



SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

**THE EFFECT OF SCHOOL FEEDING
PROGRAM ON ENROLLMENT AND DROPOUT
RATE; THE CASE OF KEBRIBAYAH DISTRICT
OF SOMALI REGION OF ETHIOPIA**

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ABSTRACT

The purpose this study was to investigate the effect of School Feeding Program on enrollment and dropout rates and also to bring out the major challenges and obstacles encountering the effect of SFP in Kabribayah School. The objectives of the study will be to identify the current practices of SFP, to examine the impact of SFP on enrollment and dropout, to assess the perceptions of students towards SFP, to explore the community perceptions towards the SFP and also to identify the problems of practices of School Feeding Program in Kabribayah district school. To achieve the above objectives descriptive survey method will be used, Quantitative data collected from teachers and students through questionnaire, qualitative data will be collected from parents through FGD, and principals and education office experts through interview. The quantitative data will be analyzed through percentages and mean, and qualitatively data will also be analyzed in narration form and finally data collected through all tools will be triangulated, from the analysis the following findings will draw.

Key Words: School Feeding Program, Enrollment, Dropout, Community.

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LIST OF ABBREVIATIONS AND ACRONYMS

ASLI	African Student Learning Index
AR	Absence Rate
ARDO	Agriculture and Rural Development Office
CHILD-FFE	Children-In-Local-Development-Based Food for Education
CSB	Corn Soya Blend
WB	World Bank
DR	Drop-out Ratio
ESDP	Education Sector Development Program
FDRE	Federal Democratic Republic of Ethiopia
FFE	Food for Education g gram
GER	Gross Enrollment Ratio
HER	Household Enrollment Ratio
IFPRI	International Food Policy Research Institute Kcal Kilocalorie
KII	Key Informant Interview
LMIC	Low and Middle Income Countries
RCT	Randomized Controlled Trials
MoE	Ministry of Education
NER	Net Enrollment Ratio
NSFP	Non School Feeding Program
PSNP	Productive Safety Net Program
SFP	School Feeding Program sig. Significance
SPSS	Statistical Package for Social Sciences
UN	United Nations
VAM	Vulnerability Analysis and Mapping
WFP	World Food Program
MDG	Millennium Development Goal
EFA	Education for All
FTI	Fast Track Initiative
BMI	Body Mass Index

1. INTRODUCTION

1.1 Background

Pervasive under nutrition remains a serious obstacle to children's physical and cognitive development in developing countries. Hunger diminishes children's ability to concentrate and to retain what they learn at school. School feeding attempt to improve poor and credit constrained households' investments in education by subsidizing the cost of school and by reducing short term hunger and improving nutrition. In 2008, the United Nations World Food Program (WFP) provided school feeding to around 22 million children in 70 countries (Bundy et al 2009). In poor counties, where school enrollment is low, school feeding can provide a strong incentive to poor households to send their children to school and to keep them school.

Hunger is an ongoing problem that affects more than 1.2 billion people who do not have enough to eat in the world today. The recent global economic crisis, fluctuations in food prices in 2006–2008, wars and political conflicts, and devastating natural disasters have deprived millions of people of access to adequate food. Most of the individuals affected are in the most impoverished regions of the world. Previous efforts by heads of states, international organizations, and local agencies to address poverty and hunger-related issues resulted in the UN Millennium Declaration (2000). The goals outlined in the declaration were established to eradicate poverty, alleviate hunger, reduce gender inequalities, improve health and longevity, overcome environmental degradation, and most importantly, develop global partnerships to achieve the goals. Education and health were central components of the roadmap towards implementing the stated goals. The

first millennium development goal (MDG) emphasized the eradication of extreme poverty and hunger, whereas the second and third MDGs focused on “achieving universal primary education” and overcoming gender disparities in primary and secondary education. The UN declaration and its roadmap have set the platform for global trends and national efforts to meet the MDGs within a reasonable timeframe (mostly by 2015) and the World Bank (WB) and its development partners, including the World Food Program (WFP), took more rapid steps to meet these goals and launched the Education for All (EFA) Fast Track Initiative (FTI) in 2002. The main objective of EFA FTI was to help low-income countries meet the MDGs, particularly the “education for all” goal. Despite the major efforts exerted, the progress towards universal primary education (2nd MDG) has been slow and uneven. More than 121 million school-aged children are still out of school, and two-thirds of them are girls living in rural areas in the most vulnerable regions of the world. One of the major reasons for this lag in progress toward universal primary education is the persistence of poverty, hunger, and malnutrition. Infants and children are among the most vulnerable population groups

subject to the adverse, and when very young, irreversible, short and long-term cognitive, physical, and psychosocial consequences of hunger and undernourishment. There is also increased evidence that childhood under nutrition imposes significant economic costs on individuals and nations, and that improving children's diets and nutrition can have positive effects on their academic performance and behaviors at school as well as their long-term productivity as adults. School feeding programs (SFPs) have been continuously gaining popularity in developing countries, mostly among those affected severely by childhood hunger and malnourishment. These programs aim to enhance the concentration span and learning capacity of school children by providing meals in schools to reduce short-term hunger that may otherwise impair children's performance. Currently, SFPs exist in 70 of the 108 low- and lower-middle income countries, and most of them have been initiated and funded by the WFP. Some of these SFPs have evolved and been adopted nationally while others still rely on the assistance, funding, and/or expertise of the WFP and its development partners in varying degrees. The WFP and its development partners have been promoting school feeding in its different modalities for years as effective interventions that help alleviate hunger and improve the cognitive and educational abilities of children. When children are provided with food at school, not only do parents receive an incentive to send their children to school, particularly girls, children are also encouraged to attend and complete a school day. Thus, SFPs can help developing countries and their development partners meet a number of MDGs, including the eradication of hunger, achieving universal primary education, and closing the gender gap by giving boys and girl's equal opportunities for completion of primary schooling.

Nutrition during the school years is crucial for the physical, mental, and psychosocial development of children and adolescents aged 6 to 19 years. It is estimated that, across the developing world, 66 million school-age children go to school every day hungry, with 23 million hungry children in Africa. Attending classes hungry severely impacts children's and adolescents' abilities to learn, to thrive, and to realize their full potentials.

School feeding programs (sometimes referred to as school meal programs) are interventions that regularly provide nutritious foods to children and adolescents attending school. Benefits of school feeding on children and adolescents include alleviating hunger, reducing micronutrient deficiency and anemia, preventing overweight and obesity, improving school enrollment and attendance, increasing cognitive and academic performance, and contributing to gender equity in access to education. Most countries have some forms of school feeding programs in some way and at some scale. School feeding programs are widely available in high-income countries but generally have incomplete coverage in low- and middle-income countries (LMICs), where the need is greatest in terms of hunger and poverty. Most countries in sub-Saharan Africa only have school feeding

interventions that are targeted toward the most food-insecure regions instead of being universally available. It is imperative to expand the coverage of school feeding programs and to improve the quality of existing programs to maximize their benefits on children and adolescents.

Little is known about the impacts of school feeding programs on specific educational and health outcomes of school-age children and adolescents in LMICs. Previous reviews on the potential effects of school feeding are outdated, with the most recent Cochrane review published in 2007, thus do not reflect all of the currently available evidence. Also, previous work has limited scopes in terms of the age range or the outcomes examined (e.g., anthropometric and nutritional outcomes but not educational or psychosocial outcomes or vice versa). Further, prior reviews have focused on the provision of school meals and did not explicitly evaluate what specific content (types and amounts of foods and nutrients) of the school meals conferred the largest benefits on outcomes. Therefore, an updated and refined synthesis of evidence on school feeding interventions and a wide range of educational and health outcomes of children and adolescents are warranted and will inform the design and implementation of future programs.

The aim of this systematic review and meta-analysis is to evaluate the impacts of school feeding programs on educational and health outcomes of children and adolescents aged 6 to 19 receiving primary or secondary education in LMICs. We will emphasize findings generated from randomized controlled trials (RCTs). RCTs better account for external factors that may confound the effect of school feeding programs, including background nutritional deficiency levels and inputs from schools and teachers. We will also include other rigorously designed interventional studies, including controlled before-after studies and non-randomized controlled trials that were able to account for the baseline differences between intervention arms.

School feeding appears to be attractive as they may not only increase enrollment and reduce dropout but can also improve learning and cognitive development. The educational benefit of school feeding depends on the modality, targeting and implementation of the program. School feeding program provides onsite meals (breakfast, lunch or snacks) or take-home rations that may be combined with micronutrient supplementations (adelmen et al,2008).

While on site meals are usually provided to all students, take home rations are often given only for girls conditional on school attendance exceeding some threshold. In most developing countries, school feeding program target areas with high food insecurity, low enrollment or gender disparity. school feeding may help children`s educational progress, particularly that of malnourished children. However there are limits to the benefits of both nutrition and health programs in poor educational setting, the achievement of children is linked to both their biological state and quality of school and it`s difficult to separate these two contributing factors. If school feeding program are successful in

increasing enrollment and attendance, but if there is no input there will be insufficient space and will be crowded, hence overall performance of the children levels may not improve. If significant advances must be made in children's education in developing countries, there is an obvious need for integrated program combining educational with health and nutritional input (Grantham-McGregor, 2005 P15).

Many school feeding have major health intervention components and are often a significant platform for the distribution of health interventions (Tomlinson, 2007:4). In many poor households, hunger has been a barrier to school participation. A hunger-stricken child is not only unable to enroll in school at the right age but also cannot attend properly even if enrolled. Besides, such children are also likely to quite school because they have to deal with their immediate substance needs before they get ready for schooling. Thus low school enrollment, low class attendance and high school dropouts are recurring problems in child education among poor households especially in areas of high food insecurity. Due to these reasons the level of education attainment has also been low in many developing countries although both private and social returns to education are recognized to be high (Adelman, Gilligan et al. 2008).

School feeding programs are beneficial for the physical, mental, and psychosocial development of school-age children and adolescents, particularly those in low- and middle-income countries (LMICs). While school feeding programs are ubiquitous in LMICs, the specific benefits of school feeding programs are unclear. The aim of this systematic review and meta-analysis is to evaluate the impacts of school feeding programs on the educational and health outcomes of children and adolescents in LMICs.

Rigorously designed interventional studies on the impacts of school feeding on nutritional and health outcomes of children and adolescents receiving primary or secondary education in LMICs will be included. The following information sources were used to identify relevant published or unpublished studies: MEDLINE, EMBASE, CINAHL, the Cochrane Library, and governmental or organizational websites. The risk of bias of randomized and non-randomized studies will be assessed using the Cochrane Risk of Bias tool and the ROBINS-I tool, respectively. Two reviewers will independently conduct the selection of studies, data extraction, and assessment of the risk of bias. A narrative synthesis of all the included studies will be provided. Meta-analyses will be performed whenever appropriate.

Ethiopia is one of the poor counties where hunger has been a major barrier to child education. The country has historically experienced severe famines, often in drought affected rural area. Households in such areas usually find it difficult to feed the entire family since own production of food falls short of the demand in the household.

Consequently, even children need to engage in some kind of activities to generate livelihood for their households. Thus, many primary school age children in food insecure areas remain out of school. On the other hand, even if school is free of charge, families in such areas still don't have the means to cover some costs as for books, uniforms, shoes and transportation. These constraints also keep children from participating in school but rather force them to stay home and help parents in household everyday jobs. Therefore to overcome such problems, investment in education must target not just children, but also households (Desalegn K, 2008).

The Ministry of Education in collaboration with the United Nations World Food Program (WFP), adopted school feeding program for the first time in 1994 with an initial pilot project covering 40 primary schools in selected zones of four different regions in Ethiopia (WFP,2008a).

As of 2007, the total beneficiaries reached 653,036 in food insecure areas of six regions with more than 1000 schools assisted. School feeding program is one of the strategies of education development incorporated in the government's education sector development program (ESDPs).according School Feeding Programs are expected to raise and maintain school enrollment with a particular focus on meeting the demand side of education of chronic food insecure and vulnerable children (Ministry of Education, 2005,9; as cited in Desilgn K,2008).

The elementary education coverage in Somali Regional State is reportedly to have been approximately 63% of the total population. school age children that do not get access to education found to be high, as in most areas rural community give less value and attention to education to allow their children join schools to study following this event and recurrent droughts that cause frequent food security wear and tear in the region(MoE,2011).

Somali Region is reportedly that it is back warded region and frequently food insecure is the most important for child that are not able to process their education for the absence of their basic need like food and the likes, in order to recover that school feeding is more important.in addition to that during that recent past, due to climate changes the region has witnessed recurrent drought with extraordinary magnitude that has claimed huge number of livestock, in an area that is mainly 80% pastoralist. Farmers whose farms are mostly rain fed have also been hugely affected by the droughts that directly let to crop failure. The result were increased malnutrition cases throughout the region and effect has put many families who lost their livestock herds into destitution and into the below poverty line, there are intermingled numerous of problems affecting the region due to poor infrastructure and inadequate social infrastructure coupled with occurrence of both natural and manmade hazards and absence of rehabilitation and recovery programs these has led to reduce spirit to drought and floods (MoE, 2011).

Given the above set of condition and hardships, the Somali pastoral residing in the rural areas of Somali region state have not had the opportunity to enroll their children in school due to the absence and lack of school at rural area for the lack of being stableness. most schools are built and mostly found at the urban centers, making rural children out of reach for those schools, in addition many parents and household heads are not aware of the importance of education, illiteracy rate in Ethiopia is estimated to be approximately 54% most pastoral households prefer their children to take care of their livestock while the girls are left at home to the entire domestic work of the family. Other parents see their children as a helping hand to generate an additional income for families (WFP, 2011).

According to Regional Education Bureau in the Somali Region student enrolment and attendance is very low during the two dry seasons of the year student dropout rates were extremely very high during the droughts, as the children did not have enough to eat at home in order to attend school. Many will move with their families into the interior in search of better territory, water and mostly never to return back to school (WFP, 2011).

1.2 Statement of the Problem

Proving education to all is the major challenge to Ethiopia, it has been difficult to provide education to all age groups in all parts of the country, some parts of the country do not even have school within a reasonable distance for example in one village .in addition, female abdication and long distance to school has made expanding the coverage of education more difficult. Therefore, there is a need to build schools closer to the communities and provide teachers as well as other educational inputs and resources beside the supply problem, even in areas where schools are available, significant numbers of school age children have not been enrolled and even dropout after being enrolled in school. The reason for the large numbers of dropout of school children are many and main dropout reason among the other is the absence of food. These include parents` attitude towards educating their children, early marriage, and drought in the land, disease, and other related factors (MoE, 2011).

Empirical studies also reveal that school feeding programs indeed have significant positive impact on school participation. Such studies suggest School Feeding Programs are effective in encouraging school enrollment, enhancing class attendance and lowering student dropouts (Ahmed, 20004; WFP, 2009). To the contrary, few other studies reveal there are no observable impacts of school feeding program on school participation.

Promoter of School Feeding claims that providing food in schools would supposedly attract vulnerable children to school improves their attendance and minimizes dropouts. according to the United Nations WFP, school feeding program is an incentive for vulnerable families to invest in children`s education and encourages poor households to send children to school and helps to keep them school (WFP, 2008b).

This study, therefore, takes into account of this argument and evaluates the effect of particular school feeding program in improving school participation in kabribayah District where school feeding program exist.

1.3 Hypothesis

The study will address the following questions;

1. What are the current practices of school feeding program in kabribayah district school?
2. How is the impact of school feeding program on enrollment and dropout rates in kabribayah district school?
3. What is the perception of students and parents towards school feeding program in kabribayah district school?
4. How does the community perceive the school feeding program in kabribayah district school?
5. What are the problems of practices of school feeding program in kabribayah district school?

1.4 Objectives of the Study

The objective of school feeding program is to provide meals (breakfast, lunch, snack, milk...) to alleviate short term hunger, increase attention span, facilitate learning and obviate the need for children to leave school to find food. In-school meals also act as an incentive to increase school attendance. In addition to that, micronutrient fortification and deworming could be included in the school meal program as they are cost-effective interventions:

The objective of the study will be classified into the general as well as specific objectives as indicated below:

1.4.1 General Objectives

The objective of the study will be examine the effect of school feeding program on improving enrollment and reducing dropout rates in primary school in kabribayah district.

1.4.2 Specific Objectives

The study will focus on the following specific objectives;

1. To identify the current practices of school feeding program in kabribayah district school.
2. To examine the impact of school feeding program on enrollment and dropout in kabribayah district school.
3. To assess the perceptions of students towards school feeding program in kabribayah district school.

4. To explore the community perceptions towards the school feeding program in kabribayah district school.
5. To identify the problems of practices of school feeding program in kabribayah district school.

1.5 Significance of the Study

In the recent years to reduce the rate of illiteracy and for the growth of school enrollment rate in slight areas realized that the most effective method to engage in the problem of low enrollment and dropout rate is the establishment of school feeding that means the children that their age are appropriate age should have to go to school as one of the Millennium Development Goals-Universal Primary Education (MGD-UPE) indicates.

This may be useful to make a policy to increase school enrollment rate, withholding and decreasing dropout rate may effect to the effective implementation of school in other minor areas of the country. Beneficiaries and education experts will appreciate problems at the research level with regard to effective resource utilization and addressing the customer`s needs and others working with people living in marginal and dampness stress areas. The study has the potential to show much the school feeding program has improved school attendance and learning in schools.as an indicator for future studies, the study has potential to reveal how school feeding program can be improved to cover gaps, which may exist in the program implementation. The research has considerable ability to generate answers to the question "what?" in the implementation of supplementary feeding program in schools.

Thus the study may provide directions for further research, extension, and development scheme that will benefit the scheme beneficiary. Moreover, documentations of the identified problem provide direction for government, and other national and international organizations whose main concern is efficient meal utilization in a particular area.

This research may have a great significance to point out basic effects to clarifications for the problem of dropout rate, to suggest the essential point of dropout rate in the case of the pastoralist, examine the class size and the contribution of the school feeding, study the importance of school feeding in the pastoralist people, fill the knowledge gap in the area and serve as a literature for further researcher who is interested to conduct a research on school feeding program.

1.6 Delimitations of the study

This study will try to explore and give deep detail of the idea of the effect of school feeding program on enrollment and dropout, this study will also deals with the effects and benefits of school feeding in the case of primary school in kabribayah district schools.

The research is limited to analyzing the impact of school feeding program in school participation among primary school children. According to the Ethiopian education and training policy, primary education is a level of education that ranges from grade1 through grade 8 (MoE, 2010).

This level of education is divided in to first cycle (garde1-4) second cycle (garde5-8), and the primary school age children are those from 7-12 years of age.

Although the impact of school feeding program are studied in various ways such as the impact on nutrition or feeding and learning achievement towards the impact on education, and so on. Yet these aspects are beyond the scope of research and hence this research will covered here.in terms of geography, the study has been conducted in kabribayah district, one of provinces of Fafan zone of Somali regional state of Ethiopia.

