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**COLLEGE OF DEVELOPMENTAL STUDIES
CENTER FOR FOOD SECURITY STUDIES (CFS)**

THESIS

**ASSESMENTS OF THE CONTRIBUTIONS AND CHALLENGES OF
SCHOOL FEEDING NUTRITION PROGRAM IN THE
GOVERNMENT PRIMARY SCHOOL; THE CASE OF MEKANE
HIWOT PRIMARY SCHOOL YEKA SUBCITY OF ADDIS ABABA**

BY

BERHANU GETAHUN LEGESSE

July, 2022

Addis Ababa, Ethiopia

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BY

BERHANU GETAHUN LEGESSE

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FOR THE DEGREE OF MASTER IN FOOD SECURITY AND DEVELOPMENT STUDIES

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DECLARATIONS

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ABBREVIATION AND ACRONYMS

EPRI.....	Economic Policy Research Institute
ESDP.....	Education Sector Development Program.
FFE.....	Food for Education.
FGD.....	Focus Group Discussion.
KII.....	Key Informant Interview
MoE.....	Ministry of Education
NGO.....	Non-Governmental Organization
PCD.....	Partnership for Development
PTA.....	Parent Teacher Association
SES.....	Socio Economic Status
SF.....	School Feeding
SFP.....	School Feeding Program
STATA.....	Software for Statistics and Data Science
THR.....	Take-Home Rations
UN.....	United Nation
UPE.....	Universal Primary Education
USA.....	United States of America
WASH.....	Water Sanitation and Hygiene
WB.....	World Bank
WFP.....	World Food Program

ABSTRACT

Before the first official school feeding was started by Yeenat Weg, there was a fragmented school feeding by individuals, teachers, organizations and non-governmental communities with reduced coverage. The aim of the study was to assess the contributions and challenges of school nutritional content to children's academic performance and the educational focus in school. This study was conducted in the Yeka sub-city of Addis Ababa, which is the Mekane Hiwot elementary school. To conduct this study, an interview with key informants, FGD, was conducted and a questionnaire was distributed to collect the data. Many challenges emerged from the results, such as lack of awareness, especially on the part of the private sector, financial constraints, allocating money to feed a child does not take into account the current market situation, physical capital; unavailability of feed materials, feeding room, power outages, lack of access to water, policy challenges; no clear policy on tax administration and payments for poor cooks, stakeholder participation is insignificant compared to the needs of needy students. In particular, government sponsored SF started spontaneously without adequate planning and preparation. Although there are many threats to stop school feeding, the students are very happy they do not hesitate to stop school feeding.

Key words: School Feeding Program, Nutrition, financial constraints, *challenges*, FGD.

CHAPTER ONE: INTRODUCTIN

1.1 Background of the study

Education is a means of dealing with the ever-changing situation of the world and of preparing children to bring something new to the world. Students are the current and future leaders of nations. There are several obstacles to accessing education for all children. One of the challenges in this sector is the economic situation of the family. Hunger is a major factor for parents, society and other agents that prevent children from going to school. Her family's life is in danger and the children do not attend classes. To address this challenge, the school feeding program is very important. Its establishment was to address the problem identified by that time MoE (2015).

School feeding is a program that provides food to students from low-income households. According to the MoE (2012), the SFP is a social safety net tool that targets children in chronically food insecure program areas, protecting them from the worst consequences of household food insecurity and contributing to better learning and education outcomes and better nutrition. The program is one of the cross-sectional components or programs of the Education Sector Development Program and the School Health and Nutrition Program. As an ESDP IV program, this program places emphasis on important areas related to education, namely the quality of general education, which includes the components of the school improvement program that provides services and resources to schools to improve physical facilities and provide safety and promote a healthy school environment of student associations to increase the effectiveness of information exchange with students.

According to Destaw *et al.*, (2021) the recently introduced school feeding program may benefit school age children and adolescents to maintain proper physical growth. Similarly, MoE (2015) argues that SFP is important for accessing general education by establishing health and nutrition programs for children, especially nutrition in food insecure settings, providing educational materials, school nutrition and financial support for children. Children from poor and low-income families and the program has so far been implemented in primary and secondary schools in collaboration with the Ministry of Health and the Ministry of Women, Children and Youth.

SFP is one of many interventions that can address some of the nutritional and health issues facing school-aged children. SFP and other school-based nutrition and health programs can also motivate students to enroll in school and to see that they attend regularly (Miller, 1999). School nutrition is defined as the feeding of children in school and has two common categories called home-grown school feeding program and non-home-grown school feeding program. Home grown SFP refers to a program that provides locally produced and cooked meals and can be defined in the broadest sense as a SFP that provides food produced and purchased within a Country to the extent possible and non-home grown SFP is a common SFP run by the food sourced externally (Bundy, D. *et al.*, 2009). Similarly, the MoE also promotes this, paying particular attention to women and those students who have not been offered educational opportunities in the preparation, distribution and use of educational support inputs (FDRE, 1994). For example, this program was launched in Ethiopia through the cooperation of the Ministry of Education, Health, Children and Women and Agriculture. In addition, in Addis Ababa, the program provides more than 20,000 school-aged children with fresh traditional food, more diverse food purchased locally than the regular SFP mainly provided by the World Food Program. The program also supports 846 female food cooks by creating income. The implementation of such kind of SFPs is expected to positively attribute to alleviate short-term hunger and to enhance quality education (Abiy, 2017). The implementation was based on the direction of the National Strategy for Health and Nutrition in Schools.

Furthermore, the MoE (2012) formulates goals such as improving the quality of education by ensuring the development of child-friendly school environments, promoting the planning, design and implementation collaborative efforts of high-quality and sustainable health and nutrition interventions across the education sector, strengthening the right to quality education and access to education continue to be facilitated for disadvantaged groups. School feeding programs also target academic achievement of schoolchildren through health and nutrition interventions in educational institutions in Ethiopia. Various humanitarian and foundation grants are currently in place to provide school food to students from low-income households.

Likewise, in order to improve student performance, schools always remember that every effort is strongly focused on the effectiveness of the learning process of education. Furthermore,

increasing community participation through different mechanisms leads to bring absentee and dropout students back to school (Gebere Silassie et al., 2011). Here the researcher can understand that SFP serves a mechanism to improve the performance of both students and schools.

As a program, SFP could promote quality education by improving quality learning and better education for children from poor households. Furthermore, these and other objectives of the program were achieved and going as well as the assessment study report (Light Ethiopia, 2015). Additionally, the review report notes that improved nutrition and health can lead to better performance, fewer repeat grades, and fewer dropouts and concludes that SFP could improve children's education. Although in this case studies in the field of SFP such as Desalegn (2011) were conducted, the study negatively concludes that there is no significant positive effect of SFP on any of the three indicators of school participation (enrollment, attendance and dropout) and other research work was conducted from Addis Ababa which concludes that SFP has a positive impact on educational performance.

Here it can be understood that there is controversy over the effectiveness or implementation of the program as intended and the investigations have focused only on some indicators of education quality such as enrollment but quality is not just student enrollment and most of the surveys that have been conducted at the regional level, therefore, this study is concerned with somewhat holistic quality issues such as SFP's contribution to improve input quality, process quality (psychological makeup) and the quality of the output (completion, academic performance) in Woreda 02 Yeka sub-city of Addis Ababa. This sub-city is one of the eleventh sub-cities of the Addis Ababa city government. Accordingly, the assessment of the program's contribution and challenges to quality education in this area is the focus of this research, and this research finding derives from the fact of the overall implementation and contribution statuses of the program school feeding.

1.2 Statement of the problem

School Feeding program is an organized program that aims at alleviating hunger while supporting education, health and community development (WFP, 2007). The School Meals Program provides meals or snacks for consumption during school hours or distributed to students at the end of each school day, month or year as take-home dry food rations. According to the World Food Program (WFP, 2004), SFPs are implemented with the goal of improving nutritional status, alleviating hunger in the short term, reducing hunger in school, improving school attendance and concentration in the classroom, and improving household food security. The SFP was one of the interventions. Available statistical information on low school enrolment, school attendance and school performance indicated that starvation was the most common cause.

Accordingly, Addis Ababa city education bureau, there were more than 20,000 primary school children who are in need of food, material and emotional support in 2014 in the city. Currently the number increase to 70,000 primary school students.

Some studies have been made in different part of world as well as in Ethiopia to investigate the output of SFP on students and families. Ermias (2015) studied the result of SFP in relation to test score achievement and attendance by comparing beneficiary and non-beneficiary students. The study of Abiy (2017) also tried to do the effect of SFP in their score of students comparing with non-beneficiary students. The other studies which were done in this area was by Almaz (2019) entitled with assessment of challenge and prospective of school feeding program in the government primary school of Addis Ababa tried to find challenge of SFP. A study which is done by Melat (2020) founds the challenges of school feeding program on its implementation. They tried to assess the data from their teachers and higher management level. They did not listen from the heart of the students. In addition, they did not deal about the nutritional content of the food, the satisfaction and feeling of students on the food. Therefore, this research selected by believing that assessing the contributions and challenges of school feeding on all stockholder relating with nutritional output of the food in the program will solve the challenges that have may been happened. This research fulfills the gaps of this study.

1.3 Objectives

To assess contributions and challenges of school feeding nutritional content on children's academic achievements and educational focus at Mekane Hiwot primary school, woreda 02 Yeka sub-city, Ethiopia, 2022.

1.3.1 Specific Objectives

- To examine the challenges that affects the implementation of the school feeding program at Mekane Hiwot primary school.
- To assess the significance contribution of school feeding program on educational achievement at Mekane Hiwot primary school
- To assess satisfaction of students accordingly its nutritional content of SFP Mekane Hiwot primary school.

1.4 Research Question

Accordingly on the review of related literatures and from the gap analysis the research questions were therefore designed as:

- What are the challenges that affect the implementation of the SFP in the school?
- Does SFP have significance contribution to academic performance of students in first cycle government primary schools?
- Did students satisfied by the school feeding program?

1.5 Significance of the study

This study was conducted to evaluate the influence of school nutrition on student enrollment, attendance, contributions and challenges to the utility of school nutrition. Therefore, the survey result will help to see the gaps in the school catering service; as a result, the school catering service will be improved. It has provided useful information for stakeholders involved in school meals delivery to improve the service and it suggests ways to mitigate challenges in the future based on what has been done in practice.

1.6 Scope of the study

The study assessed as contributions and challenges of school feeding nutrition along with stakeholder motive analysis. In addition, the effect of these school feeding on learning achievement using parameters namely student's nutrition, attendance, enrolment, satisfaction, experience of hunger and dietary diversity in relation with school feeding program interventions the study was descriptive and did not establish direct causal relation between SFP and school enrolment indicators only in Mekane Hiwot primary school, Yeka sub city.

1.7 Limitation of the Study

All research, like any other project endeavor is bounded to have flows. As a result, the researcher has encountered various restrictions during the research process such as a limitation of time, finance, and manpower. Therefore, the study findings should be viewed with these limitations.

1.8 Organization of the study

The study is organized into five chapters, which are described below. The first chapter of the research provides the research's background, problem statement, research questions, research objective, scope and limitations. The second chapter is devoted to a survey of related theoretical, empirical literature as well as the study's conceptual framework. The third chapter covers research design and methodology, data sources, target population, sample frame, and data collection and analysis tools. The fourth chapter contains the data collected, analysis, and discussion of the findings. The fifth chapter contains a summary of the findings, as well as a conclusion and recommendations based on the findings.

1.9 Definition of Basic terms

Food Security: Food security exists when all people have physical, social and economic access at all times to sufficient, safe and nutritious food that meets their nutritional needs and food preferences for an active and healthy life (FAO, 2009).

Food Insecurity; is defined as a lack of consistent access to enough food for every person in a house hold to live an active, healthy life. This can be a temporary situation for a household or can last a long time. Food insecurity is one way we can measure how many peoples cannot afford food.

Food and Nutrition security: - Can be defined as the inability to access adequate amounts of nutritious food needed for optimal growth and development. There is a direct link between food insecurity and poverty.

Nutrition Security: - Adequate nutritional status in terms of protein, energy, vitamins, and minerals for all students' umbers at all times. It is more than food security.

Malnutrition: - Refers to deficiencies, excesses or imbalances in a person's energy and / or nutrient intake. The term malnutrition encompasses two broad groups of conditions. One is "malnutrition", which includes dwarfism (low height for age), wasting (low weight, hostile age) and micronutrient deficiencies (lack of important vitamins and minerals). The other is overweight, obesity, and diet-related noncommunicable diseases (such as cardiovascular disease. Diseases, stroke, diabetes and cancer).

Hunger: - A situation where one cannot obtain a sufficient quantity of food, even if the shortage does not last long enough to cause health problems).

Famine: - Is it an absolute depletion or inaccessibility of food in a certain area for whole groups of people, which can lead to death in the short term.

