

FACTORS INFLUENCING SUSTAINABILITY OF SCHOOL FEEDING PROGRAMME: A CASE OF PUBLIC PRIMARY SCHOOLS IN KAJIADO CENTRAL SUB-COUNTY, KENYA

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ABSTRACT

This study sought to establish factors influencing sustainability of school feeding programme in public primary schools in Kajiado Central Sub County, Kenya. The study was guided by four objectives; to assess how community participation influences sustainability of school feeding programme in public primary schools Kajiado central sub-county, To examine the extent which funding influences sustainability of school feeding programme in public primary schools Kajiado central sub-county, to assess the extent to which Board of Managements influences sustainability of school feeding programme in public primary schools Kajiado Central sub-county and to determine how monitoring and evaluation influences sustainability of school feeding programme in public primary schools Kajiado county .The theoretical framework of the study was based on the Rand Change Agent (RCA) model advanced by Berman and McLaughlin (1978). The study adopted a descriptive research design. A target population of 340 respondents (head teachers, deputy head teachers, the teachers in charge of SFP, education officers and SFP programme managers') was reached. Simple random sampling was employed to select a total of 181 respondents from which 170 filled in and

returned the questionnaires making a return rate of 94%. This return rate was satisfactory to make conclusions for the study. The study used descriptive and inferential statistics to analyze the data collected. The findings showed that there was a strong positive correlation between community participation, funding, Board of Management, monitoring and evaluation and sustainability of the school feeding programme. The coefficient of determination calculated an R-square of (76.6%) which explained that all the four predictor variables accounted for 76.6% of the total variation in sustainability of the School Feeding Programme in Kajiado Central Sub County, Kenya. The study thus concluded that community participation, funding, Board of Management, monitoring and evaluation do have an influence on sustainability of the SFP in Kajiado County. The study recommended that the government should ensure that there is proper and regular feeding programme in all public primary schools in the ASAL regions characterized by acute food insecurity. The government should also provide funds in good time for the feeding programmes and ensure it is adequate for the schools according to the pupil population.

Key Words: *sustainability, school feeding programme, public primary schools, Kajiado Central sub-county, Kenya*

INTRODUCTION

World Food Programme is the largest organizer of school feeding programme in the developing world. In 2013, WFP fed more than 15 million children in schools in 69 countries. Working with national governments, local authorities, donors and international and local aid groups, WFP uses food to attract children to school and to keep them there (WFP, 2013; World Bank 2016). When food is available at school, attendance rates increase significantly. Research shows that when a

school meal is provided, enrolments can double within a year (United Nations Girls Initiative 2016).

Studies have shown that School feeding has its origins in the 1930s, when schemes were introduced in the United Kingdom (UK) and the United States of America (USA) with the explicit aim of improving the growth of children (Sweetnam, 1978; Moninga, 2000; Richter, 2000; Morley, 2006). In the United Kingdom, a program that subsidized milk for school children was initiated in 1934 and milk was provided free from 1944 onwards (Sweetnam, 1978). In the late 1960s and early 1970s this benefit was withdrawn from all, except for those children considered to be particularly needy (an early example of the targeting approach in school feeding).

In Mali, school feeding programme was launched by the World Bank in 2016 (Kremer & Vermeersch 2017). The programme has contributed to an increase in school enrollment and retention in primary schools especially for girls. The programme promotes locally-owned school feeding programme, benefitting communities through community organizations, providing training, and supporting smallholder farmers. One challenge is that there has not been an impact evaluation on the programme, and therefore no significant data on its social and economic impacts. According to Edoardo and Aulo (2013), the challenges facing sustenance of the school feeding programme in Mali are programme financing and management. The programme relies on donor funding mainly, when this funding is strained, its sustenance is affected. Managerial challenges also contribute to failure in the sustenance of the programme.

A study by Mothe, Burbano and Delicato (2016) found that involving communities and Board of Managements in the strategy and sustenance of School Feeding Programme aids in making programme to last longer. School feeding programme that react to the needs of locally owned schools tend to have more chances of advancing from donor assistance. A policy basis for SFP helps reinforce its potential for sustainability and quality sustenance. In most cases where the governments are subsidizing the sustenance of the school feeding programme, it is included within the national policies. The largest programme emanate from strong policy statement. For instance, in India the school feeding programme is sustained by a supreme court. In Brazil it is incorporated in the National Constitution whereas in Kenya it is found in the 2005 Sessional Paper on Education and sanctioned by the parliament (WFP, 2012).

