taking advantage of school meals and avoiding added food expenditure (Finan 2010).

Turkana County is one of the counties in arid areas experiencing severe environmental conditions. It is made up of arid and semi- arid lands characterized by extremely high climate with low and unreliable rainfall, ranging from 300mm to 400mm, high temperature and poor soils. It borders Marsabit County to the east Samburu County to the south east and Baringo and West Pokot Counties to the south and south west respectively. Being the largest county in Kenya with an estimated area of 77000 square kilometers and with a population of more than half a million, it is known to have one of the lowest levels of literacy, 30 percent and remains as one of the poorest counties in Kenya (overall poverty of 74 percent). According to county ranking on food poverty among the rural counties, Turkana is the 3<sup>rd</sup> worst hit, while on the overall poverty it is ranked among

counties with more than 60 percent of their population below poverty line. (Turkana development plan 2000-2008).

The major challenges in Turkana County include prolonged drought, HIV/AIDS epidemic and poverty, which have made education to be an exception rather than a rule in Central Division of Turkana County. Children go to school on an empty stomach as many parents/ guardians have no means of providing food for them at home. Some are so malnourished that they fall asleep or may even faint in class. This scenario necessitated school feeding program to be initiated in Turkana County, particularly in Turkana Central Division.

The food stuffs supplied in Turkana County includes but not limited to pulses, maize, bulgur, wheat and cooking oil.

## **1.2 Statement of the Problem**

Marginalized food-insecure people typically spend 65-70% of their meagre and irregular income on food. Poor, food-insecure families rely on labour and income provided by their children. This is frequently the reason for which poor families do not send their children to school (WFP, 2004). With severe biting hunger, even those children who make an attempt of going to school are less able to learn. Hunger and poverty directly correlates to both educational attendance and performance. Children from poor rural communities of Turkana Central division, Turkana Central District, Turkana County suffer a lack of access to schools, as they are required to walk long distances to school many a times on empty stomachs without surety of lunch.

This research is necessary since there is scarce literature on the impact of school feeding program in primary day schools. The study is to establish the impact of school feeding program on primary day school attendance in Turkana Central Division, Turkana County.

## **1.3 Objectives of the Study**

The study was based on the following objectives.

### **1.3.1 Main Objective of the Study**

The main objective of the study was to establish the impact of school feeding program on primary day schools attendance, in Turkana Central Division, Turkana Central District.

### **1.3.2 Specific Objectives of the Study**

In order to achieve the main objective of the study, the following specific objectives were formulated:

1. To establish whether there is any relationship between the school feeding program and pupils' attendance of day primary schools in Turkana central division, Turkana central district.
2. To asses if there was any relationship between school feeding program and pupils' enrolment in primary day schools in Turkana Central division, Turkana Central district.
3. To find out whether there was any relationship between school feeding program and school dropout rates of pupils attending day primary schools in Turkana central division Turkana central district.

### **1.4 Research Questions of the Study**

In order to achieve the objectives of the study, the following research questions were formulated:

#### **1.4.1 Main Research Question**

The main research question that the study undertook to answer was: what is the impact of school feeding programme on attendance in primary day schools in Turkana central division' Turkana central district.

#### **1.4.2 Specific Research Questions**

In order to answer the main research question, the following specific questions were stated:

1. What is the relationship between school feeding program and pupils' attendance in primary day schools' in Turkana central division' Turkana central district?
2. What is the relationship between school feeding program and pupils' enrolment in primary day schools in Turkana central division, Turkana central district?
3. What is the relationship between school feeding program and dropout rates in primary day schools in Turkana central division, Turkana central district?

### **1.5 Purpose of the Study**

The purpose of the study was to access and examine empirical evidence regarding the hypothesized relationship among school feeding program, school attendance, enrolment and school dropout rate in Turkana Central division of Turkana County. The assumption here was School Feeding Program (SFP's) increase the benefit of school participation which leads to increase in enrolment and attendance. These increases may improve learning and educational achievement. This is in line with three main objectives of school feeding program namely:

1. To increase school enrolment and attendance among school going age children.
2. To improve the nutritional status of children in primary day schools.
3. To improve on academic performance of primary school children.

### **1.6 Significance of the Study**

The findings from the study of school feeding program in Turkana Central Division was to provide the much required information for policy makers in education in Turkana County and other counties that undergo the same challenges in terms of food insecurity. The findings were to further reveal whether the residents of Turkana Central Division were adequately sensitized on the strategies of participating fully in the school feeding program. The information was also to enable teachers in Turkana Central Division to initiate and empower guiding and counselling teams to deal with absenteeism well, as this would be emanating from food security in school. The school management committee's

would also benefit from the information by laying adequate strategies and strictly monitoring the School Feeding Program (SFP) at school level.

### **1.7 Assumptions of the Study**

This study has varying assumptions like; all parents within the community in Turkana central division are fully aware of economic benefits of education and therefore willing to take children to primary schools. The assumption also has it that all parents are from low economic background and so cannot take their children to private institution. It is also assumed that the food provided is enjoyed by all children and it is of the right ration and sufficient for the whole school term. Food is usually assumed to be the only hindrance to regular school attendance, when inadequate infrastructures in schools, low teacher establishment and unfriendly environment in the school also impacts negatively on the enrolment and attendance, trekking long distance to school means one has to wake up very early like 5.00 a.m. At such a time, children can easily meet with cattle rustlers as they return home from raiding spree.

### **1.8 Limitations of the Study**

This study has various limitations which are beyond the researcher's capacity of solving them; for example the vastness of the division without modern infrastructure is a limiting factor on how fast a researcher would move from one corner of the division to the other .

The harsh conditions can't allow one to work especially in the afternoon .The study is limited to the central division and not any other division. Sometimes for security purposes one has to move around the division with local members who are also expensive to maintain .For one to be comfortable one has to constantly move with sufficient drinking water and at least some snacks for you may have money and lack what to buy.

### **1.9 The Scope of the Study**

The scope of this study on school feeding program was restricted to central division of Turkana County. The study examined the effects of School Feeding Programme (SFP) on primary day schools' attendance and performance. Central division of central district

was a large area but with only 38 primary schools, with most them in the interior being single streams while those close to the main road and in urban centers having two streams. Food insecurity had contributed to most children of school going-age to be seen loitering in urban areas or in the villages taking care of animals and/ or doing other domestic chores.

Whenever KCPE or KCSE results were announced very few top students came from arid and semi-arid areas. Therefore, this study wanted to delve into the very educational fabric to discover whether food insecurity in the region was a cause for poor attendance since not many of the students scored high marks or grades, the study vindicated the position of SFP in academic performance. The involvement of the local community in the provision of labour and food supplements especially vegetables and fruits got examined.

The study could have looked at the whole county but the vastness, poor infrastructure scorching sun and limited resources have contributed in the choosing of area of study.

### **1.9.1 Definition of Terms**

**Pupil's attendance of school:** Number of times a student has been in class as recorded by the class teacher in the class register. It could be rated as poor, average or above average attendance. It was measured by looking at class register to identify the days when the student was present and/or absent.

Poor attendance is when a child attends school 30 percent or less in a given month while average attendance is when a child attends class between 30 percent and 50 percent.

Above average attendance is attained when a child attends class more than 50 percent in any given month. It was measured using the information from the class register.

**Pupils' performance in school:** the score on academic test, which could be poor, fair, good and excellent. It was measured using the information from the class score sheet.

Poor score is one, which has a value of below 25 percent while a fair score has a value of between 25 and 44 percent.

A good score has a value of between 45 and 65 percent while a very good score has a value of 66 and above.

**Pupils' enrolment:** the number of new pupils joining a given school at a given time, which could be described as low or high. It was measured using information from the main school admission book.

Low enrolment in classes, two up to eight means enrolled students are less than four in a term while high enrolment implies five pupils and above.

**School drop-out:** Number of pupils who have left school before sitting Kenya certificate of primary education (KCPE) which could be rated as negligible or significant. It was measured by looking at class register to identify pupils who no longer come to school.

Negligible implies a rate of two or less students in a term while above two is rated as significant and so reasons behind the dropping-out should be sorted out.

The schools' registers of each class and the class mark list was of great help to the researcher in rating enrolment, attendance, school drop-out and performance.

### **1.9.2 Organization of the Project Report**

The project report is organized into five chapters. Chapter one provides background of the study including objectives and research questions. Chapter two which is concerned with literature review indicates what other researchers have found on the same study within and outside Kenya. In chapter three researcher indicates the instruments he/she would use in collecting data. Data analysis is done in chapter four and results displayed in tables and figures. Finally chapter five which is the last chapter gives the summary, discussion, conclusion and recommendations for future studies.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The second chapter of the project report is on literature review. The review of literature presented here delved on the following issues regarding school feeding programmes and its impact on attendance of pupils in primary day schools in arid and semi-arid lands (ASAL). The issues discussed in this chapter included the following: A short history detailing reasons for the School Feeding Programme introduced in schools and who were the first countries to do so. The chapter further looked at the impact of SFP on attendance, enrolment and drop-out rates. The forms and types of SFP were discussed at length.

According to world food programme [WFP], 70 million school age children are estimated to be living and attending school in hunger-stricken areas, in Sub-Sahara Africa (WFP 2007). Many governments including Angola, Ghana and Nigeria have adopted the broadest approach of identifying target group by stating that every child attending Public Primary days Schools in hunger streaked areas automatically qualifies to belong to target group.

#### **2.2 Origin of School Feeding Programme Globally**

A combined programme of teaching and feeding hungry children begun as early as 1790 in Munich, Germany and in France in 1867. In Norway, the Oslo breakfast, introduced in 1897, was made up of half a pint of milk, whole meal bread, cheese, half an orange and half an apple (FAO, 2005:15). The Netherlands became the first country to adopt national legislation specifically to provide school lunches in 1900.

School feeding programme was introduced to South Africa in the early 1940's providing free milk to white and coloured schools. Later in 1960s and early 1970s, this benefit was however withdrawn from all, except for those children considered particularly needy. This is an early example of the targeting approach in school feeding (Tomlinson 2007:4)

Various studies have been done in Kenya on pupil's retention, for example, Wanjala (2013) did a study on factors influencing access to basic education. A case study of Lokori division Turkana County, Omondi 2013 carried out a study on factors influencing retention of pupils in public primary schools in drought prone areas in Turkana Central district Kenya. Makewa, Elizabeth and Muthoni vol. 3 (2) 2014 studied the girl child challenges and academic achievement in mixed secondary schools in Mbooni district. Macharia (2011) carried out a study on the determinants of low access and retention in primary schools in Mathioya district. While these factors are paramount to the study, they fail to highlight the impact of school feeding programme on primary day school in Turkana Central division, Turkana central district hence a knowledge gap to be filled.

### **2.3 School Meals as Investment**

The study also looked at various ways in which school feeding programme could be viewed as investment, and be taken over the national government. Various challenges which offered hindrances to effective supply of food to schools were examined with a view to overcoming them. Denning (1994:17) states that investing in human capital is valuable in itself. He further states that better health contributes to improved education, increases attendance of children in school and improves their ability to learn. This is a very clear indication that a hungry child cannot attend classes regularly and therefore the school feeding programme becomes the only valid remedy of intervention.