CHAPTER TWO: LITRATURE REVIEW

2.1 Introduction

This chapter reviews the literature about the history of the DFPS both at the global and at national levels. The chapter also explains the impact that results in the implementation of such programs and challenges faced which affect it. Lastly, the researcher shows the knowledge gap from those review literature. In this section, it presents both theoretical and empirical literature reviewed in line with the objective of the study.

2.2 Theoretical Literature Review

2.2.1 General characteristics of School Feeding Program

School feeding is the provision of food to school children. In general, school feeding programs can be classified into two modalities: school feeding, in which children are fed at school, and those in which families are fed when their children go to school. Food that is taken to home to feed the family is called take home rations (Bundy *et.al*, 2009). The school feeding program helps children stay active to focus school activities which in turn help they overcome hunger and malnutrition. In addition, school feeding programs are likely to improve the nutrient intake of participating children.

A better life for most people means meeting the basic need of having enough food to maintain their health, safety, a place to live, comfortable service accessible to all and treated with dignity and respect. Although development theory indicates the above meaning of development, in today's world, even in high-income countries, the above types of development have not been observed. While the importance of education for sustainable development is beyond doubt, education is not equally and equitably accessible. Todaro and Smith (2010) point out that, education and health are the basic prerequisites for development. Health is fundamental to the well-being of life, and education is essential to living a happy and fulfilling life. Both education and development are central to the broader notion of increasing human capabilities, which is central to what development means.

They also argue that education and health are fundamental goals of development; and are important ends in themselves. Accordingly, education plays an important role for developing

countries to embrace modern technology and develop the capacity for self-reliant growth and development. Health is therefore considered a precondition for increasing productivity and being successful in education. Therefore, both health and education are vital for growth and development (Todaro and Smith, 2010). A school feeding program can also be important for improving micronutrient levels, as inadequate iron intake is common in low- and middle-income countries, especially among infants and young children (Gibson *et al.* 2010). Iron and iodine are crucial for cognitive development. Iron deficiencies can make children inattentive and uninterested in learning. Iron supplementation was shown to improve IQ scores of previously iron deficient children (Seshadri and Gopaldas, 1989). So, we can say that school feeding was one of the mechanisms to reduce malnutrition and also the school feeding program in Addis Ababa matched those studies because from various reports organized in Bauru education, promising student interests and initiatives in the involvement of school activities.

2.2.2 Nutritional content of School feeding program

Deficiency of some micronutrients with academic performance and evidence also shows that children who suffer from iodine deficiencies are more likely to perform poorly than those without (dellRosso, 1999). To counter the harmful effects of micronutrient malnutrition, some school food programs offer fortified food, but this is not practiced in our case because the government and support organization in Addis Ababa believe in diet diversification rather than fortification, although providing such foods has been shown to increase dietary micronutrient intake.

In most developing countries, especially in our case Ethiopia, school performance is disappointing, especially at primary level. There are many causes of this problem, which can be addressed in different ways through both supply and demand side interventions. Health and nutrition inputs are often included in strategies because poor health and nutrition are known to affect children's learning ability, so school nutrition and other intervention mechanisms must be implemented to address the problem. Children who have poor levels of academic attainment often have poor nutritional status (Pollit, 1990; Simeon and Grantham, 1989). It is therefore likely that providing a daily breakfast or meal at school can improve school performance through several mechanisms: increasing the time spent in school, improving certain cognitive functions and attention to tasks and, perhaps indirectly, improving nutritional

status (Grantham, 1998). This is also seen in the 2014 report of the Addis Ababa Education Office indicated.

2.2.2.1 Macronutrient Requirements of Children Ages 7-14 Years

A. Proteins

Proteins are macromolecules made up of long chains of amino acids that make up much of the complex organic structures that make up most body tissues, including neurotransmitters and enzymes. Protein is found in foods like meat, fish, milk, cheese, cereals and legumes. In addition to their structural and enzymatic function, the amino acids of these proteins are also used as precursor molecules of neurotransmitters such as serotonin, acetylcholine, dopamine and noradrenaline. Adequate amount and variety of food consumption is vital to enable the brain to make the right amount of amino acids-based neurotransmitters (Georgief M. 2007). Protein deficiency, also known as protein-energy malnutrition (Fazili, 2012) can lead to poor academic achievement in children and cause lethargic, introverted and passive, all of which affect social and emotional development (Ross.A, 2010).

B. Carbohydrates

All digestible carbohydrates are eventually broken down into monosaccharide, mainly glucose. Carbohydrates are common in grains, fruits and vegetables. They are broken down into glucose, the main source of energy for brain tissue. Fluctuating carbohydrate levels can cause dizziness and mental confusion, both of which can affect cognitive performance. Serotonin is produced in the brain through the absorption and conversion of tryptophan. Tryptophan is absorbed into the blood and this absorption is enhanced by carbohydrates. Eating a carbohydrate rich meal can cause one to feel calmer and relaxed because of a brain chemical called serotonin and its effects on mood (Ross, 2010).

C. Fat and Oil

Derivatives of fats and oils are part of the structure of brain tissue, including cell membranes, and are involved in synaptogenesis and myelination. Low dietary levels of essential fatty acid are potentially problematic given the involvement of this nutrient in mediating several critical brain functions (Smith, M.A., & scholey, A.B, 2014).

Table 1: Daily Energy requirements of children 7-14 years old

<i>Age (years)</i>	<i>Energy requirements (kcal/day)</i>	
	<i>Girls</i>	<i>Boys</i>
<i>7-8</i>	<i>1,554</i>	<i>1,692</i>
<i>8-9</i>	<i>1,698</i>	<i>1,830</i>
<i>9-10</i>	<i>1,854</i>	<i>1,978</i>
<i>10-11</i>	<i>2,006</i>	<i>2,150</i>
<i>11-12</i>	<i>2,149</i>	<i>2,341</i>
<i>12-13</i>	<i>2,379</i>	<i>2,770</i>
<i>13-14</i>	<i>2,276</i>	<i>2,548</i>

Source: <https://www.globalhealthlearning.org/sites/default/files/page-files/Energy-Calorie%20Requirements1>

2.2.2.3 Micronutrient requirement of children ages 5 to 13 years

Good nutrition in childhood is important not only to support normal growth and cognitive development, but also to establish healthy eating habits that are associated with a reduced risk of chronic disease and disease in adulthood, including obesity, type -2 diabetes, cardiovascular disease, metabolic syndrome and osteoporosis.

The role of Vitamins and Minerals

Micronutrient vitamins and minerals play an important role in our body. They are essential for all of our bodily functions and are found in minute amounts in the foods we eat. In order to get the optimal number of vitamins and minerals, we need to eat quality whole foods like meat, fish, vegetables, fruits, nuts and seeds, which happens to be any food. That Mother Nature has provided us.

A. Vitamins: Are necessary for energy production, immune function, blood clotting and other functions.

B. Minerals: -Play an important role in growth, bone health, fluid balance and several other processes.

Some of the Micro nutrient are; -

Iron: - is an essential component of hundreds of proteins and enzymes involved in various aspects of metabolism, including oxygen transport and storage, electron transport and energy metabolism, antioxidant and beneficial pro-oxidant functions, oxygen sensing, and DNA synthesis (Fairbanks VF, 1999). It found on Teff.

Zink: -is essential for growth and development, immune function, neurological function, and reproduction. Zinc plays a number of catalytic, structural, and regulatory roles in cellular metabolism.

Magnesium: - Magnesium has been known as an essential co-factor for many enzyme systems.

Calcium: - plays an important role in muscle contraction and regulation of water balance in cells.

Table 2 : Daily recommended dietary allowance for micronutrient

Age	Iron		Zinc in (mg)		Calcium in (mg)		Magnesium In (mg)	
	Males In (mg)	Females In (mg)	Males	Female s	Males	Females	Males	Females
4 to 8 years	10	10	5	5	1,000	1,000	130	130
9 to 13 years	8	8	8	8	1,300	1,300	240	240
14 to 18 years	11	15	11	9	1,300	1,300	410	360

(ADAPTED FROM The Institute of Medicine of the National Academy of Sciences)

Source: <https://nam.edu/wp-content/uploads/2022/01/A00464-Sharing-Health-Data-Cover-cover-FINAL-scaled>

2.2.3 Objectives and Benefit of School feeding Program

The main assumption of SFP is that education and learning depend on proper nutrition. However, when designing and implementing a school nutrition program, numerous options are available depending on the primary and secondary objectives of the program. SFPs can range

from simple snacks (usually fortified cookies) to take-home breakfast or lunch plans. Often, these programs collaborate with other health and nutrition initiatives to increase their success and impact. There are a number of SFP categories that relate to the main program objectives; Increase school enrollment and participation and/or reduce gender disparities, alleviate short-term hunger and thereby increase learning capacity.

Policy analysis also shows that the effectiveness and sustainability of school feeding programs depends on the integration of programs into education sector policies. Therefore, the value of school feeding as a safety net and the motivation of the education sector to implement the programs are enhanced by the magnitude of the educational benefits. Well-designed school feeding programs, which include micronutrient fortification and de-worming, can provide nutritional benefits and should complement and not compete with nutrition programs for younger children, which remain a clear priority for targeting malnutrition overall (WFP, 2009).

2.3 Empirical Literature Review

2.3.1 Effect of school feeding on school performance

Children have access to good healthy food to ensure their physical, mental and social well-being. Although school feeding programs are a new phenomenon in Ethiopia, school feeding programs have been part of the poverty reduction strategy of many countries for many years and have proven to be an effective tool in overcoming poor learning outcomes due to hunger and malnutrition. There are studies related to school feeding around the world and some in Ethiopia. A study conducted by Abiy entitled —The effect of School Feeding Program on the school performance of primary public-school children in Yeka Sub City, Addis Ababa. A quantitative evaluative research approach and a quasi-experimental design were used. The main finding of the study is that the positive effect of the school feeding program on school performance and attendance is not significant. Also, the program has no effect on "children's attention". However, the small positive effect of the program is detected on academic achievement and attendance score and this effect is more practicable for academic achievement. Abiy concluded that the school feeding program contributed significantly to the school attendance rate and performance of SFP beneficiaries. Abiy's study was conducted from a social work perspective. Finally, Abiy advised that to effectively improve the school meal plan, stakeholders should focus on the micro and macro levels.

The study was conducted by Misrak Feyisa in Addis Ababa, four secondary cities, namely Arada, Gulele, Yeka and Kolfe, to see the significant impact on children's academic performance, school attendance and dropout from the point of view of public health. The study sought to see the effectiveness of school nutrition in relation to school performance, school attendance and school dropout. This study used a quasi-experimental (before and after) design approach, using multistage sampling techniques to select study participants. In addition, research data was also used for data collection.

Both Abiy and Misrak work saw the positive aspects of school feeding for the academic achievement of students. However, many extraneous variables might affect positively the academic achievement of students. Another study conducted by Desalegn (2011) also claimed that school feeding increases school participation among poor and food insecure group of people. However, the main factors influencing school enrollment are the demand for child labor, the cost of school, the availability of school, the quality of education and school infrastructure, distance from school, the availability of food incentives and problems. While those that affect class attendance and school dropout are work for money or food, housework, hunger during school hours, and long distances from school. Also, the older the breadwinner parent is, the less likely students are to attend school. The Desalegn study collected data from 102 families and 17 selected individual stakeholders. Household questionnaires, key informant interviews and observation were the methods used to collect the data. The study found no significant positive impact of the school feeding program on any of the three indicators of school participation. Meanwhile, Desalegn argues that neither head of household education nor household income have a significant effect on student dropout in beneficiary families. Finally, the study recommended that in order to significantly increase school participation, both the nutritional and economic values of the school nutrition program should be improved. Effect of school feeding on the improvement of education performance is different from country to country, for example, the study conducted in Bangladesh by Ahmed (2004) indicated that school-feeding program has significant impact on mathematics score but no impact on English school. As Adlerman *et.al*, (2008) stated by citing while Tan *et al*. (1999) in Philippines school feeding had an impact English score but not on Mathematics.

On the other hand, study conducted in Kenya by Kosileili, Esther, Aseta (2018) to investigate the effects of school feeding program on enrolment and retention rates in public pre-primary schools in Sigor Division, Chepalungu District, Bomet County shows even if school feeding program has a positive effect on school enrolment and retention effective management is one which will acquire and allocate adequate resources to be used in implementing SFP is an essential factor. Thus, good management ensures the sustainability of a program to achieve the objectives of maintaining and fighting against school hunger in the short term. Moreover, this theory of the Abraham-Maslow hierarchy of needs theory suggests that SFP stimulates and attracts learners to enroll in preschool and keep them until the end of the school calendar (Kosileili, Esther, Aseta, 2018), who led the study.

2.3.2 Impact of School Feeding Program

The school nutrition program is essential in both developed and developing countries. The primary assumption of SFP is that education and learning depend on good nutrition (Briggs, 2008). School health and nutrition also determine factors that keep children out of school and reduce their ability to learn effectively (Save the children USA, 2007). SFP is mainly implemented with the aim of achieving the following outcomes: increase enrollment and attendance, alleviate hunger in the short term, improve nutritional status, improve micronutrient status (WFP, 2004) and improve student performance.