The government of Kenya in partnership with WFP has continued to finance school feeding programme and with the involvement of communities (parents, small scale farmers, and teachers) in implementing the programme. Although the programme has experienced challenges in financing, community participation has helped bridge the gap. However, there is still room for improvement and the need for a more robust data analysis and reporting.

While various international organizations such as World Food Programme (WFP), UNESCO, UNICEF and World Bank have continued to support School Feeding Programme in Kenya, there are still evident gaps especially in schools located in Arid and Semi-Arid Lands (ASAL) and

those in urban informal setup. For instance, the World Food Programme dedicates \$32 per child per week in Kenya's School Feeding Programme (WFP, 2014). However, this is just but a drop in the ocean of food gap in Kenya's schools found in the Arid and Semi-Arid lands. There is need therefore to implement sustainable school feeding programme in the country through government and community support interventions that include but not limited to introduction of school farming programme among other climate change adaptation programme (WFP 2014). There is also need to understand the critical success factors in sustenance of the school feeding programme.

Reports have been made that financial challenge is a major threat to sustainability of the School Feeding Programmes within the public primary schools in Kajiado Central, Kajiado County Kenya. Proper Government policies on partnerships and the input of stake holders in the whole process of sustainability of the school feeding programme are paramount (Ocharo 2013). This study attempted to investigate school feeding programme in public primary school in Kajiado Central, Kajiado County, Kenya and how it is influenced by the availability of funds, school management committee, community participation, monitoring and evaluation. This will be done by conducting a survey of the schools that have the feeding programme in, Kajiado Sub County Kajiado, County Kenya (UNICEF, 2009).

STATEMENT OF THE PROBLEM

When hunger strikes a community, it hurts children the most, draining them of their will to play and learn as they search for food to eat. Of the world's population 100 million out of 300 million children are chronically hungry and do not attend primary school at all (WFP Global School Campaign, 2001). Over the last one decade the cumulative dropout rate in primary education has been as high as 37% and the survival rates of the children has been as low as 40%. The low gross enrolment and survival rates are due to various factors like, hunger, malnutrition, inadequate physical facilities, low level of awareness of the need for education, poverty, retrogressive cultural practices among others (UNICEF, 2017). The introduction of School Feeding Programme in Kenya was meant to increase enrolment in Kenyan primary schools. This is a culmination of the government approach to the WFP for assistance to primary schools affected by the food shortage (UNICEF, 2017). School feeding programme remain controversial - theoretically, politically and in terms of their sustainability. Problems include the methodological shortcomings in studies that purport to have found an association between hunger and school performance. School feeding programmes benefit children in terms of increased school enrolment (particularly for girls) and they help to keep children at school, but they have no impact on the root causes of malnutrition and hunger. Serious reservations remain about whether or not governments in resource-poor settings should be allocating resources to school feeding at all and, if they do, whether or not priority should be given to younger children (Alderman, Gillgan & Lehrer, 2008). Several authors (Vermeersch & Kremers 2010; Dreze & Kingdome 2000; Ahmed 2004; Williams 2007) have indicated that school feeding programmes have a

significant impact towards achievement of the programme objectives like enrollment, attendance, improved academic performance and school completion. A study by Vermeersch and Kremers (2010) indicated that in developing countries there is an increase of 30% pupil enrolment in schools with introduction of lunch programme in schools. Similar study by Dreze and Kingdome (2000) in India showed that 14.2% of pupils reported to school after the introduction of school feeding programme. Other studies by Ahmed (2004), Williams (2007) and Field et al (1997) showed a positive relationship between school feeding programme and pupil retention in schools. Kajiado County is characterized as a semi-arid area with challenges of food security. The Ministry of Education rolled out the school feeding programme to all public primary schools to ensure that the basic need of the children food being one of them is met. Kajiado Central has 110 schools under SFP implemented over 10 years. However there have been financial concerns over the last years. Inadequate funding from the government has led to delays and failure to provide food to schools within stipulated time. This has raised concerns with the schools, community and stakeholders on sustainability of school feeding programme in Kajiado Central because it largely depends on funding, community participation, Board of Management involvement, monitoring and evaluation systems. Most of the schools are based in remote areas of Kajiado Central with poor infrastructural network making sustainability of the school feeding programme poor his study seeks to fill the gap by studying the factors influencing sustainability of school feeding programme in a case of primary schools in Kajiado Central Sub County, Kenya.