2. LITERATURE REVIEW

2.1 Definitions and Concepts

School feeding is recognized as a way to improve children's nutrition and education and as a vehicle to fight disease and school dropouts. School feeding programs throughout the world have successfully attracted children to school and have hold on to them by offering them food or a nourishing snack. Such programs have indicated an increase in children's nutritional status, raised school enrolment, improved attendance, increased attention span and are solving community health problems. School feeding provides vital nutrients, and for many children the food they eat at school is the most nutritious they will get all day (IFPRI, 2004a).

Although many SFPs have been conceived out of ideological, political and economic pressures, the prejudices of international or national personnel, or even commercial or other non-objective influences, the first step toward an effective program is to build programs on sound and transparent objectives. Since SFPs are highly visible and can offer a significant income transfer to families they will always be inherently political. To avoid the use of programs for political purposes, information on programs – especially, who the program is for and why and targeting measures -- must be made readily available to the public. Policy development and setting the objectives of school feeding provides the framework for implementing all the other recommendations aimed at improving the contribution that a SFP can make to education and better health and nutrition. The process of policy development calls for compiling information on: what ‘food-related’ and education-related problems exist in the school age population which could be addressed by school feeding; where, geographically, the problems are located; and which school feeding options are available, or could be developed, for addressing these problems.

School feeding could be seen as one of the key strategies in contributing to household food security, and should outline as part of a complete package to improve the health and general well-being of a child (DoH, 2005:32).

2.2 School Feeding Program from Global Perspectives

School feeding originated in the 1930s, when feeding schemes were introduced in the United Kingdom (UK) and the United States of America (USA), with the explicit aim of improving the growth of children (Richter, Griessel, & Rose, 2000). In the United Kingdom, a program that subsidized milk for school children, was initiated in 1934 and milk was provided free of charge from 1944 onwards. In the late 1960s and early 1970, this benefit was withdrawn from all, except for those

children considered particularly needy. This was an early example of the targeting approach in school feeding.

School nutrition program has a long history of meeting the food and nutrition needs of children. School feeding has its origins in the 1930s, when scheme was introduced in the United Kingdom and the United States with the explicit aim of improving the growth of children (Richter, Griesel & Rose, 2000). Brazil and India have established school feeding programs by passing legislations (Lawson, 2012). Currently, almost all nations around the world have a school meals program and about 368 million children from kindergarten to secondary school receive food at school every day. Governments recognize school meals as an essential tool for the development and growth of children, communities and society as a whole (WFP, 2015). WFP (2013), estimates on coverage suggest that while 49 percent of school children receive free meals in middle-income countries, the figure for low-income countries is 18 percent. This suggests that where the need is greatest in terms of hunger, poverty and poor social indicators, otherwise the coverage continues to be the lowest. WFP has done the most extensive school feeding operations than any international entity, benefiting millions of children and their families each year. In 2002, it assisted 64 countries' school feeding activities, reaching nearly 16 million children. Several international non-governmental organizations and some donors

Many countries in the world have implemented national school nutrition programs. These programs were introduced in response to particular needs that certain countries sought to address at the time. Brazil introduced its School Nutrition and Food Security Program (SNFS) in schools after the Second World War in 1945. Both the United Nations and the USAID supported Brazil's program (Swartz, 2009). Because of the vast nature of its country, Brazil adopted a decentralization approach as a strategy to manage the program.

The Local Schools Meals Councils, which comprised of representatives from the government, teachers, parents and civil society organizations, managed the implementation of the program (WFP, 2010).

For millions of children today, hunger is one of the most persistent and damaging phenomena; it has far-reaching effects on the development of both individuals and nations.

Hunger negatively affects the brain development of children and hampers their chances of educational success later on. Hunger, poverty and poor education are interdependent. When children are hungry, chances that they will attend school are limited, and without education, their chances of breaking the poverty trap are significantly reduced (DoH, 2005:27, WFP, 2006).

Research has indicated that both sensitive and constant hunger affect children's access to school, their attention span, behavior in class and educational outcomes. Studies have shown that children suffering from short-term hunger, as a result of skipping breakfast, for example, have difficulty concentrating in class and performing complex tasks (DoH,2005:27, WFP, 2006).

School children are particularly weak to short-term hunger, especially where diets of poor quality are consumed. Factors such as the long distances children walk to school; having to complete every day jobs before going to school and poor quality and quantity of meals consumed at home, contribute to hunger in school children. Children who come to school hungry have reduced attentiveness, a greater probability of becoming diverted and a lack of interest in learning, resulting in failure, low achievement and repetition (DoH, 2005:32).

Although a child may be at school, he may not pay attention to a learning task if he is hungry. Even if there is a balance between the quality of teaching and the child's ability to learn, the actual time spent on the task is probably 15% the most critical component of learning. Relieving a child's hunger may improve his ability to concentrate and by this means facilitate learning.

Children's memory may also improve so that they are more likely to learn (Grantham-McGregor, 2005:S146). Evidence indicates that hunger leads to psychosocial dysfunction in children, particularly increasing their levels of violence and worry, indicating that hungry children are at greater risk of non-productive behavior in class. Inhibit, an indicator of constant malnutrition, is widespread surrounded by school-age children, with negative effects on their education (WFP, 2006:4).

Education, health and nutrition cannot be considered in isolation. A holistic approach to children's well-being should be followed (WFP, 2006:4) Hunger is a barrier to learning and school feeding programs throughout the world have successfully attracted children to school by offering them food or a nourishing snack. The primary objective of a school feeding program is to provide meals or snacks to improve short-term hunger, thus enabling children to learn. School feeding programs have proven effective in encouraging enrollment, increasing attention span and improving, the ambition of all nations in the United Nations is to address the challenges resulting from advancing globalization resulted in the formulation of the MDGs in the year 2000. In the formulation of the MDGs attention has been paid to hunger and poverty as stated in MD number 1: Eradicate extreme hunger and poverty. The sub goal formulated hereby is: by the year 2015 the proportion of people who suffer from hunger is halved as compared to 1990 (UNHCR, 2005a).

2.3 History of School Feeding

As early as 1790, a combined program of teaching and feeding hungry children was begun in Munich, Germany, and in France in 1867, a school lunch program for needy children was established in about 464 areas. In Norway, the Oslo Breakfast, introduced in 1897, consisted of half a pint of milk, whole meal bread, cheese, half an orange and half an apple, and from September to March, one dose of cod-liver oil was included (FAO, 2005:15).

In the USA, the Children's Aid Society of New York began serving lunches to children at a vocational school as far back as 1853, and in Philadelphia the Starr Center Association began serving penny lunches in one school in 1894 (Gunderson, 2007). The Netherlands became the first country to adopt national legislation specifically to provide school lunches in 1900. In Switzerland, lunches were provided by private societies to about eight percent of the primary school children. This was done to encourage school attendance by children who lived far from school and who were unable to go home for lunch (FAO, 2005:15, Gunderson, 2007).

Dr Huber found that teachers supported the school feeding because of better attendance, improved attention and better scholastic work by the children. His findings and recommendations resulted in a national order being issued in 1903, making it obligatory for municipalities to provide food for children in need. In 1906, state funds were authorized for this purpose (FAO, 2005:15, Gunderson, 2007). In 1905, the Education Provision of Meals Act was passed in England, the aim being to secure suitable meals for schoolchildren. This was the culmination of the efforts of 365 private charitable organizations (FAO, 2005:15, Gunderson, 2007).

An experimental program, taking the form of a mid-morning lunch for elementary schools, was implemented in January 1910 in Boston and Chicago. By 1921, Chicago had the most intensive school lunch system in America, serving 31 000 children daily. By 1921, Los Angeles had also introduced a school feeding scheme, serving a snack at 10 a.m. or lunch at noon to underfed children. Lunches were sold at cost, but were given free to the children who were unable to pay by 1914, up to 50 Italian cities were conducting some form of school feeding program.

National school feeding schemes were introduced in the 1930s in the UK and the US with the explicit aim of improving the growth of children. In the UK, a program that subsidized milk for schoolchildren was initiated in 1934, and milk was provided free from 1944 onwards.

School feeding was introduced to South Africa in the early 1940s, providing free milk to white and colored schools. In the late 1960s and early 1970s, this benefit was withdrawn from all, except for

those children considered 17 particularly needy. This is an early example of the targeting approach in school feeding (Tomlinson, 2007:4).

School feeding programs are powerful tools for alleviating day-to-day hunger pains. It is suggested that giving children a daily breakfast at school may improve their scholastic achievement (Grantham-McGregor, 1998:785). Results of international studies indicate that breakfast makes such a significant contribution to a child's nutrient intake for the day that a child who misses breakfast is unlikely to make up the deficit of nutrients during the rest of the day.

A study done in SA by Labadarios 1997 indicated that approximately one out of five rural and urban black primary school children, as well as urban colored primary school children, do not eat breakfast before going to school and feel hungry as a result. Breakfast usually provides children with approximately one-third of their daily energy and other nutritional requirements. If the children have an inadequate breakfast at home, they may suffer from periods of hunger. The alleviation of short-term hunger may affect cognitive functions, such as memory and efficiency of information processing. Children's classroom behavior, their attention and participation may also improve, and fidgeting may be reduced (Richter, Rose and Griessel, 1997:93, Grantham-McGregor et al, 1998:785, Roche, 2000:3). Efforts targeted primarily at relieving short-term hunger should focus on providing breakfast or a small snack shortly after children arrive at school (Jamison & Leslie, 1990:206). Richter et al, 1997:93) reported that developing countries experienced many problems in trying to isolate the effects of school feeding from other socioeconomic, cultural and educational factors. Food distribution program, including school feeding, are not always implemented sufficiently to show beneficial effects. Problems with regard to supply, administration, storage and delivery, inter alia, may occur. However, school feeding program can have numerous benefits. Children from poor families or marginal communities are frequently absent from school and this reduces the likelihood of their benefiting from educational (Ibid).

School feeding in Ethiopia began in 1994, targeting food insecure areas and by providing one hot meal composed of corn soya blend, vegetable oil, and salt. The intervention later added a take-home ration for girls in the pastoralist area. Until the introduction of the Home-Grown School Feeding (HGSF) in 2012, WFP Ethiopia has been implementing the school feeding program through the traditional method of providing porridge made from wheat mostly secured from the in-kind donation. WFP has been the largest provider of school feeding in the country until 2014, when some actors including the Government started to emerge in the provision of school feeding. Currently, WFP's support to school feeding in the country strategic plan contributes to:

Strategic Outcome 1: Refugee and crisis-affected populations in targeted areas are able to meet their basic food and nutrition needs throughout the year, and;

Strategic Outcome 2: Vulnerable and food-insecure populations are able to meet their essential food needs and establish climate-resilient livelihoods, under strategic outcome one, WFP is planning to reach about 450,000 pre-primary and primary school children in drought and conflict-affected areas including in the refugee camps. Under this model, the program uses a mixed model either in-kind food or local procurement depending on the availability of cash. While under strategic outcome two the Program is planning to reach 200,000 students through in-kind food (MGD) complemented through local procurement and another 140,000 students through a cash-based transfer for local procurement from smallholder farmers. In addition to WFP intervention, a total of 578,000 students (264,000 HGSF and 304,000 Emergency school feeding) are benefiting from school feeding through the regional bureau of Education funding. The government program uses both caterers and local procurement from smallholder farmers. WFP's investment in HGSF aimed to create an enabling environment for the government planned and managed school feeding program linked to smallholder farmers. The long-term goal was to strengthen the sustainability of the school feeding program through the design and implementation of cost-effective home-grown school feeding managed by the government, which improves smallholder's income by creating structured market demand (saving lives, changing lives WFP Ethiopia, 2019).

Under nutrition causes eight million child deaths worldwide every year it is a major public health problem in developing countries, especially in Sub-Saharan Africa. Despite some positive progress in economic growth observed in many developing countries, under nutrition continues to be highly prevalent and is associated with poor health status and poor academic performance.

Under nutrition inhibits academic attainment through poor growth and mental development, reduced motivation and poor cognitive development. On the other hand, being overweight and obese is reported to have the potential to impair academic performance via social pathways such as discrimination and stigma. According to the Global School-Based Student Health Survey, the mean body mass index (BMI) estimates among adolescents in South Asia, Southeast Asia, East Africa, West Africa and Central Africa are. The lowest age-standardized mean BMIs were seen in Ethiopia, Niger, Senegal, India, Bangladesh, Myanmar, and Cambodia. The World Bank report also indicated that, academic performance in students of Sub-Saharan African countries is less than half of what is expected for their age based on the Africa Student Learning Index (ASLI). Ethiopia is among the countries where adolescent students' academic achievement is low according to the ASLI score

measured School age School age provides an opportunity to remedy nutritional and developmental deficits that were not addressed during early childhood. Nutritional interventions in school-aged children have been reported to result in improved cognitive function. The School Feeding Program (SFP) has been recognized as a platform for nutritional, health and educational intervention program. The contribution of SFP with regard to outcomes of energy intake, micronutrient status, enrollment and school attendance and academic achievement displayed relatively consistent positive effects. Its positive effect on physical growth, cognitive and academic performance was less conclusive in some countries while substantial effect was seen elsewhere. The SFP is also believed to pave the way to achieve sustainable development goals and to reduce inequalities in education. In sub-Saharan African countries, SFP showed an encouraging effect on learning outcomes and a small average effect on attendance. In Ethiopia, evidence on the nutritional and educational effects of SFP is minimal with some pocket studies conducted at the sub-national level The Ethiopian school feeding program, which has been in operation for 30 years, is expanding its reach and putting more strategic emphasis on developing a pilot project that connects school feeding with regional agricultural production. The Ethiopian government is actively working to change the nation's agricultural sector, including its approaches to school feeding, through effective policies and projects.

This scoping review aims to map the evidence relating to school feeding programs and their potential role in managing children under nutrition. Thus, its main focuses are to explore coverage of school feeding, quality of school feeding, nutritional impacts, funding issues, and effects on educational achievements among students in Ethiopia. The study results will inform the public, donors, academia, policy makers and other stakeholders. To make judicious use of evidence regarding school feeding, scientific evidence regarding school feeding in the country should be summarized, analyzed and presented in an accessible format. The scoping review used the methodological framework of Arksey & O'Malley for scoping reviews.

2.4 Overview and Benefits of School Feeding Programs

The primary assumption of school feeding programs is that education and learning depend on good nutrition (Briggs, 2008). School health and nutrition also addresses the critical health and nutrition factors that keep children out of school and reducing their ability to learn effectively, such as malnutrition and hunger (Save the Children USA, 2007).

Bundy defined school feeding as the provision of food to school children. There are two main groups of school feeding approaches, namely 'in-school feeding' and 'take-home rations (Bundy, Burbans, Grosh, Geli, Jukes, and Drake, 2009).

School supplementary feeding programs can therefore be implemented as in-school feeding, where the children eat the food in school or as take home rations, where the learners take dry portions of food to consume at home. In-school feeding programs are better preferred for the learners as their eating can be monitored and they consume the full amount of their daily ration. In take home rations however, the possibility of sharing the food with family is high resulting in the learner not consuming adequate amounts of their daily ration. School feeding programs are mainly implemented with the intention to achieve the following results:

- Increase enrolment and attendance
- Improve short-term hunger
- Improve nutritional status

The benefits of school feeding go far beyond a school meal and include consequences for equity and inclusion in education. Particularly for girls, encouraging results have been documented on school performance through increased enrolment and sustained attendance (Adelman et al., 2019). By providing healthy balanced meals, school feeding programs can improve overall micronutrient status and reduce anemia prevalence in primary school-aged children and adolescent girls (Shrestha et al., 2020). They may also reduce vulnerability and boost family incomes, particularly in times of crisis. The value of a school meal is equivalent to about 10% of a household's income per child which can equate to substantial savings for families with several children in school (Bundy et al, 2018).

Because the window of opportunity for adequate nutrition for optimal health and physical and cognitive development is short and spans the first 1,000 days of life beginning at the first day of pregnancy, any under nutrition occurring during this period can lead to extensive and largely irreversible damage to physical growth, brain development and consequently, human capital formation. Therefore, interventions to improve nutritional outcomes must focus on this age group and on women of child-bearing age. From this perspective, providing food to school-age children cannot reverse the damage of early nutritional deficits. A school child who is short for her age was had her growth likely stunted by inadequate nutrition at an earlier age, and hence school feeding would not be able to address their nutritional as well as cognitive deficits. Although the most recent systematic review shows that providing meals at schools can have a significant impact on the growth of school-age children, the effect is small and probably cannot reverse the consequences of earlier malnutrition. However, there could be intergenerational benefits for younger children. The links between school feeding and increased enrollment point to a positive

effect on the wellbeing of the next generation because both maternal and paternal education levels are strong determinants of child growth and development as measured by stunting. The odds of having a stunted child decrease by about 4–5 percent for every additional year of formal education achieved by mothers. In summary, it has been shown that the primary drivers for increased support for school feeding are the benefits for social protection and for education. Well-designed school feeding programs, which include micronutrient fortification and deworming, can provide nutritional benefits and should be considered to complement and not substitute nutrition programs targeted at the first 1,000 days of life, which should remain a clear priority in countries' efforts to address childhood under nutrition and ensure human capital formation for future generations.

In humanitarian contexts, school feeding can limit the negative consequences of emergencies on health, nutrition and education thus lowering barriers to accessing and completing education, especially for girls (Aurino et al., 2019). Including local food sources in school meals can also promote the consumption of diversified diets based on locally available and fresh foods while enhancing local economic development. For example, in Ghana, preliminary findings from an impact evaluation of a Homegrown School Feeding (HGSF) model showed a 33% increase in agricultural sales and household income (Gelli et al, 2016).

Depending on the country context, nutrition situation and the human, financial and infrastructural resources available, an integrated school-based package of services can address both health and nutrition challenges synergistically and enhances cost-efficiency. Such a package could include school meals, either in the form of a midday snack or a hot meal via HGSF (WFP and the Food and Agriculture Organization of the United Nations, 2018), which may include fortified foods as well as complementary health and nutrition components

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Depending on the context, nutrition situation and the human, financial and infrastructural resources available, an integrated school-based package of services can address health and nutrition challenges synergistically and enhance cost-efficiency. Such a package could include school feeding, either in the form of a midday snack or a hot meal, alongside complementary health and nutrition components such as deworming, vaccinations, supplementation, sexual and reproductive health, school gardens, nutrition education and water, sanitation and hygiene.

Economic analyses identify schools as cost-effective platforms for delivering an integrated package of essential health and nutrition services to schoolchildren. Interventions delivered through schools often provide more opportunities to reach children than those delivered via health facilities, particularly in rural areas. Incorporating community outreach mechanisms within the education system further promotes health among children in LLMICs

Global estimates suggest that at least 388 million pre-primary, primary and secondary school children in 161 countries receive daily school meals. For 14 LLMICs, a cost-benefit analysis showed that the potential economic returns on investment for school feeding are comparable to the most cost-effective solutions promoted by the Copenhagen Consensus¹. However, a recent analysis by the World Food Program (WFP) showed that, of the 251 million children living in countries with poor nutrition, 73 million children from 60 countries (84% in Africa, 15% in Asia and 1% in Latin America) live in extreme poverty (less than USD1.85 per day). Supporting governments to reach these children with nutritious meals and other school health and nutrition interventions is a priority.