Many studies confirm the benefits of school nutrition around the world. The study, led by (Adelman *et al.*, 2007), titled How Effective are food-for education program? Put the potential benefits of school nutrition. Children's education and health are indispensable for the economic development of countries. Bringing education to economic development is the best remedy. Therefore, students should have a fortified diet at home or at school to boost enrollment and improve student achievement, especially in developing countries. However, most students in developing countries go to school hungry (Adelman *et al.*, 2007). This has been confirmed by numerous empirical studies around the world. Therefore, school feeding is one of the main factors in developing countries to change student enrollment and reduce absenteeism. Although the enrollment rate of students at the primary level increases after the use of school feeding, the enrollment at the secondary level is very low for various reasons. Some of the reasons are that students from poor households have to work on farms and take care of their younger siblings

when their parents can work. Poor health and short-term hunger are also another reason student's miss school. Even if students go to school with hunger, they are not effective in their education. (Adelman *etal*, 2007).

Moreover, (Alderman *etal*, 2011) by cited (Das, Do, and Ozler, 2005) argue that Primary role of school feeding is to reduce poverty with the increment of human capital together influencing on education and Health. In line with this food for education may address both equity and economic efficiency Adelman (2008).

Furthermore, school feeding is the means for the children to get nutritional food that may develop the cognition level of students. Even if the impact of in – school feeding on education will vary on the initial nutritional status of the child, in-school meals improving the nutritional status of children and on nutritional status affecting the ability to learn.

2.3.3 Challenges and Prospects of School Feeding

It is essential to analyze and study the practice of the school feeding program, which is currently being applied in different contexts, to address the challenges faced and learn from best practices (WFP, EPRI 2018). To properly implement the school feeding program, knowledge of countries that have experience in providing school food can provide a basis for the challenges they have encountered in designing a school feeding program in a sustainable way. The main expected effects of school feeding are to improve learning, increase the lifetime income of beneficiary children and eliminate inequalities through access to education for girls, orphans and children vulnerable. In addition, educating families and children on family planning, HIV/AIDS prevention contributes to reducing infant mortality and other diseases (Jomaa *et al.*, 2011). Although the benefits of school feeding are very well documented, the effectiveness of SF is still under debate.

According to the study by Jomaa *et.al*, the SF program faces many and infinite challenges among those that are specific to the context, many of the challenges faced by almost all developing countries. Many factors challenge the sustainability of school nutrition. Among the factors: escalation and fluctuation in food prices, environmental and agricultural changes, and cost effectiveness of programs are challenges faced by SFP planners and organizers. On the other hand, Vitória *etal*, 2017 stated in their study that SF's cost and cash flow deficit is a major challenge for governments and other stakeholders participating in the nutrition program. Apart from the cost of meals, other expenses such as food management, logistics and control create a financial burden for the government and other stakeholders involved in school meals. While the value of the benefits of school feeding is clear, it is difficult to quantify in monetary terms improved enrolment, attendance, retention and achievement, and reduced hunger. Although the school feeding program has significant long-term social and economic development, the sustainability of the program is in question unless the SF program addresses it holistically and effectively.

2.3.4 School Feeding in Ethiopia

The school feeding program started in Ethiopia in 1994 in collaboration between the Ethiopian Ministry of Education and the United Nations World Food Program and included four selected areas (Amhara, Tigray, Afar and Oromya regions) as pilot project covering 40 primary schools (Desalegn, 2011). Good health and good nutrition are essential for learning and cognitive development. If children are in good health and receive healthy meals, school

attendance and school performance increase (Federal Ministry of Education (MOE), 2010). Many health problems affect many school children in Ethiopia with stunted growth, anemia and iodine deficiency, in many areas affected by worms, diarrheal diseases, trachoma and other problems. These extremely widespread situations are related with weakened cognitive ability (MOE, 2010).

Therefore, to mitigate the above challenge, an agreement has been signed between the Ministry of Education, Ministry of Health, Water and Sewerage Authority and an operational policy has been developed. Therefore, these government institutions create sector linkages and cooperation in the Education Sector Development Program IV (ESDP IV) 2010/2011 – 2014/2015.

Consistent with this program for the education sector, five indicate that the activities of the National Strategy for Health and Nutrition in Schools Guides are designed to improve access to better health and nutrition services for school-age children. Training was also given to all regions linked to this strategy. According to the Ministry of Education (MOE, 2015), approximately 7 million school-age children (plus up to 3 million who are out of school) live in food-insecure areas. According to the Education Sector Development Program (ESDPV), the school feeding program reaches 670,000 children and another 43,000 children participate in the home-cooked school feeding Programme.

Recently, the Yeenat-Weg Charitable Association started school food programs in 2007 in some government schools around Addis Ababa. In order to improve school-age children by learning without hunger and malnutrition, the Ministry of Education has introduced several strategies under the National School Health and Nutrition Strategy in it states in 2012, the right of every child to access health services and nutrition, especially for poor and vulnerable children. Education Sector Development Program V (ESDPV), which aims to improve access to better health and nutrition services for school-aged children.

In addition, the National School Health and Nutrition Strategy designed by the Ethiopian government aims to help school children by ensuring access to quality education and giving them a chance for a better life. In line with this, school health nutrition (SHN) improves learning and reduces repetition and absenteeism.

2.4. Theoretical Framework

Shultz (1961) Theory of Human capital says it is simply not easy to have the fruits of modern agriculture and abundance of modern industry without making large investments in human beings. If a country expects to develop and reduce poverty then it has to provide education to its entire people. Investment in human resource should not be limited to knowledge alone. When basic nutritional needs are met, it makes investment in education long-lived and more rewarding. The provision of food, in the form of SFP as a way of encouraging investment in education is to invest in the young generation. Schultz (1961) developed the idea that education was for consumption purpose as well as increased capacity of labor, to produce material goods. Hence access and retention is a dependent variable SFP. Education of one's children will spill over some benefits on their neighbors, own family and sample applies to nutrition.

There is need for the government, parents and other development partners to make sure that all the children have access to education and are retained in school regardless of their economic, social, cultural and physical environment. Education then becomes the only way to get the marginalized groups to be involved in the development of the country in order to bring about equitable distribution of resources and opportunities. To achieve the goals of education for all, every citizen of the country must have access to education and be retained in school long enough to complete the education system. This theory is relevant to this study as SFNP is an initiative for providing access and retention to Education for All.

2.5. Conceptual Framework

The relationship of the variables reveals that the SFNP is the independent variable Whereas Active Participation, academic achievement, Initiate for Learning, Satisfaction and Health of children in school are the dependent variables. Thus, based on the above theoretical view, the following conceptual framework is drawn. The nutritional school feeding program contributed a lot to the education of the students. It tried to improve students' education morale and vision, improve health, alleviate hunger in the short term, increase enrollment and attendance, increase awareness and value of pastoral parents for education, improve quality education, as students' motivation for education, concentration and attention in learning increased and enhance development of a country after the start of food supply in the respective schools.

The conceptual framework of this study is illustrated using Figure 1. which shows the relationship between independent variable and dependent variables.

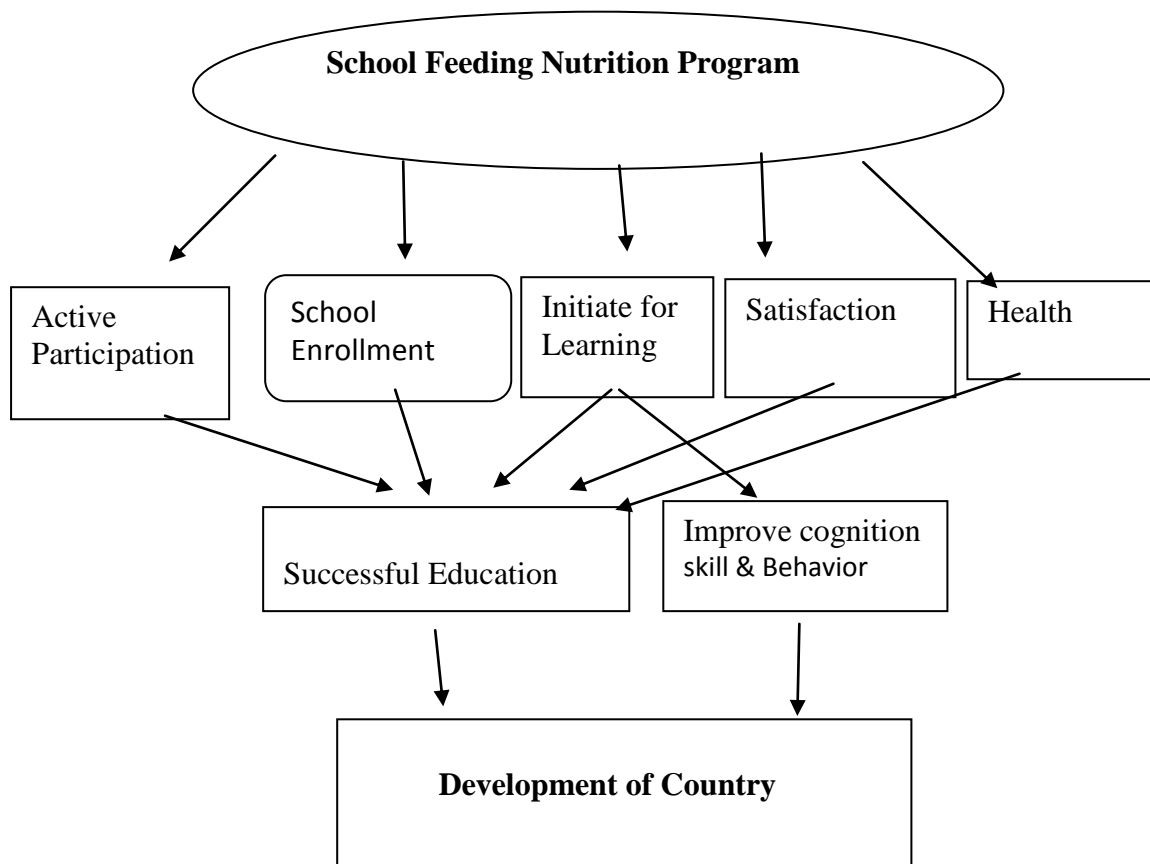


Figure 1: Flowchart of school feeding nutritoin program of conceptual Framework

Source: -own Researcher Assemble, 2022.

CHAPTER THREE: MATERIALS AND METHODOLOGY

3.1 Introduction

This section presents an overview of the research design and methodology which has the research approach, description of the study area, research design, source of population, eligible criteria, data source, sample size determination, sampling technique and procedure, method of data collection, data quality management, study variables, data processing and analysis and, finally ethical consideration of the research.

3.2 Description of the study area

Addis Ababa is the capital of Ethiopia and the city is the largest city in Ethiopia. It is located in the central part of the country at an altitude of 2,300 meters. Addis Ababa is divided into 11 sub-cities and more than 120 weredas. It is located in the northeastern part of the city, at a geographical coordinate of 8° 58' 50.172" N and 38° 45' 27.938" E on the earth's surface.

There are 556 schools and 605,446 students under the city government of the Addis Ababa Education Bureau. According to the data indicated, there are 71 secondary schools with 157,446 students, 255 primary schools with 332,621 students and 222 KG schools with 115,390 students. There are also 58 pre-KG schools with 4,545 students.

The study area is found at Addis Ababa on Yeka sub city of woreda 02 namely Mekane Hiwot primary school. The school was hinge on 1956 E.c found at geographical location of 9°3'7.03" N and 38°46'51.36" E latitude. The topography of this sub city includes both gentle and sloppy. There are rivers in the sub city Kebena and Meskele rivers. Yeka sub city education bureau is one of the educational bureaus in Addis Ababa which has 10 pre-KG, 29 KG, 28 primary schools having 302, 2810, and 41,210 respectively. 10.8% of the 11,682 vulnerable pupils who were enrolled in schools overall attended the sub city, according to the BOE and BOWC report (BoE & BoWC, 2020). Because of the high risk of food shortage for students, the sub city is one of Addis Ababa cities where the trial project of school feeding was launched.