PURPOSE OF THE STUDY

The purpose of the study was to determine the factors influencing sustainability of school feeding programme, a case of public primary schools in Kajiado Central Sub County, Kenya.

OBJECTIVES OF THE STUDY

1. To assess how community participation influences sustainability of school feeding programme in public primary schools, Kajiado Central Sub County.
2. To examine the extent to which funding influences sustainability of school feeding programme in public primary schools, Kajiado Central Sub County.
3. To assess the extent to which Board of Management influences sustainability of school feeding programme in public primary schools, Kajiado Central Sub County.
4. To determine how monitoring and evaluation influences sustainability of school feeding programme in public primary schools Kajiado Central Sub County.

LITERATURE REVIEW

Sustainability of School Feeding Programme

School feeding programme is a tool, that today successfully enables hundreds of millions of poor children worldwide to go to school in developed and developing countries alike (Ahmed, 2014). One of the rewards of school feeding programme is that besides enabling education, it has positive direct and indirect merits unfolding to a number of other development goals (namely for gender, equity, poverty and hunger reduction) (WFP, 2014). Virtually every country in the world today, whether high or low income pursues to feed at least some of its children through federal assistance. Yet, despite the popularity, people still ask questions about the indication of its effectiveness, and there is still a struggle to establish what makes for a successful programme (Bundy & Alderman, 2009).

France seeks to implement policies that ensure school children get vital and high-quality nutrients. Funding for school meals in France is endowed by approximately 50% by the Ministry of Education and the rest paid by the parents, the amount being determined according to their level of employment. In the United States of America (USA), the Lunch Act was passed with the aim of improving the health and well-being of the school children. At the national level, the United States Department of Agriculture (USDA) gives the National School Breakfast Programme and National Lunch Programme at the locally. State education agencies operate the programme (Aliyar, Aulo & Hamdani, 2015).

The Government of Bangladesh and the UN World Food Programme launched the school feeding programme in July 2002 in order to lower hunger in the classroom and to realize higher enrollment and to ensure they don't dropout. This was done in areas with food insecurity of Bangladesh. School Feeding Programme (SFP) was a motivational factor to primary school children which is opposed to giving money and food to their parents in order to send their children to school (Ahmed, 2014).

It is now over two decades since World Food Programme introduced the first school food programme in the independent Kenya. The World Food Programme's school meal in Kenya is one of the largest and most long-standing since 1980 (Langinger, 2011). From 1999 onwards, responding to increased frequency of food insecurity which comes as result of drought and political instability and to the introduction of Free Compulsory Primary Education in 2003, the programme in Kenya increased significantly, peaking at 1.85 million children in over 5000 schools.

In 2008, the Government of Kenya took over obligation of school feeding programme. The WFP concentrated on providing meals in primary schools with the lowest education indicators in the most vulnerable part of the country (the ASALS and urban slums of Nairobi and Mombasa). A new program of Home-grown Feeding Programme and a new policy on School Health and

Nutrition showed an integrated, cross-sectoral approach, including being devoted to providing a meal which is nutritionally balanced to pupils (Olubayo, 2013). Another federally owned school feeding programme has revised its policy in recent years rather than providing meals to children in school in food in areas which suffer from food insecurity, it encourages school feeding in areas in which parents can meet the expense of to sustain them. The core objectives of the feeding activities are to provide supplements to pre-primary and primary school children in order to help boost their health and nutritional status and give them the drive to be highly involved in school activities (Otieno, 2014). The study thus sought to establish the factors influencing sustainability of school feeding programme with specific focus on primary schools in Kajiado Central Sub County, Kenya.

The subsequent sections introduced the factors influencing sustainability of school feeding programme. The factors focused in this study include community participation, funding school feeding programme sustainability, Board of Management and monitoring and evaluation.

Community Participation and sustainability of School Feeding Programme

Community participation is an affinity of feeling to belonging to a community This includes a free flow of information of happiness, sadness, development and draw backs of a societal set up. Moningka (2000) defined community participation as a sociological process by which residents living within an area or neighborhood organize themselves to improve the conditions of daily life. This involves access to water supply, health and sanitation, education and access to food supply through small scale farming programme. Community participation comprises various degrees of individual or collective involvement through financial contributions, resources contribution, social and political commitment at different stages of programme implementation (Moningka, 2000).