Implementation of school feeding programs is associated with increased enrollment, particularly for girls from vulnerable populations in many low-income countries including some LMICs such as Vietnam. School feeding programs can help to get children into school and help to keep them there, through enhancing enrollment and reducing absenteeism; and once the children are in school, the programs can contribute to their learning, through avoiding hunger and enhancing cognitive abilities. A daily meal also allows children to focus on their studies rather than their stomachs. These effects may be potentiated by complementary (nutrition-enhancing) actions, especially deworming and providing micronutrients. Providing school meals has also been shown to improve cognitive abilities and educational achievements in both low and high-income settings as they help to alleviate short-term hunger, and if the quality of meals is improved, significant improvement of study results is observed. In Vietnam, the Vietnamese Government, through a WB supported project – School Education Quality Assurance Program (SEQAP), decided to pilot full day schooling program in 2010, and which also included a school lunch, in disadvantaged areas. An independent evaluation of the project implementation showed that full day schooling has improved the quality of education quality and

performance. The evaluation noted that for the program to succeed a school needs at least minimum physical conditions

School meals help families support their children's education while protecting their food security. They help break the inter-generational cycle of hunger and poverty that affects vulnerable families and communities. However, while safety net programs must reach the poor to be effective, school feeding programs face challenges in reaching the poorest. The main reason is that enrollment is always lowest among the poorest and vulnerable communities. It should be noted that in-school meals are usually served to all children in the school including non-needy children, to avoid issues of logistics, jealousies, or stigma that might arise if only some children are fed.

2.5 School Meals Provide Support to Local Farmers.

The best school meal programs are community-based and provide financial support to local farmers. In doing so, they help generate economic activity, allow farmers to improve their operations, and expand local agriculture. They also ensure that children are receiving fresh and healthy ingredients on a daily basis. In Timbuktu, in Mali, local food producers are providing meals to children with support from WFP based on local traditions, while ensuring adequate nutrition.

Schools that depend on the community to organize and implement SFPs offer certain advantages. These advantages include: increasing the contact, and hence communication, between parents and teachers, officials and others; giving parents the opportunity to become more aware of what goes on at schools; and serving to raise the value of education/the school for parents and the whole community. For example, school canteens are viewed as an important feature of education policy in Morocco. Since 1978 WFP and the government have supported school feeding. The programs have strong government and community support and are viewed as part of a necessary package of inputs for improving education. The feeding program is credited with helping to maintain high enrollment and attendance and encouraging community participation in education. School cooperatives support the school canteens and parents associations assist with the transportation of food aid (WFP, 1993).

2.6 School Meals Create Positive Ripple Effects.

School meals seem simple. And, in material terms, they are — a plate of rice and lentils, a bowl of soup with bread. But they're also building blocks toward a brighter, more dignified future.

Of course, many other factors have to be in place to ensure children thrive — such as good schools, freedom from violence and trauma, and adequate health care. But the importance of food can't be overstated.

When children have daily access to nutritious food, they're able to emerge into their full potential. The \$9 generated for every \$1 invested in school meal programs shows how investing in children is good for the whole of a community as well.

School meals contribute to an environment where girls avoid early marriage and pregnancy and go onto higher education, where jobs and local entrepreneurialism get created, and where well-being becomes the norm.

2.7 School Feeding Program and School Participation

Having examined the conceptual relationships between school meals and school participation, this section discusses some of the relevant empirical studies. The majority of the literature analyzed for this study reveals that SFP have indeed positive impact on school participation as measured by school enrollment, class attendance, and student drop-out status (see for instance Meng and Ryan. 2003: Ahmed. 2004: Vermeersch and Kremer. 2004). However, most of these findings are based on empirical data obtained from schools where the program was popular and has been relatively effectively implemented. Vermeersch and Kremer conducted a field-study in Western Kenyan preschools between 2000 and 2002 to evaluate the impacts of School Feeding Program on school participation and achievement. Preschoolers, in this context, are defined as children between ages of 4 and 6 who lived within walking distance of school. They found that children in the treatment group participated 35.9 percent of the time compared to 27.4% in the comparison (control) group and this difference was statistically significant (Vermeersch and Kremer, 2004).

The program increased participation of both children who were previously enrolled (what they call intensive margin) and children who would have gone to school in absence of the program (extensive margin). But they emphasize that an increase in school participation in the absence of qualified teaching falls short of better educational achievement since there are strong complementarities between teacher characteristics and school meals. Nevertheless, their study was on preschools and hence this may not have much relevance for primary school children.

Besides Preschoolers are early-age children and may not have family obligations like many primary school age children might have in poor areas. Thus preschoolers are relatively free of duties that could keep them away from school. Another study conducted in Jamaica shows that school meals indeed improve education of beneficiaries (Grantham-McGregor. Chang et al.1998).

They found that school performance indicators (enrollment, attendance, and drop-out rate, repetition of grades. school attainment levels, cognitive function, and class-room behavior) have. all improved in response to school feeding. This is because the provision of school meals reduces the parents' cost of sending children to school thereby promoting early enrollment and improving attendance. The more time children spend on learning in response to school meals, the more they will learn and the less they repeat school or drop-out (ibid. p. 785).

To the contrary, certain other studies are critical to school meals and they doubt if they have any positive impact on school participation whatsoever. The study for instance found that WFP assisted School Feeding Program does not increase enrollment at any level compared to control schools (ibid).

2.8 Increase Enrolment and Attendance in Schools

Food can act as a strong incentive for children to attend school on a regular basis. Girls especially benefit from this, as parents feel there are sufficient income-transfer benefits (Del Rosso, 1999).

In many communities, girls are culturally disadvantaged such that in hardship situations, male children are given opportunity to go to school over girls. School supplementary feeding programs can provide a way in which parents can save money by spending less on food and thereby allow the girls to attend school. It is however important to establish that school meals do not replace food that has been part of the children's diet in the household, but rather add to what the family provides. In Jamaica providing breakfast to primary school students significantly increased school attendance. The learners who benefit the most are those wasted, stunted or previously malnourished (Del Rosso, 1999).

Children in poor health start school later in life or not at all. A study in Nepal found that the probability of attending school was 5% for stunted children versus 27% for children of normal nutritional status (Mooock and Leslie, 1986). In Ghana malnourished children entered school at a later age and completed fewer years of school than better nourished children (Glewwe and Jacoby, 1994). The number of days that a child attends school is related to cognition and performance (Ceci, 1995; Jacoby, Cueto and Pollitt, n.d.). SFPs can have a positive effect on rates of enrollment and attendance. • A recent evaluation of an on-going school feeding program in Burkina Faso found that school canteens were associated with increased school enrollment, regular attendance, consistently lower repeater rates, lower dropout rates in disadvantaged provinces, and higher success rates on national exams, especially among girls (Moore, 1994). • A small pilot school feeding program in Malawi was evaluated for its effect on enrollment and attendance. Over a three month period there was a 5% increase in enrollment and up to 36% improvement in attendance/absenteeism compared to control schools over the same period (WFP, 1996a). • Niger has one of the five lowest school enrollment rates in the world; the school feeding program is intended to enhance attendance of nomad and transhumant families, particularly of girls. Beneficiaries receive the equivalent of the total daily recommended food intake (2,079kcal) in three meals per day. In addition, as an incentive for girls' participation in schools, some families receive an additional take-home ration. Evidence from

past experience with the SFP shows that it contributes to its objectives: whenever canteens have been closed, even provisionally, immediate and high absenteeism follows and children are withdrawn from school. In areas with nomadic and transhumant populations, the school year cannot commence until food stocks arrive (WFP, 1995; 1996). Although not a school feeding program in the traditional sense, school-based food distribution has also been used successfully to improve enrollment and attendance among school-age children, particularly girls. • In Bangladesh a program of school-based food distribution increased enrollment by 20% versus a 2% decline in non-participating schools (Ahmed and Billah, 1994). • In Pakistan, a program provides an income transfer in the form of one or two tins of oil to families whose girls attend school for 20 days per month. In its pilot phase the oil incentive program demonstrated that it could make a significant contribution to full attendance. In participating schools enrollment improved by 76% compared to 14% in the province overall. Attendance increased from 73% to 95% among participants. The program also claims to put additional food into the hands of mothers and to serve as a contact between mothers and teachers on distribution days (WFP, 1995; 1996).

In the case of iodine, most studies have focused on the differences in cognitive test performance between children who lived in communities with and without endemic goiter. The results show differences in favor of the non-goiter areas. In Sicily, for example, the proportion of children with below-normal cognitive scores was 3% in areas with sufficient iodine, 18.5% in areas where iodine was inadequate, and 19.3% where iodine was inadequate and cretinism was endemic (Vermiglio, et al, 1990). Studies in Indonesia and Spain have documented similar effects on children in areas with insufficient iodine (Bleichrodt et al, 1987). Fortification of school rations is the most efficient and effective route to alleviating micronutrient deficiencies in schoolchildren where SFPs are in operation. • In South Africa, soup fortified with iron and vitamin C was provided to 350 schools in an area of low socio-economic development on the Cape Peninsula. Results showed that initially 12% of six to seven year old and 20% of 8 to 12 year old children had low weight-for-age, and 49% and 31% had low serum ferritin (a measure of iron deficiency) respectively. At follow-up, after 15 weeks of intervention, iron status improved significantly; falling from 49% to 28% in 6 to 7 year old children and 31% to 21% in 8 to 12 year old children (Kruger and Badenhorst, 1994). • A relatively new breakfast program in Peru, which includes an iron-fortified ration, was evaluated for its short-term impact on diet, amongst other factors. The program significantly increased dietary intakes of energy by 25%, protein by 28% and iron by 46% (Jacoby and Pollitt, 1997). • A case-control study of the impact of providing heme-fortified cookies to school children in Chile found higher concentrations of hemoglobin among children receiving the fortified cookies through the school lunch program. The

impact was most significant among children with greater demands for iron such as post-menarchial girls and pubertal boys (Walter and Hertrampf et al, 1993).

2.9 School Feeding and Education

As stated above. Poor health and malnutrition are important underlying factors for low school enrolment, absenteeism. Poor classroom performance as well as early school dropout. Programs to achieve good health and nutrition at school age are therefore essential to the promotion of basic education for all children. Good health and nutrition are not only essential inputs but also important outcomes of basic education of good quality. Children must be healthy and well-nourished in order to fully participate in education and gain its maximum benefits. Early childhood care programs and primary schools which improve children's health and nutrition can enhance the learning and educational outcomes of school children. Education of good quality can lead to better health and nutrition outcomes for children, especially girls and for the next generation of children as well (Bundy et al, 2007).

2.10 School Feeding Program in Ethiopia

School feeding was introduced to Ethiopia in 1994 with hot meals provided by the World Food Program (WFP) Oromia, Afar and Somali regions. This was expanded to SNNPR and Oromia applying Home Grown School Feeding (HGSCF) approach. The government introduced Emergency School Feeding (ESF) in 2015 in response to the drought. The emergency school feeding program mirrored the Home-Grown School Feeding (HGSCF) program. Additionally, there were some NGOs, including Save the Children, Development Foundation, World Vision, etc. that operated in various regions and provided school feeding. The effort of these various organizations has not been centrally coordinated. In 2019/2020, the government allocated no funds for school feeding due to scarcity of resources. Except for school feeding programs run by Addis Ababa city administration for about 300,000 children, there have not been consistent and impactful school feeding programs across the country. There are so many factors that affect learning. Children's overall concentration may be improved if they are not coming to school hungry and learning on an empty stomach. According to World Food Program (2017) School Feeding Investment Cost-Benefit Analysis Ethiopia Report, School Feeding has strong effects on access to education and can, when supported with other interventions, improve learning outcomes. School meals have a positive effect on enrolment (+8pp and +6pp for boys and girls respectively), attendance (+3pp and +0pp for boys and girls respectively) and dropout rates (-5pp and -6pp for boys and girls respectively). Similarly, a Save the Children Ethiopia (2019) baseline/end-line evaluation of an Education Integrated with Food Security Program

in Tigray region (where households are supported to generate income by rearing animals, beekeeping, engaging in horticulture) demonstrated that when parents were enabled to provide school meals and learning supplies to their school children, Math test mean scores improved from 48% to 70% for boys and girls. Primary school children retention rate among income generation scheme beneficiaries has increased from 77% to 100%. According to the assessment, there was no significant difference for boys and girls in terms of academic performance in enrolment implying gender related variation will be eliminated. The qualitative information gathered from stakeholders further indicates that education integrated with food security helped the target household develop new skills of generating income that beneficiaries were also better able to better support the livelihoods of their families, specifically of their children in terms of their education, nutrition, and health status.

Honing (2016) explored the interaction between the SFP as a planned intervention by WFP, the intervening agents and its beneficiaries on the ground by adopting an actor-oriented interface approach in 18 schools of four regions of Ethiopia. The study interviewed school directors as major informants. Beneficiary households and students were informants and the research made observation on the school compound and conducted FGD with Parent-Teachers Associations (PTA). Finally, the finding was the SFP gets low priority during emergency because provision of food in a lifesaving operation is prioritized over education. In such situations girls are disadvantaged because they are engaging in fetching water. The study finding is limited to SFP implementation in chronic poverty situation and hazard prone areas. The effectiveness and challenges of home grown school feeding program (HGSFP) in comparison to the non HGSFP is also assessed in Ethiopia, SNNPR by Mekuanent (2015).

WFP sponsored school meals started in Ethiopia in 1994 with an initial pilot project in war-affected zones in Tigray region. Then, the school meal has been provided in chronically food insecure districts in six of the country's nine regional states (Afar, Amhara, Oromia, SNNPR, Somali and Tigray) by World Food Program, MOE, Regional education bureaus and the community with a particular focus on districts with lower enrollment and higher gender disparity. In 2008, WFP provided food for 915 schools with 482,000 children benefited from school meals. The per child food ration consists of 150 gm. of corn-soya blend 6 gm. of fortified vegetable oil and 3 gm. of iodized salt, provided as a cooked meal on every school day (Pope et al, 2016; WFP, 2008). The Ethiopian National School Health and Nutrition Strategy (NSHNS) discussed that good nutrition is essential to fully realize the learning potential of children and to maximize returns on educational investments alleviation of short-term hunger and helps children to concentrate on their studies and enable them to gain increased cognition and better educational outcomes. In contrary, malnutrition affects a child's

attentiveness, concentration, aptitude and overall performance and has a negative impact on school attendance and enrolment. Due to this, schools shall promote good nutrition practices by integrating nutrition interventions including school feeding programs and micronutrient supplementation into school activities thereby, reaching a high proportion of children and youth (MOE, 2012).

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2.11 Empirical Studies on Educational Function of SFP

Studying SFP is an interest of different natural and social science disciplines. The studies focus areas are effectiveness for education and health, its new approaches, food security, agriculture development etc. Some of the fields which studied the topic are Psychology (Ermias, 2015), Economics (Grillenberger, Neumann, Murphy, Bwibo, Veer, Hautvast & West, 2003), Nutrition (Hanushek, 1986), Development studies (Dheressa, 2011), Public health (Asmamaw, 2014), Policy study (Hinrichs, 2010; Sagege, 2014) and Education (Mwavula, 2014). FFE is not a substitute for a well-organized education system and teacher performance. However, there is extensive evidence that FFE can complement a good education program (Alderman and Bundy, 2012). School feeding programs can thus be a powerful instrument for achieving many multi sector benefits such as education, gender equality, food security, nutrition and health, poverty reduction and agricultural development. The recent food, fuel and financial crises have highlighted the importance of school feeding programs both as a social safety net for children living in poverty and food insecurity and as a tool for stimulating local agricultural production and economic opportunities in rural communities (Lawson, 2012) The paper which reviewed two studies that evaluated the school feeding program in Jamaica has shown that the omission of breakfast affected a decline in performance on the verbal fluency and coding tests for the previously severely malnourished children (Simeon, 1998). The SFP's has also statistical significant negative impact on dropout. The study by Alderman & Bundy (2012) has found out that the results of the estimated probit regression indicated the participation in

SFP reduces the probability of dropping out of school by 7.5 percent. The SFP particularly, Take Home Ration (THR) intervention had a positive contribution to the life worlds of the intervened in four regions of Ethiopia. However, Honing (2016) recommended adaptations should be made to improve the contribution and to bring coordinating function. Thus, water provision and other school based nutrition interventions such as deworming, micronutrient supplements (if needed) and nutrition and health education should be incorporated into the intervention. The take-home rations which targeted girls who attend school with regularity, in-school meals or snacks to reduce short-term hunger and associated cognitive impediments and food-for-work targeted to teachers or parents engaged in activities improve schooling outcomes (Levinger, 2005). Hinrichs (2010) also emphasized the contribution of SFP for education compared with its health benefits. According to his study, participation in the program as a child appears to have few long-run effects on health, but the effects on educational attainment are sizable. The educational and health outcomes of SFP differ across grade levels. He also found that participation in grades seven through twelve has a stronger effect on educational attainment than participating in the earlier grades does, whereas there is some evidence suggesting that participation in earlier grades is more important for the health outcomes. In contrast to the upper literatures which advocate the effectiveness of SFP, some studies have found ineffectiveness of the program. The evidence from a randomized trial in rural Burkina Faso has shown that school feeding programs in this specific context of agricultural households without an active labor market can increase enrollment, but may fail to improve attendance and academic performance for a larger number of children (Kazianga et al., 2009).

2.11.1 School Feeding Program and Academic achievement.

The SFP has a statistically significant positive impact on learning, as measured by achievement test scores. The participation in SF program increases test scores by 15.7 percent points (Ahmed, 2004). The study by Chepkwony, Kariuki & Kosgei (2013) also suggested that the schools with SFP had the highest academic performance compared to those without SFP. Afridi, Barooah & Somanathan (2013), find out that the provision of school meals improved the class room concentration and effort of students in grade 7. The findings also suggest that school quality influences the extent to which school meals improve effort levels. Students in schools that had higher average scores in curriculum related tests gained significantly more from the extension of the meal program. Few studies address some of the potentially adverse impacts of SFPs on academic performances. Intuitively, the positive impacts on academic performances would require that the learning environment remains constant or improves when enrollment increases. One can, however, anticipate several changes in the learning environment following the introduction of SFPs. First, if teachers allocate some of their time to

administering the programs, the actual teaching time could decrease. Second, classrooms could become overcrowded since enrollment is likely to increase. In this case the teacher may become less efficient. Schools may find themselves lacking other inputs (e.g. books, notebooks) which could effectively reduce academic performances. Moreover, the additional incentives of the program will bring in students whose parents previously assessed the benefits of schooling as lower than the costs; at the margin, these students can be expected to be less able to gain from schooling (Kazianga et al., 2009).