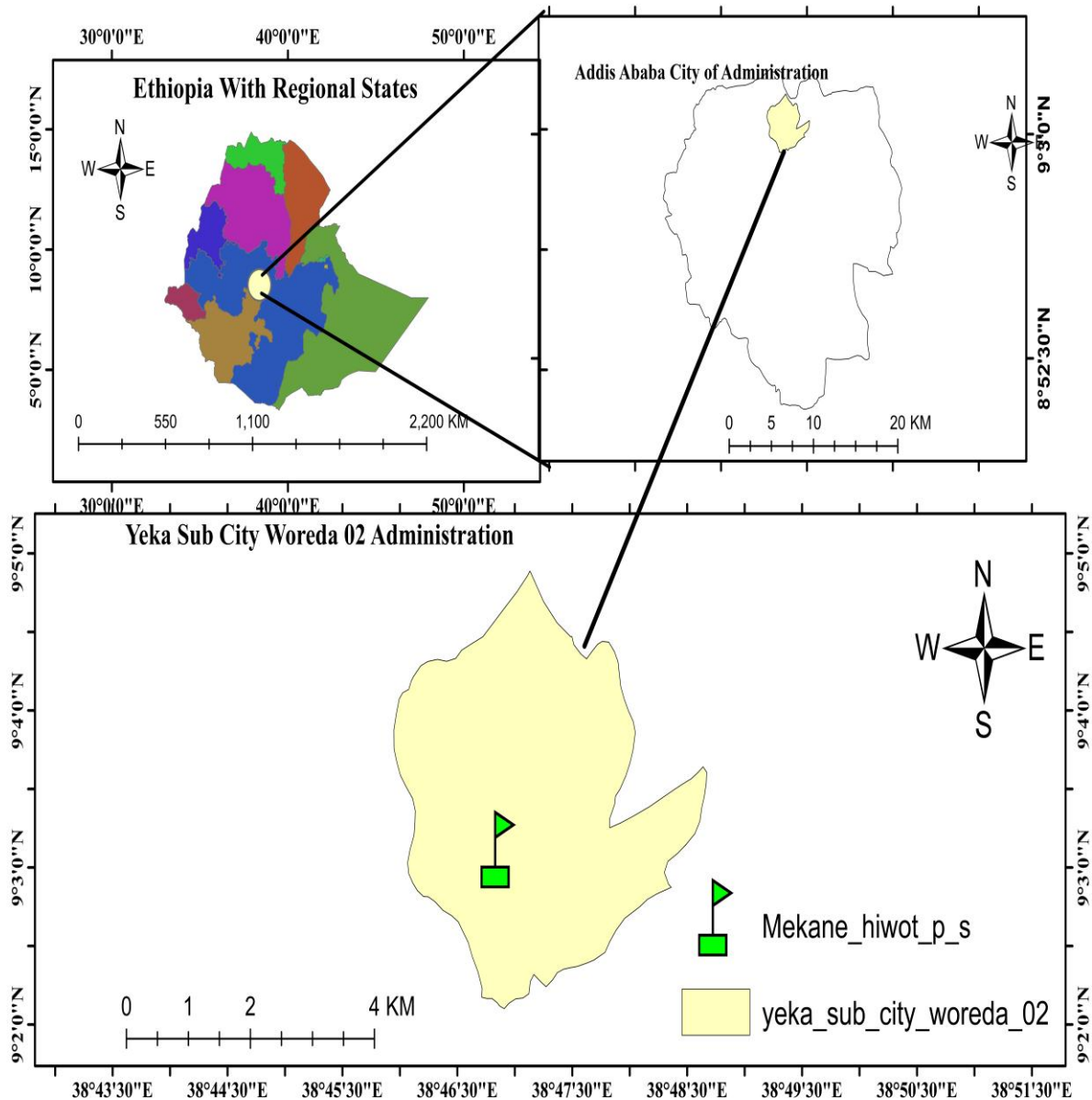


Figure 2: Study area of Mekane Hiwot primary school with Yeka sub city of woreda 02.

1.3 Research Design

A research plan is a plan that helps the researcher to answer questions accurately (Kumar *et al.*, 1996). Technical research projects are used to describe what a current school nutrition program might look like in the context of a research organization. The researchers chose this model because the main purpose of descriptive research is to describe the current state of a case and to report what has happened or is happening. This study method is based on a targeted selection analysis in which researchers selected a public primary school in the town of Wearda 02 Yeka, Addis Ababa. Therefore, all the following disciplines have been developed in accordance with this science, depending on the nature of the purpose of this study. Quantitative and qualitative methods were used in this study. Combining

quantitative and qualitative types of research design approaches allows for a more complete understanding of a research problem than using either approach alone (Creswell, 2014). Using more than one method improves research results by providing a more complete and complete picture of the subject under study (Denscombe, 2007). Different methods can have respective strengths and weaknesses, one of the valuable uses of mixed methods is to balance out any inherent weakness or bias in a particular method that compensates for its weakness (Desscombe, 2007).

Descriptive research design is applied to describe what the current school feeding program looks like under the study organization. Therefore, survey studies are used to assess the school feeding nutritional program.

3.4 Source Population

All beneficiary students, staffs and stakeholders of school feeding program of Mekane Hiwot primary school

3.5 Study Population

The target populations of this study were the beneficiary students who are attending in government primary schools found in Yeka Sub City of Mekane Hiwot Primary Schools, Heads of the primary school and staff involved in the school feeding, stakeholders (government and NGO) that participate in school feeding program.

3.6 Eligible Criteria

3.6.1 Inclusion Criteria

Beneficiary students from grade 1-8, principal of the school and coordinators of school feeding, cooks and stakeholders of the school.

3.6.2 Exclusion Criteria

All schoolchildren grade 1-8, who were not willing to participate in the study and those students who drop out from the School Feeding Program or did not consume school meals at all.

3.7 Data Sources

Primary and secondary data sources are used to gather for the research. According to Kothari (2004). Primary data are those which are collected as a fresh and for the first

time. In this study primary data is collected from the respondent based on a structurally designed questioner and both from open ended and closed ended interview and through FGD. According to Kothari (2004), secondary source of data is made available i.e., data which have already been collected someone else. Therefore, for this study secondary data were collected from research findings, articles, documents, reports and other related project publications.

3.8 Sample Size Determination, Sampling Techniques and Procedures

3.8.1 Sample size determination

The sample size is calculated using Yaro Yemane sample size determination formula.

$$n=N/(1+Ne^2)$$

Were,

n is the required sample sizes from the store under the study

N is total population of school food beneficial students

e- Is the precision or sampling error which is 0.05(the marginal error of the study)

$$n=1115/(1+1115(0.05)^2)=294$$

The calculated sample size was 294 with adding 10% of non-response rate; the final sample size became 323.

Another method that the researcher used to collect raw data was the use of FGD. There are three FGDs (teacher, parent and cook). In this group, participants were deliberately selected from a joint group. In-depth information on triangulation of SFP data and other methods (to increase the reliability and validity of the study results). In this group, participants were deliberately selected from a group with general knowledge and experience. Learn more about the Mekane Hiwot School Nutrition Program. The other group discussed the same issue. The size of the group was 3-8 people, and a total of 10 participants in FGD (4 teachers, 3 cooks, 3 parents) were selected and conducted in the school complex. In this context, the researchers acted as moderators (or group facilitators), introducing topics for discussion and helping the groups to engage in active and natural discussions with each other. To this end, the researchers prepared an open agenda for focus group discussions (including small groups where everyone could speak and sessions that were focused and interactive enough to provide different opinions), and this data was used to provide a focus Classification tool use.

The qualitative data also collected from key informants namely from school focal

person 1, Addis Ababa educational bureau school feeding program official 1, Yeka sub city school feeding program official 1, directors of the school 1, and from woredas educational administrative office 1, selected through open ended questioner.

3.8.2 Sampling Technique and Procedures

Purposive sampling technique was employed.

3.9 Method of Data Collection

In order to succeed the objective of this research, both primary and secondary sources of data were used. The primary data were collected from the respondent based on a structurally designed questionnaire and both from open-ended and closed ended interview and through FGD. In order to get in depth information on the SFP as well as to triangulate (to increase the credibility of and validity of research findings) data obtained through FGD. Secondary data were collected from research findings, articles, reports and other related project publications.

Data collected from the questionnaire as open-ended were identified in theme and analyzed with the qualitative data. To analyze the collected data from close ended part of the questionnaire, statistical procedures were carried out using SPSS version 26. On the other hand, for open-ended questionnaire's part qualitative analysis is conducted. The other data collected from the questionnaire were analyzed by using the frequency and percentage and presented by tables and figures. The findings, which came from both qualitative and quantitative data, are presented. The study conducted in one-government primary schools, which is called by Mekane Hiwot, which was selected using purposive selected sampling. The reason why the researcher selects the Mekane Hiwot School due to the national emergency declaration and also the closeness of the school to his stay. From this selected school there are 1,115 total populations of school food beneficial students, therefore, 324 students were purposively selected based on Yaro Yemane sample size determination formula.

The other methods that were used for data collection were FGD method to get detail and open information. The size of the group in the FGD were 10 participant three from parents, four from teachers, and the remaining three from cooks and heeled at school compound. The last but not the list method that were used to collect the data was direct interview at different hierarchy education management of Addis Ababa. Those are Addis

Ababa City education Bauru, Addis Ababa Yeka Sub city education Bauru, Addis Ababa city Yeka sub city woreda 02 administration education offices and voluntary of school participant. The data is presented and analyzed as follows.

3.10 Data Quality management

The questionnaire was carefully designed to enable the data collector to collect all necessary information needed to address the study objectives. Pretest was conducted on 5% of participants and excluded from the study. All filled questionnaire were reviewed for completeness and consistency by the principal investigator.

3.11 Study Variables

3.6.1 Independent Variables;-

The study variables include Socio-demographic variable, religion, family size; income status, gender, age, school grade level, nutritional value, school home distances and feeding programs are independent variables for this study.

3.6.2 Dependent Variables

Challenges of School Feeding Program, Contributions of School Feeding Program such as Academic performance, student's enrollment, mitigation, dropout rates are the dependent variables of this study

3.12 Data Processing and Analysis

The collected data were analyzed by both quantitatively and qualitatively. The data collected through questioner for close ended question's part, analyzed with descriptive statistics using statistical package for social scientists (SPSS) version 26. While the data obtained with open ended questionnaires and FDGs part, analyzed qualitatively by bringing the common thought of the responses together in to a common understanding.

3.13 Ethical Consideration

An ethical issue is an important issue for a research to engage with study participants. Wherever the researcher went to negotiate with study participants, a letter from the university should be available. Informed consent of study participants should be one of the ethical considerations. For the participation of the beneficiary students, after the discussion with the principals and teachers, the school formally obtained permission from the parents

and guardians of the students, and after the students received the permission, the FGD detained the students. In addition, information that the participant entered into the questionnaire for quantitative data collection and data collected using qualitative methods such as key informant interview, focus group discussions were recorded only if participants consented to it. The information collected by the participant will be kept confidential.

CHAPTER FOUR: RESULT AND DISCUSSION

4.1 Introduction

These chapters deal the presentation, analysis, finding and discussion on the school feeding nutritional program of the governmental school in Ethiopia. Data collected from the questionnaire as open-ended were identified in theme and analyzed with the qualitative data. To analyze the collected data from close ended part of the questionnaire, statistical procedures were carried out using SPSS version 26. On the other hand, for open-ended questionnaire's part qualitative analysis is conducted

4.2 Response Rate

Among the total of 323 questionnaires distributed to Mekane Hiwot School students, 300 questioners were appropriately filled and returned which gives 92.6% return rate which is assumed to be suitable for further analysis.

4.3 Quantitative data analysis

Quantitative data were analyzed by descriptive statistical package for social science version 26. Whether nutritional content of the food supplied by the school feeding program were significantly aided for the student, others parameter that the food they got from school did satisfy them or not and what were the relationship of the school feeding program with decreasing hanger during school hour and students' absenteeism partially or totally.

4.4 Demographic information of respondents

The demographic information included were gender, age and grade level,

A. Gender level of respondent in Mekane Hiwot primary school, 2022

Table 3:- Gender of Respondents in Mekane Hiwot primary school, 2022(n=300)

Gender	Frequency (%)
Male	163 (54.3 %)
Female	137 (45.7%)
Total	300 (100%)

As shown in the table 163 (54.3%) respondents were male and the remaining 137 (45.7%) were female respondent. These indicate the sample population averagely distributed. That mean the male and female respondent were in proportion and did not bias to a single gender.

B. Grade level of respondent in Mekane Hiwot primary school

From the below data we get that 45.2% of the sample population were grade 7 and 8, 21.6% of respondent were grade 5 and 6, 19.6% of respondent were grade 3 and grade 4 and the remaining 13.3% were grade 2 and 1. This tells higher percent respondent are relatively high-grade students and make the data more reliable. It is believed that the more experienced the higher educational level and in high grade level person gives more reliable information. In this study the researcher collects more data from grade 5, 6, 7 and 8 that made the data more reliable as shown in figure 3.