A recent meta-analysis of World Food Programme survey data from 32 countries in sub-Saharan Africa (Gelli Meir and Espejo 2007) grouped 4000 primary schools according to the type and length of the SFP: those having well established and coordinated programmes (on-site meals or take-home rations), those with programmes that are just starting and those that were yet to initiate a programme. During the first year of school feeding assistance, absolute enrolment increased by 28% for girls and 22% for boys. Though we also know that the decision to enrol a child in school and thereafter for the child to attend regularly is influenced by many factors, including the perceived value of education, the availability of employment opportunities, the direct and indirect costs of schooling, and the availability and quality of school facilities. Therefore food offered

compensates parents for direct educational costs and opportunity costs from the loss of child labour when children go to school.

When School Feeding Programme (SFP) is designed to have an impact on nutritional status, it also impacts on attendance and performance. Proper targeting and the provision of an adequate and regular ration should be carefully embedded in the study. What some School Feeding Programme (SFP) managers have not realized is that there is a strong correlation between SFPs, enrolment and attendance. School feeding programmes seem to make a difference when there is a good fit between SFP design and the environment in which the programme operates.

Sometimes the foods donated in a given locality may not be the one desired by the community; hence reducing the impact. Inadequate rations that do not satisfy students may also not do much in terms of reducing short term hunger. In central division of Turkana county the area is so dry that nothing can grow unless under irrigation. Although the community looks desperate, they also have their own preferences in terms of food; so if they are given any food, the impact on attendance may not be felt.

The review of related literature shows that there are evidences which indicate that hunger leads to psychological dysfunction in children, particularly increasing their levels of aggression and anxiety, indicating that hungry children are at greater risk of non-production behaviour in class which may lead to sneaking or being at loggerheads with teachers all the time. Stunting, an indicator of chronic malnutrition is wide-spread amongst school-age children, with negative effects on their education (WFP 2006:4) A child who cannot go along well with the others is most likely not to attend school because even his/her classmates will reject him/her. There is therefore an urgent need to carry out a well-designed study on the impact of SFP on attendance and enrolment. This literature also seems to suggest that SFP should be a national programme effected in all primary schools regardless of the social economic background since in every region; there are people who are not able to cater for their family's need well.

## **2.4 Transition of School Feeding Programme from External Ownership To National Ownership In Kenya**

The ministry of education in a concerted effort to transition away from WFP assistance and significantly put in place a more sustainable and locally integrated programme began implementing a Home Grown School Feeding Programme (HGSFP) in July of 2009 (Espejo 2009). This is not the first time the government of Kenya was struggling to institute a school meal programme. A school milk programme was introduced in 1980 under the former President Moi in an attempt to increase primary school enrolment and ensure stable market for Kenya's dairy farmers. The programme which provided free milk to some 4.3 million primary school pupils collapsed shortly after its inception due to high costs, low accountability, and poor road infrastructure (Bogonko 1992).

Kenyan Policy makers are working closely with WFP and United Nations representatives to ensure that the new programme does not collapse again. Beginning 2009, the Kenyan government transferred over 500,000 primary schools children from WFP Programme to HGSFP, and promised to add 50,000 students until full coverage is attained (Finan 2010).

Prior to this transfer the programme ran as follows; 71% of associated programme costs were provided by WFP, 15% were born by local communities, and only 14% came from Kenyan government (Galloway 2009). To ensure that the success is attained, the Kenyan government allocated & 5.3 million .The Japanese governments boosted the same account by US £2million in 2009. This was majorly to subsidize the inevitable cost of expansion. (USDA 2009).

The Home Grown School Meals (HGSM) programme was implemented by the ministry of education in 2009 as a strategy to transition the WFP-supported school feeding programme to government ownership and implementation. This was as a result of increased commodity prices and transport costs that resulted from the global food and fuel price crisis which had forced WFP to reduce its support. The start of HGSF programme was facilitated by the government of Kenya (GOK), in the existing programmes both financially, management and implementation.

These school meals, the GOK made them to be of the education sector plan under the school health and nutrition pillar. A national School Health, Nutrition and Meals (SHN&M) strategic plan which is now in place has ensured that our children in school are healthy (Carmen, WFP 2011).

School Feeding Programmes that respond to community needs are locally owned and incorporates some forms of parental or community contribution, whether cash payment or in kind, for example, through donated food or labour, SFP tend to be the strongest programme and the ones most likely to make a successful transition from donor assistance.

Designing on SFP to be owned by the local community needs much planning and a careful consideration of a number of factors ought to be thoroughly done. Important information from the local community should be captured. For example, information on cultural habits and beliefs of the community are vital. Information on preferred time of day meals, food preferences and taboos should be taken care of. Food serving and preparation methods should be collected and considered. In central division of Turkana County, lessons begin at 7.00am and end at 12.45pm. If the community is allowed to contribute on the SFP design the right and convenient time for offering the meal can be attained. The meals to be offered should be breakfast and or lunch. Most people in this division appear to have nothing because most of their livestock are in the pastures far away from urban areas. Therefore the local community should be included in the matter of planning. If the program attempts to incorporate practices that are not culturally accepted, a great amount of sensitization and awareness rising may be required.

The communities look poor but have resources amongst them. These available resources should be linked directly to the cost of operating the programme as well as influencing the design of the programme. Though the preparation of the in-school meals may have a negative impact on the environment as it involves the use of wood or charcoal from the adjacent area contributing to deforestation; the construction of fuel-efficient stoves can significantly reduce fuel consumption and help minimize impact.

School feeding programme in Turkana County started way back in 1980's. Foods were usually sourced from outside the county. The constant increase in petrol and diesel fuels make the cost of SFP particularly in Turkana County to skyrocket since it's about 700 kilometers from Nairobi. Therefore for sustainability of the programme to occur, procurement of foodstuffs should change. It's understood that the region is arid with less than 375mm of rainfall annually, but there are already small scale irrigation schemes in the southern part of the county around Katilu Secondary School, Morulem area and Turkwel region along River Turkwel. If the irrigation schemes which grow maize, green grams, water melon and beans can be expanded, Home grown school meals can be implemented in Turkana County paving way for schools sourcing their foodstuffs from within the region. This would also go a long way in improving the living standards of the community around and also providing an otherwise elusive opportunity, to own the programme and even supplement animal protein. By so doing, the programme will be owned by the local community.

## **2.5 The Target Group of School Feeding Programme**

Generally school feeding Programmes target children individually or schools (i.e. the school becomes the "distribution point" for all the children who are enrolled in it.) In vulnerable food-insecure areas, most of the existing Programmes target primary schools though they also support Pre-Schools as part of early childhood development Programmes and children attending non-formal education, where necessary girls attending lower secondary school benefit from take-home rations.

The size of the target group should be precisely estimated so as to procure sufficient foods. A quick and narrow way of estimating is to state that all school-age children who are chronically hungry when attending school should benefit from a school feeding programme. UN Millennium Task Force on Hunger gave a suggestion on how to estimate. The suggestion says all School children enrolled in a school and living in each of the hunger spot (i.e. Sub-national units with more than 20 percent underweight prevalence), should be part of the target.

Most African states have always embraced socialism in one way or another. In schools set-up; all the enrolled pupils in the school are free to partake the school meal. Those who wish to go home for lunch are also at liberty to do so. This helps to cement the relationships among pupils. For example if you side-line the non-Turkana students from eating that food then you will be in one way or another accommodating and perpetuating ethnicity. Taking the whole school as a target would also help the planners to estimate the size of target group with a higher degree of certainty.

## **2.6 Decentralization of School Feeding Programme in Kenya**

With devolution of power that was centrally held in Kenya, by creating and empowering counties, SFP should also be decentralized to realize proper community participation and management. A high level of consultation on school feeding in Ghana reported in 2009 that most African countries now use a decentralized or bottom-up approach that relies heavily on local structures (NEPAD, 2007). Decentralization allows greater room for creativity, albeit, informal, implementations that better respond to local needs and contexts, which in turn may foster local community involvement; once involved most of them may have the need to enrich the available food by either animal meat for they have them or supplementing fruits and vegetables.

The government of Kenya has mandated that all primary schools create a School Management Committee (SMC) elected by parents. Each committee member should represent a class. In effect, the SMC is the institution that helps set school policy (within the guidelines of MOEST), assist the head teacher in the management of the school affairs, and promote the school by initiating projects like fund-raising, which can help to solicit funds for their children in school.

A sub-committee of the SMC is charged with the management of school meals programme. The responsibility covers overseeing storage of food, the staff for food preparation and auxiliary tastes, establishing the responsibilities of the parents with regard to the provision of the water and firewood and other necessary items. The SMC should link the school and the community.

Decentralization of School Feeding Programme in Nigeria allowed school management committees (SMC) to purchase foodstuffs and develop menus that reflected local dietary patterns and traditions (WFP, 2009). If decentralization occurs in Kenya, SMC's in central division of Turkana County will be able to plan and procure foodstuffs cheaply from Katilu and Morulem irrigation schemes. The schemes grow maize, beans, sugar cane, bananas, watermelon, and green grams amongst others. The SMC would be able to employ and use adopted technologies; support coordinated community action and promote partnership

### **2.7 Home Grown School Feeding Programme.**

In 2003, African government, in their aim to restore agricultural growth, food security, adequate nutritional levels and rural development in Africa, endorsed Home Grown School Feeding (HGSF) Programme of the comprehensive Africa Agriculture Development programme (CAADP). In the same year the New Partnership for African Development (NEPAD) identified HGSF as having immediate impact on food insecurity in Africa with the potential to contribute to long term development goals. The United Nations Summit recommended the expansion of local school meals program using home-grown foods where possible as one of the quick impact initiatives to achieve the millennium Development Goals (Word Summit-Outcome, 2005, UN Millennium Project 2005)

School farming is not a new phenomenon in Kenya, particularly in the rural areas where it dates back to colonial period. For example in Nakuru the first school was Bahati Secondary School, which started to farm in 1970. (Mwago 2000). Farming especially in the rural primary Schools was promoted by the government through the so-called 4k- Clubs an acronym for Kuungana, Kufanya, Kusaidia Kenya which means ‘get together , act and help Kenya’. One of the main objectives of 4k- clubs was to realize food for the schools. Though some school managers channelled the food elsewhere .This was to be a source of school feeding programme in Kenyan rural Primary schools. Students who trek long distance to school, wake up early and many a times leave without having breakfast. So any programme of breakfast would do them proud as they would be able to



concentrate in class. In drier regions of Northern Kenya where rain fed agriculture cannot be practiced, they depend on donated food since water is not even enough for domestic use, so one can't imagine producing food by irrigation.

The School Feeding Programme success in Mali was spearheaded by the community commitment. They offered their time and labour preparing meals each day and providing such complimentary inputs as vegetables, edible leaves, spices, protein sources, water and firewood to the schools' kitchens. Such high level of community commitment is inadequate in central division of Turkana County, because it is still being viewed as a foreign programme. Whenever members play any role in SFP, they expect payment. This is because they are used to getting help from Non-Governmental Organisations, including Catholic Church, so they have failed to come out of the box. Kenya regards HGSF as a viable way of strengthening the school feeding programme and makes it more sustainable. The impact of feeding programme on the local economy has not been sufficiently studied. However Kenya stands a chance of improving local economics using school feeding programs.

Decentralization brings service close to the people .The community can even be able to evaluate the programme in their own way and seal some loopholes. In the Kenyan situation, the central government should first of all own the programme before handing it over to the counties, which should further hand it down to individual day primary schools. At every primary school the headteacher and his/her school management committee should deliberate on the way forward. The SMC can be expanded to create a taskforce that would plan well.