2.11.2 School Feeding Program and Attendance.

Based on the results from unannounced attendance data, Alderman and Bundy identified the positive impacts of school meal on morning and afternoon attendance (Alderman and Bundy, 2012). Similarly, Jacoby & Cueto (1996) stated that a school breakfast increased attendance rates of fourth and fifth-grade students by (0.58) percentage points in the treatment schools whereas the attendance score decreased in control schools by (2.92) percentage points. The evaluative research was conducted in Huaraz, Peru and it took place 30 days after the start of the breakfast program. Hinrichs (2010) finding also suggested that subsidized lunches induced children to attend school. Other studies have also showed that SFP has a statistically significant positive impact on class attendance of participating pupils (Ahmed, 2004; Sarah, Adelman, Gilligan & Lehrer, 2008). Literatures also discussed about covariates which negatively influence attendance. From these variables, illness is the major problem that hinders attendance. Asmamaw (2014) states that mild to severe sicknesses that often relates to poverty and inadequate nutrition negatively affects children's attendance and it was also a cause of drop-outs. Studies also show that school age children with severe hunger have significantly higher chronic illness rates than those with moderate or no hunger. Weinreb, Wehler, Perloff & Scott (2002) have shown that severe poverty has negative effects on children's health. When poor children are sick, they will stay at home for extended period of time without seeing a medical practitioner. The effect of SFP on attendance may differ in age groups. Alderman, Lehrer & Gilligan (2012) find no significant impact of SFP and THR on average morning attendance of children aged [6–13]. However, there are positive and statistically significant impacts of both the SFP and THR programs on the morning attendance of older children, aged [10–17], ranging from [8–12] percentage points. On the other hand, although SFPs increase the benefits of school participation, they could actually reduce household income due to reduced child labor supply which thus lowers household food availability thereby posing negative impact on current nutrition and health. The increased school participation due to SFPs could also lead to crowded classes and hence negatively affects learning unless school capacity is increased accordingly (Dheressa, 2011).

2.11.3 School Feeding Program and Attention.

A hungry child cannot concentrate or perform and is unlikely to stay in school. School feeding programs have proven effective in encouraging enrolment, increasing attention spans and improving school attendance. School feeding programs are powerful tools for alleviating day-today hunger pains. It is suggested that giving children a daily breakfast at school may improve their scholastic achievement. When the time spent in school is increased, certain cognitive functions and attention to tasks are improved (Grantham-McGregor, Chang & Walker, 1998). Afridi et al. (2013) also proved the positive effect of SFP on classroom concentration in their study entitled “School Meals and Classroom Effort”. Another study stated that girls who are better nourished are more attentive and involved during class, and well-nourished boys exhibit improved classroom behavior and activity levels (Bundy et al., 2006). Similarly, Mahoney, Taylor, Kanarek & Samuel (2005) has discussed the effects of breakfast on cognitive performance that shows the standard main effect of task duration in dependent measures, particularly visual attention and auditory attention. Performance on most measures is enhanced by breakfast consumption and that the composition of breakfast can also influence children’s cognitive performance like the measure of auditory attention.

Stuijvenberg, Kvalsvig, Faber, Kruge, Diane, Kenoyer & Benadé (1999) has also found a significant between-group treatment effect ($P < 0.05$) in cognitive function with the digit span forward task (short-term memory). All these findings emphasized the effect of SFP on attention.

2.11.4. School Feeding Program and Student Drop-out

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

Feeding Program has a statistically significant negative impact on student drop-out. This study reveals that the primary school drop-out rate in the program rural area was 29 percent and that the overall completion rate in this area is 6 percentage points higher than control rural areas. Controlling for child and household characteristics, he found that school meals reduce the probability of dropping out of school by 7.5 percent. Empirical studies also reveal that School Feeding Programs indeed have significant positive impact on school participation. Such studies suggest SFPs are effective in encouraging school enrollment, enhancing class attendances, and lowering student drop-outs (WFP, 2009). A study done in southwest Ethiopia shows that food insecure adolescents and adolescents who were members of severely food insecure households were more likely to be absent from school and have a lower educational attainment in terms of the highest grade completed (Belachew et al. 2011). WFP 2012 food for education performance report also indicates that there is a significant increase in attendance and enrollment among intervention school than others (WFP, 2012).

To the contrary, study from Chile reveals that there is no observable impact of School Feeding Program on school participation (Patrick J, 2010). On the other side School Feeding Program, no significant positive impacts on drop-out rates. This is because school meals neither significantly contribute to nutritional statuses of school children (nor hence cannot avoid hunger related cause of drop-outs) nor do they compensate for the opportunity cost of school participation. The independent test of sample Absence Rates also shows no significant difference between the two groups of households/schools in terms of drop-out rates. (Dessaiegn K, 2010)

2.12 Factors Affecting School Participation

An attempt is made to identify some of the factors that affect school enrollment. Class attendance and student drop-out in the study area.

There are various factors that affect households to send their children in schools. This shows some of these determinants of enrollment in the study area, the result show that factors such as demand for child labor. Cost of schooling. Availability of school, school factors (perceived teaching quality and school infrastructure), distance to school, availability of food incentives and safety concerns are some of the most important determinants of enrollment in the region.

2.13 The Theoretical Interactions of School Feeding Program and School Participation

This section will outline some of the theoretical links between School Feeding Program and school participation. However, it should be noted that SFPs also seek to address nutritional objectives.

Although the sole focus of this study is to evaluate the educational objective of SFP, it must be understood that the interplay between SFP and school participation works in different 9 ways. In this section, I will present two ways through which SFPs affect school participation: the economic and nutritional functions.

The Economic Function of School Feeding Program Even though the economic motivations for investing in education and nutrition status of primary school-aged children are well established, many poor and credit constrained households usually invest less than what is privately or socially optimal (Adelman, Gilligan et al. 2008). As a result, levels of education attainment remain extremely low in many developing countries despite enormous evidences that indicate both private and social returns to education are high (Hanushek 1986; Schultz 1988 cited on Adelman, Gilligan et al. 2008:10). Primarily, extreme poverty restricts households from sending children to school due to the fact that their day to day survival, and not educational need, has to be their immediate priority. Consequently, such households cannot provide children the opportunity to go to school and learn. Besides, even if some costs such as school fees are free, households still don't have the means to cover other costs such as for books, clothes, shoes or transportation. Thus, such households are unable to afford the cost of schooling and instead keep their children to work in money generating activities or make them care for younger siblings at home. In response to such and other economic constraints for school participation, SFPs provide economic incentives for households to send their children to school. Adelman et al., (ibid) show that the decision of households on whether to send children to school is determined by comparing the expected future benefits of this education to the current cost. The current value of these future benefits is a measure of household's discount rate i.e., how much household values the improvements in current well-being over future improvements in well-being. The costs of education, on the other hand, include such expenditures as school fees, supplies, books, uniforms, and travel cost to school (all known as direct costs) as well as the opportunity cost of child's time such as caring for other family members, working on a family farm or business, or working outside the household to provide additional income (all indirect costs). The idea is households will not send their children to school if the costs of schooling exceed the expected benefits and that households must have some kind of incentives to compensate for these costs in order to increase the net benefit of schooling. Hence, food-based incentives such as school meals and take-home rations will compensate for both direct and opportunity costs resulting from the loss of household labor due to school participation (Adelman, Gilligan et al. 2008; Bundy, Burbano et al. 2009; He 2009). 10 However, not every School Feeding Program is expected to have the same effect since the size of the transfer relative to the cost also affects schooling decisions. In other words, it is

important that the content and value of the school meals should be large enough to offset the current cost and also motivate the beneficiaries for positive action; i.e., to participate in schooling. For instance if the school meals are undervalued against the opportunity costs of participating in school, then it is unlikely that households will be encouraged to send children to school.

2.2.2 The Nutritional Function of School Feeding Program

the interaction between nutrition and education can be generally understood in three ways (Kazianga, de Walque et al. 2009). First, nutrition and health statuses influence the child's learning and his/her performance in school. That is poor nutrition among children affects their cognitive function and hence reduces their ability to participate in learning activities at school. Second, children who are malnourished or who are unhealthy are unable to attend school regularly and which in turn leads to poor academic performances. Third, hungry children encounter difficulties to concentrate and perform complex tasks than well-nourished ones. Because poor children do not get the basic nutritional building blocks from birth, they will be unable to learn easily. Studies show that by the time these children grow to primary school age, most of the damages have occurred to them and in fact such damages are irreversible. Even if school meals are provided after this critical period, their learning capability is much less than what would have been if they were properly fed from infancy (WFP)⁶. It has been argued that school meals increase school participation by improving child nutrition through two links (Vermeersch and Kremer 2004). First, school meals improve nutrition by enabling children get more nutrients. Second, the improved nutrition leads to better educational achievements. The study also reveals that „since child nutrition, child health and schooling reflect household preferences in human capital investments in the child; they might be correlated without any direct causal relationship between them“ (ibid, p.4). Another study also shows that School Feeding Programs can improve health by reducing morbidity and illness and hence attract children to school (He 2009). However there are conflicting arguments as to whether households adjust the feeding practices of school children at home in response to SFPs. Ahmed (2004) shows there is no reduction of 6 Extracted from <http://www.wfp.org/hunger/malnutrition> 11 food at home given to children who participate in SFPs in such a way that those children who benefit from SFP should get less at home. Instead, school meals are additional diets intended to what he or she can get from home. To the contrary, there are counter arguments to such claims. In response to the school meals, families may also adjust resource allocation among children within the household by taking away some resources from beneficiary children and redistributing them to other members of the household (Jacoby 2002; Kazianga, de Walque et al. 2009). As a result, those children from whom resources are taken away will be worse off if the food provided at school is not very useful compared to what they would have had at home.

2.14 School Feeding Program and School Enrollment

As was discussed previously, the availability of subsidized in-school meals will increase school enrollment if the program changes the household's schooling decision for some children who would not have been enrolled in school otherwise. And for these households to enroll their children, they need to be convinced that the „net benefits of participating in the program exceed the gap between direct and opportunity cost of schooling and the expected benefit of schooling“ (Adelman, Gilligan et al. 2008:11). In other words, households usually compare the size of the transfer relative to the size of the cost-benefit gap and these comparisons ultimately determine the magnitude of the increase in enrollment rates. Another important point is about the roles that school meals play in encouraging early enrollment. Even though in-school meals are believed to affect age at entry through an income effect, i.e., by increasing household income and raising the benefit of attending school, yet this income effect should be large enough to make households send their children to school (ibid). Adelman, Gilligan et al. (ibid) show that school meals affect the age at entry in different ways. First, the provision of food offsets the cost of educating children by making available additional income for households, and consequently raising the benefits of attending school. This is called an income effect of school feeding. When this income effect is large, it can cause households to send their children to school at a relatively younger age thereby minimizing the possibility of late entry. Secondly, the „neighborhood effect“ resulting from School Feeding Program may also influence the age at entry. That means the act of households to send their children to school earlier with the commencement of School Feeding Program would create a social pressure and prompt similar action on the part of those who haven't enrolled their children yet (ibid). In this subsection, I will present some of the empirical studies in the area of School Feeding Program and the impacts on enrollment. Ahmed (2004) conducted a study in food insecure areas of Bangladesh to see the impact of School Feeding Program on school participation. The data collection took place in 2003 after children in the treatment schools received a mid-morning snack of fortified wheat biscuits every school day for one year. To determine whether the increases in enrollment (and attendance – as well shall see in the next section) were indeed due to the program, he carried out econometric analysis to isolate other potential explanatory factors. Thus Ahmed's study found that School Feeding Program have statistically significant positive impacts on both gross and net enrollment rates with 14.2% and 9.6% increases respectively (ibid). However, this finding does not take account of other unobservable characteristics of households in the treatment area that could affect household's decision to enroll children. Therefore, it appears inconclusive to claim that the difference in enrollment between treatment and control groups was the result of the program without considering unobserved factors.

Another study on 32 Sub-Sahara African countries shows that providing food in school under the Food for Education (FFE) scheme contributed to increasing absolute enrollment in WFP assisted schools by 28% for girls and 22% for boys in just one year (Gelli, Meir et al. 2007). After the first year, however, enrollment pattern showed variation depending on the type of FFE program; i.e. whether the provision of food in school was combined with take home rations or was served alone. In those places where on-site feeding and take home rations were offered together, girls' absolute enrollment kept on increasing by 30% subsequent to the first year. Meanwhile, schools that provided only on-site feeding have just recorded increase in an absolute enrollment that was same as before the feeding program was implemented. Along with enhancing enrollment, School Feeding Programs also help to adjust the age at entry by attracting children during their right age. In poor countries like Ethiopia, children may begin 15 primary education much later than the recommended age for various reasons. For instance factors such as lack of funds, lack of childcare and little awareness about the benefit of enrolling children during the recommended age are some of the causes for late entry (Adelman, Gilligan et al. 2008).

2.15 Other determinants of School Participation

The discussion so far mainly dealt with the impact of SFPs on school participation after controlling all other observable external factors. In this section I will present some of the other factors affecting school participation as identified in the literature. A recent study by Bundy, Burbano et al. (2009) reveals that there are generally many factors which influence the decision of parents to enroll a child and his/her ability to attend regularly. These include; 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. Another study in rural Ethiopia found that factors such as qualification of teachers, parents demand for child labor, school cost, distance to school, poverty, threat of harassment, availability of role model to follow, abduction (of females), early marriage and parents' education level were factors affecting school participation (Buraka 2006). The draft mid-term evaluation of the Ethiopian food for education program states that high level of school enrollment and class attendance recorded in the program schools is also the result of such external factors as changing attitudes of parents towards education of children, improved school facilities, availability of more female teachers in the school and so on (Riley, Ferguson et al. 2009). The evaluation further revealed that in the presence of these factors, some parents are even willing to send children to school regardless of the school meals. Geographic location of the program itself matters how parents value school meals and hence has direct implication for school participation. For instance SFP in Ethiopia receives greater weight in parental decision in pastoralist areas of Afar and

Somali regions, and less in highland regions (ibid). In other words, parents in pastoralist areas are more responsive to the 18 program than their counterparts in highland areas. Similarly, a study conducted in Bangladesh revealed that children living in SFP area have higher probability of being enrolled in school compared to children in control area (Ahmed 2004). Thus location of children in relation to the program schools is another important factor that affects the enrollment rate. Equally important determinant of schooling in rural Ethiopia is the role of child labor in household chores. A study shows that rural Ethiopia has one of the highest rates of children's labor activity in the world and that children in those areas start to assume household and farm works as early as four years of age. On average children carry out 29–30 hours of labor work every week and this clearly affects their school participation (Admassie and Bedi 2003). Even if school meals increase enrollment, absenteeism may rise for households that had low child labor supply and decreases for households that had a relatively large child labor supply (Kazianga, de Walque et al. 2009). Thus increase in enrollment could result in higher absenteeism rates among labor constrained households and/or those who lack access to labor market. A study on the household constraints of schooling in Ethiopia also reveals that wealth of the household, nutritional status of the child, and mother's and father's education have an important effect on the probability of a child attending class (Rose and Al-Samarrai 2001). Likewise, a study in Bangladesh shows that absenteeism from school is higher for children from wealthy families than those from poor families (Meng and Ryan 2003). Besides, another study in Bangladesh revealed the probability of student drop-out decreases as household income increases (Ahmed 2004). Thus household income has significant positive impact on school participation in general. Other study conducted on the determinants of child schooling in Ethiopia found that investment on child schooling is influenced by household and community education externalities, availability and distance to schools as well as quality of school infrastructure (Chaudhury, Christiaenseny et al. 2006). School factors like school quality and school price have also strong effect on schooling in Ethiopia (Admassie and Bedi 2003). These results are related to findings in rural India that show parental education, school infrastructural quality, teacher regularity, parent–teacher cooperation, and the number of teachers per child are positively related to school participation (Drèze and Kingdon 2001). This study also found that lack of parental or child motivation, cost of schooling, demand for child labor and low quality of schooling, among others also negatively affect school participation (ibid). A study in New Zealand also shows there are a number of reasons that affect students' class attendance. And these factors relate to students themselves, to the school or to the student's family circumstances (Ng 2007). Besides, school or teacher factors can also affect their ability to attendance school. These include, for instance, teaching quality, the school culture, and to school-community links (ibid). Other factors affecting school

participation identified in a study in Nepal include the students' lack of access to schooling that is relevant to their lives and of a quality sufficient to make attendance worthwhile (Jamison and Lockheed 1987). Similarly, in the relatively few studies of determinants of school-leaving behavior in developing countries, the poor quality of teachers as well as schools emerged as a principal reason for students' dropping out (ibid). Vermeersch and Kremer (2004) in their study in Kenya argue that even if a School Feeding Program increases school participation in the absence of teaching quality, then it is unlikely to result in better educational achievement. Thus there should be strong complementarities between teaching characteristics (teaching quality, for example) and school meals for greater educational outcome (ibid).

2.16 Critiques of School Feeding Program

Despite the merits discussed so far, SFPs have also several critiques both for their educational as well as social implications. Vermeersch and Kremer (ibid) argue that school meals only targets children going to school while not reaching out to children who are weak or too young to go to school. Take home rations on the other hand could reach these members of the family by reallocating food in such a way that food is distributed on need-based way. They also argue that school meals will disrupt teaching and learning by taking away school hours and hence potentially worsening school performance through increased grade repetition and drop-out. Besides, high level of school participation rate as a result of the program increases the pupil-teacher and pupil-to- classroom ratios causing crowding (Vermeersch and Kremer 2004; Gelli, Meir et al. 2007; Kazianga, de Walque et al. 2009). Thus unless schooling infrastructure and number of teachers are scaled up accordingly in order to accommodate the increase, the program could reduce teaching quality. 20 School Feeding Program may also result in unwanted switching of students between schools. Children from non-program schools can be attracted in to program schools and consequently cause crowding in the later (He 2009). Besides, school meals can be inappropriately given to students who were not originally targeted and hence results in overcrowding and wasting of available resources as well as other inefficiencies in the allocation of resources (ibid). Because some children would have come to school without the program or with less generous programs, the inability to target school meals only to needy children raises the cost of the program per additional student enrolled (Adelman, Gilligan et al. 2008; He 2009). In sum, the majority of the literature examined so far has shown that School Feeding Programs have indeed positive impacts on school participation. They reveal that SFPS are associated with increased school enrollment, high class attendance and lower student drop-out rates. Finally the literature shows that other factors have clear influence on enrollment, attendance and drop-outs, in addition to just school meals.