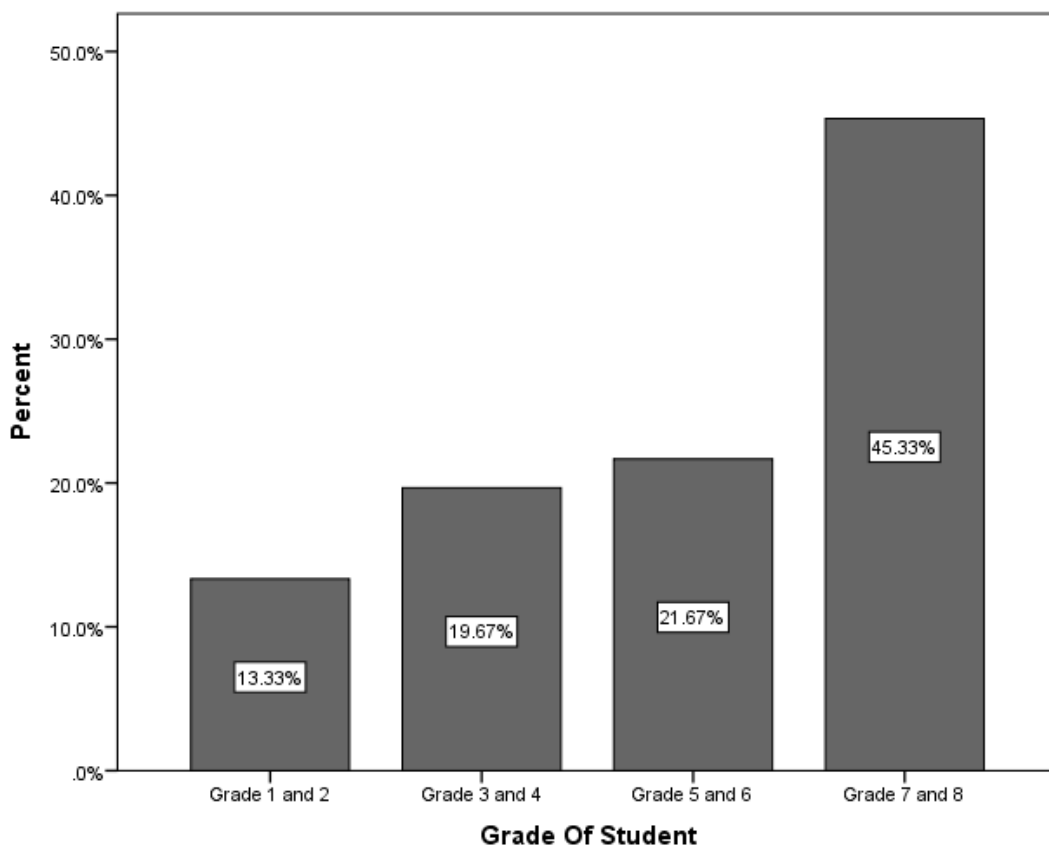


Figure 3: Grade level of respondent in Mekane Hiwot primary school, 2022(n=300)

C. Age level of Respondent in Mekane Hiwot primary school, 2022

From the below data we get that 76 (25.2%) of the sample population were aged less than 9, 58 (19.3%) of respondent were aged 9-11 and the remaining 166 (55.2%) respondents aged greater than 11. Those higher aged respondents participate more on the study and leads the information reliable

Table 4: Age of Respondent in Mekane Hiwot primary school, 2022(n=300)

Age	Frequency (%)	Cumulative percent
Age < 9	76 (25.2%)	25.3
Age 9-11	58 (19.3%)	44.7
Age > 11	166 (55.1%)	100.0
Total	300 (100%)	

4.5 Assessing the satisfaction of student from the food they get from School

As described from the literature review and conceptual framework the researcher the food they got from School affects the variable of student's satisfaction from food, Whether the school feeding program minimizes student's hanger during school hour or not, weather it solves the problem of absenteeism from their class partially or totally. Since those variables have direct relation with education success the researcher wants to check the relation of student feeding program on education success.

Accordingly, from the collected valid 300 questioner with the question of did the food they got from school satisfy them with yes or no question, majority of the respondents were dissatisfied by the food they get from school as shown in figure 4.

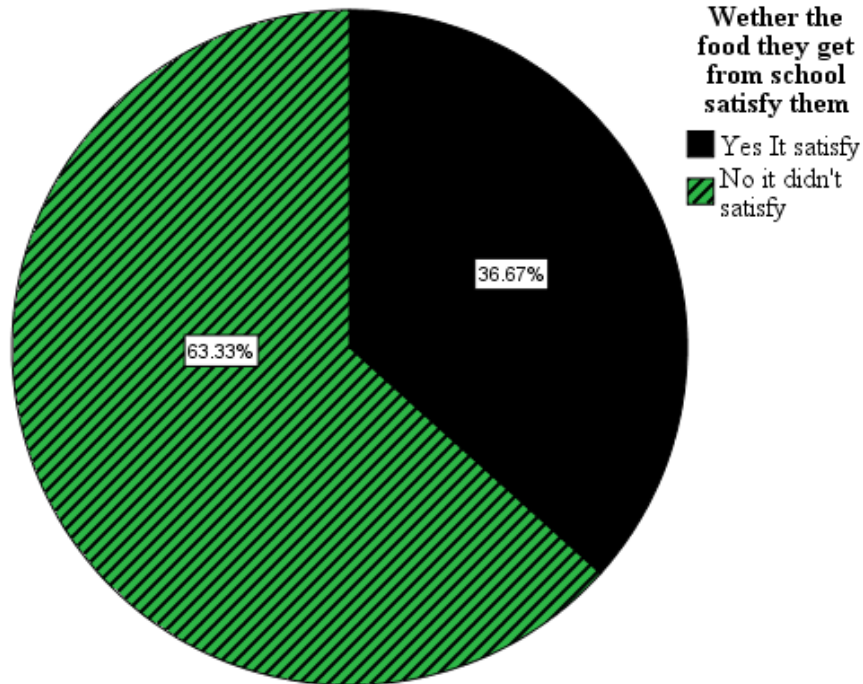


Figure 4: Satisfaction of respondents to the food they got from school in Mekane Hiwot primary school, 2022.

4.6 Assessing the school feeding program whether it minimizes students' hunger or not during learning

From the below data analyzed using SPSS the collected valid 300 questioner with the question of did the food they got from school minimizes their hanger or not with yes or no question (73.1%) of students that is 220 told that the school feeding program minimizes student's hanger and the remaining respondent 26.6% with amount of 80 respondent told school feeding program did not minimize student's hanger.

Table 5: Whether school feeding program minimizes students hunger in Mekane Hiwot primary school, 2022(n=300)

Hunger minimization	Frequency (%)
Yes, it minimizes	220 (73.1%)
No, it did not	80 (26.6%)
Total	300 (100%)

4.7 Assessing the school feeding program weather it minimizes students’ absenteeism or not during school learning

From the questioner respondent were asked a yes or no question of did the school feeding program minimize students’ absenteeism. From 300 respondent 192 respondents that is 63.8% told the school feeding program minimizes student absenteeism from school and the remaining 108 respondent 35.9% from the total respondent replied that SFP did not minimize student’s absenteeism from school.

Table 6: Weather school feeding program minimizes student’s absenteeism in Mekane Hiwot primary school, 2022(n=300)

Absenteeism	Frequency (%)
Yes, it minimizes absenteeism	192 (63.8%)
No, it don’t minimize	108 (35.9%)
Total	300 (99.7%)

4.8 Assessing the school feeding program weather totally solve absenteeism or not

From the data analyzed using SPSS the collected valid 300 questioner with the question of did the food they got from school totally solve the problem of student’s absenteeism or not with yes or no question 35.5% of students that is 107 told that the school feeding program completely solve the problem of absenteeism and the remaining 193 students that is 64.1% replied it did not solve totally the problem of absenteeism.

Table 7: Weather school feeding program totally solve absenteeism or not in Mekane Hiwot primary school, 2022(n=300)

Totally solve absenteeism or not	Frequency (%)
Yes completely	107 (35.5%)
No, it doesn’t	193 (64.1%)
Total	300 (100%)

4.9 Assessing the quality of nutritional content of the food in SFP

Respondent were asked how they judge the quality of nutritional content of the food they feed in student feeding program to tell as Not Good at all, poor, medium, good and very

good. From these with the highest frequency 99 respondents that is 32.9% of total students told the food they get from school feeding program were medium in quality and next high frequency 81 students with 26.9% from the total respondent replied that the food they got from school feeding program were poor. 57 students or 18.9% from the total respondent told the feeding program were not good at all in quality of nutritional content. The other 35 student 11.6% and 28 respondent with 9.3% told the feeding program were good and very good quality of nutritional program respectively (as shown below in figure 5).

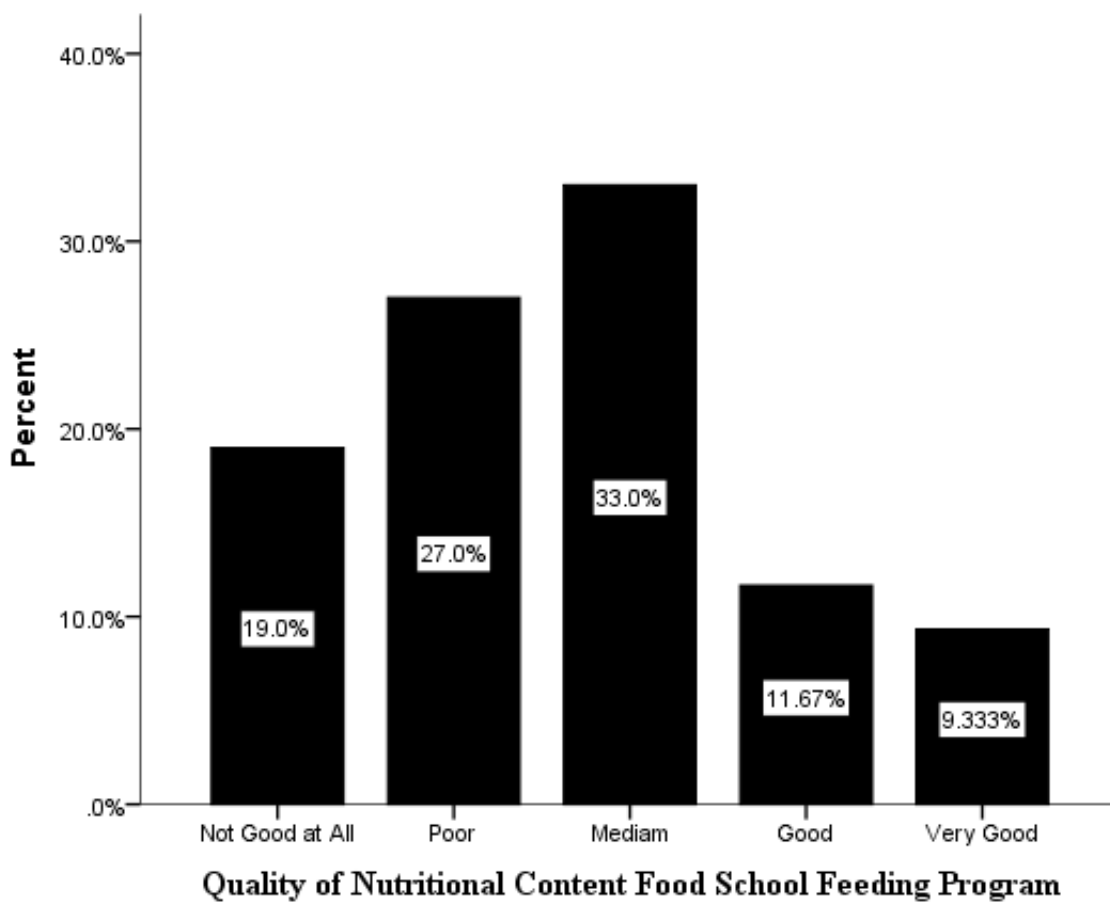


Figure 5: Respondents response to the quality of nutritional content of the food in SFP of Mekane Hiwot primary school, 2022.

4.10 The nutritional content of School Feeding Program

WFP, the largest SFP funding organization in developing countries, concluded that school feeding programs contribute to improving children’s cognitive abilities and then learning outcomes. However, in order to get this result, the food should provide the most important micronutrients that a child needs to develop (WFP, 2013). Daily nutrients requirement varies according to age gender, gender, physical activity medical history and other factor.

Child and younger person needs different food content. The younger one needs higher nutritional content of food than the child. The primary basic need for learning is sufficient and adequate food. It provides the energy and essential nutrient as required.

Table 8: -The menu of the feeding of Mekane Hiwot primary School is listed as below.

	Monday	Tuesday	Wednesday	Thursday	Friday
Breakfast	Bread with tea	Injera Firfir	Bread with Tea	Bread with Tea	Injera Firfir
Lunch	Injera with Misir woot	Ruz (rice)	Injera with Dinch (potato woot)	Injera with Shiro woot	Ruz (rice)

From the school approved menu, the students got a list of food tea, Bread, Firfir, Misir, Ruse, dinich (potato) and shiro. From the listed food we can get only carbohydrate. From the macronutrient as we saw from the above menu the food students got from school feeding program have a deficiency of protein. Since proteins are macromolecules made from long chain of amino acids that used to make body's tissue including neurotransmitters and enzymes. Protein is found on foods fish, meat, milk cereals, cheese and legumes. Sufficient amount and variety of food leads to enable the brain to make the right amount of amino acids-based neurotransmitter (Georgie f M. 2007). A deficiency of protein can lead to poor school performance in children and makes young children to be withdrawn and passive that affects social and emotional development.