## **2.8 Micronutrient Deficiency in School Meals**

A child who has cognitive challenges may not be motivated to attend school regularly. Failure to perform well in class may be contributed by deficiencies of iron and iodine. Iron deficiency renders children restless, inattentive and uninterested in learning. The research literature suggests a causal link between iron deficiency, anaemia and less than optimal behaviour for learning (Nokes, Vanden Bosch and Bundy (1998). This implies that for SFP to be an effective tool it has to be provided at the right time and also the food

should be well balanced to offer especially the nutritional values that children need for cognitive development.

In conclusion, SFP may help children's educational progress particularly that of undernourished children. However, there are limits to the benefits of both nutrition and health programmes and poor educational settings. The achievement of children is linked to both their biological state and the quality of the school and it is difficult to separate these two contributing factors. If SFPs are successful in increasing enrolment and attendance but there is insufficient space and too few teachers to accommodate the children, overall performance levels may not improve. If significant advance must be made in children's education in developing countries, there is an obvious need for integrated programmes combining education with health and nutritional inputs (Granthm-Mc Gregor 2005). Many School Feeding Programmes have major health interventions such as deworming and iodine supplementation (Tomlinson 2007:4). Different types of food contain different nutrients .The nutrients include proteins, carbohydrates, fats, minerals, and vitamins.

## **2.9 Logistic Supply Chain**

Food donated to WFP is procured either locally or internationally. Locally procured commodities are mainly received from Nairobi, Mombasa, Kitale, Moi's bridge and Eldoret. On the other hand, internationally donated/purchased commodities are mainly received through the port of Mombasa. Once these commodities are received by WFP Kenya, arrangements are made to transport these to the district stores, which are identified by the District Education Officer (D.E.O). This store is referred to as an Extended Delivery Point (EDP). It is from here that commodities are delivered to schools for distribution. Schools are therefore the Final Delivery Points (FDP) and must have a good store, in order to keep the commodities in a good environment in order to minimize damages and lose, (MOEST 2001).

### **2.9.1 Challenges in Food Distribution in Turkana**

Turkana County is very large but it has only one tarmac road from Kitale to Lokichoggio with a short branch from Lodwar town to Kalokol. The very roads now are so dilapidated that a lorry from Kitale takes a minimum of 12 hours to Lodwar a distance of 305 kilometers. Other parts of the vast County have no roads. This makes food distribution to schools very cumbersome. Schools far away from the main road may stay without food for several weeks due to either inaccessibility or lack of vehicle to use.

Another challenge which is a thorn in the flesh in Central Division of Turkana County is clean water and sanitation. Enough and regular water is limited to Lodwar Town. Some schools therefore lack clean water to be used in food preparation. Parental/ Community involvement in both supply and preparation of food in schools is very minimal a phenomena that does not guarantee sustainability. Most primary schools do not have good storage facilities. They also cook in the open which encourages wastage of firewood.

### **2.9.2 Benefits of School Feeding Programmes**

The main purpose of School feeding programme according to the World Health Organization (WHO) are to:

- Alleviate short-term hunger in malnutrition or otherwise well-nourished school children .This helps to increase students' concentration producing higher levels of cognitive function and learning.
- Motivate parents to enrol their children in school and have them attend more regularly.

Reduce absenteeism and increase the duration of schooling and performance. Drop-out rates and school year repetition diminish with school feeding (WFP 2006)

School Feeding Programmes are one of the main interventions used to address the challenge of reducing hunger worldwide. It squarely falls directly within the scope of the

United Nations declaration and also within the first three Millennium Development Goals (MDG2000) namely:

1. MDG 1: Eradicate extreme poverty and hunger
2. MDG 2: Achieve universal primary Education
3. MDG 3: Promote gender equality and empower women.

It's true that both acute and chronic hunger affects children's behaviour in class and educational outcomes .According to (DOH 2005, WFP 2006) Children suffering from short term hunger as a result of skipping breakfast have difficulty concentrating in class and performing complex tasks. This could be a major reason why university graduates in Turkana County are countable and probably a reason why we are far from winning the war of tribal clashes, since school drop-outs would want to prove a point to the society that they can effectively fight to defend their community.

Various nutrients are required by the body in different (varying) amounts. Within Savannah regions, children can easily come across wild fruits but in arid areas, it's very rare, so therefore nutrients that are found in fruits cannot be easily accessed by pupils unless they are provided at school .For example deficiency of vitamin A results in poor visibility in dim light, so the food provided should be balanced. Various studies world-wide have been carried out to ascertain the significance or impact of school feeding programme on primary schools attendance. For example, a study carried out in the United States of America (U.S.A) unearthed the benefits of providing breakfast to disadvantaged primary school students. Before the inauguration of a school breakfast programme, eligible (low-income) children scored significantly lower on achievement tests than those not eligible. When these eligible children (students) entered the program, their test scores improved more than the scores of non-participants. The attendance of participating children also improved greatly (Meyers, 1989). The result of the above studies in the US could be replicated in Kenya since most students walk long distances before reaching the school. Some may not have had breakfast and have no hope of getting anything in the form of lunch. In Turkana county schools are close together in urban areas like Lodwar town but in rural areas like Lokomarinyang the distance between two primary schools that could be near one another may be 50 kilometers or even more.

Another study on the impact of school feeding programme was carried out in Peru, where 23 malnourished and 29 well-nourished 9-11years old boys were studied to assess the effects of breakfast on cognitive performance. Breakfast was nutritionally fortified beverage and a baked grain product fortified with iron. A series of cognitive tests were administered in an experimental setting. Speed in performing short term memory test and discrimination of geometric patterns were improved under the breakfast conditions in both groups. However, the effects were more pronounced in the nutritionally disadvantaged children (Pollitt Jacoby Cueto, 1995). This kind of study in Peru is good as it isolates some students from the others which may lead to self-mass transfer to other schools where students are exposed to the same conditions in school.

In Jamaica providing breakfast to primary school students greatly increased attendance and arithmetic scores. The children who benefited most were those who were wasted, students or previously Malnourished (Simon and Grantham-McGregor, 1989). India has the largest school feeding programme in the world which offers MID-DAY Meals (MDM). Randomized controlled trials demonstrated increase in attendance and enrolment and a reduction in drop-out in with in-school feeding (Dreze and Kingdom, 2001).

A study on SFP, which was carried out in Uganda, found out that take-home rations improved mathematics score for older children and led to an improvement in performance on the primary learning (Adelman, Alderman, Gilligan and Lehrer, 2008). In-school feeding also improved mathematics score for children who had delayed school entry and also led to a slight improvement in literacy scores for all children (Kristjansson et al 2007).

School feeding programme is known to cushion families during periods of shock and reduced purchasing power from resorting to negative coping mechanism, including taking children out of school to save on school fees and related expenses (World Bank 2009). The SFP can help to safeguard households' investments in education by defraying some of the costs of schooling and encouraging parents to enrol their children in school and ensure that they attend class regularly through the complete cycle (Paruzzolo, 2009).

Chile, one of the countries in South America has one of the most elaborate SFPs which are administered by the government and implemented by private contractors; have played a major role in improving the nutrition of the nation's children and increased school participation rate to nearly 100 percent (International approach to SF 2008 & 2009)

The World Food Programmes (WFP's) continued to increase covering many areas globally. In 2005, it had reached 21.7 million children in 74 countries. However, it still has a long way to go as the total school-aged children who are chronically hungry is 351 million (WFP 2006). In-school meals are used to attract children to school, alleviate their hunger and help them to learn. School meals aim to:

- Increase enrolment and attendance of primary school children, especially among girls, orphans and vulnerable children.
- Reduce primary school dropout rates.
- Improve learning and concentration by providing a meal early in the day (WFP 2006)

## **2.10 Theoretical Framework**

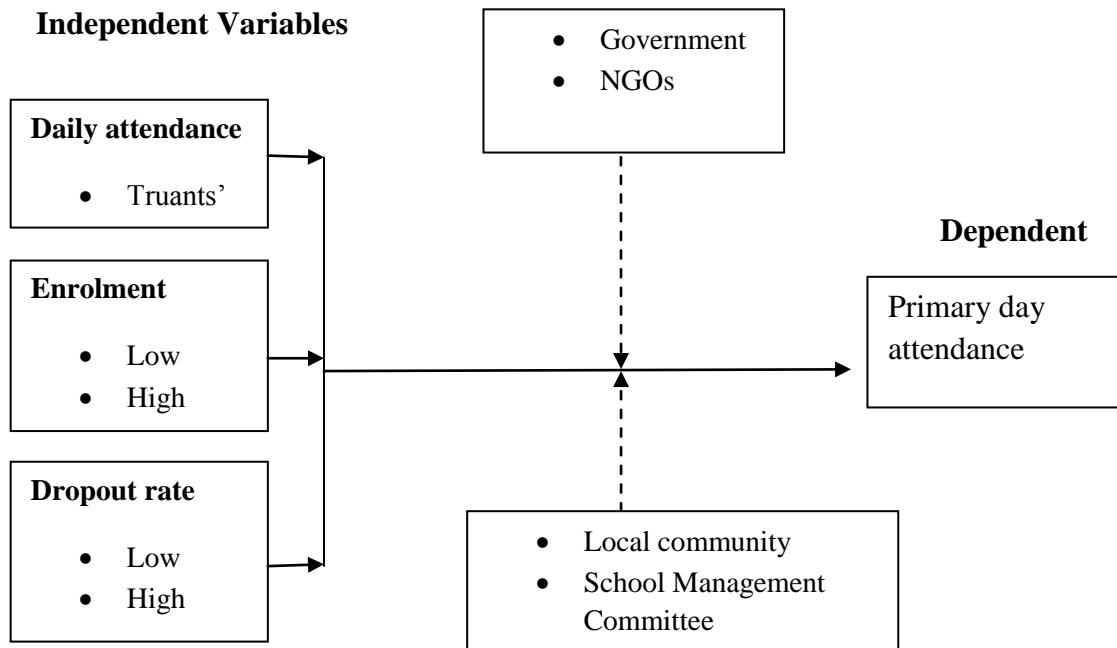
The study is guided by Vroom expectancy theory of motivation advocated by Victor H. Vroom (1964). According to this theory, the intensity of a tendency to perform in a particular manner is dependent on the intensity of an expectation that the performance will be followed by a definite outcome and on the appeal of the 28 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 semi-arid conditions 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. As a result, it is the attractiveness or performance for a particular outcome of an individual. The school feeding program 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). Therefore, 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.

## 2.11 Conceptual Framework

This study is to find out effects of school feeding programs on primary day attendance. The study seeks to establish how various aspects affects primary day attendance. The aspects that were investigated include; SFP and pupils' attendance, SFP and pupils' enrolment and SFP and pupils' drop outs. The relationship among these factors are summarized and presented in the Figure 1 below.

### Moderating Variables



**Figure 1: Conceptual Framework: The relationship between School feeding program (independent Variable) and Primary Day Attendance (Dependent Variable).**

Various studies have been done in Kenya on pupil's retention, for example, Wanjala (2013) did a study on factors influencing access to basic education. A case study of Lokori division Turkana County, Omondi 2013 carried out a study on factors influencing retention of pupils in public primary schools in drought prone areas in Turkana Central district Kenya. Makewa, Elizabeth and Muthoni vol. 3 (2) 2014 studied the girl child challenges and academic achievement in mixed secondary schools in Mbooni district.