Moningka (2000) adds that community participation is a process in which community members are involved at different stages and degrees of intensity in programme after the programme management team have left. Community participation throughout the whole programme from design, implementation and evaluation, to completion of the programme that ensures the reflection of community priorities and needs in the activities of the programme thus motivates communities into maintaining and operating programme activities after the programme is completed. Participation is essential for establishment of community cohesiveness towards implementation of programme. It enables members to live together, share common norms, values, fears, and challenges as well as embrace the principle of partnership with the dynamic of change and development which bring about democracy and personal empowerment, build the tendency to associate, establish link, live inside each other and cooperate towards achieving a common goal (Capra, 1996).

According to USDA (2010) implementation of the school feeding programme was introduced purposely to increase enrollment of students in rural, arid and semi-arid areas that are adversely

affected by climate change and weather patterns. These regions are characterized by hardships that see children not attend school rather help parents to sustain and fend for their families. Families in these regions have no value for education as they see their children as resources. The school feeding programme was initiated to help reduce costs to these families and have their children attend school to get access to education (USDA, 2010). To enhance successful implementation of the school feeding programme, there is need to involve the parents as major stakeholders to ensure their children attend school to completion.

Finan (2010) explains that appeal of a school meal is suddenly much less significant and dropout rates increase with the rising opportunity cost of staying in schools. He attributes this to children being viewed as valuable economic resources by their parents and the pressure to contribute to household chores and earnings steadily mounts. Finan (2010) states that in Africa, affiliations to local traditions in rural areas are much stronger than in urban areas and as a result, urbanized traditions are not easily acceptable. He further suggested that, for the school feeding programme to be successful, there is need to help the communities understand first, the benefit of education and the importance of school feeding programme. This he asserted would enhance implementation of the school feeding programme and having the community to participate in the implementation of the programme.

According to Peel (2016) Ghana school feeding programme which was implemented by the Ghanaian government in partnership with donor agencies attributed its success to enhancing community participation. The programme sustainability employed community participation as key to achieving successful implementation of the programme. The programme outsourced the services of community members, relying on caterers for food procurement, preparation and distribution. It is noted that the planning approach to involve community members (small scale farmers, parents, local businesses and government institutions) in the implementation of school feeding programme has created jobs for the communities and allows schools to focus on education rather than food duties. This has enabled the delivery of quality education. Cleaver (1999) observes participatory approaches as ways of building synergy, ownership and enhancement of sustainability.

A study by Olubayo, Aluvi and Namusonge (2013) in Emuhaya sub-county, Kenya, revealed that community participation in the school feeding programme enhances its implementation. Public primary school offer certain advantages like increasing the contact, leading to better rapport between the stakeholders such as parents and teachers, officials and others, making the parents to know much about what is happening in their schools.

Another study on community participation was by Kirianiki (2013) in Embakasi, Nairobi which found that participation takes place as a community arranges and becomes responsible for managing the problems that come up. Being responsible means recognizing problems, taking actions, putting them in place and following through (Arora, 1999). Community participation helps in ensuring success in the programme and cost of the programme reduced. However,

involving a community is a technique to guarantee that benefits brought by the SFPs would be maintained even after the external interventions are stopped. Community participation in education can support and uphold local culture, tradition, knowledge and skills and create pride in community heritage. The studies on community involvement have been explored in other areas from the reviewed literatures.

Funding and sustainability of School Feeding Programme

A study of nine African sub-Sahara countries by Kerzner (2013) found that although efforts have been made to ensure successful implementation of school feeding programme, funding is a major challenge towards implementation of the programme. Further, it is noted that majority of the countries under study lacked the capacity to fund school feeding programme, hence they depended on donor funding. He also indicated that most governments although have allocated funds towards implementation of school feeding programme, the allocation has never been satisfactory.

Kwak (2002) noted that donor funding towards school feeding programme depend on the donor policies and the type of programme being funded. According to Kwak (2002) long term programme receive varied funds from donors as compared to short term programme that are allocated funds within the same period. He further noted that donor funding for school feeding programme is mainly a short-term process as it only provides support to enhance successful sustainability of the programme.