According to carbohydrates most carbohydrates broken down to glucose, this glucose is carried by blood stream to brain, liver and other stream and other tissue. Carbohydrates are commonly found in fruits, vegetables, and grains. According to Mekane Hiwot Primary School menu students got carbohydrate from their feeding program in some amount.

The other macronutrient those are basically necessary for children are fat and oil. Essential fatty acid and their derivatives are part of the structure of brain tissue including myelination and cell membrane. Low dietary levels of essential fatty acid are potentially problematic in membrane and brain activity.

The meal of the school was found to contain inadequate amount of Zink, Magnesium and Calcium, when compared to WHO, 2007 recommended dietary allowance value, but the amount of iron in the food was adequate due to the presence of teff Injera.

Nutrient deficiencies may contribute to growth retardation indirectly by reducing the intake of other growth limiting factors, such as energy and protein. Mild to moderate zinc and severe iron deficiency may affect growth and can result in anorexia. Deficiency of iron leads to anemia. Hemoglobin level goes down due to a number of factors but the most important one is deficiency of iron. Deficiencies of these micronutrients are associated with impairment of immune function and risk of morbidity, which in turn affects growth. Therefore, micronutrient deficiency may have an indirect effect on growth by increasing the prevalence or severity of morbidity and anorexia (Rivera, *et al*, 2003)

4.11 Qualitative Data analysis

The roles of Addis Ababa City educational bureau in School Feeding program is leading, coordinating and accommodate as stockholder for execution of School feeding program as scheduled. Addis Ababa City educational Bauru believes that the quantity of food were enough since students feed at their home. The quantity of food which is given to students is different in amount according to their age and grade level. From the positive sides' school feeding program aids: Students increase in participation, student behavior change, it decreased stolen problem and it enhances quality of education. The problems faced during the school feeding program were financial, coordination problems, lack of awareness of the parents and facility problems like electricity, water supply and transportation.

From the discussion of Addis Ababa Yeka sub city educational bureau School feeding program were started by Enat Guada volunteer company to help children who have low economy by selecting some schools. In Governmental school these feeding program were started at 2011 E.C. Starting from that all student can participate on school feeding program without any discrimination.

The SFP is relevant for beneficiary students as, Decrease Absenteeism of student, they got healthy food, they treat equally with their friend without feeling of poverty, and they become happy.

4.12 Results from FGD

Respondent of FGD participants from the schools said that students in the schools most of them need feeding in the SFP. So, in the future, SFP should include all students. And they explained the other point, the budget given for each child is low, it doesn't consider the current market situation.

They also approved the food which is given to children from Monday to Friday based on the menu; it is adequate to avoid children's hunger and to fill children's stomach. However, the food does not contain the needed nutritional value that helps in the normal development of the children. The menu did not contain milk, vegetable, meat, fruit and other foods that have additional nutritional values. To correct the nutritional values, the budget needs to increase based on the current market.

From the discussion of Focal group discussions, the researcher got student feeding program had different output. From these starting of feeding program at the Mekane Hiwot Primary School, the students participated actively in the learning process. Especially in the afternoon period, there were high difference in participation of the class before and after student feeding program had started. In the pastime most students slept on their table, but the reverse as SFP started. The other points the feeding program aids, where it saved the time that were wasted by students since all students eaten at the same time and place within the scheduled. Also, all students become equal. After the establishment of student feeding program, the students follow their class perfectly by not going outside the class. The problem that was told by the participant related for the student feeding program are

- Due to inflation of Ethiopia Market preparing of food with good nutrient become impossible and leads malnutrition of food in content.
- The management systems follow only their own menu not content of nutritional value of food.
- Some problems in neatness and cleanness of food.
- Shortage of feeding material utility.
- Shortage of budget for salary of workers.
- Shortage of food expert
- Shortage of training to school feeding stakeholders

Student feeding program makes to increase students from year to year. The only criteria to get the access of food were to become a student.

Table 9: - Yearly enrolment statistics of Mekane Hiwot primary school (2009-2014)

Year (E.C)	Male Students	Female Students	Total of Student
2009	306	400	706
2010	297	379	676
2011	335	440	775
2012	355	440	795
2013	488	596	1084
2014	498	617	1115

Source: - From school document of Mekane Hiwot primary school, 2022

According to the above table, students they get after 2011 E.c they incline their number, It results after the establishment of school feeding program the enrolment of students increases from year to year.

4.13 Prospects of School Feeding

A school feeding program started during the famine outside of Addis Ababa in some areas. At that time, there was a supporter of the idea in the government. They further stated that Addis Ababa City education Bauru participates in preparing SFP document. This document may help to mobilize partner, schools and stakeholders. After the working document implemented, the number of beneficiaries increases from year to year. If the SFP document is prepared as fast as possible as it stated, the SFP may continue based on the policy document. Of course, the only preparation of the policy document is not enough to run school feeding. How to mobilize resources, how to participate the stakeholders sustainably, how to feed students without creating dependency also will be the issue that should be considered.

Students are happy towards home grown school menu, even though the foods had lack of some nutritional values.

Respondent of FGD participants from the schools said that students in the schools most of them need feeding in SFP. So, in the future, SFP should include all students. And they explained the other point, the budget given for each child is low, it doesn't consider the current market situation.

They also approved the food which is given to children from Monday to Friday based on the menu; it is adequate to avoid children's hunger and to fill children's stomach. However, the food does not contain the needed nutritional value that helps for the normal development of the children. The menu did not contain milk, vegetable, meat, fruit and other foods that have additional nutritional values. To correct the nutritional values the budget, need to increase based on the current market.

4.14 Challenges and Problems of School Feeding

The feeding system has started without well design policy and strategies. There is a shortage of necessary material, lack of school feeding experts, lack of sanitation and hygiene of the food, lack of coordination among school feeding stakeholders, lack of electricity, lack of water supply, lack of feeding hall and tools. There are so many problems and challenges that may lead to the termination of school feeding.

4.14.1 Financial Constraints

The FGD from the schools explained that the budget allocated become much low and difficult to manage to continue the school feeding program. The allocated budget to the breakfast and lunch is only 20 birr per day, which hardly covers the cost of adequately feed students as of increasing living expense and market situation in the cities. They asked the concerned body for some amendment on the budget, there is no response yet. The planned and allocated budget for each student should consider the purchasing power of the money and the fluctuating market, implying contingency plans as backup. Besides, the budget is not released as it should be. Higher government official should also find ways to draw financial resources to fill the deficient budget.

4.14.2 Quality of Food Production

The result from the research indicates that absence of standard food with its necessary content and there were lack of cleanness and neatness of food due to shortage of place for preparation, shortage of utilities of cooking, shortage of water accessibility, on of electricity, inadequate salt content when they add to foot, due to get barriers inside the food such as housefly, human hair, straw, inadequate dried the bread, and shortage of feeding materials leads a decrease the quality of food (as shown below in figure 6



A. Mother cook with lack of cook building

B. Students eating lunch at the class



C. Students eating under the tree **D.** Students hand washing with shortage of water at school

Figure 6: Students with constrains of school feeding in Mekane Hiwot primary school, 2022.

4.14.3 Controlling and Monitoring

One of the factors to the school feeding program is a structured monitoring of its activities, resources and results. A person assigned as a store is required to record, control the food and nonfood items received and distributed daily. The committee members are required to supervise the recipe, the daily amount of the children that are provided and others stakeholders according to their responsibilities. But in Mekane Hiwot primary school feeding program, there is a lack of this coordination and monitoring.

Lack of coordination of government to work with the school, disagreement of caterers, Shortage of food items, Shortage of manpower during serving the food to children, Shortage of cooking and serving utensils, Shortage of water storage and power losses are some challenges of the program implementation.

4.14.4. Discussion In relation to other researchers

As told in the first chapter Ermias (2015) studied the result of SFP in relation to test score achievement and attendance by comparing beneficiary and non-beneficiary students. The study of Abiy (2017) also tried to do the effect of SFP in their score of students comparing with non-beneficiary students. The other studies which were done in this area was by Almaz (2019) entitled with assessment of challenge and prospective of school feeding program in the government primary school of Addis Ababa tried to find challenge of SFP.

A study which is done by Melat (2020) finds the challenges of school feeding program on its implementation.

These studies conducted in Ethiopia gave attention whether the school feeding program benefit the students or not. They tried to assess the data from their teachers and higher management level. They did not listen from the heart of the students. In addition, they did not deal about the nutritional content of the food, the satisfaction and feeling of students on the food. As result of the studies most resulted benefit have not been seen on student. These might be as a result of lack of quality and nutritional content of the food.

In this research the research got results that the food that is given for students in school feeding program does not fulfilled the nutritional content that is expected to have. Us the researcher got from the result the food they got have small contents of vitamins, fats, minerals and little amounts of another nutrient. From the student also the researcher got that the nutritional content is poor.

Respondent were asked how they judge the quality of nutritional content of the food they feed in student feeding program to tell as Not Good at all, poor, medium, good and very good. From these with the highest frequency 99 respondents that is 32.9% of total students told the food they get from school feeding program were medium in quality and next high frequency 81 students with 26.9% from the total respondent replied that the food they got from school feeding program were poor. 57 students or 18.9% from the total respondent told the feeding program were not good at all in quality of nutritional content. The other 35 student 11.6% and 28 respondent with 9.3% told the feeding program were good and very good quality of nutritional program respectively. These told that the feeding program have poor nutritional contents. Students do not get micronutrients from their meal such as milk, fruits, meat and vegetables. Therefore, the meal of the school was found to contain inadequate amount of Zink, Magnesium and Calcium, when compared to WHO, 2007 recommended dietary allowance value, but the amount of iron in the food was adequate due to the presence of teff Injera.

Nutrient deficiencies may contribute to growth retardation indirectly by reducing the intake of other growth limiting factors, such as energy and protein. Mild to moderate zinc and severe iron deficiency may affect growth and can result in anorexia. Deficiency of iron leads to anemia. Hemoglobin level goes down due to a number of factors but the most

important one is deficiency of iron. Deficiency of these micronutrients is associated with impairment of immune function and risk of morbidity, which in turn affects growth. Therefore, micronutrient deficiency may have an indirect effect on growth by increasing the prevalence or severity of morbidity and anorexia (Rivera, et al, 2003).

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The main objective of the study was to assess the challenges and contributions of school feeding nutrition for children's academic achievements and educational focus based on the school feeding program. Accordingly, both qualitative and quantitative data were collected from different responsible parties of implementation of school feeding program those are from Addis Ababa city educational bureau, Yeka sub city education administration office, at word level and in the Mekane Hiwot primary school teachers, volunteers, students, cooks and other participant through questioner, interview and FGD. After those descriptive statistics were employed to describe the implementation process, output of the school feeding program on students and challenges of the school feeding program.

To describe the practice of feeding program different questions regarding school feeding program like what were their menu used, the implementation process of the feeding program, the challenges they got to implement school feeding program, whether the students satisfy by it or not, output of the food benefit for each and contents of food were raised to respondents. According to the results and data analysis of the study, the following conclusion was drawn.

- ✓ The food students got from the school feeding program did not satisfy them, but it can decrease their hunger.
- ✓ The result of the school feeding can decrease absenteeism of students from school, but it is not totally.
- ✓ The Food students got from school were low in nutrient as well as in quality.
- ✓ School feeding program aids students to participate actively in school and a positive impact for good education.
- ✓ School feeding has contributed to increasing enrollment of students and decrease absenteeism.

Additionally, there have been several challenges that have hindered the school feeding program. Some of the challenges included inadequate budget allocated per meal, rising ingredient cost for food preparation at different times, financial difficulties, and lack of coordination and supervision of the school meal plan.

The investigation also showed that there was a shortage of food preparation materials and that the feeding room was causing problems with the feeding schedule. The place to eat is

unclear, and even schools have places to eat, it doesn't look nice and clean. Most students eat in study rooms or somewhere on school grounds.

From the perspective of stakeholders, the challenges are that there are no standard foods on the market that contain the necessary nutrients for children, the lack of storage and transportation of nutrient-dense foods for schools, lack of community awareness, lack of funds and serious monitoring and evaluation system.

5.2. Recommendation

The study analyzed that most of the challenges can be solved by a strong coordination, strengthening, and expanding the collaboration of stakeholders, governmental sectors and development partner and the community.