Macharia (2011) carried out a study on the determinants of low access and retention in primary schools in Mathioya district. While these factors are paramount to the study, they fail to highlight the impact of school feeding program on primary day school in Turkana Central division, Turkana central district hence a knowledge gap to be filled.

## **2.12 Summary of Literature Review**

Successful school feeding programmes should be entirely based on a strong and firm understanding of the environment within which they are to operate. Households and communities should be well targeted. Provision of programmes and their implementation should be designed with the specific needs of the communities in mind. For example; the traditional main food for Turkana community is meat; so any meal which does not include meat is regarded as foreign. The educational achievement is attained by increasing school attendance by children. On the other hand, there are some possible negative attributes to the first and third paths that should also be considered. For example, increase in enrolment may lead to overcrowding in classes and thus lowering effectiveness of classroom time or stretch the learning process in Schools. Available resources may also not be sufficient.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter describes the methods and procedures of data collection, the choosing of sites, selection of the respondents, and methods of data analysis and presentation of the resulting information. In this case, data was collected from students, teachers and school management committee members (SMC), and then the site was schools in central division of central district, Turkana County. Data does not automatically yield information. The conversion of data into information hinges on the use of appropriate data handling methodology.

Data in itself is silent, it is the use to which it's put in terms of inferring interpreting, computing, analysing, manipulating and decision making that is important (Jamtsch 1967:95). The methods of data collection were questionnaire; interviews and observation under survey method .The population was all the schools in the division. The respondents included management committee members from sampled schools, teachers and pupils from classes 7 and 8.

#### **3.1 Survey Design**

Surveys are concerned with the collection of information from a specified target population and the method is far from being a recent innovation since it was used in the Bible days according to St. Luke, Emperor Augustus, used it to get a population census about 2000 years ago. Sometimes, the information is collected from a relatively small sub-set (sample) of the population. The researcher usually generalizes the results obtained from the sample to the whole population.

#### **3.2 Methods Used in Surveys**

Research methods employing survey may use interviews, questionnaires, observation and documentary analysis. The study employed interviews, questionnaires and observation.

Each method was not only used singly, but also sometimes combined with another one. For instance, questionnaires were combined with interviews

### **3.3 Research Instruments**

The following are methods and procedures that were used to collect information on SFP; Questionnaire, interview schedule, document analysis and observation method.

#### **3.3.1 Questionnaire Method**

A questionnaire being a list of written questions that can be completed by individuals was used to elicit responses from classes 7 and 8 pupils and also from teachers. A questionnaire is easy to standardize. For example, every respondent was asked the same question in the same way. The researcher therefore was sure that everyone in the sample answers exactly the same questions which made it a very reliable method of research.

#### **3.3.2 Interview Schedule**

The body of the interview schedule always lists topics to be covered and potential questions. The number of questions and the exact wording of the questions depend on type of interview schedule used. In this particular schedule the researcher relied on a moderately scheduled interview that contained major questions and possible probing questions under each. This type of schedule aids in recording answers. Closed ended and open ended questions were used, whereby the respondents were free to ask for clarification on issues they had not understood.

#### **3.3.3 Document Analysis**

Files and other documents on enrolment, attendance and dropout rates in the county education office was thoroughly perused to identify the enrolment trends from 2003 to 2014. Another document analysed was the Head teachers' black book which is the main admission book in schools. Here the analysis included variations in the total number of students in the admission book and class registers' booklet.

### **3.3.4 Observation Method**

Observation as a research method was first used by anthropologists in studying culture based on learning the language and also participating in social events (Silverman, 1993). Using this method, a researcher can collect the desired information either directly, by watching the event or with electronic instrument. A researcher must carefully determine the particular happenings or 'phenomenon' to be observed (Divvied 1998). The researcher made keen observations on the student's behaviour as soon as the bell for lunch went and during the lunch break. The researcher observed behaviours like pupils yelling on hearing the lunch break bell, jostling and elbowing to be number one to receive food and attempts of going for a second helping were observed. As well, it was observed that some pupils' were literally walking with food home from the school after being served.

### **3.4 Data Collection Procedures**

The researcher visited the sampled schools first to familiarize with school authority and explained the purpose of the study and also made some necessary arrangement for actual administration of the instruments and data collection. The researcher collected the data by issuing the research instruments to teachers, school committees members and pupils. The three sets of questionnaires were administered when both pupils, teachers and head teachers are relaxed enough in order to be able to provide reliable information. Each selected teacher were given a questionnaire. The respondents were given adequate explanations before filling the forms. In the administration of student questionnaires, the researcher sought the assistance of teachers. The teachers assisted the researcher to distribute the questionnaires among the pupils'. Pupils' sampled for the study were gathered in place while filling the questionnaires. After being filled, the researcher collected them. This enabled the researcher to obtain 88.3% of all the questionnaires back. The researcher administered the checklists for classroom observation schedule. The checklist indicated how pupils' behaved while having their meals.

The secondary data on pupils' enrolment per year in Central Division was gathered from the County Director of Education office. It shows the progressive enrolment per gender from 2006 to 2013.

**Table 3.1: Secondary Data**

zones	2006		2007		2008		2009		2010		2011		2012		2013	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Kawalase	3286	2909	4373	3848	5485	4601	4858	4788	5290	5042	5959	5653	4569	5383	4201	4963
Kanamkemer	1613	1471	1647	1163	1873	1756	2029	1793	2203	1940	2779	2741	2548	2358	2428	2258
	4899	4380	6020	5011	7358	6357	6887	6581	7493	6982	8738	8394	7117	7741	6629	7221

Source: County Director of Education office

Another data captured by the researcher on progressive enrolment per gender per year was from Bishop Mahon Primary School in Lodwar.

**Table 3.2: Secondary Data**

	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
<b>2004</b>	427	211	638
<b>2005</b>	401	225	626
<b>2006</b>	400	187	558
<b>2007</b>	427	191	618
<b>2008</b>	468	187	655
<b>2009</b>	531	189	720
<b>2010</b>	538	187	725
<b>2011</b>	615	255	870
<b>2012</b>	675	265	940
<b>2013</b>	725	330	1055
<b>2014</b>	670	330	1000

Source: Bishop Mahon Primary school

### **3.5 Simple Random Sampling**

Simple Random sampling refers to any sampling method that has the following properties:

1. The population should have **N** objects.
2. The sample should consist of **n** objects that are equally likely to occur.

Therefore a simple random sample is a sub-set of individuals (a sample) chosen from a large set called population. Each member is chosen randomly and entirely by chance such that each individual has the same probability of being chosen at any stage during the sampling process.

There are many ways of getting simple random sample. In this case, and the researcher employed the lottery method. Each of the N population members were assigned a unique number. The numbers were placed in a large bowl and thoroughly mixed. Then a blind – folded researcher was requested to select n numbers. Finally population members having selected numbers were included in the sample. In this particular case n represented 15 schools selected from the population

School Management Committee member’s totals to  $15 \times 1 = 15$  members

Pupils totals to  $15 \times 5 = 75$

Teachers’ totals to  $15 \times 2 = 30$

Total participants 120

**Table 3.3: Target Population**

<b>Participants</b>	<b>Maximum</b>
Teachers	30
Pupils	75
School Management Committee	15
<b>Totals</b>	<b>120</b>

### **3.6 Sample Size**

It is difficult to determine the sample size with any degree of certainty (Baumgartner et. al 2002).The major reason for being concerned with sampling is that of validity and reliability .These twin concepts give criteria by which choice of research methods is judged. While validity means the success of method in assessing what it sets out to assess reliability on the other hand is the consistency of a particular research method.

In Turkana central division the population of primary day school is 38 and therefore the sample size taken was 15. Probability sampling and in particular simple random sampling without replacement was employed .For example the schools in Turkana central division

were assigned a series of numbers and 15 of them selected by random numbers without replacement, then this provided a simple random sample.

The study sought to investigate the behaviour of pupils when the bell for lunch break rang and how they behaved throughout the lunch break. The outcome was indicated in a table. The pupils did not know the intention of the researcher. Standard four were the first ones to yell and ran outside their classroom towards the school kitchen. Most of standards seven and eight who came out later forced their way and received their rations before the class fours. Most of the pupils not only failed to wash their containers but also did not wash their hands. The eating was in a hurry proving that they were really in need of more food. So the school feeding programmes are really required in schools.

Using action checklist the researcher visited schools at around lunch time to observe the behaviour of students during lunch break. The Pupils didn't know the motive of the researcher. His findings showed that most pupils hurry out of class when the bell for lunch break goes, they scrambled for first position in the line for food, some students go for a second helping, they always finish the given ration and a teacher on duty must be there to control the discharging out of food.

**Table 3.4 Action Checklist**

<b>ITEMS</b>	<b>WEAK</b>	<b>STRONG</b>	<b>VERY STRONG</b>
Pupils hurry out of class when the bell for lunch break			√
Pupils scramble to be the first on the line to receive lunch			√
Some pupils having two containers of food		√	
Pupils jostling to reach the food		√	
Some upper Primary Pupils sneak in to eat with lower Primary Pupils		√	
Teachers supervises the giving out of food to students			√
All Pupils finish the ration meted out to them			√



### **3.7 Data Analysis**

The data collected from both primary and secondary sources was analysed using the statistical package for the social sciences (SPSS). The developers of statistical package for the social sciences (SPSS) made every effort to ensure that the software is easy and effective to use. This ensures that the researcher (user) does not make mistakes or forget something. The researcher began by defining a set of variables and then entered data for the variables to create a number of cases. In this case the researcher carried out analysis on the impact of school feeding program on attendance so each primary pupil in the sample constituted a case. The variables included various behaviours that are elicited by the presence or absence of food in school.

After entering the data into SPSS – the cases were all defined by values stored in the variable. The researcher then ran the analysis. The SPSS was instructed to draw graphs, charts and tables the same way you instruct it to do analysis. The researcher used tables for the analysis of the data.

## **CHAPTER FOUR**

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

#### **4.0 Introduction**

This chapter presents analysis and findings as stipulated out in the research method. It focuses on the demographic information of respondents, the questionnaire return rates and presentation of findings according to research questions. This chapter is made up of sub-sections guided by the research objectives.

Various research instruments meant to address the same research questions were grouped together drawing conclusions on particular research questions. Presentation of analysed data was by use of tables, frequency and percentages. The open and closed ended questions were analysed by first grouping similar responses and then the tally system to generate frequency tables.

#### **4.1 Response Rate**

Questionnaire return rate is the proportion of the sample that participated as intended in all the research procedures. The study targeted 30 teachers, 75 standards 7 and 8 pupils and 15 School Management Committee. This was in regard to finding the impact of school feeding program on primary public day school attendance in central division of Turkana Central District Turkana County. The researcher distributed the questionnaires to the three categories of respondents. The percentage return rate of questionnaires which was 83.3% was deemed sufficient for data analysis.

#### **4.2 Demographic Characteristics of Respondents**

The section presents the demographic information of the respondents in the study. The study sought to determine the distribution of respondents by gender so as to establish the views held by each gender on the relationship between School Feeding Program and attendance in public primary day school in central division of Central District Turkana County. The study was guided by relevant questions whose results are as indicated in table 4.1 below. Females sampled in the study constituted 53% while their male counterpart made up of 47%. The study concluded that there are more female students

than males a phenomenon that is not expected since its believed that early marriages have affected girl child’s education more than boy child’s education.