USDA (2010) noted that due to lack of innovative and creative ways of reducing costs associated with implementing school feeding programme, funding remains a major challenge towards achieving a sustainable school feeding. According to USDA (2010) donor funds availability is mainly dependent on the donor country and institutional policies of donor country and regulations. Financial investment plans are a critical component in implementation of programme. In the absence of investment plans sufficiently detailed (to pre-feasibility quality), further development may succeed and could in the long run adversely influence successful implementation of projects. The consequence has been low value for money and unacceptably low investment realization (Kwak, 2002).

There is need to have a comprehensive feasibility study and investment plan indicating the investment necessary to achieve the progressive realization of programme as desired as per the plans upon completion (Matta & Ashkenas, 2005). The financial investment plan, funding plan and financial structure adopted during programme implementation can determine if the programme would be implemented as per the schedule. Financing of the school feeding programme in Kenya is funded from various sources; government funds, donor funds, contributions from corporates organizations, religious institutions among others (Osiemo, 2014). He further noted that with a two-tire government system in Kenya, there is need to have a well-

coordinated financing structure to utilize the allocated funds towards implementation of the school feeding programme.

Osiemo's study (2014) established that funding and funds utilization influence implementation of school feeding programme. He further argued that schools lack the capacity to enhance implementation of programme hence funding provided would not meet the demand. He noted that with increased enrollment and lack of facilities like kitchens, inadequate cooking equipment's, dining hall stretched the funding allocated towards implementation of the school feeding programme.

Finan, (2010) noted that although funds are allocated towards implementation of the school feeding programme, mismanagement of funds pose a challenge towards implementation of the school feeding programme. It was also noted that without proper management and accountability structures of funds allocated towards programme sustainability. The allocated funds would make the desired impact. There is need to manage efficiently funds allocated to ensure maximum output is achieved through sustainability of school programme.

Board of Management and sustainability of School Feeding Programme

Board of Management (BOM) is the legal trustee of the school. It comprises of board members and the parents of the pupils enrolled in the Public schools. The responsibility of the BoM is to advice the head teacher who is the secretary to the BoM on matters distressing the general development of the school and the well-being of the pupils. A study by Burbano, (2008), in Afghanistan found that when parents are not directly involved in the Parent Teacher Association and BOM, they negatively affect the community ownership of the SFP since direct support leads to better learning outcomes.

Kabiaru (2012) found that BOM roles of purchasing of teaching and learning aids and mobilizing parents and community members on sourcing for funds from the donors in Kasarani positively influenced the implementation of educational programmes SFP being one of them. Langerer (2012) revealed that to avoid many costs related to management and dissemination expenses, The Government of Kenya has shifted the logistics of sustainability of SFPs to BOMs including parents, teachers and community members whose roles are to procure the food from local farmers. This study seeks to find whether there is a correlation between the Board of Management and sustainability of the school feeding programme in Kajiado Central Sub County of Kajiado County.

Monitoring and Evaluation and sustainability of School Feeding Programme

Monitoring and Evaluation is very important management function for ensuring that programme goals and objectives are fully achieved and that implementation process remains on course. Monitoring and evaluating the progress of a programme is one of the most important

management functions of programme management because it is a determinant of programme success (Kerzner, 2013). Every team member needs to know, in a timely and accurate manner, how the programme is progressing, where they are currently in line with the initially set out plans, whether deadlines are met, budgets are safely measured and followed. Monitoring and evaluation are often regarded as a single activity because they are both programme management functions, sequential and closely related.

Anthony (1965) acknowledges that a close relationship exists between monitoring and evaluation and sustainability but regards them as independent activities because monitoring leads to control. Ritz (1994) describes evaluation as the work of constraining, coordinating and regulating actions in accordance with plans to meet specific objectives. According to Mauricio and Carlos (2002) planning process defines the strategies, tactics and methods for achieving programme objectives, while monitoring and evaluation provides the required checks and balances for ensuring that the plans and overall programme objectives are achieved. Plans cannot bring about the required end results by themselves; they must be complemented by monitoring and evaluation to achieve their goals.

Evaluation is a process distinguishable from monitoring by a number of activities through which schedule slippage in programme performance is corrected. If not all, major programme failures could be traced to inadequate and inaccurate planning or blind adherence to the originally formulated plans regardless of how the environment changes in the interim (Kharbanda and Pinto, 1996).