- ✓ We recommended that there needs an arrangement governmental of policies of the school feeding program as one of the basic needs for education.
- ✓ In addition, from government, the school needs to build alternative methods to generate financial income for the school feeding program.
- ✓ The study recommends the school to revise and design the menu according to the macro and micronutrient content of the food for the students according to their age.
- ✓ The government should work with schools to detail study how the school feeding program is implemented, monitored and evaluated along with student family and the community.
- ✓ Besides, implementation of SFP in the schools change pastoral community's view toward modern education, shape pastoral parents' knowledge to education and increased student's academic achievement. Despite the fact that their benefits reported different challenges such as increasing number of students from year to year, lack of government and community commitment to support the program, lack of sectorial engagement, lack of financial and institutional capacity as well as lack of independence, SFP structure at different levels affect the implementation of SFP and future sustainability of the program.
- ✓ To sustain the program opportunities shall identify in the study such as the existence of enough land at each school, surplus production, committed (in terms of readiness and perspective) government, parents and community to support the program. On the bases of the identified findings, the regional government is expected to establish a new independent structure to run SFP, redesign SFP to accommodate the interest of different sectors in the program, use the existed opportunity effectively and mobilize

pastoral community resource for the program.

- ✓ The feeding place is not clean and children may be affected by a disease that comes from lack of cleanliness and foodborne disease. Actually, the FGD which was held with students confirmed that no one is sick from the food they eat from the school, but countries which have long experience in school feeding disclose that they face foodborne disease and as a result there are many death reports and sick students because of school fees. Therefore, the feeding place and the cooking place should be built purposefully by mobilizing the community in accordance with the country's economy allowed may be with low-cost materials and neatly.

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ANNEX

Data recording on assessment on the contributions and challenges on school feeding nutrition programme at Mekane Hiwot primary school Woreda 02 Yeka sub city of Addis Ababa.

Annex 1:- Questionnaires for head teachers

An assessment on the contributions and challenges on School Feeding Programme at in Yeka sub city primary schools.

Consent Form

My name is Berhanu Getahun Legesse, Master in Development Studies for Food Security, University of Addis Ababa. The purpose of this interview is to collect data for a master's thesis on the effectiveness of school nutrition programs on primary school enrollment in public primary schools in Addis Ababa.

The information collected in this interview will be used only for academic purposes and is strictly confidential. Your participation is voluntary. You can end the discussion at any time by refusing to answer a question. You can ask questions about this study at any time. There is no direct or monetary benefit to you from participating in this study. However, it is hoped that this study will benefit the school community by understanding the effectiveness of school nutrition programs and suggesting what can be done to improve school attendance.

Thank you in advance!

Please answer questions as objectively as possible following the instructions. Please give only response for question by ticking (v) writing in spaces provided (... ..) the response that suits your view on each particular question

Give your answer truthfully in the spaces provided.

1. Name of the school: _____

የትምህርት ቤቱ

ስም: _____

Division: _____ -

2. How many pupils can the school accommodate?

Boys: _____

Girls: _____

Total: _____

ትምህርት ቤቱ ስንት ተማሪዎች አጠቃሎ ይዟል?

ወንዶች: _____

ሴቶች: _____

አጠቃላይ ድምር: _____

3. How many teachers do you have?

Male: _____

Female: _____

Total: _____

ስንት መምህራን በትምህርት ቤት ውስጥ ይገኛሉ?

ወንዶች _____

ሴቶች _____

አጠቃላይ ድምር _____

4. When was the school Feeding Program introduced?

የትምህርት ቤት ምግብ መቼ ተጀመረ?

5. What changes have been noted since the implementation of SFP?

Please explain briefly when and how the school feeding program comes to the school?

ምግብ ከተጀመረ በኋላ ምን ምን ለውጥ ታይቷል? እባክዎትን የትምህርት ቤት ምግብ ፕሮግራሙ መቼ እንዴት እና በማን እንደተጀመረ ያብራሩሉን?

6. What is the enrolment trend for the last 6 Years?

ትምህርት ቤቱ ላለፉት 6 አመታት ያለው የተማሪዎች ቁጥር ምን ይመስላል?

ይመስላል?

#	Year (ዓ.ም)	Boys (ወንድ)	Girls (ሴት)	Total (ድምር)
1	2009			
2	2010			
3	2011			
4	2012			
5	2013			
6	2014			

7. What are the main causes for pupils dropping out of the school?

ተማሪዎችን ከት/ት ገበታ እንዲያቋርጡ ሊያደርጉ የሚችሉ ምክንያቶች ምን ምን ሊሆኑ ይችላሉ?

8. List the major challenges facing SFP?

በምገባ ፕሮግራሙ እንቅፋት ሊሆኑ የሚችሉ ምክንያቶች ምን ምን ሊሆኑ ይችላሉ?

9. What is the attitude of the following people towards SFP? Tick appropriately

በምገባ ፕሮግራሙ ላይ የት/ቤቱ ማህበረሰብ አመለካከት (ግንዛቤ) ምን ይመስላል?

	Positive(አዎንታዊ)	Negative (አሉታዊ)	Others /ሌላ/
Parent (ወላጅ)			
Pupils (ተማሪዎች)			

10. List the various stakeholders and the support they have given towards the SFP.

Yes No

በምገባ ፕሮግራሙ ድጋፍ የሚያደርጉ አጋር ድርጅቶች አሉ?

አዎ አሉ የሉም

Briefly explain (ካለ ጥቀሱ)

11. Suggest possible recommendations that can be implemented to make the school feeding program more effective.

የምግባ ፕሮግራሙ ይበልጥ ውጤታማ ለማድረግ ምን መደረግ አለበት ብለው ያስባሉ?

12. Does the school feeding program have any implication on access?

የምግባ ፕሮግራሙ ለሁሉም ተማሪዎች በበቂ መንገድ ተደራሽ ነው?

YES ----- NO----- (tick appropriately)

አዎ **አይደለም**

Briefly explain. (ካለ ይብራራ) -----

13. Does the School Feeding Program have any implication on retention of pupils in School?

የምግባ ፕሮግራሙ የተማሪዎች ትምህርት ገበታ የማቋረጥ እና ያለማቋረጥ ሚና አለው?

YES----- NO----- (tick appropriately)

አዎ **አይደለም**

Briefly explain (ካለ ይብራራ) -----

14. Does the school feeding program concern on nutritional value?

Yes No

የምግባ ፕሮግራሙ ከተመጣጠነ ምግብ ጋር በቀጥታ ወይም በተዘዋዋሪ ግንኙነት አለው ብለው ያስባሉ?

አዎ **የለውም**

Briefly explain (ካለ ይብራራ) -----

15. What contributions have been observed on student's enrollment by the SFP?

የትምህርት ቤት ምግባው ምን ምን አስተዋፅኦ አብርክቷል ብለው ያስባሉ?

Briefly explain (ይብራራ) -----

Annex 2:-Semi-Structured Interview Guide for Sub-City Level SFP Coordinators

ቃለ መጠይቅ ለክ/ከተማ ወይም ለወረዳ የትምህር ምገባ አስተባባሪ ባለሙያ

My name is Berhanu Getahun Legesse, Master in Development Studies for Food Security, University of Addis Ababa. The purpose of this interview is to collect data for a master's thesis on the effectiveness of school nutrition programs on primary school enrollment in public primary schools in Addis Ababa.

The information collected in this interview will be used only for academic purposes and is strictly confidential. Your participation is voluntary. You can end the discussion at any time by refusing to answer a question. You can ask questions about this study at any time. There is no direct benefit or monetary benefit to you from participating in this study. However, it is hoped that this study will benefit the school community by understanding the effectiveness of school nutrition programs and suggesting what can be done to improve school attendance

Thank you in advance

- Introduction (for data collector) መግቢያ ለመረጃ ሰብሳቢ.)
 - Self-introduction ራስህን አስተዋወቅ/ቁ
 - Explain purpose of the study የጥናቱን አላማ ግለፅ/ጩ
 - Explain confidentiality and there will be voice recording and proceed to next steps ቃለ-መጠይቁ ሚስጥራዊነቱ የተጠበቀ መሆኑንና ለጥናቱ አስፈላጊ በመሆኑ የድምጽ ቀረጻ እንደሚደረግ አሳውቀው ወደ ቃለ-መጠይቁ ሊገቡ መሆንዎን ያስረዱ እና ይቀጥሉ፤

≠	Item	Probing Questions
1	<p>Please explain briefly, when and how the school feeding program came to this local sub-city and what the roles and contributions of the various stakeholder's እባክዎትን የትምህርት ቤት ምግብ ፕሮግራም መቼና እንዴት በዚህ ክፍለ ከተማ / ወረዳ ተጀመረ እንደተጀመረና የባለድርሻ አካላት ሚና ምን እንደሆነ ይግለጹልን?</p>	
2	<p>What were the eligibility criteria to select beneficiary students?</p>	
3	<p>Do you ever heard or read the national school health and nutrition strategy (SHN) of the country?</p>	
4	<p>What are the main components of the SFP Services? በትምህርት ምግብ ፕሮግራሙ የሚሰጡ ዋና ዋና ተግባራት ምንድን ናቸው? ዋና አገልግሎቶች ምን ምንድናቸው? እባክዎ ያብራሩልኝ</p>	
5	<p>How relevant is the SF program to its beneficiaries (school feeding students)? የትምህርት ቤት ምግብ ለተመጋቢ ተማሪዎች ምን ፋይዳ አለው ብለው ያስባሉ?</p>	<p>e.g. reduced incidences of hunger & malnutrition, reduced incidences of parasitic infection etc. ለምሳሌ: ረሀብን ከማስቀረት እና ከ ስነ ምግብ አንጻር፣ በሽታን ከመከላከል</p>

6	<p>Do the schools ever get capacity building activities in relation to the school feeding program? Please explain the inter-sectoral collaboration in relation to capacity building activities በእርሶ ክ/ከተማ ያለ ትምህርት ቤቶች ከትምህርት ቤት ምግብ ጋር በተገናኘ የአቅም</p>	
---	--	--

7	<p>Are there unintended positive or negative challenges in terms of the SF activities? Please explain. በክፍለ ከተማዎ ወይም በወረዳዎ ከምገባ ፕሮግራሙ ጋር በተያያዘ ያልተጠበቀ በጎም ይሁን አለታዊ ተጽእኖዎች</p>	
8	<p>What accounts for the areas of success of the intervention? ለስኬታችሁ ምን ምን ነገሮች አስተማጽኦ አድርገዋል ብለው ያስባሉ?</p>	<p>(Probe for internal and external factors, including for other social protection activities that may affect the implementations e.g., access to grants, etc.) (የውስጥና የውጭ ነገሮች ለምሳሌ፡- ድጋፍ ማግኘት የገንዘብ</p>
9	<p>Would you tell me your expertise view and recommendation for a better future implementation of the program? ይህ ፕሮግራም በተሻለ መንገድ እንዲቀጥል ምን መደረግ አለበት ብለው ያስባሉ?</p>	

Annex 3:-Semi- Structured Interview Guide for School level SFP Coordinators

ቃለመጠይቅ: ለትምህርት ቤት የምግብ ፕሮግራም አስተባባሪዎች

My name is Berhanu Getahun Legesse, Master in Development Studies for Food Security, University of Addis Ababa. The purpose of this interview is to collect data for a master's thesis on the effectiveness of school nutrition programs on primary school enrollment in public primary schools in Addis Ababa.

The information collected in this interview will be used only for academic purposes and is strictly confidential. Your participation is voluntary. You can end the discussion at any time by refusing to answer a question.

You can ask questions about this study at any time. There is no direct benefit or monetary benefit to you from participating in this study. However, it is hoped that this study will benefit the school community by understanding the effectiveness of school nutrition programs and suggesting what can be done to improve school attendance.

Thank you in advance!