**Table 4.1: Gender Composition of Respondents**

Gender	Frequency	Percent
Female	53	53
Male	47	47
Total	100	100

### 4.3 Regularity in Class Attendance

The study sought to establish the frequency of class attendance by the pupils who took part in the study. The students were asked if they attended classes regularly. The data on class attendance by the pupils is shown in table 4.2. From the table it can be seen that 80% concurs with (Adelman, Gilligan, et al; 2008) who stated that providing food to school children, either during school day in the form of snack or in the form of rations to take home, decreases the net cost of schooling or thereby shifts parental demand for children’s educational participation leading to improvements in enrolment, attendance and age at school entry. The findings may be interpreted to mean that pupils’ attendance was key to regular school attendance.

**Table 4.2 Regularity of Class Attendance**

	No	Percent
Yes	80	80
No	5	5
At times	15	15
Total	100	100

#### **4.4 The Relationship between the School Feeding Program and Pupils' Attendance of Day Primary Schools in Turkana Central Division, Turkana Central District**

To achieve the above objectives the study examined the following factors: The schools which benefitted from school feeding programmes, the percentage of sampled pupils who enjoyed the meals provided by the school, the necessity of the School Feeding Programmes in schools, the categories of meals provided in schools, the acceptance by pupils of the share of meals meted out to them (Daily rationing), and the number of pupils who missed school when the school food store was empty,

##### **4.4.1 Benefits of the School Feeding Program**

Policy makers and development organization has always held school feeding program in high esteem, as a way to assist children from poor families get sufficient food to eat while in school. These programmes are not only used in developing countries but also in developed countries as well.

The study sought to establish whether the study schools benefitted from school feeding programme. The pupils were asked to indicate whether their school benefitted from the school feeding programme. The results are as shown in table 4.3 given below. According to the table 89% of the respondents revealed that their schools benefitted from school feeding program, 5% of respondents indicated that their school did not benefit from the school feeding program and finally 6% reported that their schools do benefit from school feeding program but not always.

**Table 4.5: Schools that Benefit from School Feeding Programme**

Benefits	Frequency	Percent
Yes	89	89
No	5	5
Sometimes	6	6
Total	100	100

#### 4.4.2 Enjoyment of the Food Provided

The pupils were asked to indicate whether they enjoyed the food provided by the school feeding programme. The results of the study are given in table 4.3.1 below. The table reveals that majority of respondents 88% showed that they enjoyed food provided by the school feeding program. The respondents who in their view did not enjoy food provided was 5% while 7% of the respondents occasionally enjoyed food provided in schools. The result can be interpreted to mean that the pupils enjoy food.

From the results, it is apparent that most pupils attend schools when they know that the school has food. This becomes evident in the school registers as at some point almost every body is present and at other times most of the pupils are absent from school. The trend confirms that the school meals are inescapable as regular attendance is heavily pegged on it. This is in agreement with Espejo (2009) who stated the magnetic effect of the meal program greatly increased attendance, meaning schools meals are usually enjoyed by pupils.

**Table 4.6: Enjoyment Food Provided**

Food enjoyment	Frequency	Percent
Yes	88	88
No	5	5
Sometimes	7	7
Total	100	100

#### 4.4.3 Need for School Meals

Another aspect of the relationship between school feeding programme and school attendance was the necessity of school food. The pupils were asked to indicate whether

they felt that school food was necessary. The data generated is as shown in table 4.3.2 below. The results in the table show that 42 percent of the sampled schools indicate school food as vital in attracting pupils to attend school, 49 percent went a notch higher to indicate that the food was not only necessary but very necessary. The remaining 9 percent were of the view that learning can still run smoothly even without school food.

The implication of the results could be, the 9 percent of the sampled pupils come from well to do families who provided for the families adequately and the 49 percent come from families who are still seriously grappling with hunger. Therefore school feeding programme is a major factor that contributes to school attendance.

**Table 4.7: Need for School Meals**

Food necessity of School Food	Frequency	Percentage
Necessary	42	42%
Very necessary	49	49%
Can do without	9	9%

#### 4.4.4 Categories of Meals

The pupils were asked to indicate the category of food provided in the school. The results are tabulated in table 4.3.2 given below. According to the table 98% of the covered schools provided lunch while only 2% provided breakfast. In a school set-up, the breakfast commonly provided is porridge or tea without milk. Such provision may not sustain a learner who may not have had any other form of breakfast at home.

On the other hand lunch which usually comprises maize, beans and at times Irish potatoes is not only a strong meal but also a balanced diet. Sometimes the danger of providing breakfast only, pupils with sly personality may take advantage of that and be reporting to school for breakfast and thereafter vanish. Therefore lunch is the most appropriate category as one receives after learning and it is difficult for one to report to school at lunch break. Therefore provision of lunches is in tandem with World Food Programme (WFP, 2006) who stated that provision of meals in Kenya indicates food as an effective incentive to lure children to school and so attend classes.

**Table 4.8: Categories of Meals**

Meals	Frequency	Percent
Breakfast	2	2
Lunch	98	98
Total	100	100

#### 4.4.5 Sufficiency of Food

To confirm whether the rations meted out to pupils was sufficient or not, they were asked to indicate as shown in table 4.3.4 below. The results proved beyond every reasonable doubt that the ration was not enough as 86% were of the opinion of increasing the ration; only 14% declined.

According to the results 86% of the responds suggested for an increase in the food ration while 14% felt that there was no need to increase food ration. The findings can be interpreted to mean that pupils' were in favour of daily rationing to be increased. This shows that school food is required for many pupils to attend schools.

Naturally, different people eat different amounts of food. So 86 percent of the sampled pupils either are blessed with good appetite or simply come from humble background while the 14 percent might be coming from families that can afford at least three meals in a day. Since more pupils request for more quantity of meals then pupils don't just need a meal. While in school but sufficient amount of meals at a given time.

**Table 4.9: Sufficiency of Food**

Daily rationing increment	Frequency	Percentage
Yes	86	86
No	14	14
Total	100	100

#### **4.4.6 Absenteeism and School Meals**

The study sought to determine whether pupils missed school when the school food store was empty; and the outcomes were as follows.

According to the results, majority of the respondents 80% agreed that very many pupils missed school when the school food store was empty. At the same time, 5% agreed that only a few pupils missed school when the food store was empty. Finally, 15% of the respondents indicated that many pupils missed school when the food store was empty. According to the result, pupils missing school is attributed to the school food store being empty.



**Table 4.10: Absenteeism and School Meals**

Empty food store	Frequency	Percentage
Very Many	80	80
Many	15	15
A few	5	5
Total	100	100

#### **4.4.7 Absenteeism and Food in Store**

Pupils were asked questions to determine whether they know any students who missed school when there was food in school store. Their responses were tabulated as shown in table 4.3.6 below. 91% of the respondents agreed that no pupils missed school when there was food in the school food store, while 6% of the respondents agreed that pupils missed school when there was food in the school food store. Finally, the result also indicated that 3% of the respondents were of the view that sometimes pupils missed school even when there was food in the school food store. The finding can be interpreted that students mostly missed school when there is no food in the school store. Therefore the organizers should avail food to schools always.

The findings are in agreement with (Grantham et. Al. 1998) who noted that a hungry child may not be able to perform well in class. Failure to perform as a result of biting hunger is a sufficient reason for pupils to miss school. So for pupils to remain in school and participate well in academics, school food is highly required.

**Table 4.11: Absenteeism and Food in Store**

Food in the school store	Frequency	Percentage
Yes	91	91
No	6	6
Sometimes	3	3
Total	100	100

#### **4.4.8 Enjoyment of Learning**

The study sought to investigate whether children enjoyed learning when there was food in school store and the outcome was as shown in table 4.1.12.

Majority of the respondents 89% agreed that Pupils enjoyed learning when there was food in the school food store whereas 3% of respondents agreed they did not enjoy learning when there was food in the food store. 8% confessed that sometimes they enjoy and other times they don't just enjoy learning because of food in school. This result indicates that for pupil to enjoy learning there must be food in the school food store. This can also be interpreted that pupils' participated well in all school activities when school food was available. Therefore school attendance is strongly linked to school feeding programme.

**Table 4.12: Enjoying Learning when there is Food in School Store**

Pupils	Frequency	Percent
Yes	89	89
No	2	2
Sometimes	8	8
Total	100	100

#### **4.4.9 Dullness due to Empty Food Store**

Pupils were requested to indicate whether dullness of pupils in class was in any way related to school food, and the responses were as indicated in the table 4.13 below.

According to the table, 77% of respondents agreed that they knew many pupils who felt dull and even dose in class when the school food store was empty. On the other hand, 2% of respondents were of no idea that pupils' dullness was as a result of lack of food in the food store then finally, 21% agreed that they knew some pupils who became dull when there was no food in the school food store. Dullness in the pupils when school food store is empty is a clear indication that most of them do not always get food at home. So they come to school for survival. When schools also miss food then they persist on hoping that the situation will soon change for better and in the process, they dose. The dullness and dosing is attributed to lack of food, so school meals are vital for pupils to attend classes and be jovial.

**Table 4.13: Dullness due to Empty Food Store**

Pupils Dullness	Frequency	Percentage
No	2	2
Yes I know some	21	21
I know many	77	77
Total	100	100

**4.4.10 Food Availability**

The study asked the pupils to indicate whether school food was available in schools throughout the academic year and their responses were recorded as shown in table 4.3.8. Responses displayed, reveal that majority of the respondents 83% agreed that food was available in their schools throughout the year whereas only 14% disagreed that food was available in their schools throughout the year. The rest who formed 3% had no idea whether food was available throughout the academic year or not. The result can be interpreted that food is usually there throughout the year. The presence of food in school ensures regular attendance of pupils in school.

**Table 4.14: Food Availability**

Food availability	Frequency	Percentage
Yes	83	83
No	14	14
I don't know	3	3
Total	100	100

#### **4.5 The Relationship between School Feeding Program and Pupils' Enrolment in Primary Schools in Turkana Central division, Turkana Central district**

Collins Thesaurus, 2002 defines the term school enrolment as means of admission enlisting, recruitment or signing in of students to undergo training. According to (Del Rosso, 1999) school feeding programmes and other school based nutrition and health programmes motivate parents to enrol their children in school and to see that they attend school regularly.