Monitoring and evaluation of projects by professionals and stakeholders is essential and it is of greatest benefit because of the improved insight they provide concerning programme completion status. Even with the best-laid programme funding undertaken a programme can go awry if not properly monitored. Through proper monitoring and evaluation, delays, project variations can be readily identified through periodic reports that are made and corrective action taken in good time therefore monitoring and evaluation is a very crucial function in programme management that should be executed by qualified personnel during implementation process (Lawal and Onohaebi, 2010).

Peel (2016) and Osiemo (2014) agree that school feeding programme lack monitoring and evaluation systems that is critical in ensuring the programme meet its desired objectives and goals. School feeding programme are capital intensive which requires a monitoring and evaluation system that ensures the desired goals and objectives are achieved. They argue that the shortcomings of the school feeding programme and challenges influencing implementation of the programme can be addressed through an elaborate and effective monitoring and evaluation system. The Home-Grown School feeding programme initiated by the Kenyan government is anchored on reducing costs and Interco-operation between ministry of education and agriculture to boost local economy and enhance sustainability of the programme in the long run. WFP (2014) indicated that for the HGSP programme to be successfully implemented as desired there

is need to have a coordinating team and a monitoring and evaluation mechanism that ensures the two ministries and other partners operate towards a common goal and objective.

THEORETICAL FRAMEWORK

The research employed the Rand Change Agent (RCA) model advanced by Berman and McLaughlin (1978) who focused on three stages of sustainability:

The first stage of the theory is about the initiation, for the programme to secure support, the change agents must connect to the environment. The people, the resources, new ideas, and government support that the SFP can receive for a successful change effort. Getting communities support is essential because it reduces much pressures coming from them since the schools will be dealing with groups who might have very different views of what education can and should be. The SFP was brought into the education systems across the world with the aim of diminishing starvation in the class as well as encouraging children to school and retention rates hence improving performances.

The second stage of the theory is the durability, in which the anticipated change and the institution are both changed in the process of “mutual adaptation” Change agents can influence mutual adaptation and project success by their choice of implementation strategy. For SFP to be successful, teachers need to be involved in dialogue with each other about a planned change effort.

The final stage is the incorporation stage where the changes introduced in SFP become a part and parcel of the school system. Successful application of SFPs in Kajiado Central is characterized by forecasting for adapting for change to the local setting. For instance, head teachers should secure support from all the stakeholders and they should obtain the essential managerial skills for effective sustenance of SFP.

RESEARCH METHODOLOGY

Research Design

A descriptive research was employed in this study. As noted by Rice, (2007), a descriptive research design addresses the characteristics of specific population of subjects. The characteristics of the target population were at a fixed point in time or at varying times for comparative purposes. Further, Lewis, Saunders & Thornhill (2009) points out that descriptive survey research design is characterized by collecting data systematically from a given population by use of questionnaires. A descriptive survey research design provided an appropriate technique to collect the data in relation to variables to determine the sustainability of the school feeding programme in Kajiado Central Sub-County Kenya. According to Kothari (2012), this design is preferred because it makes enough provision for protection against bias and maximizes

reliability. The research design was able to give more information concerning the variable in question as this study design is where the research requires a description of a phenomena or an object.

Target Population

Target population is the total group who would in the ideal world, be the subject a researcher is interested with in gaining information and drawing conclusion (Mugenda and Mugenda, 2009). The target population comprises an aggregate of 340 individuals with similar characteristics and in respect to a particular study. This is the population to which the study findings are ultimately generalized (Kothari, 2008). The study population of the study was the head teachers, deputy head teachers; the teachers in charge of SFP, education officers and SFP programme managers in Kajiado Central Sub County. According to the August 2018 Food Security Assessment report for Kajiado County, Kajiado Central had 110 schools under the SFP programme.