- Introduction (for data collectors) **ለመረጃ ሰብሳቢ.)**
- Self-introduction (**ራስህን አስተዋውቅ/ቁ**)
- Explain purpose of the study **የጥናቱን አላማ ግለፅ/ጩ.**

Explain confidentiality and there will be voice recording and process to next steps :

ቃለመጠይቁ ሚስጥራዊነቱ የተጠበቀ መሆኑንና ለጥናቱ አስፈላጊ በመሆኑ የድምጽ ቀረጻ እንደሚደረግ አሳውቀው ወደ ቃለመጠይቁ ሊገቡ መሆንዎን ያስረዱ እና ይቀጥሉ።

	Item	Probing Questions
1	<p>Please explain briefly when and how the school feeding program came to this school? እባክዎትን የትምህርት ቤት ምግብ ፕሮግራም መቼ፣ እንዴትና በማን በእዚህ ትምህርት ቤት እንደተጀመረ ያብራሩልን?</p>	
2	<p>What were the eligibility criteria to select beneficiary students? የምግብ ፕሮግራሙ ሲጀመር ተጠቃሚ የሚሆኑ ተማሪዎች የሚመረጡት በምን መስፈርት ነው እባክዎ ያብራሩልን?</p>	
3	<p>Do you ever heard or read about the national school health and nutrition strategy (SHN) of the country? የሀገር አቀፉን የትምህርት ቤት የጤናና ስነምግብ ስትራቴጂ ሰምተው ወይም አንብበው ያውቃሉ?</p>	

4	<p>What are the main components of the SFP services? የትምህርት ቤት ምግብ ፕሮግራም ውስጥ ምን ምን የአገልግሎቶች ይሰጣሉ?</p>	<p>E.g., how & how often MNS, Deworming is provided to students, WASH services, Nutrition Education, school garden & cooking Demonstration sessions. ለምሳሌ:- እንዴት የማይክሮ ኒውትረንት ንጥረ ነገር እንደሚሰጥ፣ የሆድ ውስጥ ተዋሲያን መከላከያ መድሀኒት እንዴትና መቼ እንደሚሰጥ፣ የወሃና የንጽህና አጠባበቅ ሁኔታ እንዴት እንደሆነ የጓሮ ልማትና የምግብ ማዘጋጃና ማብሰያ ሰርቶ ማሳያ አገልግሎት እንዳለና እንደሌለ</p>
5	<p>How relevant is the SF program to its beneficiaries (school fed children) especially in terms of health & nutrition? የትምህርት ቤት ምግብ ለተመጋቢ ተማሪዎች ምን ፋይዳ አለው ብለው ያስባሉ?</p>	<p>e.g., reduced incidences of hunger & Malnutrition, reduced incidences of parasitic infection etc. ለምሳሌ: ረሀብን ከማስቀረት እና ከሰነምግብ አንጻር፣ በሽታን ከመከላከል አንጻር</p>

6	<p>How the school meal services are being delivered, do you have school menu & special feeding programs? የምግብ ፕሮግራሙ በተለይ የምግብ አሰጣጣችሁ ምን ይመስላል፣ የምግብ ዝርዝር አላችሁ</p>	<p>Probe for special feeding schedules for orphans, HIV positive children & others በልዩ ሁኔታ የሚመገቡ ተማሪዎች አሏችሁ፣ ለምሳሌ ቤተሰብ የሌላቸው፣ ከኤች አይቪ ጋር ለሚኖሩ ወዘተ</p>
7	<p>Are there students who quit the school meal service for whatever reason they have? የምግብ ፕሮግራሙን ጀምረው ያቋረጡ ተማሪዎች አሉ በምን ምክንያት ይሁን?</p>	

8	<p>Are there unintended positive or negative challenges in implementing the program? Please explain. በትምህርት ቤት ውስጥ ከምግባ ፕሮግራም ጋር በተያያዘ ያልተጠበቀ በጎም ይሁን አሉታዊ ውጤቶች (ተግዳሮቶች) ገጥሞት ያውቃል? እባክዎ ይግለጹባቸው።</p>	<p>(E.g., lack of resources, supervision and support etc.) ለምሳሌ- የግብአት፣ የክትትል እና ድጋፍ ማነስ</p>
9	<p>How do you see the inter-sectorial collaborations in your school situation? የአጋር አካላትን ትብብር ከእርሶ ትምህርት ቤት አንጻር እንዴት ያዩታል?</p>	<p>ለምሳሌ:- ጤናን፣ የሴቶችና ህጻናት የመሳሰሉትን ተቋማት</p>
10	<p>Do you think the program should continue? ፕሮግራሙ መቀጠል አለበት ብለው ያስባሉ?</p>	<p>ለምሳሌ:- ሁሉም መመገብ አለባቸው ወይስ የሚያስፈልጋቸው ብቻ ተመርጠው ቢመገቡ ይሻላል ብለው ያስባሉ።</p>
11	<p>Would you tell me your expertise view and recommendation for a better implementation of this program in the Future? ይህን ፕሮግራም በተሻለ መንገድ ለማስኬድ እና ቀጣይነት እንዲኖረው ምን ይመክራሉ? እባክዎትን ያብራሩሉን</p>	

Annex 4:-Questioners with beneficiary Student (SFP School) Consent Form

My name is Berhanu Getahun Legesse, a graduate student in the Department of Food Security Research and Development at Addis Ababa University. The purpose of this discussion is to collect data from a master's thesis on the challenges and contributions of school nutrition programs to primary school enrollment in Addis Ababa Public Primary School.

The information gathered in this discussion will be used for academic purposes only and is strictly confidential. Your full name is not listed anywhere and there is no way to identify you. Your participation is voluntary.

You can end the discussion at any time by refusing to answer a question. You can ask questions about this study at any time.

There is no direct or monetary benefit to you from participating in this study. However, we hope that the research will be useful to your school by understanding the effectiveness of school nutrition programs and suggesting what you can do to improve your attendance at school.

Thank you in advance!

Demographical Information

Sex M _____ F _____ Age _____

1. How many times does school feeding program provided you food per day and list the type of food that you get

**የትምህርት ቤት ምግብ ፕሮግራሙ በቀን ስንት ጊዜ ምግብ ያገኛለ፤
የምግብ አይነቶችስ ምን ምን ናቸው?**

	Monday/ ሰኞ/	Thursday /ማክሰኞ	Wednesday/ ረቡዕ	Thursday /ሀሙስ	Friday/ አርብ
Type of break fast					
Type of lunch /የምሳ አይነት					

3. Does the food you get from school satisfy you?

Yes No

በምግብ ፕሮግሙ የሚቀርብሎትዎ ምግብ አርክተቶናል ብሎችዎ ታስባላችዎ?

አዎ አይደለም

Briefly explain (ይብራራ) -----

-----4.

Do you think, the school feeding program minimize students' hanger during school hour?

Yes No

በመማር-ማስተማር ሂደት ከምህርት ቤት ምግብው የረሃብ መጠን ይቀንሳል ብላችዎ ታስባላችዎ?

አዎ ይቀንሳል አይቀንስም

Briefly explain (ይብራራ) -----

5. Do you think, the school feeding program minimize student's absenteeism?

Yes No

የትምህርት ቤት ምግብ ፕሮግራሙ ተማሪዎችን ከትምህርት ገበታ እንዳትቀሩ ያግዛችኋል?

አያግዝም

ያግዛል

Briefly explain (ይብራራ) -----

6. Does the school feeding program totally solve the problem of student's absenteeism?

Yes No

የትምህርት ቤት ምግብው ተማሪዎችን ሙሉ በሙሉ ከትምህርት ገበታ እንዳይቀሩ ያደርጋል ብላችዎ ታስባላችዎ?

አዎ አይደለም

Briefly explain (ይብራራ) -----

-----7.

7. What threats you faced during your school feeding program?

በትምህርት ቤት ምግብ ሂደት ውስጥ ያጋጠሙ ችግሮች አለ? ካለ ይጥቀሱ?

8. What benefits you obtained from the school feeding program?

በትምህርት ቤት የምግብ ፕሮግራም ምን ምን ጥቅሞችን አግኝተናል ብላችሁ ታስባላችሁ? ጥቀሱ?

.....
.....

9. How do you evaluate the quality of nutritional content of the food supplied by the school feeding program?

የትምህርት ቤቱ የምግብ ፕሮግራም ከምግብ ንጥረ ነገሮች ንጹህ (ከተመጣጠነ ምግብ አንጻር) እንዴት ትገመግማላችሁ?

.....
.....

Annex 5:-Key Informant Interview with Addis Ababa city Educational Bureau

Consent Form

My name is Berhanu Getahun Legesse, a graduate student in the Department of Food Security Research and Development at Addis Ababa University. The purpose of this discussion is to collect data from a master's thesis on the challenges and contributions of school nutrition programs to primary school enrollment in Addis Ababa Public Primary School.

The information gathered in this discussion will be used for academic purposes only and is strictly confidential. Your full name is not listed anywhere and there is no way to identify you. Your participation is voluntary.

You may refuse to answer any question and choose to stop the discussion at any time. You can also ask questions about this study at any time.

There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your school by helping me understand the effectiveness of School Feeding Program and recommending what should be done to improve school participation.

Thank you in advance!

1. What is your role in the school feeding program?

በምገባ ፕሮግራሙ ላይ የአዲስ አበባ ከተማ ትምህርት ቢሮ ሚና ምንድን ነው?

.....
.....

2. Do you think school children get enough food while in school? If not, why? If yes how?

በትምህርት ቤት ውስጥ ተማሪዎች በቂ የምግብ አገልግሎት ያገኛሉ ብለው ያስባሉ? ለምን? እንዴት?

.....
.....

3. Has there been significant increase in school participation following the School feeding program?

ከምገባ ፕሮግራሙ በኋላ የሚታይ የተሻለ እና መሠረታዊ የትምህርት ተሳትፎ ለውጥ አለ ብለው ያስባሉ? ካለ ይብራሩ?

.....
.....

4. What are the challenges (if any) and prospects of School Feeding Program in school where school feeding programs employed?

ለምገባ ፕሮግራሙ ምን ምን ችግሮች (እንቅፋቶች) አጋጥሞአችኋል? ችግሮችስ እንዴት ተፈቱ? የምገባ ፕሮግራሙ ለቀጣይ ምን አይነት እድል ይዞ ይመጣል ብለው ያስባሉ?

.....
.....

5. How do you evaluate the current School Feeding Program and its prospect?

የምገባ ፕሮግራሙ በአሁኑ ሰዓት እንዴት ይገመግሙታል? ምንስ ተስፋ ይኖረዋል ብለው ያስባሉ?

.....
.....

6. Does the school feeding program concern with nutritional value?

Yes No

የትምህርት ቤት የምገባ አሰጣጥ ፕሮግራም ከተመጣጠነ ምግብ ጋር ተያያዥት አለው ብለው ያስባሉ ?

አዎ አይደለም

Briefly explain (ያብራሩ) -----

7. List the values stake holders to support they have given towards the school feeding program.

የትምህርት ቤት የምገባ ፕሮግራሙ ድጋፍ የሚያደርጉ አጋር ድርጅቶች አሉ? ካለ ይጥቀሱልን?

.....
.....

8. What do you suggest on the contribution of school feeding program in the school community?

የትምህርት ቤት የምግብ ፕሮግራም አሰጣጥ ሂደቱ ምን ምን አስተዋፅኦ ያመጣል ብለው ያስባሉ? ያብራሩልን?

.....
.....

9. What do you suggest about the current school feeding program? Launched by Addis Ababa city education bureau administration?

እንደ አዲስ አበባ ከተማ ትምህርት ቢሮ አስተዳደር ወቅታዊ የትምህርት ቤት ምግብ ሂደት መኖሩ እንዴት ይገልጹታል ያብራሩልን?

.....
.....

Annex 6:-Key Informant Interview with school level of FGD

Consent Form

My name is Berhanu Getahun Legesse, a graduate student in the Department of Food Security Research and Development at Addis Ababa University. The purpose of this discussion is to collect data from a master's thesis on the challenges and contributions of school nutrition programs to primary school enrollment in Addis Ababa Public Primary School.

The information gathered in this discussion will be used for academic purposes only and is strictly confidential. Your full name is not listed anywhere and there is no way to identify you. Your participation is voluntary. You may refuse to answer any question and choose to stop the discussion at any time. You can also ask questions about this study at any time.

There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your school by helping me understand the effectiveness of School Feeding Program and recommending what should be done to improve school participation.

Thank you in advance!

1. Did the school Feeding program have a good result in learning process?

Yes No

የትምህርት ቤቱ የምግባ ፕሮግራም በትምህርት ቤት የመማር ማስተማር ሂደት ለጠጥ አምጥትዋል ብላችሁ ታስባላችሁ።

አዎ አምጥትዋል አላመጣም

Reason (ምክንያት) _____

2. In these school did school feeding program have negative effect on learning process? How (እንዴት)?

በትምህርት ቤቱ የምግባ መርሃ ግብር ለመማር ማስተማር ሂደቱ ምን ችግሮች (ተግዳሮቶች) አጋጥመዋል ብላችሁ ታስባላችሁ?

.....
.....

3. What does the quality and accessibility of food in school feeding program look like?

የምግባ መርሃ ግብሩ የምግብ ተደራሽነት እና ጥራት ምን ይመስላል?

.....
.....

4, Do you think that the school feeding program have significant effect on students' health?

Yes No

የትምህርት ቤቱ የምግባ መርሀ ግብር በተማሪዎች ጤና አጠባበቅ ላይ ጉልህ አስተዋጽኦ አለው ብላችኑ ታስባላቹ;

አዎ አለጠ. የለጠም

How (እንዴት)

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

5. Tell me about the quality of food of school feeding program in the school?

የትምህርት ቤት የምግባ መርሀ ግብር ለተማሪዎች ንፅህናውን ተጠብቆ የመሰጠት ሂደቱ ምን ይመስላል?

.....
.....

6. What does the menu look like in the feeding program?

የምግባ መርሀግብር በትምህርት ቤት ውስጥ ሲከናወን ለተማሪዎች የሚቀርበው ምግብ አይነት እና ይዘት ምን ይመስላል?

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

7. What does the raw material for food look like?

በትምህርት ቤት ለተማሪዎች የሚቀርብ የምግብ ጥሬአቃዎች ማከማቻ ምን ይመስላል?

.....
.....

8. Who are material and purchasing department in school? What is their responsibility?

በትምህርት ቤቱ ለተማሪዎች የሚቀርብበትን የምግብ ጥሬአቃዎች አያያዝ ላይ ባለድርሻ አካላት እነማን ናቸው; የሚያደርጉት አስተዋጽኦ ምንድነው?

.....
.....