##### **4.5.1 Unauthorised Transfers**

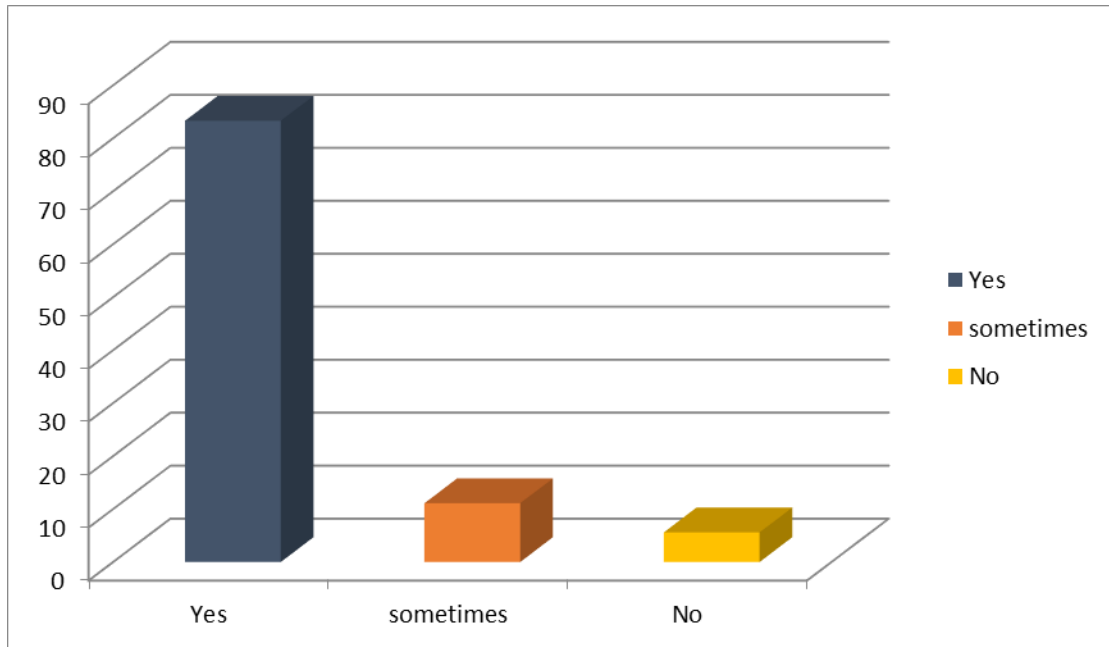
First, the study sought to establish whether there was transfer of pupils from the school which had no food to those that had food. The results are shown in table 4.4.1 given below. According to the table 67% of the respondents agreed that pupils moved their original schools to other schools due to food availability in those schools. At the same time only 4% of respondents disagreed that pupils moved from their original schools to other school due to food availability in those schools. Finally, 29% of the respondents agreed that just a few of the pupils moved from their original schools to other schools that had food. Turkana Central Division is so dry that even wild fruits are rare to find and so food must be bought and it is expensive. Pupils go to school because that is the only place where breakfast or lunch is available. For this reason, pupils therefore join schools that have food throughout the year. As well, the findings can be interpreted to mean that the number of pupils' who transfer following food availability are more than those who did not transfer schools. So enrolment depends on the availability of food.

**Table 4.15: Pupil transfer from Schools without Food to Schools with Food**

Pupils transfer	Frequency	Percentage
Yes	67	67
No	4	4
Just a few	29	29
Total	100	100

#### 4.4.1 Reporting in Schools

Pupils were asked to indicate whether pupils reported promptly to school at the beginning of the term even when there was no food in school store, the results were as displayed in figure 4.4.3 below.



**Figure 4.1: School Records of Reporting at the Beginning of the Term**

The results indicate that majority of the respondents at 83.3% indicated poor reporting in schools at the beginning of the term when there was no food in schools, at the same time 11.1% indicated that sometimes schools recorded poor reporting at the beginning of the term when there was no food in school food store and 5.6% of the respondents disagreed with the idea. The findings can be interpreted that pupils report to schools at the beginning of the term, depending on the availability of food. So food is a strong attraction of pupils to schools at the beginning of each term.

#### 4.5.2 Enrolment of Underage Pupils

Pupils were asked to indicate whether there were some pupils in class one and pre-unit who were underage. The results were as shown in table 4.4.2 below. 79% of the

respondents did indicate that it was true and correct while 19% said that only a few are there. 2% were not aware of underage enrolment. This outcome reveals that even children below school going age, have also discovered that to get regular meals one has to go to school. Therefore the regions need more and more of food supplies to feed many children.

**Table 4.16: Enrolment of Underage Pupils**

	<b>Frequency</b>	<b>Percentage</b>
Yes	79	79
Just a few	9	9
No	2	2

#### **4.5.3 Interview Schedule**

The study sought to determine the challenges facing school feeding programme and the successes of the programme if any. Most headteachers complained of poor infrastructure and also government vehicles to transport the food to schools. Sometimes they were forced by circumstances to look for their own private means of transport which is costly.

Another challenge which most of them mentioned was the delay in delivering the same food in the county when the former stock gets finished. Storage facilities were also challenging to some schools. However the programme has improved attendance and enrolment and critically minimised school drop-out. The headteachers were grateful to the government of Kenya for alleviating short term hunger in primary schools.

#### **4.5.4 Documentary Analysis**

The study sought to determine the enrolment per gender in Central division of Central District, Turkana County from 2006 to 2013. The researcher visited the office of county director of Education to view records. The division is made up of two zones namely, Kawalase and Kanamkemer popularly known as Kanam by the local people. The records of enrolment per gender, per zone are as shown in table 3.4.1. In all the years 2006

through 2013, the enrolment shows more boys than girls though the disparity is not large enough to cause alarm. The year 2006 showed the lowest enrolment while 2010 recorded the highest enrolment.

The second documentary analysis was done in Bishop Mahon primary School. The information documented by the school headteacher was as given in table 3.4.2. This was from 2004 to 2014. The enrolment of males were higher than the enrolment of females throughout the period. There is no significant progress in the enrolment but however the year with the lowest enrolment was 2006 with a total 558 pupils while the year with the highest enrolment was 2013 with a grand total of 1055 pupils.

The lack of systematic improvement in enrolment in Central Division of Central District Turkana County even as the population increases may be attributed to the total lack or insufficient rations of food in schools. For the schools to be attractive to the community, food among other requirements must be available. A similar fate may have befallen to Bishop Mahon Primary School and caused some pupils to drop out of school. On the whole school feeding programmes that are consistent are dragnets for pupils.

#### **4.6 The relationship between school feeding program and school dropout rates of pupils attending day primary schools in Turkana Central Division Turkana Central district.**

The impact of the school feeding programme on the wellbeing of especially rural and nomadic children cannot be overemphasized. Through providing daily meals schools are able to satisfy the immediate food requirements and offer a long time safety and empowerment to children as well as families and communities. To address the historical primary school absenteeism and subsequent dropout among most impoverished Kenyans and nomadic communities, the Government of Kenya in conjunction with World Food Programme (WFP) initiated school feeding programmes as an incentive to retain pupils in school. To achieve the objective several factors were examined in the following section. The study sought to establish if there was any relationship between school feeding program and school dropout rates in primary schools in Turkana Central Division.



#### 4.6.1 Pupils Leave School to become Street Children

Pupils were asked to indicate whether pupils leave school for the street when there was no food in school store. The results were as shown in table 4.5.1.

**Table 4.17: Pupils Leave School to become Street Children**

Pupils drop out and joining street life	Frequency	Percentage
Yes	63	63
No	6	6
A good number	31	31
Total	100	100

According to the table, the results were not only perturbing but also pathetic, as 63% of the respondents agreed that Pupils dropped out of school and become street children due to lack of food at the school store, whereas 6% of respondents disagreed that pupils dropout out of school and become street children. This could probably explain the increasing number of street children on the streets of Lodwar town. The result can be interpreted to mean that lack of food in school food store is one of the reasons for dropout, and subsequent increase of street children in town.

#### 4.6.2 Pupils Leaving School for Employment

Pupils were requested to indicate whether some pupils left school for employment when there was no food in school store and they responded as follows; 69% of the respondents admitted to have known students who left school due to lack of food in the school store to seek for alternative ways of making ends meet. These alternatives include house help, pushing handcart (Mkokoteni) and washing utensils in hotels, 12% disagreed that pupils left school for employment because of lack food at school while 19% agreed that a few Pupils left school for employment as a result of lack of food at school. This result can be interpreted that pupils' left school for odd jobs whenever there was no food in school store.

**Table 4.18: Pupils Leaving School for Employment**

Students leaving school	Frequency	Percent
Yes	69	69
No	12	12
A few	19	19
Total	100	100

#### 4.6.3 Disappearance of Pupils from Schools

Pupils were asked to indicate whether some pupils disappeared from school whenever there was no food in schools and the responses were as indicated below. 83% agreed that pupils disappeared from schools during the time when there was no food in school food store and only come back when there is food in schools. Such groups do not go out to look for long lasting jobs but any activity that can make them eat; a high percentage depicts this. At the same time, 4% disagreed with the view that Pupils disappeared from schools when there was no food. Finally, 13% agreed that just a few Pupils disappeared from schools when there was no food in the school store. The result can be interpreted that pupils disappear from schools when there is no food supply.

**Table 4.19: Disappearance of Pupils from School**

Pupils Disappearance	Frequency	Percentage
Yes	83	83
No	4	4
Just few	13	13
Total	100	100

#### 4.6.4 Pupils' Temperament

Pupils were asked to indicate whether some pupils easily lost their temper and became a little bit hostile whenever there was no food in school store. Their responses were as shown in table 4.5.4 below.

According to the table 59% of the respondents admitted feeling sad and losing interest of going to school when school food was out of stock, whereas 34% of respondents admitted that they felt normal even when school food was out of stock. This explains the strong connection between food and Pupils feelings at home in school. This can be interpreted that pupils attitude towards school is reinforced by school meals.

**Table 4.20: Pupils Temperament**

Pupils feelings	Frequency	Percentage
Bad	59	59
Normal	34	34
Happy	7	7
Total	100	100

#### 4.6.5 Nationalising School Feeding Programme

Pupils were asked to indicate whether they could propose school feeding programmes to be established in all schools and their responses were as follows; 91% of the respondents agreed with the suggestion that school meals should be introduced in all schools in Kenya. This could be because the respondents have tested and seen the fruit of it. At the same time, 3% of respondents did not agree that school feeding program should be introduced in all school in Kenya. Also, 6% of the respondents were of the opinion that may be the school feeding programme be introduced in all schools in Kenya. This can be interpreted that school feeding program should be established in all schools in Kenya.

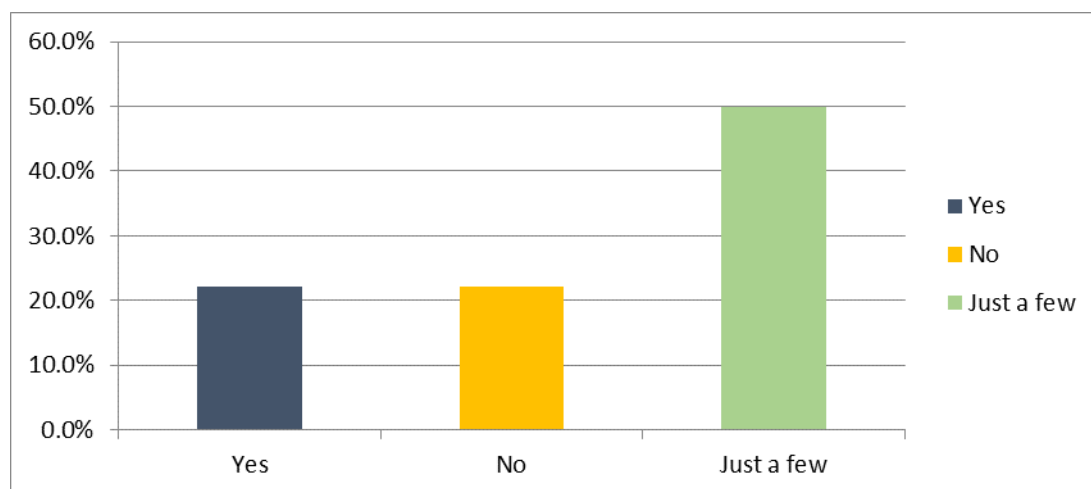
**Table 4.21: Nationalising School Feeding Programme**

	Frequency	Percentage
Yes	91	91
No	3	3
May be	6	6
Total	100	100

#### 4.6.6 Pupils not Partaking the School Meals

Pupils were given an opportunity to state and indicate whether there are pupils who do not partake school meals, the outcome generated was depicted in figure 4.2.