Sample Size and Sampling Procedure

Sampling was conducted in two stages. In the first stage, purposive sampling method was used in the selection of the sample schools, while in the second stage the same technique was used in selection of the respondents / informants, as well as the schools where the questionnaires were issued. According to Kothari (2003), purposive sampling is appropriate when selecting study subjects that meet a certain pre-determined criterion. In this case, the pre-determined criterion were persons with direct involvement in day-to-day running of the SFPs at the school level” as well as the beneficiaries. The study used Krejcie & Morgan (1950) formulae (Appendix VI) to determine the sample size. The sample size for the research was therefore be calculated from 340 persons involved in the day to day running of the SFPs in the schools. From the formulae, a sample size of 181 respondents was established.

$$S = XNP(1-P)/d^2 (N-1) + X^2P(1-P)$$

Where: $X^2=3.841$ Table value of chi square for I degree of freedom; $N=340$ population size; $P=0.50$ population proportion; $D=0.05$ degree of accuracy expressed as proportion

Thus;

$$3.841 * 85 = 326.485 / 0.8475 + 1.9205 + 1.824475 = 326.485 / 1.80 = 181.3 \approx 181$$

As computed, this is a relatively large sample size and therefore enhanced the representativeness of the sample, thus potentially increasing the accuracy and validity of the research findings (Kothari, 2004).

Research Instruments

The study used questionnaires to collect primary data from the respondents. Questionnaires are the most appropriate data collection tool particularly in survey studies (Mugenda & Mugenda, 2009). A questionnaire was chosen because it was easy to administer, gave the respondent sufficient time to arrive at a well thought out response and was free from researcher's bias. The questionnaire comprised of five sections. Section A comprised of respondents' general information of the respondents, Section B comprised of questions on community participation and school feeding programme sustainability, Section C comprised of questions on funding and school feeding programme sustainability, Section D comprised of questions on school management and school feeding programme sustainability while Section E comprised of questions on monitoring and evaluation and sustainability of the school feeding programme.

Data Collection Procedure

Data collection procedure started with the acquisition of a research permit. Once obtained, the researcher proceeded to the field in which drop and pick method was used. Drop and pick method was used since the respondents were all literate. The filled questionnaires were collected at an agreed later date.

Data Analysis Techniques

The collected data was analyzed using descriptive statistics and inferential statistics. Descriptive statistics comprised of frequencies, percentages, means and standard deviation while a correlation, multicollinearity tests and regression analysis were used for the inferential statistics. The data was analyzed and presented using tables as basic data presentation techniques.

RESEARCH RESULTS

The study targeted a sample size of 181 respondents from the public primary schools in Kajiado Central Sub County from which 170 filled in and returned the questionnaires making a response rate of 94%. This response rate was satisfactory to make conclusions for the study. From the analysis of findings, it was established that majority of the respondents (68.18%) indicated that they were SFP teachers. 48.8% of the respondents indicated that they had received food aid under the SFP for a period of 4-7 years. It was also established from the demographics that 52.4% of the respondents conceded that the government of Kenya was the main sponsor for the school feeding programme.

The first objective of the study was to assess how community participation influences sustainability of school feeding programme in public primary schools, Kajiado Central Sub County. It was evidenced from the descriptive statistics that majority of the respondents strongly

agreed that stakeholders' involvement in implementation of the programme enhances sustainability of SFP. A significant number of the respondents also agreed that there is a direct relationship between community engagement and sustainability of SFP. The study also established that effective communication between stakeholders and the community enhances sustainability of SFP. This was noted from the mean calculated of greater than 3.8 in all the cases, which indicated that most respondents agreed to the statement and the standard deviation calculated of less than 1.5 indicates that there was little variance from the mean value. From the bivariate correlation analysis, there is a strong positive relationship between community participation and sustainability of the school feeding programme (correlation coefficient 0.722**). It was also noted from the regression coefficients that holding other factors constant, a unit increase in community participation would lead to 0.456 ($p=0.002$) increase in programme sustainability.

The second objective of this study was to examine the extent to which funding influences sustainability of school feeding programme in public primary schools, Kajiado Central Sub County. From the descriptive statistics, it was noted that funding also had a significant influence on the sustainability of the school feeding programme. This was seen true by the mean calculated in the analysis. For Instance, it was noted that majority of the respondents strongly agreed that proper allocation of funds adequately contributes to the sustainability of school feeding programme. The study also noted that majority of the respondents agreed that a financial investment plan ensures maximum utilization of the funds and contributes to sustainability of school feeding programme. It was also evident from the findings that majority of the respondents agreed that management and accountability systems should be put in place to ensure funds are used efficiently to enhance sustainability of school feeding programme. This was seen true from the mean calculated of greater than 3.5 while the standard deviation calculated of less than 1.5 indicated uniformity in the responses. From the linear correlation analysis, the findings reveal a strong positive relationship between funding and programme sustainability (correlation coefficient 0.681**) while from the regression coefficients, when other factors are held constant, a unit increase in funding would lead to 0.842 ($p=0.000$) increase in programme sustainability.