2.17 The Nutritional Function of School Feeding Program

The interaction between nutrition and education can be generally understood in three ways (Kazianga, de Walque et al. 2009). First, nutrition and health statuses influence the child's learning and his/her performance in school. That is poor nutrition among children affects their cognitive function and hence reduces their ability to participate in learning activities at school. Second, children who are malnourished or who are unhealthy are unable to attend school regularly and which in turn leads to poor academic performances. Third, hungry children encounter difficulties to concentrate and perform complex tasks than well-nourished ones. It has been argued that school meals increase school participation by improving child nutrition through two links (Vermeersch and Kremer 2004). First, school meals improve nutrition by enabling children get more nutrients. Second, the improved nutrition leads to better educational achievements. The study also reveals that „since child nutrition, child health and schooling reflect household preferences in human capital investments in the child; they might be correlated without any direct causal relationship between them“ (ibid, p.4). Another study also shows that School Feeding Programs can improve health by reducing morbidity and illness and hence attract children to school (He 2009). However there are conflicting arguments as to whether households adjust the feeding practices of school children at home in response to SFPs. Ahmed (2004) shows there is no reduction of 6 Extracted from <http://www.wfp.org/hunger/malnutrition> 11 food at home given to children who participate in SFPs in such a way that those children who benefit from SFP should get less at home. Instead, school meals are additional diets intended to what he or she can get from home.

Nutritional and health status are powerful influences on a child's learning and on how well a child performs in school. Children who lack certain nutrients in their diet (particularly iron and iodine), or who suffer from protein-energy malnutrition, hunger, parasitic infections or other diseases, do not have the same potential for learning as healthy and well-nourished children. Weak health and poor nutrition among school-age children diminish their cognitive development either through physiological changes or by reducing their ability to participate in learning experiences - or both. Contrary to conventional wisdom, nutritional status does not improve with age. The extra demands on school-age children (to perform chores, for example, or walk long distances to school) create a need for energy that is much greater than that of younger children. Indeed available data indicate high levels of protein-energy malnutrition and short-term hunger among school-age children. Moreover, deficiencies of critical nutrients such as iodine, vitamin A and iron among the schoolaged are pervasive (Partnership for Child Development, 1998b). It is estimated that 60 million school-age children suffer from iodine deficiency disorders and that another 85 million are at risk for acute

respiratory disease and other infections because they are deficient in vitamin A. The number suffering from iron deficiency anemia is greater still – 210 million (Jamison and others 1993). Parasitic worms that infect the intestines or the blood are a major source of disease and malnutrition in school-age children. An estimated 320 million school-age children are infected with roundworm, 233 million with whipworm, and 239 million with hookworm (Partnership for Child Development, 1997a). Schistosomiasis affects an estimated 200 million people throughout the world, approximately 88 million of whom are under 15 years old (Montresor et al, 1998). Poor nutrition and health among schoolchildren contributes to the inefficiency of the educational system. Children with diminished cognitive abilities and sensory impairments naturally perform less well and are more likely to repeat grades and to drop out of school than children who are not impaired; they also enroll in school at a later age, if at all, and finish fewer years of schooling. The irregular school attendance of malnourished and unhealthy children is one of the key factors in poor performance. Even temporary hunger, common in children who are not fed before going to school, can have an adverse effect on learning. Children who are hungry have more difficulty concentrating and performing complex tasks, even if otherwise well nourished. Research and program experience shows that improving nutrition and health can lead to better performance, fewer repeated grades and reduced drop out.

The number of hungry school-age children is unknown, but is likely to be a significant problem in various circumstances. Many factors contribute to hunger in schoolchildren : the long distances children have to travel to school, cultural meal practices that include no or small breakfasts or a lack of family time or resources to provide adequate meals to children before and/or during the school day. Simply alleviating this hunger in schoolchildren helps them to perform better in school. • In Jamaica providing breakfast to primary school students significantly increased attendance and arithmetic scores. The children who benefited most were those who were wasted, stunted, or previously malnourished (Simeon and Grantham-McGregor, 1989). • A US study showed the benefits of providing breakfast to disadvantaged primary school students. Before the start of a school breakfast program, eligible (low-income) children scored significantly lower on achievement testes than those not eligible. Once in the program, however, the test scores of the children participating in the program improved more than the scores of non-participants. The attendance of participating children also improved (Meyers, 1989). • In Peru 23 malnourished and 29 well-nourished 9 to 11 year old boys were studied to assess the effects of breakfast on cognitive performance. Each boy served as his own control in a manner comparable to the Jamaica study cited above. Breakfast was a nutritionally fortified beverage and a baked grain product fortified with iron, similar to the meal provided in the government-sponsored school breakfast program. A series of cognitive tests were

administered in an experimental setting. Speed in performing a short-term memory test and discrimination of geometric patterns were improved under the breakfast condition in both groups. The effect was more pronounced in the nutritionally disadvantaged children (Pollitt, Jacoby and Cueto, 1995).

2.18 Impact of school feeding on education and learning

In addition to the promising nutritional outcomes, studies highlight the importance and benefits of offering school-aged children school meals and/or snacks to improve certain cognitive functions and scholastic achievement, especially among disadvantaged malnourished children. Thus, school feeding is once again of particular significance in developing countries with the highest percentages of malnourished children, low school enrollment, and high dropout rates. Almost all types of SFPs reported in the literature demonstrate a positive impact on school enrollment and attendance. The impact of school feeding on academic achievement shows consistent positive effects on arithmetic tests, but lower effects on reading, writing, and spelling tests. School feeding helps improve school progress by reducing the dropout rate. This applies to both school meals and take-home rations, with greater benefits to girls, in particular, when both modalities of school feedings are offered together at school.

SFPs are one of several interventions that can address some of the nutrition and health problems of school-age children. SFPs, and other school-based nutrition and health programs, can also motivate parents to enroll their children in school and to see that they attend regularly. Experience shows that properly designed and effectively implemented SFPs can:

- Alleviate short-term hunger in malnourished or otherwise well-nourished schoolchildren. This helps to increase the attention and concentration of students producing gains in cognitive function and learning.
- Motivate parents to enroll their children in school and have them attend regularly. When programs effectively reduce absenteeism and increase the duration of schooling, educational outcomes (performance, dropout, and repetition) improve.
- Address specific micronutrient deficiencies in school-age children. Most important of these are iodine and iron, which directly affect cognition. Meeting the iron and iodine needs of school-age children can translate into better school performance.

- Increase community involvement in schools, particularly where programs depend on the community to prepare and serve meals to children. Schools with their communities behind them are more effective than schools with less community involvement.

From the nutrition literature may be mixed and equivocal at times, thus weakening the evidence on how effective SFPs are for improving various markers of nutrition status, growth, and health. Mixed findings may be attributed to a multitude of factors, mainly differences in the objectives and methodologies used in SFPs. Differences lie in the design of household and school surveys, the quality and quantity of food served to children, available school resources, durations of the interventions (ranging from 1-month to 2- or 3-year interventions), and the modalities of school feeding (school meals, fortified snacks, take-home rations) in various settings and studies. In addition, findings from various studies and national programs are difficult to compare as outcome variables and indicators vary, and the age groups, degree of malnourishment, and severity of worm infections and illnesses in targeted school-aged children differ from one program to another. Since study designs, sample populations, and outcome variables vary considerably, Meta analyses of studies become more difficult to perform. Despite the somewhat mixed results, the present review demonstrates that SFPs have promising, positive impacts on the nutrition and health status of school-aged children. Providing food to children in the form of school meals, snacks, or take-home rations can help alleviate hunger, address the nutrition needs of children, improve children's micronutrient status and reduce the susceptibility of children to infectious diseases and illnesses. However, the school feeding studies and programs in developing countries published to date lack an in-depth investigation of whether children are receiving culturally and developmentally appropriate nutrition and health education lessons to complement the nutritious foods and snacks being offered during a regular school day. According to Powell et al., in order for the achievement levels of children to improve and for children in developing countries to fully benefit from the school feeding and supplemental services offered at their schools, integrated interventions that include nutrition, health, and educational components are needed. Successful school nutrition and feeding programs in developed countries have learned the importance of integrating nutrition education into these programs.

2.19 Conceptual Framework

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas. In order to summarize the whole concept the researcher

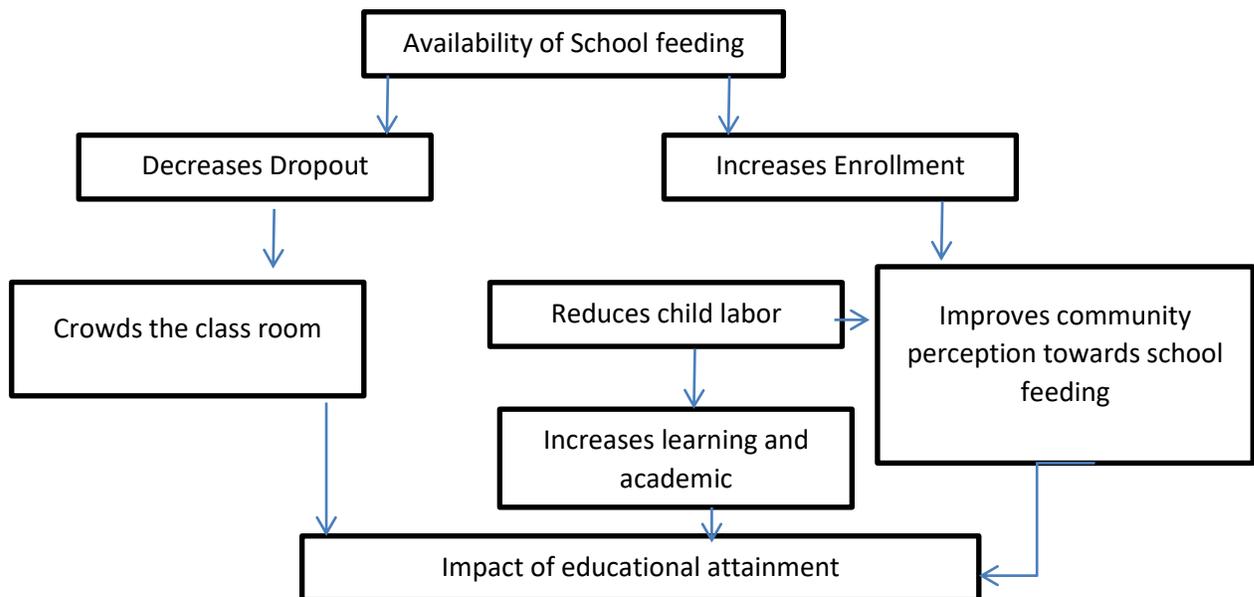
draw the above diagram of the conceptual framework and Strong conceptual frameworks capture something real and do this in a way that is easy to remember and apply.

Therefore this diagram summarizes that if there is a school feeding in the area there will be increasing of enrollment and decreasing the dropout rate that leads the school to be crowd place if there will not be any input of the school material like classes, text books and the like, hence the community perception towards the school feeding program will be improved in order to tackle those families who are not aware of the importance of the program. Also it reduces the child labor that may damage the cognition of the children. Apart from that the understanding of the student will be high as compared to the other parts.

Figure 1: Conceptual Framework

The conceptual framework summarizes the expected relationship between the variables of the concept and It defines the relevant objectives for your research process and maps out how they come together to draw coherent conclusions.

Table: Conceptual Frame Work



Source: own

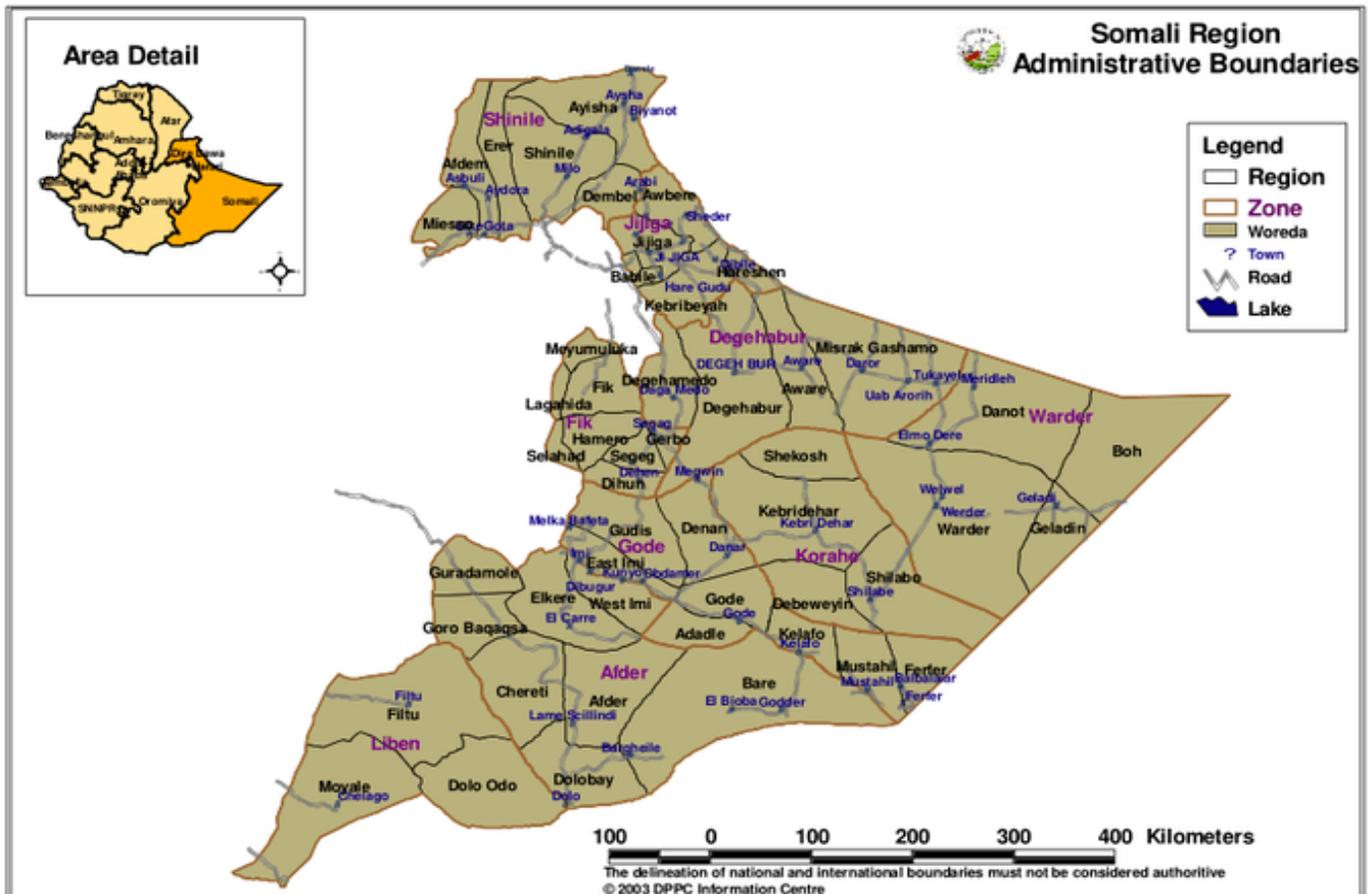
3. RESEARCH METHODOLOGY

3.1 Description the study area

Kabribayah is a town in southeastern Ethiopia. Located in the Fafan Zone of the Somali Region, 50KM south east of Jijiga Town, it has a longitude and latitude of 9°6' N 43°10' E and an altitude of 1,686Mtrs above sea level. It is the administrative center of Kabribayah District. Kabribayah comprises a number of smaller villages (Dhurwale, Qaha, Gilo, Horoqalifo, Horohawd, and Campka Rayad) and there are many valleys in the surrounding area (Farda, Garbile, Danaba, Dubur, and Toga Jarer rivers).

Kabribayah has been the site of a refugee camp since 1989. The camp originally housed about 10,000 refugees and returnees from Somalia, most of who belonged to various Darod sub-clans.

Map 1: Location of Ethiopian Somali Regional State



3.2 Research Design

The main purpose of this study is to justify the cause and effect of School-based feeding to reduce the dropout and improve the enrolment that carried out by School management. International funders, government as the main part in primary Schools of Kabribayah district To this effect, the method of the research we are using are, source of data, sample of population and sampling techniques instruments and procedures of data collection.

In this research the design of research will be the case study research design. This method of the research is in which involves up-close, in-depth, and detailed examination of a subject of study thus, this research will be as well as is selected since the nature of the problem needs spacious description and exploration about the cause and effect of the school feeding for the dropout and enrollment rates.

3.3 Sources of Data

In both Primary and Secondary data will be the sources of the study as declare below.

3.3.1 Primary Data Sources

The Primary data of the study will be gathered using for interviews of the participants in kabribayah town schools for taking one school in which school feeding exist. Questionnaires and observations of the situations from the sample sites at the one Primary School teachers, and the community members especially parents benefiting from the School Feeding Program offered in that school.

3.3.2 Secondary Data Sources

Reports of Ministry of Education and Regional Education Bureau, Secondary data documents from the District Education office, Regional Education Bureau, and Ministry of Education.

3.4 Sample Size

The researcher determines the sample size from the school population which consists of 1208 student, 1principal, 1 vice principal,28 teachers whom 22 are men and are women, and 1 supervisor. The sample is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. In practice, the sample size used in a study that determines based on the expense of data collection, and the need to have sufficient statistical power, hence the study will be taken sample size as 40 in which we will see the diagram below.

No	Type	Target	Sample	Percentage%	Sampling
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		Population			Technique
1	Parents	25	10	40	Sample random
2	School director	1	1	100	Simple random
3	Student	1208	180	15	Simple random
4	Teachers	28	28	100	Purposive sampling
5	Supervisor	1	1	100	Purposive sampling
Total		1264	221		

3.5 Sampling Technique

To determine the sample size the researcher has chosen simple random sampling technique because each individual 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, and each individual has the same probability of being chosen for the same as any other subset of individuals. A simple random sample is an unbiased surveying technique, hence there are basically one school in kabribayah district which have been supported with the contemporary WFP school feeding program during 2008/2009 academic year. This study is however conducted on one of them; Abdulmajid Hussien Primary school and the main reasons for choosing this site are because it offered potential accessibility of data. The study region presented for better credential opportunities where official records are also readily available in comparison with other villages and sub villages.

To bear out this study, the data will be gathered in the form of questionnaire to those who can read/write and interview them those who aren't able to read and that reflects on about in different mature, education level of experience and femininity.

Simple random and purposive method will be used to select the human wherewithal of that school in kabribayah.

3.6 Instruments of data collection

Gathering necessary data for the study will be done by using questionnaire and interviews. In addition, relevant reference books, and supervision manuals will be include and supporting the findings of the study.

3.6.1 Questionnaire

Questionnaire will be used commonly to gather data for descriptive survey method. In order to gather the appropriate information about the current situation of school feeding for improving enrollment and reducing the dropout rates of that school, this questionnaire will be distributed to teachers and school based parents (PTA). All of the questionnaires will be written in Somali and then will be translated in to English as the researcher believes that they couldn't understand the questions written in English, There will be both close-ended and open-ended items in the questionnaires. The close-ended items will include fifty 5 point Liker scale items. This is because it helps the researcher to know respondents feelings. In addition, it helps the respondents to choose one option from the given scales that best aligns with their views. In addition to this, open-ended items will be included in order to give opportunity to the respondents to express their feelings, perceptions, problems and intensions related to the school-based feeding system in the school.

3.6.2. Interview

The interview permits greater depth of response which is not possible through any other means.