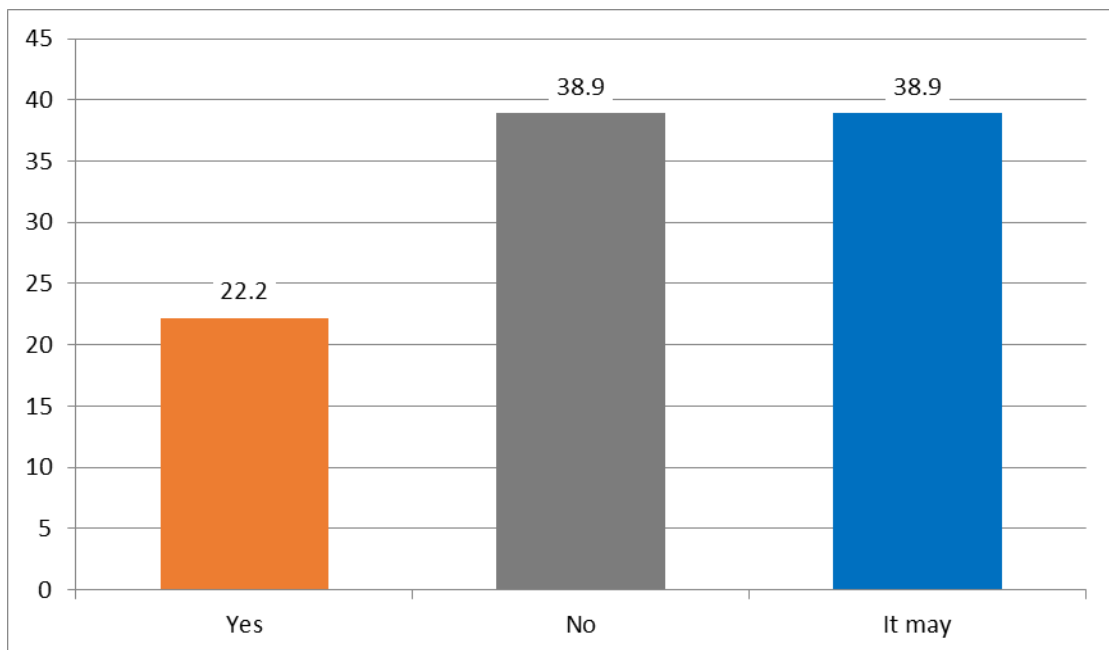
The findings from figure 4.5.6 indicates that 23.5% agreed that some pupils do not partake school meals when there is food at school, 23.5% disagreed that the students do not partake school meals when there is food at school store and finally, 52.9% were of the opinion that just a few of the students do not partake the school food. This results shows that the pupils partake school meals, regardless of their socio economic background. School meals are therefore used as a strong motivation for learners to remain in school.



**Figure 4.2: Pupils not Partaking the School Meals**

#### 4.6.7 Continuation of Learning Without School Food in Store

The study sought to find out whether learning could go on uninterrupted when there was no school food in store, the results were as given in figure 4.7. The percentages who said that learning cannot continue and can continue were the same i.e. 38.9%. 22% of the respondents agreed that learning can still continue without food in store. This means, for learning to continue school stores must have food.



**Figure 4.5.7 Continuation of Learning Without School Food in Store**

#### 4.6.8 Observation

The study sought to determine the behaviour of pupils when the bell for lunch rang, so the researcher visited schools disguised as a parent and observed pupils well.

The lunch break for lower primary comes earlier than that of upper classes, so when the bell for lower primary's lunch rang they all made noise as they ran towards the kitchen to line up, each one of them hoping to be number one. There was no order in the line until their teacher came to assist them. As soon as food was served, most of them started eating without washing hands. At that time, some pupils from upper primary in classes

where there were no teachers also jointed lower primary in the line. Most of them were not lucky as the teacher on duty (MOD) chased them back to class.

When lunch break for upper classes came class four students were the first ones to yell and ran towards the kitchen. Older boys jostled and elbowed the small ones in the line and took position one in the line. When standards 7 and 8 came they pushed most of standards 4 and 5 behind amidst complaints that fell on deaf ears, until the Teacher on duty (T.O.D.) came to their rescue. Regardless of their age, they also ate using any containers available and even without washing hands.

This phenomenon demonstrates that school food is very vital to the survival of these pupils. Therefore school feeding programme is a strong attraction of students to attend schools.

## CHAPTER FIVE

### SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

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

#### 5.1 Summary of Findings

Summary of demographic findings found the views of the respondents by gender as follows; 53% were females and 47% were males. This indicated that more females enrol than male counterparts. The outcome on the relationship between school feeding programme and attendance showed a strong correlation between the two. Majority of the respondents 91% did indicate that pupils only missed school when the school food stores were empty otherwise with food in schools, they run at full capacity, secondly 88% of the respondents indicated that they fully enjoyed the food provided.

In arid and semi-arid regions the rainfall is not sufficient to support rain-fed agriculture and therefore there is neither planting nor harvesting. Most families rely on relief food and so the only place with consistent food supply is schools. For example the study reveals that 88 percent of the sampled pupils enjoyed attending class and hence learning well when the school food store has food. 70 percent said that the school food was very necessary to attract pupils and therefore attendance is directly linked to school meals.

The study also found out that for most pupils to enrol in schools, food must be available. For example 83.3 percent of the sample pupils confirmed that most pupils don't report promptly to schools on opening when the school stores were empty. This shows that most pupils depend on school food for survival. The study therefore concludes that school meals attract pupils for enrolment.

The study did indicate that 63 percent of the sampled pupils are aware of other pupils who left school and join street families where there is a lot of 'love', they claim that. 69 percent agreed to have known pupils who left school for employment so as to make ends

meet. Sometimes they not only fend for themselves, but also for their families as well. The moving of students out of school is determined by the availability of food in school.

The second objective was to assess if there was any relationship between school feeding programmes and pupils enrolments. The study was guided by several questions to determine the relationship. The results of one of the guiding questions revealed that pupils actually do transfer from schools which do not have food throughout the academic year to those day primary schools that have food. This challenging outcome do depict school feeding programme as a major booster of enrolment in primary day schools. Since most parents are not able to cater to their families well children find solace in attending schools. This outcome proves beyond all reasonable doubts that to improve on enrolment in primary day schools feeding programmes are inexorable. Therefore all stakeholders in education including politicians should put in place strategies to acquire and provide food in primary day schools.

The third and last objective of the study was to find out whether there was any relationship between school feeding programme and pupils drop-out from schools. To determine this objective, the study was guided by a number of relevant questions. The summary of the outcome did indicate that there was a strong relationship between school feeding programme and pupils' dropout from schools. For example part of the outcome, indicated 63% of the respondents confirming pupils leaving school to become street children in the wake of no food in school stores. Two challenges show up here, the increase of illiteracy and street families. These two main challenges require concerted efforts to conquer them. Now that county governments are fully in place, they should identify means and ways of providing foods in schools to curb drop-outs in the case of Turkana County, there are many non-governmental organizations who can work with both the county government and national government to maintain pupils in schools and solve the menace of street families who also participate in stealing at times.



## **5.2 Discussions of the Findings**

This section has had discussions of the findings in relation to theories in the literature review and the research objectives of the study.

### **5.2.1 Relationship between the School Feeding Program and Pupils' Attendance of day Primary Schools in Turkana Central Division, Turkana Central District**

The researcher was interested in investigating whether there was any relationship between the school feeding program and pupils' attendance of day primary schools in Turkana Central Division. To achieve the above objectives the study examined the following factors: the schools which benefitted from school feeding programmes, the percentage of sampled pupils who enjoyed the meals provided by the school, the necessity of the SF programmes in schools, the categories of meals provided in schools, the acceptance by pupils the share of meals meted out to them (Daily rationing,), the number of pupils who missed school when the school food store was empty, number of pupils who missed school when the schools had good in store the number of pupils who enjoyed learning when the school food store had food, the number of pupils who literally became dull when the school food store was empty, and the availability of food throughout the year academic years.

The findings revealed that there was a relationship between the school feeding programmed and pupils' attendance. For example according to figure 4.4.1 a whopping 83.3% confirms that pupils reporting to schools at the beginning of each term squarely depends on the availability of food in school store. 11.1% indicates poor reporting or opening of schools is sometimes affected by the availability of food in school stores. This becomes a very big challenge even on performance as some pupils may not complete the syllabus due to intermittent attendance of school.

91% agreed that many pupils missed school when the school food store was empty. According to the result, pupils missing school is attributed to the school food store being empty. Therefore, food is the main factor that makes pupils to miss school. These results are in tandem with most studies that do indicate that pupils may fail to attend school

because of hunger. According to (DOH 2005, WFP 2006) Children suffering from short term hunger as a result of skipping breakfast have difficulty concentrating in class and performing complex tasks. Moreover, randomized controlled trials demonstrated increase in attendance and enrolment and a reduction in dropout with in-school feeding (Dreze and Kingdom 2001).

The above results may mean that the reason why pupils' non-attendance of school is highly related to feeding program. Turkana is a pastoralist community and the parents put lots of value on pastoralism than education. The study established that the increasing attendance was attributed to the school feeding program. The study further revealed that school feeding program was of benefit as evidenced by 89% of the pupils' respondents.

### **5.2.2. Relationship between School Feeding Program and Pupils' Enrolment in Primary Schools in Turkana Central Division, Turkana Central District**

The study established that there was a relationship between school feeding program and pupils' enrolment in primary schools in Turkana Central Division. This was deduced from the findings in which , 4% of the respondents disagreed that pupils moved their original schools to other schools due to food availability in those schools and 67% of respondents agreed that pupils moved and 29% indicated just a few moved from their original schools to other school due to food availability in those schools.

The study findings also revealed that the pupils' enjoyment of learning in class was described by 88% of the respondents. The study findings show that most of the respondents 83% indicated that the school meals that was in schools throughout the year influenced pupils enrolment in class. The findings further showed that 67% of the respondents indicated that pupils did not move or transfer schools when there was no food in their schools.

### **5.2.3 Relationship between School Feeding Program and School Dropout Rates of Pupils Attending Day Primary Schools in Turkana Central Division Turkana Central District.**

The researcher sought to establish whether there was any relationship between school feeding program and school dropout rates of pupils attending day primary schools in Turkana Central Division. The study found majority at 69% of the respondents described pupil drop out as high.

The study also found out that most of the dropouts left schools due to lack of food in the schools and sought for alternative ways of making ends meeting especially for food purposes. For example, 69 of the respondents admitted to have known students who left school due to lack of food in the school to seek for alternative ways of making ends meet. These alternatives include house help, pushing handcart (Mkokoteni) and washing utensils in hotels. Most pupils indicated that they only enjoy learning when there is food in store i.e. 89% of the respondents. To reduce this dropout rate then it is necessary to replenish school food stores. This is in agreement with WFP (2006) findings that absenteeism and increased duration of schooling and performance, dropout rates and school year repetition diminish with school feeding. Hunger was the main reason for this drop-outs.

### **5.3 Conclusion**

After using several factors to determine the relationship between the school feeding program and attendance school feeding program and enrolment, school feeding program and drop out, the study concluded as follows:

In arid and semi-arid regions the rainfall is not sufficient to support rain-fed agriculture and therefore there is neither planting nor harvesting. Most families rely on relief food and so the only place with consistent food supply is schools. For example the study reveals that 88 percent of the sampled pupils enjoyed attending class and hence learning well when the school food store has food. 70 percent said that the school was very

necessary to attract attendance. Therefore class attendance is directly linked to school meals.

The study also found out that for most pupils to enrol in schools, food must be available. For example 83.3 percent of the sampled pupils confirmed that most pupils don't report promptly to schools on opening when the school stores were empty. This shows that most pupils depend on school food for survival. The study therefore concludes that school meals attract pupils for enrolment.

Thirdly the study did indicate that 63 percent of the sampled pupils are aware of other pupils who left school and join street families where there is a lot of 'love', they claim that. 69 percent agreed to have known pupils who left school for employment so as to make ends meet. Sometimes they not only fend for themselves, but also for their families as well. The moving of students out of school is determined by the availability of food in school.

#### **5.4 Recommendations**

This section presents the following recommendations based on the findings of the study. The study 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. This is based on the finding that when school food stores are empty, pupils do not attend school. The national and county government should ensure that more primary day schools are put in place with school feeding programmes to attract and maintain pupils in schools. The study further recommends that more private companies individuals and churches should come on board to assist the government in the implementation of the programme. For example, in Chile, a country in South America with one of the most elaborate school feeding programme in the world works in conjunction with the private contractors to implement the school feeding programme. So the government administers and the private companies implement. The government also through the Ministry of Education (MOEST) should put in place strategies to ensure that

school food leaving the main store actually reaches schools and lasts for the estimated period, to minimise loopholes of school food disappearing after reaching the schools.

### **5.5 Suggestions for Further Research**

This study was limited to finding out how school food affected pupils' attendance in schools, enrolment and drop-out. It therefore recommends that further (future) studies should be carried out on the following variables.

1. Relationship between improvement in mathematics score and provision of breakfast
2. School feeding program and standard 8 completion rates
3. The impact of cattle rustling and school dropout.

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## APPENDICES

### APPENDIX I

#### LETTER OF INTRODUCTION

The University of Nairobi  
Department of Educational Administration  
P.O.BOX 30197  
Nairobi

Dear Respondent,

I am a student at the University of Nairobi pursuing a Master of Education degree. I am through with course work and now expected to carry out a survey on the **impact of school feeding programme on the attendance of Primary day school pupils in central Division, Central District, and Turkana County**. Kindly find a Questionnaire attached herewith that seeks your opinions and answers about the impact of SFP in Turkana County. The outcome will be used to make recommendations to the stake holders. Your opinions will be used only for the purpose of this research and will be kept confidential. I will be grateful if you will spare a bit of your precious time to respond to the following questions.

Yours faithfully,

Pius Wanjala

## APPENDIX II

### QUESTIONNAIRE FOR TEACHERS

This questionnaire is specifically designed to elicit data that can be used to determine the impact of the school feeding program on the primary day school, attendance, enrolment and dropout rates. You are hereby kindly requested to be as true and independent in filling the questionnaire as possible. The researcher is a student of the University of Nairobi, taking a master degree in sociology of education.

#### Background Information

1. What is your gender?

Male  Female

2. Which is your highest level of profession qualification?

PTE  Dip in education  University education

3. How long have you been on this school?

1 Year  2 years  3 years  More than 3 years

#### Experience with school feeding programme

4. Does your school benefit from school feeding program?

Yes  No  Sometimes

5. Which meal (s) is provided?

Breakfast and lunch  Breakfast only  Lunch only

6. In your view, is the school meal very important to the student to?

Yes  No  sometimes

7. Do some students miss school when there is no food?  
 Yes  No  I don't know
8. Is it true that the school meals ensure pupils' regular attendance?  
 Yes  No  Sometimes
9. Do most students finish the given ratio?  
 Yes  No  Only some
10. Are there pupils who don't partake the school meal?  
 Yes  No  Just a few
11. During the times when there is no food in school store, do pupils appear dull?  
 Yes  No  Some
12. Have you ever administered a continuous assessment test (C.A.T) when there was no food?  
 Yes  No  Sometimes
13. What was the performance index in 12 above?  
 Normal scores  higher scores  Lower scores
14. Do you think education in your school can continue as usual when food supply is cut off?  
 Yes  No  it may

### **Enrolment**

15. In class one do you enrol many students or just to capacity  
 Capacity  more than capacity  below capacity
16. Are some enrolled students in class one under aged?  
 Yes  No  Most
17. Do you think some are just enrolled in class one due to food availability?  
 Yes  No  Very few

18. Do some pupils join your school because of the availability of food?

Yes  No  At times

19. Are there pupils who enrol and then disappear when there is no school food?

Yes  No  I don't know

20. Do you know of any pupils who left school to join street life just because there was no food in school for a period of time?

Yes  No  I can't remember

21. Do you know of any pupils who stay at home until is available at school for them to come?

Yes  No  I can't remember

22. Do you think attendance, enrolment and school dropout in your school highly depend on school meals?

Yes  No  sometimes

23. Does the school record poor reporting in school at the beginning of a term when there is no food in school?

Yes  sometimes  No

24. How can you rate classroom participation by the pupils during the period of no food?

Very dull  dull  Normal

25. Do some students disappear immediately after partaking the school food?

Yes  Negligible No  No

### APPENDIX III

#### QUESTIONNAIRE FOR PUPILS IN PRIMARY DAY SCHOOL

The sole purpose of this study is purely to find out the relationship between the school feeding program and the pupils attendance, enrolment and dropout rates. So feel free to answer the given questions to the best of your knowledge. The researcher is a student from the University of Nairobi taking a master in sociology of education. The respondent is kindly requested to put a tick (√) in the most appropriate box.

#### Background information

1. What is your gender?

Male  Female

2. In which class are you?

Std 7  Std 8

3. Do you attend classes regularly?

Yes  No  At times

#### Experience with school feeding program

4. Does your school benefit from school feeding program?

Yes  No  sometimes

5. Which meal does the school provide?

Breakfast  Lunch  Supper

6. Do you enjoy the food?

Yes  No  Sometimes

7. Is the school food very necessary or you can still do without it?

Necessary  can do without  Very necessary

8. If given an opportunity can you suggest for the increase of the daily ration?

Yes  No  May be

9. Do you know some students literally miss school when the school food store is empty?

Very many  Many  A few

10. Do you also some students who literally miss school when the school food in the school store?

Yes  No  Sometimes

11. Do you enjoy learning when there is food in school more than when it is not there?

Yes  No  Sometimes

12. Do you know of students who become very dull and dose in class when the school does not have food?

No  yes I know some  I know many

13. Does your school have school food throughout the term?

Yes  No  I don't know

14. Do you know of pupils who moved from their original school to yours because of availability of food throughout the terms?

Yes  No  just a few

15. Do you know of some students in class one who are underage but have just come because of food?

Yes  No  A few

16. Do you know of some students who take one meal only in the day and the meal is school lunch?

Yes  No  A few

17. Are there some pupils who take part of the meal home for their young siblings (brothers and sisters)?

Yes  No  Many including me

18. Are there cases of students going back for a second helping during lunch time?

Yes  No  Not really

19. Do some older students snatch food from the young ones?

Yes  No  Sometimes

### **School dropout rates**

20. Do you know of any pupils who dropped out of school and became street children just because there was no food at school for some time?

Yes  No  A good number

21. Are there some pupils who left school in search of employment because there was no food at school?

Yes  No  A few

22. Do you know of pupils who just disappeared from school during the time of no food in the store?

Yes  No  Just a few

23. In your view, should school feeding program be established in all primary school in Kenya?

Yes  No  May be



24. How do you feel when school food is out of stock?

Bad  Normal  Happy

School Management Committee (SMC)

1. What is your gender? Male ( ) Female ( )

2. In which class is your son/daughter? ( )

3. In your management meetings how often do discuss about the school welfare?

Often ( ) very often ( ) once in a while ( )

4. Does your school benefit from School Feeding Program?

Yes ( ) No ( )

5. Do all students take school meals?

Yes ( ) No ( )

6. If no kindly state the possible reason for that

.....  
.....

7. Do you support the programme to continue?

Yes ( ) No ( )

8. Does the community around support it?

Yes ( ) No ( )

9. Do some children miss school when there is no food?

Yes ( ) No ( )

10. Does the school perform well in KCPE when there is food throughout the year?

I disagree  I agree  No sure

11. During opening many students will not report to school until there is food.

Strongly disagree  Disagree

Note Sure  Agree

Strongly agree

12. Whenever food is not delivered immediately some pupils perform poorly in the first continuous assessment test (C.A.T)

Strongly disagree  Disagree

Note Sure  Agree

Strongly agree

13. Whenever SFP is maintained throughout the term, the school usually receives new pupils.

Yes  Not sure  Sometimes  No

14. Pupils drop out of school whenever there is no food in school.

Ye  Not sure  Sometimes  No

15. Whenever food ends before closing, the school is forced to close earlier for fear of students disappearing.

I disagree  Not sure  I agree

**APPENDIX IV**

**LETTER OF AUTHORIZATION**



**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:

**29<sup>th</sup> January, 2015**

**NACOSTI/P/15/7654/4458**

Pius Wanjala  
University of Nairobi  
P.O. Box 30197-00100  
**NAIROBI.**

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“The impact of school feeding programme on primary day secondary school attendance in Turkana Central Division, Central District, Turkana County,”* I am pleased to inform you that you have been authorized to undertake research in **Turkana County** for a period ending **15<sup>th</sup> March, 2015.**

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

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

  
**DR. S. K. LANGAT, OGW**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Turkana County.

The County Director of Education  
Turkana County.

APPENDIX V


RESEARCH PERMIT

THIS IS TO CERTIFY THAT:  
**MR. PIUS . WANJALA**  
 of UNIVERSITY OF NAIROBI, 38-30500  
 Lodwar, has been permitted to conduct  
 research in Turkana County  
 on the topic: **THE IMPACT OF SCHOOL  
 FEEDING PROGRAMME ON PRIMARY DAY  
 SCHOOL ATTENDANCE IN TURKANA  
 CENTRAL DIVISION, CENTRAL DISTRICT,  
 TURKANA COUNTY.**  
 for the period ending:  
**15th March, 2015**

*Ajus*  
 Applicant's  
 Signature


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

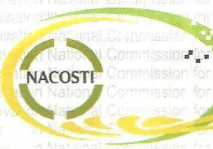
Permit No : NACOSTI/P/15/7654/4458  
 Date Of Issue : 29th January, 2015  
 Fee Received : Ksh 1,000



**CONDITIONS**

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.

  
 REPUBLIC OF KENYA

  
 National Commission for Science,  
 Technology and Innovation

**RESEARCH CLEARANCE  
 PERMIT**

Serial No. A **4116**

CONDITIONS: see back page