Thus, the purpose of the interview is to collect more supplementary opinion, so as to stabilize the questionnaire response. The reason behind using a semi-structured interview is due to its advantages of flexibility in which new questions could be forwarded during the interview based on the responses of the interviewee.

The interview will be conducted in Somali language and supported by Audio (tape recorders) in order to minimize loses of audio information. The recorded data will be categorized based on similarities of responses and then translated in to English language during the transcription.

Principals know the strength or challenges, weakness and opportunities of each school communities by providing school feeding. Therefore, they can have detailed information about the current cause effect of providing school feeding school-based learning and factors that binder or enhance the practice in their school. This will help the researcher to get relevant and more reliable information.

3.6.3. Focus Group Discussion

FGDs are essential to generate detailed information on certain subject matter from a small group of people while at the same time it allows those groups to be guided by a skilled moderator. The focus Group Discussions will be composed of different persons like the parents and teachers of the school in Kabribayah town. Focus Group Discussions will be conducted and the participants in the group discussion will be drawn from different groups. The maximum number of participants in the group will be 6-10 in order to make it manageable in size.

3.6.4 Observation

In practice observation offers an opportunity for the researcher to observe the status quo as it is directly. Thus, in this study, direct field observation will be held by the researcher to observe the school feeding program and the challenges that hinders the implementation status.

3.6.5. Documents

Documents will be analyzed from regional education bureau and district education Office and also come together and documents from the internet.

3.7 Method of Data Analysis

The analysis of qualitative research involves aiming to uncover and understand the big picture by using the data to describe the phenomenon and what this means. Both qualitative and quantitative analysis involves labeling and coding all of the data in order that similarities and differences can be recognized. Responses from even an unstructured qualitative interview can be entered into a computer in order for it to be coded, counted and analyzed. And when everything is done the researcher will code and enter the data into SPSS package. After the data is cleaned and verified. The data will be analyzed using descriptive statistics. The qualitative data will be analyzed and integrated into the findings of the quantitative data to strengthen the discussion. This means that results of the key informant interview and direct observations have been juxtaposed with the quantitative results wherever necessary.

4. RESULTS AND DISCUSSION

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

4.1 Characteristics of Respondents

The director of the school is male age 46 with a degree in English literature. The teacher females are 6 and 22 males in gender different qualification. The supervisor male age 31 with diploma in management. The parents usually have also different educational background.

The student grade 5 ages 12 females.

Table1: The respondents' characteristics of the study.

Category	Sample size	Sex	Age	Educational level
Parent	10	Male=7 Female=3 Total=10	1-10years=0 11-25years=0 26-46years=10	Grade level=8 Certificate=2 Diploma=0 Degree=0
School Director(N=1)	1	Male=1 Female=0 Total=1	1-10years=0 11-25years=0 26-46years=1	Grade level=0 Certificate=2 Diploma=0 Degree=1
Teacher (N=28)	28	Male=22 Female=6 Total=28	1-10years=0 11-25years=5 26-46years=28	Grade level=0 Certificate=3 Diploma=20 Degree=5
Supervisor(N=1)	1	Male=1 Female=0 Total=1	1-10years=0 11-25years=0 26-46years=11	Grade level=8 Certificate=2 Diploma=1 Degree=0
Student (N=1208)	180	Male=127 Female=53	1-10years=164 11-25years=16	Grade level=180 Certificate=2

		Total=180	26-46years=10	Diploma=0 Degree=0
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4.2 Current Practices of the SFP

According to data collected from school record office and woreda education office, Dr Abdimajid Hussein school was established 1982 B.C in Kabribayah which is 50 KM away from Jijiga and is one of the oldest schools in that town. It is a well renowned school which has been thriving to achieve excellence, on the other hand SFP was launched in the school in 1996 E.C (2004 GC) collaboration with WFP in order to decrease the dropout rate in the town of Kabribayah. The dropout rate was beginning to increase due to lack of substantial resources for the students, that it is why the SFP was introduced so that the students would be able to withstand a long day at school with no trouble at all.

According to head of education office head, the type of the meal served for the students is basically porridge (known as Boorish in Afan Somali) which is rich in carbohydrates and oats which will help the students to get every day required amount of energy for a day. The porridge being served to the students is an essential part of the regular daily diet for most people around the world in different cultures and backgrounds. The richness in nutritional value and simplicity of preparation are just a few reasons why porridge has been chosen as the main dish served in the SFP, and every student in the school was allocated 125 grams per day which is the average serving of porridge based on a recent nutritional statistic brought forward by the WHO. This portion is enough for each student and will provide them with the right amount of grams that they need for a normal day at school. It is also helping them to some extent in alleviating poverty of the society. It is also helping them reducing their hunger which could enhance their concentration and attention in learning process.

Further he explained that the time of the meal distribution is short break time (10:00AM), after two periods of learning in the mornings. This is a good time to feed the students because they will regain the energy from breakfast that they've used up from the first two periods of class. The responsibility of the school meal cooking controlled by a few employees from the woreda education office which have been equipped with the resources and the required training was provided to them in distribution, monitoring and maintain hygiene to ensure the wellbeing of the students.

4.3 SFP Enrollment and dropout Situation

Table: Enrollment and dropout rate from 2019-2023

Gender	2018-19			2019-20			2020-21			2021-22			2022-23		
	Enr	DP	%	Enr	DP	%									
Boys	223	24	10.8	360	42	11.7	420	22	5.2	505	26	5.1	643	40	6.2
Girls	94	41	43.6	102	52	49.5	150	36	24	200	50	25	394	69	17,5
Total	317	65	20.5	462	94	20.3	570	58	10.2	702	76	10.8	1037	109	10.5

Key: Enr= Enrollment, DP=Dropout, Source: District Education Office, Kabriayah

Enrollment: It is the process of initiating attendance to a school and the total number of students in which properly registered and/or attending classes at a school. Concurrent enrolment is the process in which high school students enroll and which the process of being entered onto school.

Based on this concept, Dr. Abdimajid Hussein primary school for the last 6 years the enrolment has increased dramatically and therefore, there must be an action taken as to maintain the services along with the increase in enrolment as shown in table 2, the enrollment increased from 317 in 2018/19 to 1037 in 2022/23 indicates that the enrollment increased by 327% in six years.

Dropout: It is defined as any student who leaves school for any reason before graduation or completion of a program of studies without transferring to another elementary or secondary school or a person who withdraws from school, before graduating.

As data shown in table 2, the dropout rate has been decreased by 50% due to the stabilization of the school feeding program at Dr. Abdimajid Hussein Primary School. We only expect the dropout rate to decrease from here on forth and a maximum number for enrolment to be achieved. There are four groups in school raising awareness on SPP so that it has benefitted the students. As per principal, if this dedicated work continues sustainable way there will not be any dropouts in near future, this is the school objective.

The data depicted in table 2, in 2018/19 academic year the number of boys enrolled in school was 223 and girls 94 but 24 boys and 41 girls dropped out during the same year. The dropout of girls more than boys, 43.6% of girls were dropped out and only 10.8% of boys dropped out. School established in 1982 (EC) and school feeding program has been introduced in 2004 GC (1996 EC).

Based on this data researcher explored the further information through FGD with parents on why dropout rate of the girls was very high during 2018/19 GC compare to boys dropout rate, they gave several reasons, the major ones are..

- Parents wanted their girls to take care of their siblings • Needed their service for domestic household work
- Early marriage and other harmful traditional practices
- Negative attitude towards girl's education

Cumulatively these factors made girls to be out of the schools even 10% of boys dropped out because of some parents took their sons and put in work such as rearing their animals and to earn and support their families.

During this time it seems the SFP did not influence the girl students to continue their education compare to boys. Government extended SFP with cooperation of WFP but the program and its objectives were not disseminated to all the parent community, thus the impact SFP during this time was very marginal as expected.

From the same table if we see the trend in subsequent years the situation remained the same.

In the academic year 2019/20 still dropout rate of girls increased to almost 50%, 102 girls enrolled and 52 girls from different classes were dropped out. For this reason principal of the school explained that in 2019/20 along with above mentioned problems drought was added so parents found difficult to continue their girl children in schools and resulted in drop out. During this period even boys dropout rate was increased almost by one percent.

In 2021/22 academic year revolutionary changes took place, as principal and district education office information, the school and education office together launched propaganda program on importance of education for boys and girls in pastoralist and agro-pastoralist societies. They campaigned door to door and through clan leaders. In addition they also explained about school feeding program, some extent this program had reduced the burden of parents to some extent. This feeling was expressed by parents in FD. If see the data in this academic year enrollment of boys was 420 and drop out 22 and enrollment of girls was 150 and dropout was 24. The data shows there was significant improvement in enrollment and decrease of dropout, 5.2 % of boys and 24% of girls dropped out, indicates that dropout was reduced to 50% in the case of both boys and girls.

The same trend was maintained in subsequent academic year 2021/22. Still dropout has been reduced further in 2022/23 academic year due to the involvement of government, and all other stakeholders like parents, teachers, WFP, education office etc. When researcher interacted with few parents and some students in informal way to know about the reason why dropout rates were decreased, they explained some of major reasons such as;

1. The awareness of parents on SFP and importance of education increased.
2. Students attracted by the food served by the school.
3. Motivation from teacher increased.
4. The information disseminated and reached to all the community members.
5. Parents welcomed the new initiations of government and tried come out from certain cultural and religious stigma.
6. Reduction of practices of harmful and traditional practices in the society.

This can be summarized that the initial increase in the dropout rate in 2008 was due to an incomprehensible drought along with a few other shortages of resources which were quickly supplied. Although there was a slight decrease in the dropout rate itself in the year 2009, it wasn't the projected figures that were estimated and that was due to another drought which struck the region. The academic year is at its half right now and the projected value of the dropout rate is expected to decrease once again as the population is recovering from the drought now that they are properly equipped with the resources they need to tackle this obstacle.

In another research conducted by WFP (2011), the SFP has been designed to promote increased enrolment and attendance and reduce dropouts in chronically food insecure districts in rural Ethiopia by providing a daily hot meal in school. SFP additionally make it easier for children to concentrate on their work, facilitating learning, increases school enrolment, attendance rate, and decreases dropout rates in SFP schools.

4.4 The Impact of SFP on Enrollment

The following table describes the items related to the importance of SP in relation to enrolment. The items focused on to get the agreement of students and teacher respondents regarding perception of community, whether SFP motivate the children or not, awareness level of parents on SFP, whether the SFP is an instrument for the enrollment or not, and whether SF substitutes the child labor or not.

The following table depicts the data that was collected through questionnaire from students and teacher respondents.

Table 3: Importance of SFP in relation to Enrolment

S.No	Item		SA(5)		A(4)		UD(3)		D(2)		SDA(1)		Total	Mean
			F	%	F	%	F	%	F	%	F	%		
1	SFP creates the positive perception in the community towards school	T	7	25	9	32.1	5	17.8	4	14.4	3	10.7	28	3.57
		S	66	36.7	36	20	8	4.4	42	23.3	28	15.6	180	3.38
2	SFP motivates the students to enroll into the school	T	9	32.1	2	7.1	7	25	5	17.9	5	17.9	28	3.64
		S	74	41.1	40	22.3	4	2.2	36	20	26	14.4	180	3.20
3	SFP make awareness the parents to send their children to school	T	6	21.3	7	25	5	17.9	5	17.9	5	17.9	28	3.60
		S	65	36.1	41	22.8	3	1.7	41	22.8	30	16.6	180	3.40
4	SFP increases the enrollment	T	4	14.3	3	10.7	5	17.9	9	32.1	7	25	28	3.54
		S	62	34.1	45	25	7	3.9	34	18.9	32	17.7	180	3.39
5	SFP substitutes the child labor	T	2	7.1	6	21.4	5	17.9	8	28.6	7	25	28	3.61
		S	40	22.2	68	37.8	38	21.1	6	3.3	28	15.5	180	3.45
		S	49	27.2	59	32.8	38	21.1	6	3.3	28	15.5	180	3.4

Key: SA=Strongly Agree, A=Agree, UD=Undecided, D=Disagree, SDA=Strongly Disagree. the mean value: Very high level agreement= 4.5-5.00, Agreement =3.5-4.4, moderate agreement=2.53.4, low level agreement=1.5-2.4 and very low level agreement =0.5-1.4.

The data depicted in table 3, item 1 whether SFP creates the positive perception in the community or not, to this 7 (25%) and 12 (42.9%) of teacher respondents strongly agreed and agreed respectively that SFP created positive perception in the community towards schools, on this item 4 (14.3%) of them did not give any response, whereas 3 (13.3%) and 8 (11.8%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.57 which is high level of agreement.

On the same item 66 (36.6%) and 36 (20%) of student respondents strongly agreed and agreed respectively, 8 (4.5%) of them did not respond anything, whereas 42 (23.4%) and 28 (15.5%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.38, which is moderate level of agreement on this item.

The data illustrated in table 3, item 2 whether SF motivate the students to enroll into school or not, to this 6 (21.6%) and 12 (42.9%) of teacher respondents strongly agreed and agreed respectively that SFP motivates the students to enroll into schools. on this item 2 (7.1%) of them did not give any response, whereas 4 (14.3%) and 4 (14.3%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.57 which is high level of agreement of respondents.

On the same item 74 (41.1%) and 40 (22.3%) of student respondents strongly agreed and agreed respectively, 4 (2.2%) of them did not respond anything, whereas 36 (20%) and 26 (14.4%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.20, which is moderate level of agreement on this item.

The data portrayed in table 3, item 3 whether SFP creates awareness the parents to send their children to the school or not, to this 9 (32.1%) and 12 (42.9%) of teacher respondents strongly agreed and agreed respectively that SFP created awareness so that parents can send their children to the schools, on this item 2 (7.1%) of them did not give any response, whereas 4 (14.3%) and 1 (3.67%) of them strongly disagreed and disagreed respectively.

The mean value on this item was 3.60 which is high level of agreement.

On the same item 65 (36.1%) and 41 (22.8%) of student respondents strongly agreed and agreed respectively, 3 (1.7%) of them did not respond anything, whereas 41 (22.8%) and 30 (16.6%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.40, which is moderate level of agreement on this item.

The data showed in table 3, item 4 whether SFP increases the enrollment increases or not, to this 7(25%) and 11 (39.3%) of teacher respondents strongly agreed and agreed respectively that SFP increases the enrolment in schools, on this item 2 (7.1%) of them did not give any response, whereas

5 (17.9% and 3 (10.7%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.54 which is high level of agreement.

On the same item 62 (34.5%) and 45 (25%) of student respondents strongly agreed and agreed respectively, 7 (3.9%) of them did not respond anything, whereas 34 (18.9%) and 32 (17.7%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.61, which is moderate level of agreement on this item.

The data showed in table 3, item 5 whether SF reduces the child labor or not, to this 9(32.1%) and 11 (39.3%) of teacher respondents strongly agreed and agreed respectively that SFP reduces the child laborers, on this item 3(10.7% of them did not give any response, whereas 3 (10.7%) and 2 (7.1% of them strongly disagreed and disagreed respectively. The mean value on this item was 3.54 which is high level of agreement.

On the same item 68 (37.8%) and 40 (22.2%) of student respondents strongly agreed and agreed respectively, 6 (3.4%) of them did not respond anything, whereas 38 (21.1%) and 28 (15.5% of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.45, which is moderate level of agreement on this item.

In an interview with one of the principals said that,

“.....the Government of Ethiopia has introduced the School Feeding Program, initially the community and parents did not know about this program, when children are served food at school they became the advertising instruments to propagate the importance of SFP, thus slowly parents turned with their children to the school, so we have witnessed the increase of enrolment, and children whom we saw working here and there appeared in school...”

In one of FGD's with parents the same issues were discussed and they concluded as,

“...in the beginning we did not believe that schools are providing food for our children, even we thought that for some time this program may be continued until children enroll into schools, so we have agitated to send our children leaving their work. But we have witnessed the sustainability of the program, thus most of us realized and sending our children to the schools, and we saw two benefits one is some extent our poverty reduced and another is our children are becoming literates, we are really happy...”

In another interview with supervisor, he said that,

“.....We also creating awareness program regarding the importance of school feeding program and encouraging the parents and community to enroll their children for the progress of the society. In due course we have seen some visible changes in this area.”

From above discussion it is possible to say that SFP is very important and it has great influence on parents and community to increase the enrollment in schools. This program alleviates the poverty to some extent and reduces the child laborers. This is an evidence of change pattern in enrolling and reducing the dropout.

4.5 Adequacy and Quality of food served in SFP

The food being served at the school has been adequate but there have been recent complaints that the portions of the food should be doubled so that the students may have the sufficient amount of energy to get throughout the day. There have also been parents that have raised the issue of the quality of the food claiming that it was less than it should be. Several students have also brought the top to discussion. Others also mentioned there should be diversity among the dishes that we offer to our students so as to increase their perception to learning.

Table 4: Adequacy and quality of food served in SFP

S.No	Item		SA(5)		A(4)		UD(3)		D(2)		SDA(1)		Total	Mean
			F	%	F	%	F	%	F	%	F	%		
1	School with SFP is accessible in a reasonable distance	T	7	25	9	32.1	5	17.8	4	14.4	3	10.7	28	3.57
		S	66	36.7	36	20	8	4.4	42	23.3	28	15.6	180	3.38
2	Food given under SFP is adequate for each children	T	9	32.1	2	7.1	7	25	5	17.9	5	17.9	28	3.64
		S	74	41.1	40	22.3	4	2.2	36	20	26	14.4	180	3.20
3	Providing food is good	T	6	21.3	7	25	5	17.9	5	17.9	5	17.9	28	3.60
		S	65	36.1	41	22.8	3	1.7	41	22.8	30	16.6	180	3.40

4	Providing food to all students	T	4	14.3	3	10.7	5	17.9	9	32.1	7	25	28	3.54
		S	62	34.1	45	25	7	3.9	34	18.9	32	17.7	180	3.39
5	Hygiene of preparation of the food is good enough	T	2	7.1	6	21.4	5	17.9	8	28.6	7	25	28	3.61
		S	40	22.2	68	37.8	38	21.1	6	3.3	28	15.5	180	3.45
6	Food provides adequate nutrients and proteins to the children through SFP	T	3	10.7	5	17.9	7	25	9	32.1	4	14.3	28	3.6
		S	49	27.2	59	32.8	38	21.1	6	3.3	28	15.5	180	3.4

Key: SA=strongly agree, A=Agree, UD=Undecided, D=Disagree, SDA=Strongly Disagree.

The main value; Very High Level agreement=4.5-5.00, High Agreement=3.5-4.4, moderate Agreement=2.5-3.4, low level agreement=1.5-2.4, very low level agreement=0.5-1.4.

The data depicted in table 4, item 1 whether, Schools with SFP is accessibility in a reasonable distance or not, to this 7 (25%) and 9 (32.1%) of teacher respondents strongly agreed and agreed respectively that SF is accessibility in a reasonable distance, on this item 5(17.8%) of them did not give any response, whereas (14.4%) and 3 (10.7%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.57 which is high level of agreement.

On the same item 66 (36.7%) and 36 (20%) of student respondents strongly agreed and agreed respectively, 8 (4.4%) of them did not respond anything, whereas 42 (23.3%) and 28 (15.6%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.38, which is moderate level of agreement on this item.

The data illustrated in table 4, item 2 whether Food given under SFP adequate for each student or not, to this 9(32.1% and 2 (7.1%) of teacher respondents strongly agreed and agreed respectively that Food given under SF adequate for each student, on this item 7 (25%) of them did not give any response, whereas 5 (17.9%) and 5(17.9%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.64 which is high level of agreement of respondents.

On the same item 74 (41.1%) and 40 (22.3%) of student respondents strongly agreed and agreed respectively, 4 (2.2%) of them did not respond anything, whereas 36 (20%) and 26 (14.4%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.20, which is moderate level of agreement on this item.

The data portrayed in table 4, item 3 whether Quality of food is good or not, to this 6(21.3%) and 7(25%) of teacher respondents strongly agreed and agreed respectively that Quality of food is good, on this item 5 (17.9%) of them did not give any response, whereas 5(17.9%) and 5(17.9%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.60 which is high level of agreement.

On the same item 65 (36.1%) and 41 (2.8%) of student respondents strongly agreed and agreed respectively, 3 (1.7%) of them did not respond anything, whereas 41 (22.8%) and 30 (16.6%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.40, which is moderate level of agreement on this item.

The data showed in table 4, item 4 whether Providing food to all students or not, to this 4(14.3%) and 3(10.7%) of teacher respondents strongly agreed and agreed respectively that Providing food to all students, on this item 5 (17.9%) of them did not give any response, whereas 9(32.1%) and 7(25%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.54 which is high level of agreement.

On the same item 62 (34.1%) and 45 (25%) of student respondents strongly agreed and agreed respectively, 7 (3.9%) of them did not respond anything, whereas 34 (18.9%) and 32 (17.7%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.39, which is moderate level of agreement on this item.

The data showed in table 4, item 5 whether Hygiene of the preparation of the food is good enough or not, to this 2(7.1%) and 6 (21.4%) of teacher respondents strongly agreed and agreed respectively that of the hygiene of the preparation of the food is good enough, on this item 5(17.9%) of them did not give any response, whereas 8(28.6%) and 7(25%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.61 which is high level of agreement.

On the same item 40 (22.2.8%) and 68 (37.8%) of student respondents strongly agreed and agreed respectively, 38(21.1%) of them did not respond anything, whereas 6 (3.3%) and 28 (15.5%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.45, which is moderate level of agreement on this item.

The data showed in table 4, item 6 whether Food provides adequate nutrients and proteins to the children through SFP or not, to this 3(10.7%) and § (17.9%) of teacher respondents strongly agreed and agreed respectively that of the Food provides adequate nutrients and proteins to the children through SFP, on this item 7(25%) of them did not give any response, whereas 9(32.1%) and 4(14.3%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.60 which is high level of agreement.

On the same item 49 (27.2%) and 59 (32.8%) of student respondents strongly agreed and agreed respectively, 38(21.1%) of them did not respond anything, whereas 6 (3.3%) and 28 (15.5%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.4, which is moderate level of agreement on this item.

In one of FGD's with parents were discussed as,

"To be honest, most of us in this community appreciate this program. This program has tremendous impact on our children. Most of our children like the food served at school, but some complain about quantity and variety that they are served. The SFP has made our jobs as parents a little easier because we don't really need to worry about our children being hungry if they didn't have a sufficient breakfast and the other thing I would like to mention here is the quantity of the meal if it could be as more as 200gm/day for a better energy and the quality not be watery but harder.

Although we didn't expect it to have this much of an impact, we are really appreciative for the school to have such a program to be offered to our children"

The average energy intakes and energy adequacy ratios are considerably higher for the SFP participating students than those for non-participating students in control areas. This is evident in both rural and urban areas. Average energy intakes of participating students are 11 percent and 19 percent higher in rural and urban program areas, respectively, than energy intakes of primary school students in corresponding control areas.

These findings also coincide with other research findings that the SFP improves net food consumption of the participating children that is the extra energy from the SFP, food supplement do not seem to be substituted by the household(Akhter U,Ahmed,2004)

Table 5: Impact of SFP

S.No	Item	SA(5)	A(4)	UD(3)	D(2)	SDA(1)	Total	Mean
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			F	%	F	%	F	%	F	%	F	%		
1	SFP increases attendance in the school classroom	T	5	17.9	11	39.3	5	17.9	4	14.3	3	10.7	28	3.57
		S	61	33.9	41	22.8	8	4.5	42	23.4	28	15.5	180	3.38
2	SFP Motivates the children to participate in classroom activities	T	9	32.1	5	17.9	2	7.1	10	35.7	2	7.1	28	3.64
		S	74	41.1	40	22.3	4	2.2	36	20	26	14.4	180	3.20
3	SFP make the children active in extra-curricular activities	T	8	28.6	4	14.3	5	17.9	5	17.9	6	21.4	28	3.60
		S	65	36.1	41	22.8	3	1.7	41	22.8	30	16.6	180	3.40
4	SFP Improves the involvement the students in learning	T	10	3.8	2	7.1	5	17.9	4	14.3	7	25	28	3.54
		S	60	33.3	47	26.1	7	3.9	34	18.9	32	17.7	180	3.39
5	SFP makes students to be punctual	T	10	35.7	6	21.4	5	17.9	5	17.9	2	7.1	28	3.61
		S	65	36.1	43	23.9	6	3.4	38	21.1	28	15.5	180	3.45

Key: SA=Strong Agree, A=Agree, UD=Undecided, D=Disagree, SDA=Strong Disagree,

The mean value: Very high level Agreement=4.5-5.00, High Level Agreement=3.5-4.4, Moderate level Agreement=2.5-3.4, Low Level Agreement=1.5-2.4, very Level Agreement=0.5-1.4

The data depicted in table 5, item 1 whether, Schools with SF increases attendance in the classroom or not, to this 5(17.9%) and 11(39.3%) of teacher respondents strongly agreed and agreed respectively that SF increases attendance in the classroom, on this item 5(17.9%) of them did not give any response, whereas 4 (14.3%) and 3 (10.7%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.57 which is high level of agreement.

On the same item 61 (33.9%) and 41 (22.8%) of student respondents strongly agreed and agreed respectively, 8 (4.5%) of them did not respond anything, whereas 42 (23.4%) and 28(15.5%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.38, which is moderate level of agreement on this item.

The data illustrated in table 5, item 2 whether SFP motivates the children to participate in classroom activities or not, to this 9(32.1%) and 5 (17.9%) of teacher respondents strongly agreed and agreed respectively that SEP motivates the children to participate in classroom activities, on this item 2(7.1%) of them did not give any response, whereas 10 (35.79) and >(7. 1%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.64 which is high level of agreement of respondents.

On the same item 74 (41.1%) and 40 (22.3%) of student respondents strongly agreed and agreed respectively, 4 (2.2%) of them did not respond anything, whereas 36 (20%) and 26 (14.4%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.20, which is moderate level of agreement on this item.

The data portrayed in table 5, item 3 whether SF make the children active in extracurricular activities or not, to this 8(28.6%) and 4(14.3% of teacher respondents strongly agreed and agreed respectively that SFP make the children active in extra-curricular activities, on this item 5 (17.9% of them did not give any response, whereas 5(17.9%) and 6(21.4%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.60 which is high level of agreement.

On the same item 65 (36.1%) and 41 (22.8%) of student respondents strongly agreed and agreed respectively, 3 (1.7%) of them did not respond anything, whereas 41 (22.8%) and 30 (16.6%) of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.40, which is moderate level of agreement on this item.

The data showed in table 5, item 4 whether SFP improves the involvement of the students in learning or not, to this 10(35.7%) and 2(7.1%) of teacher respondents strongly agreed and agreed respectively that SFP improves the involvement the students in learning. on this item 5(17.9%) of them did not give any response, whereas 4(14.3%) and 7(25%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.54 which is high level of agreement.

On the same item 60(33.3%) and 47 (26.1%) of student respondents strongly agreed and agreed respectively, 7 (3.9%) of them did not respond anything, whereas 34 (18.99) and 30 (7.7%) of

student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.39, which is moderate level of agreement on this item.

The data showed in table 5, item 5 whether SFP makes students to be punctual or not, to this 10(35.7%) and 6 (21.4%) of teacher respondents strongly agreed and agreed respectively that of the SFP makes students to be punctual, on this item 5(17.9%) of them did not give any response, whereas 5(17.9% and 2(7.1%) of them strongly disagreed and disagreed respectively. The mean value on this item was 3.61 which is high level of agreement.

On the same item 60 (36.1%) and 43 (23.9%) of student respondents strongly agreed and agreed respectively, 6(3.4%) of them did not respond anything, whereas 38 (21.1%) and 28 (15.5% of student respondents strongly disagreed and disagreed. The mean value of responses of students on this item is 3.45, which is moderate level of agreement on this item.

There is high Household enrollment Ratio compared to the other schools in which school feeding doesn't exist. Children's readiness to come to school and attend is influenced by the extent to which their parents value the food their children receive in school premises (Adelman, Gilligan et al. 2008).

In an interview with the director said that,

"The SEP has proved to be as promising as we hoped. Throughout the time since its introduction to the community neighboring the school, there has been a significant decrease in the dropout rate as we hoped but what that surprisingly brought forth was the decrease in youth on the streets roaming around during the day. There has been an increase in employment due the lack of children helping their parents with their livestock. As a school director what I most happy about here at DR. Abdimajid Primary is the steadfast showing enrolment and the directly proportional increase with the involvement of the parents. I can gladly say that I am proud of this achievement that we have accomplished".

In another interview with the district education head, he said that,

"As education head, I was a bit skeptical as to how the SFP would create a more approachable environment to education. Even during the launching of the program I was more concerned about the costing and the funding that would be required to keep this program running. After seeing the involvement of the community members volunteering to help out with the program, I was convinced and assured that this was the program; I was convinced and assured that this was the program the people of this community had been longing for. It caused a ripple of effects in the community economically and socially. I would like to congratulate all who involved in the SFP and wish them to

keep the same momentum for further success. I don't think I will be as skeptical towards any more programs that will be endeavored in the near future".

From above discussion it is possible to say that SFP is very important and it has great impact on enrollment and dropout, parents and community are about to increase the enrollment in Schools. This program alleviates the poverty to some extent and reduces the child laborers.

This is an evidence of change pattern in enrolling and reducing the dropout.

4.6 Student's Perception towards SFP

The student's reaction to the introduction of the program was ecstatic. Some students were so excited that they actually started coming to school earlier. Other students have ever increased their performances in their studies. There has also been a recognizable decrease in the number of dropouts and inversely an increase in enrolment.

Table 6: Students Perception towards SFP

S.No	Item	High(3)		Medium(2)		Low(1)		Total	Mean
		F	%	F	%	F	%		
1	Level of awareness quality of the meal served	40	22.2	55	30.6	85	47.2	180	1.75
2	Number of times served per day	66	36.7	42	23.3	72	40	180	1.96
3	Child refused to go to school clean and hygiene of the meal	87	48.3	39	21.7	54	30	180	1.96
4	Child refuse to go to school	71	39.4	69	38.3	40	22.2	180	2.18
5	Clean and hygiene of the meal	80	44.4	45	25	55	30.6	180	2.17
6	Serving on times for the students	50	27.8	91	50.5	39	21.7	180	2.06
7	Monitoring during serving	68	37.8	88	48.9	24	13.3	180	2.24

Key: 0-1.00=Low.1.01-2.00=Medium, 2.01-3.00=High.

The data depicted in table 6, item 1 whether, Level of awareness high or not, to this 40(22.2%) and 55(30.6%) of students respondents highly agreed and agreed respectively that Level of awareness, on this item 85(47.2%) of them did give a weak or low response. The mean value of responses of students on this item is 1.75, which is medium level of agreement on this item

The data illustrated in table 6, item 2 whether Quality of the meal served is good or not, to this 66(36.7%) and 42 (23.3%) of teacher respondents strongly agreed and agreed respectively that Quality of the meal served is good, on this item 72(40%) of them give low response,. The mean value on this item was 1.96 which is medium level of agreement of respondents.

The data portrayed in table 6, item 3 whether Number of times served per day is enough or not to this 87(48.39) and 39(21.79) of student respondents highly agreed and agreed respectively that Number of times served per day is enough, on this item 34 (30%) of them give low response. The mean value on this item was 2.18 which are high level of agreement.

The data showed in table 6, item 4 whether Child refused to go to school or not, to this 11(39, 4%) and 69(38.3%) of student respondents highly agreed and agreed respectively that Child refused to go to school, on this item 40(22.2%) of them give low response,. The mean value on this item was 2.18 which is high level of agreement.

The data showed in table 6, item 5 whether Hygiene of the preparation of the food is good enough or not, to this 71(39.4%) and 69 (38.3%) of student respondents strongly agreed and agreed respectively that of the hygiene of the preparation of the food is good enough, on this item 40(22.2%) of them give low level response,. The mean value on this item was 2.17 which is high level of agreement.

The data showed in table 6, item 6 whether Serving on time for the students is the right time or not, to this 50(27.8%) and 91(50.6%) of student respondents highly agreed and agreed respectively that of the Serving on time for the students, on this item 39(21.7% of them give low response. The mean value on this item was 2.06 which is high level of agreement.

The data showed in table 6, item 7 whether Monitoring during serving is enough or not, to this 68(37.8%) and 88(48.9%) of student respondents strongly agreed and agreed respectively that of the Monitoring during serving, on this item 24(13.3%) of them give low response,. The mean value on this item was 2.24 which is high level of agreement.

We can confidently conclude from the student's point of view, that the SFP has had a significant role in their education and has changed their education life. They seem more eager to come to school and are full of bright and happy smiles. The students have even passed on this happiness to their teachers

and are now moving fast through their course outline. This program has surely made a visible difference in this community.

One of the students expressed his opinion in open ended item on questionnaire as follows,

"...SFP is a good opportunity to continue our education and be whatever we dreamt we could be. It's given us a new kind of hope. We look forward to have variety of food every day. But we bored of having a bowl of porridge every day.

However, we all including our friends now at school, even the ones who previously dropped out. We are truly thankful to all who have given this chance to have food at school. We wish this chance to be given to all children in all rural school in Ethiopia."

4.7 Relationship between School and Community in Relation to SFP

The SFP has brought a dramatic change into the community for the better. The teachers along with the staff members of the school all agree that the introduction of this program to the community has increased the involvement of parents in their children education. Some parents have even suggested giving their ideas to improving the program. Teachers have also mentioned that they've noticed their students being more eager to learn and filled with energy as compared to before the SFP was introduced and the students would be lazy and couldn't perform as well as they do now.

Table 6: Teachers' opinions on Relationship between School and Community in Relation to SFP

S.No	Item	High(3)		Medium(2)		Low(1)		Total	Mean
		F	%	F	%	F	%		
1	Community cooperation with the SFP	10	3.5	6	21.4	12	42.9	28	1.92
2	Involvement of the community towards the SFP	8	28.6	9	32.1	11	39.3	28	1.90
3	Community encourages its members to send their children to the school	11	39.3	7	25	10	3,6	28	2.04
4	Discussion SFP between	8	28.6	7	25	13	46.4	28	1.82

	teachers and community								
5	Community involvement solving in the problems	10	35.7	9	32.1	9	32.1	28	2.0
6	Serving on times for the students	11	39.3	5	17.9	12	42.9	28	1.96

Key: 0-1.00=low, 1.01-2.00=medium, 2.01-3.00=High

The data depicted in table 7, item 1 whether, Schools with Community cooperation with the SFP or not, to this 10(35.7%) and 9(32.1%) of teacher respondents highly agreed and agreed respectively that Community cooperation with the SFP, on this item 12(42.9%) of them give a low level response. The mean value on this item was 1.92 which is medium level of agreement.

The data illustrated in table 7, item 2 whether Involvement of the community towards the SFP or not, to this 8(28.6%) and 9(32.1%) of teacher respondents strongly agreed and agreed respectively that Involvement of the community towards the SEP, on this item 11 (39.3%) of them give low level response, The mean value on this item was 1.90 which is medium level of agreement of respondents.

The data portrayed in table 7, tem 3 whether Community encourages its members to send their children to the school or not to this 11 (39.3%) and 7(25%) of teacher respondents. Strongly aged and agreed respect very that Community encourages its members to send their children to the school, on this item 10(17.9) of them did give low level response.

The mean value on this item was 2.04 which is high level of agreement.

The data showed in table 7, item 4 whether Discussion SEP between teachers and community that providing food to all students, on this item 8 (28.6%) of them give low level response, whereas 7(25%) and 13(46.4%) of them strongly disagreed and disagreed respectively. The mean value on this item was 1.82 which is medium level of agreement.

The data showed in table 7, item 5 whether Community involvement in solving the problems or not, to this 10(35.7%) and 9(32.1%) of teacher respondents strongly agreed and agreed respectively that of the Community involvement in solving the problems, on this item 9(32.1%)of them give low response, The mean value on this item was 2.01 which is high level of agreement.

The data showed in table 7, item 6 whether Community monitoring the quality of food served or not, to this 11(39.3%) and 5. (17.9%) of teacher respondents strongly agreed and agreed respectively that

of the Community monitoring the quality of food served, on this item 12(42.9%) of them give low response, The mean value on this item was 1.96 which is medium level of agreement.

Since the launching of the SFP, the teachers and staff members have welcomed its forthcoming with open arms. They utilized the benefits it gave the school children by increasing their work load and fast tracking through their course outline. They've also taken the chance to introduce extracurricular activities to stimulate their minds more. The teachers have shown a great attitude towards the SPP because they were used to the students being tired and weary before their lunch breaks and some students would even lag behind in their studies due to this conflict. This conflict itself has an effect on the teacher making them feel as if they are not doing their job as they should be. Now that his issue has been resolved, the teachers feel more confident in themselves as educators and their students for the effort they've put in recently.

The relationship between the parents and the SFP has taken quite the better compared to the previous times. Some parents are contacting their children teachers regularly making sure their child are keeping up. They seem more eager to be involved now. The community members are also giving the teachers recognition whenever they can which has also boosted the teachers' confidence. Community wave to the teachers whenever they see them even if they don't know them because it's become useful and fruitful around town. The teachers at the school have honestly made a great deal of change to this community and also have no problem showing their appreciation. This is a remarkable turning point for the teacher and community relationship and everyone seems content.

One of the teachers explained his feelings in open ended item in questionnaire as

"... This program is very god to increase enrollment and decrease the dropout in rural areas. It boosted our relationship with our student's parents because the parents see the improvement in the eyes of their children and in the work they've accomplished so far. My fellow teaching colleagues all seem more satisfied with their efforts now that the students have no problem concentrating. This truly is a fruitful accomplishment"

Participation occurs as a community organizes itself and takes responsibility for managing its problems. Taking responsibility includes identifying the problems, developing actions, putting them into place, and following through. Hence, the role of participation in community development is very important. Community development cannot take place if there is no participation by the community (Cheetham, 2002).

4.8 Community Perception

In a FGD the parents have expressed their views and opinions towards SFP, the details or FGD output is presented below,

In one FGD the group discussed about the SEP and they concluded as:

"... We appreciate the service that Dr. Abdimajid Hussein primary is offering to our students. It's made the students more eager and energetic to learn. If they could change the frequency of distribution we think the students could stay for an extra hour or two every day. This would increase periods of classes the students take daily and they'd be learning more in increase student's performance and the school's reputation would be the only outcome observed if that were to occur"

Further the participants have discussed in GD and one of participants forwarded his opinions as:

"...The SFP is an extraordinary idea and my kids love it! I just wish they could increase the portions from 120 grams to 200 grams because some students walk a few kilometers to get to school and they could use the extra portion of porridge for energy to walk back and forth to school. There are many students who sleep due to the lack of energy after having a long day of school and this struggle could be tackled if the portions were increased. Other than that, the SFP is running very smoothly and many parents are happy to have this service in their community school"

Another participant expressed.

"...As admirable as the SFP is, I think that they should diversify the food that they distribute to the students at least 2 or 3 different types of meals periodically. Some students complained that the porridge being served daily was beginning to bore them and they could use a different meal. I've even heard one of my kids that actually skip the SFP sometimes simply because they don't want to eat porridge every day. This is the way the program should continue because it may have a negative impact towards the program, the school, and most importantly the students."

Another participant expressed.....

"... In the beginning of the academic year, we were glad to see that many children miss school mainly due to the overlapping of this period with the cattle herding season. Although livestock is the main economic product in the region, many children are obliged to help their parents. This has been a custom practice for many years and has proven to be very hard to speak with the parents about. Some sort of communal intervention alongside PTA members of the school would be greatly appreciated with this issue and could increase enrolment. Although the school has done a great deal of giving back to the community, I strongly believe if this next step was to be taken, it would build a

strong relationship among the community member and the school and the overall mutual perception towards each other.”

Further in discussion another participant expressed....

“.....Ever since the SFP was launched in 1996, there's been an increase in the number of Children enrolled in the school. I think SFP is an important tool and can further be heightened. I also believe that further improvements in the program's operation can boost enrollment rates even beyond its current status. If the programs operation was a little more transparent, there would be an increase in suggestions and responsibilities required to be distributed among the population would greatly increase performance of the SFP and the school itself”

Further in discussion another participant expressed.....

“...I think there should be an establishment of communication between the parents in the SFP and members of the PTA because it could raise the community members' involvement and help the school move towards any new step in the SFP.

This would actually better not just the perception of the parents towards the school but also increase the enrolment. A benefit that this establishment of communication could create could be a volunteering system. Every week, 10 lo 15 members of the community would help out in the schools SFP and they could reduce the cost of the salary for the workers and there could probably be an agreement where the money saved through the volunteer work could be spent on bettering the program for the student's sake.”

Further in discussion another participant expressed...

“..SFP has made a lot of positive changes to the community but I think the food could have less water and more porridge because my children have complained a few times about that. This is starting to be a problem and could simply be solved by increasing the viscosity of the food. Since the school introduced this service to the students, they should do everything in their potential to excel this program instead of letting it lag and raise criticism among the social community. This would tarnish any reputation the school has built for itself thus far. Apart from that, I'd like to thank the board of the school for their generous pursuit to educating the students of the community and to commemorate their appreciated hard work”

Community participation is a concept that attempts to bring different stakeholders together for problem solving and decision making (Talbot and Verrinder 2005). Community participation is

considered necessary to get community support for educational planning and development (Cole 2007). Community participation refers to peoples' engagement in activities within the educational system. It plays an essential and longstanding role in promoting quality of life.

Community participation in educational development processes can support and uphold local culture, tradition, knowledge and skill, and create pride in community heritage (Lacy et al.2002).

4.9 Problems or factors of SFP practices

To explore the problems related to SFP, researcher asked the parents in FGD, but all them have explained the problems associated with practice of SFP in a following points:

- The lack of communication between PTA and students.
- The low level involvement of school board.
- Some parents do not know the SFP that is being served in the school break fine.
- Sometimes delay in preparation due to workers problem.
- Rarely supplies may be delayed to reach.
- No appropriate monitoring mechanism.
- No feedback is being conducted from students and parents.
- For some students the quantity of food may be inadequate.
- Since same food is served every day the students do not get variety of foods and tastes.
- The value of nutrients are not measured and supplied on the basis of individual need.

The school directors explained in the interview regarding the problems or challenges that they are facing in relation to SFP and the summary of the interviews presented in the following bullets:

- The SFP sometimes create disciplinary problems.
- When workers come late or absent as staff we had to prepare and serve the food.
- Some students run away after taking food.
- For the large number of students it is very difficult to prepare and serve.
- The controlling becomes headache for all the staff.
- The shortage of staff aggravates the problem further.
- Some parents often come to school and fight with teachers for less quantity of food.
- Parents and students demand for different variety of food to be served.
- The school has to concentrate more on this issue compare to other issues.

4.10 The Overall Comments Forwarded by Parents in FGD

The parents have expressed their feelings towards SFP in FGD that "this program is quite promising and helping the children for their success in their academic achievement." They also appreciated that their children are going regularly to the school and concentrating on learning. According to them this program is instrumental for increasing enrollment and decreasing the dropout, at the same time performance of the students increasing day by day.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The purpose this study was to investigate the effect of SFP on enrollment and dropout rates and also to bring out the major challenges and obstacles encountering the effect of SFP in kabribayah district. The objectives of the study were to identify the current practices of SFP, to examine the impact of SFP on enrollment and dropout, to assess the perceptions of students towards SFP, to explore the community perceptions towards the SFP and also to identify the problems of practices of School Feeding Program at Kebribeyah district school.

To achieve the above objectives descriptive survey method was used, the participants of this study were 28 teachers, one principal, 180 students, two education office experts and 10 parents. Quantitative data collected from teachers and students through questionnaire, qualitative data collected from parents through FGD, and principals and education office experts through interview. The quantitative data were analyzed through percentages and mean; and qualitatively data were analyzed in narration form and finally data collected through all tools were triangulated, from the analysis the following findings were drawn.

5.2 The respondents' characteristics of the study

The director of the school is male age 46 with a degree in English literature. The teacher female in gender ages 38 with a no qualification. The supervisor male age 31 with diploma in management. The parents usually have no educational background. The student grade 5 ages 12 females.

5.3 Findings Based on Objectives of the Study

The first objective of the study was to identify the current practices of School Feeding Program at Kebribeyah district.

- According to the head of education office, the type of the meal served for the students is basically porridge made of oats which is rich in carbohydrates which will help the students to get every day required amount of energy for a day. The richness in nutritional value and simplicity of preparation are just a few reasons why porridge has been chosen as the main dish served in the SFP, and every student in the school was allocated 125grams per day which is the average serving of porridge based on a recent nutritional statistic brought forward by the WHO. This portion is enough for each student and will provide them with the right amount of grams that they need for a normal day at school. It is also helping them to

some extent in alleviating poverty of the society. It is also helping them reducing their hunger which could enhance their concentration and attention in learning process.

- According to parents the meal being served to the students seems very satisfying. All the parents are content with the outcome of this program. They have also been generous enough to help the school which is proof of the success of this program the parents have also given their constructive idea to the school.
- According to the students, the SFP has change a lot if their educational lives and they are more than happy to show it. Their grades are up and the classroom attendance hasn't been this high for a very long time. Some students are still in shock by the fact that they can finally attend school and not have to attend to their parent's livestock or farms. They are looking at the SFP as the answer to all of their problems. We are happy with the outcome of this program and the chance to offer this wonderful opportunity to these wonderful students.

5.4 Current Practices of the SFP

- According to data collected from school record office and district education office, SFP program was introduced in 1996 E.C (2004 GC) collaboration with WFP in order to decrease the dropout rate. The dropout rate was high before SFP was not introduced.
- According to head of education office, the type of the meal served for the students is basically porridge made of oats (known as Boorash in Afan Somali) which is rich in carbohydrates and nutrients which help the students to get every day required amount of energy for a day.
- Every student in the school was allocated 125 grams per day which is the average serving of porridge based on a recent nutritional statistic brought forward by the WHO.
- This portion is enough for each student and will provide them with the right amount of grams that they need for a normal day at school.
- The time of the meal distribution is in short break time (10:00AM), after two periods of learning in the mornings.
- The process of preparation and serving responsibility shouldered by district education office.
- As data obtained, due to SFP in primary school for the last 6 years the enrolment has increased by 327% in six years.
- As data shown the dropout rate has been decreased by 50% due to the stabilization of the school feeding program in Primary School at kebribayah district.

- The data depicted that in the beginning (2011/12) the dropout of girls more than boys, 43.6% of girls were dropped out and only 10.8% of boys dropped out.
- Parents stated the reasons why girls' dropout was high in FGD, because of girls to take care of their siblings, domestic household work, early marriage and other harmful traditional practices like FGM, and negative attitude of community towards girl's education.
- In 2013/14 academic year revolutionary changes took place, as principal and district education office information, the school and education office together launched propaganda program on importance of education for boys and girls in pastoralist and agro-pastoralist societies, hence as data shows there was significant improvement in enrollment and decrease of dropout, 5.2% of boys and 24% of girls dropped out, indicates that dropout was reduced to 50% in the case of both boys and girls.
- The same trend was maintained in subsequent academic year 2014/15. Still dropout has been reduced further in 2015/16 academic year due to the involvement of government, and all other stakeholders like parents, teachers, WFP, education office etc.
- According to data collected from parents in FGD they have pointed about the reason why dropout rates were decreased, they explained some of major reasons such as; the awareness of parents on SFP and importance of education increased, students attracted by the food served by the school, motivation from teacher increased, the information disseminated about SFP and reached to all the community members, parents welcomed the new initiations of government and tried come out from certain cultural and religious stigma, and in parallel there were reduction of harmful and traditional practices in the society due to government law and awareness programs.

5.5 Impact of SFP

- SFP created positive perception in the community towards schools, it motivated the students to enroll into schools, it created awareness and the parents sent their children to the schools, it increased the enrolment and decreased dropout in schools and this program alleviates the poverty to some extent and reduces the child laborers.
- This is an evidence of change pattern in enrolling and reducing the dropout.
- SFP increased attendance and participation of students in the classroom dramatically increased. They are also more attentive and do not wander away in the middle of the class.
- SFP has also increased the students' capacity to participate in extracurricular activities such as sports and other activities. They seem to have adapted very well with their school schedules after the introduction and implementation of the SFP.

- The SFP has also increased the learning capacity of the students and they grades of the students has increased remarkably. SFP also regulated the behavior of students in arriving to school on time and reduced the number of latecomers.
- SFP as an instrument in increasing the enrollment by 300% and dropout reduced by 50% in six years of time.
- This program also alleviating the poverty to some extent and reduces the child laborers.

5.6 Adequacy and Quality of food served in SFP

- School with SFP is accessible to the students in a reasonable distance to the community and is not hard to reach. The school board members have taken this matter into consideration while the SFP was being set up.
- According the data collected from the questionnaire, food given under SFP is adequate for each student. According to WFP and food distribution chart food is adequate.
- The overall quality of the food as a reasonable quality. Although it was observed that the (food) porridge being served was a little too watery and needed to be a little thicker.
- As parents, district education officer and other stakeholders observed the area where the food was being prepared and they remarked that the place of preparation was neat and hygiene.
- Based on our reference charts provided by the WFP and data also revealed that the food provides adequate nutrients and proteins to the children.

5.7 Relationship between School and Community in Relation to SFP

- Introduction of SFP in school has improved the relationship between the community and the school, members of the community started help voluntarily. The SFP has also encouraged community members to speak to their fellow community residents to enroll their students in the school.
- The relationship between the parents and the school is better compared to the previous times. Some parents contact teachers to know the progress of their children.
- The teachers at the school have honestly made a great deal of change to this community and also have no problem showing their appreciation. This is a remarkable turning point for the teacher and community relationship and everyone seems content.
- The community perceived that this program is an instrumental to increase the enrollment and decrease the dropout in rural areas. It boosted the relationship between schools and community and the parents witnessed the improvement of their children.

5.8 Problems or Challenges of SFP

These are some of the problems which exists the school

- Rarely supplies may be delayed to reach
- No appropriate monitoring mechanism
- No feedback is being conducted from students and parents
- For some students the quantity of food may be inadequate
- Since same food is served every day the students do not get variety of foods and tastes.
- The value of nutrients are not measured and supplied on the basis of individual need.

5.9 Conclusions

- The school feeding program (SFP) is one of the initiations of government aimed at increasing the enrollment and decreasing the dropout in rural Ethiopia. As part of at Kebribayah primary school introduced in 2014 GC. Since then the school feeding program (SFP) is running successfully in school at Kebribayah, the current practices of serving food were satisfactory. This program has created awareness among the community members, and enrollment rate increased and dropout rate decreased
- Under SFP every day 125 grams of porridge (oat meal) served to each student, however, the quantity is May not adequate to some students. Thus the same quantity may not be enough to all children, and the same food and same taste is served every day to them. This might reduce the interest of the children towards the food served, the students look for variety and little more quantity of food; this may enhance the motivation of the students.
- The SFP has tremendous impact on increasing the enrollment and decreasing the dropout and this has inculcated the awareness in surrounding schools and they are looking for such SFP in their schools.
- The SFP in school has geared the relationship between school and community. This has made community to realize their responsibility in sending their children to the school. SFP helped the parents in reducing the impact of poverty. The SFP has brought the changes in attitude, perception, and outlook of parents towards the school, education and learning. This is the great change the influenced the community.
- However there were certain problems in providing food in schools, such as sometimes it creates disciplinary problems, sometimes the program may be affected by lateness and absent of workers, some students run away after taking food, making food for large number of students is very difficult, the controlling becomes headache for all the staff, he shortage of

staff aggravates the problem some parents often come to school and fight with teachers for less quantity of food, parents and Students demand for different variety of food to be served and the school has to concentrate more on this issue compare to other issues. These problems led in the school and school management and staff were highly concentrating on this issues rather teaching learning process.

5.10 Recommendations

The following are the recommendations for the School Management:

- It is recommended to the school that the positive impact of SFP to be strengthened further.
- School should constitute separate committee and assign duties who will take care of this program for better implementation.
- School should constitute a discipline committee with elder students, teachers and volunteer to run the program more effectively. Members from the community can be changed periodically. This will enhance the relations between school and community then school can be benefitted further.
- School discipline committee should monitor every day to avoid the students who run away after meal served.
- The school should also constitute a grievance committee who handle and solve the day to day problems in improving the current practices of preparing and serving the food to the students under School feeding program.
- School should record each student's height, weight and other health related data every month, this helps the school to monitor and evaluate the students health report and the same can be communicated to the parents.
- School management with the help district education office, local administration and community to invite doctors to keep the health records of students once per semester; this will help the SFP committee to whom more food can be served.

The following are the recommendations for the school PTA:

- School PTA should meet once in a moth in regular base to review the SFP program, and continue the awareness program to increase the enrollment. PTA should also identify the dropout students and visit their families to convince the parents to resend them to the school.

To District Education Office, REB and MoE:

- District Education office should review the reports of school on SFP every month and necessary recommendations, suggestions to be provided for the improvement of SFP.
- DEO should negotiate with government and WFP for increment of food quantity from 125 grams to 175 grams for all needy children. Also they should bargain with food suppliers to provide variety of food like oats, milk and egg, and other nutrient foods at least 2-3 varieties in a week.
- DEO should see that workers should not be absent or late if so they need have alternate system to continue the program without disturbance even in single day.
- DEO also identifies the other areas where high dropout is there and extend the same services to them.
- The study further recommends that the government through the REB should allocate more funds to the SFP for maintain hygiene and increase awareness program on SFP.
- The study recommends that the government should ensure that all the structures including logistics are put in place to ensure that the schools in the flood prone regions have adequate food so that hunger does not force any child to drop out of school.
- To strengthen the community awareness creation to get some door to door visit with the PTA, religious leaders, and community leaders to get the program more successful.
- The study also recommends that the class and the input to the school should be proportional to avoid the overload of the classes.

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Questionnaire for Data Collection

Instructions: Please respond to the items given as honestly and accurately as possible. Please read each statement carefully and tick (V) against the appropriate answer. Fill in the blank spaces with correct information.

Part A: Background Information

1. Sex

Male Female

2. Age years

3. Level of education?

Untrained certificate diploma degree undergraduate Graduate

4. Work Experience

<1 year 1-5years 5> years

Part B: Influence of SFP on Enrolment

5. How would you describe the enrolment rate in your school?

Declining Static Increasing Don't Know

6. To what extent would you attribute the rate of enrolment to the introduction of SFP?

Excellent very good good poor very poor

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

Instruction: indicate whether the following factors affected enrollment of children to school by scaling from 1 to 5, where **1= strongly Agree, 2= Agree, 3= Undecided, 4= Disagree and 5= strongly Disagree by marking, ("X*")** where it applies

Factor	1	2	3	4	5
1. Is there availability of school	()	()	()	()	()

In a reasonable distance that support

School feeding?

2. Do think school feeding is important? () () () () ()

3. Do you think food incentive is enough for () () () () ()

For the school children?

4. Is the Quality of the food in the school good? () () () () ()

5. Is it adequate of food supply for each student? () () () () ()

6. Do they provide food to all students? () () () () ()

7. Is the Hygiene of the preparation of the food () () () () ()

Good enough?

8. Is it Time taking for preparation? () () () () ()

9. Is it adequate nutrients and proteins provided () () () () ()

to the children through SFP?

10. IS it safe for children in school? () () () () ()

11. Other:-

6.1 _____

6.2 _____

6.3 _____

Indicate whether any of the following factors was/were the reason for the absence of student in the academic years;

Reason	Yes	No
1. Illness	()	()
2. Work for money/food	()	()

- 3. Helping in domestic work () ()
- 4. Child refused to go to school () ()
- 5. Marriage () ()
- 6. Traditional practices () ()
- 7. Others;

Part C: Influence of SFP on attendance

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

Regular () Inconsistent () Seasonal ()

B) Explain your answer

9. A) Did the feeding influence the pupils' school attendance?

Yes () No ()

B) Explain your answer

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

Yes () No ()

B) Explain your answer

11. In your opinion, how has the school meal influenced the pupil attendance in school?

Yes () No ()

Part D: Influence of SFP on Dropout

Instruction: Indicate whether any of the following factors was/were the reason for the absence of the student in the academic year:

Reason	Yes	No
1. Illness	()	()
2. Work for money/food	()	()
3. Helping in domestic work	()	()
4. Child refused to go to school	()	()
5. Marriage		
6. Other reason:		

Part E: Influence of SFP on Class Participation

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

Very active [] lively [] Inactive [] Dull []

16. To what extent has the feeding influenced the pupils class participation?

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

17. To what extent does the school meal influence the level of participation of the pupils in class?

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