The third objective of the study was to assess the extent to which school management influences sustainability of school feeding programme in public primary schools, Kajiado Central Sub County. From the analysis of the descriptive statistics, it was clear that the Board of Management had a significant influence on the sustainability of the SFP. This was noted from the response from the analysis of findings. For instance, it was noted that majority of the respondents strongly agreed that the Board of Management advices on matters distressing the general development of the school and the well-being of the pupils. Also noted was that most respondents agreed that there is involvement of Board of Management during implementation and monitoring of SFP to ensure there is sustainability. From the findings, majority conceded that the Board of Management ensures efficient and effective coordination of resources and logistics of school feeding programme to enhance sustainability. This was seen true by the mean calculated of

greater than 3.7. The standard deviation calculated of less than 1.5 indicated uniformity in the responses from the respondents. From the correlation analysis, A positive relationship was established between Board of Management and programme sustainability (correlation coefficient .572**). When other factors are held constant, a unit increase in the Board of Management would lead to 0.873 ($p=.000$) increase in programme sustainability.

The fourth objective of the study was to determine how monitoring and evaluation influences sustainability of school feeding programme in public primary schools Kajiado Central Sub County. From the analysis of the descriptive statistics, it was noted that majority of the respondents strongly agreed that monitoring and evaluation procedures should be employed to ensure SFP are effectively managed and sustained. The study also noted that majority of the respondents agreed that monitoring and evaluation enhances program tracking and sustainability of School Feeding programme. This was seen true by the mean calculated of greater than 3.7. The standard deviation calculated of less than 1.5 indicated uniformity in the responses from the respondents. From the correlation analysis, A positive relationship was established between monitoring and evaluation and programme sustainability (correlation coefficient .572**). When other factors are held constant, a unit increase in monitoring and evaluation would lead to 0.873 ($p=.000$) increase in programme sustainability. The coefficient of determination as measured by the R-square (R^2) (76.6%) shows that all the four predictor variables explain 76.6% of the total variation in sustainability of the School Feeding Programme in Kajiado Central Sub County, Kenya.

INFERENCE STATISTICS

The study used correlation analysis to establish the association between Community participation, funding, Board of Management and monitoring and evaluation with programme sustainability. Two-tailed Pearson correlation (R) was used to establish the same at 95% confidence level.

From the results, a strong positive R -value 0.722 was established between community participation and programme sustainability. Funding and programme sustainability had a correlation value of 0.681. This depicts a moderate and linear relationship between funding and programme sustainability. Also noted was that Board of Management had a correlation value of .572 which indicated a significant, positive and linear relationship with programme sustainability. The study also noted that monitoring and evaluation had a correlation value of 0.516 with programme sustainability. This depicts a positive linear relationship between the predictor variable and programme sustainability.

Table 1: Correlation Matrix

		Community Participation	Funding	Board of Management	Monitoring & Evaluation	Programme Sustainability
Community Participation	Pearson Correlation	1				
	Sig. (2-tailed)	.				
Funding	Pearson Correlation	0.561	1			
	Sig. (2-tailed)	0.002	.			
Board of Management	Pearson Correlation	0.891	0.358	1		
	Sig. (2-tailed)	0.019	0.032	.		
Monitoring & Evaluation	Pearson Correlation	0.092	0.673	0.147	1	
	Sig. (2-tailed)	0.862	0.143	0.781	.	
Programme Sustainability	Pearson Correlation	0.722	0.681	0.572	0.516	1
	Sig. (2-tailed)	0.013	0.001	0.008	0.005	.
	N	170	170	170	170	170

The study conducted multiple regression analysis of:

$$Y = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \varepsilon$$

Where: β_0 is the regression model constant; $\beta_1 - \beta_4$ are the regression coefficients. Y is programme sustainability. χ_1 is community participation, χ_2 is funding; χ_3 is Board of Management; χ_4 is Monitoring and Evaluation, and ε is the error term obtained from the F-significance from ANOVA.

Table 2: Model Goodness of Fit

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
0.877	0.769	0.732	0.00455456	1.989

a. Predictors: (Constant), Community participation, funding, Board of Management, monitoring and evaluation

b. Dependent Variable: Programme sustainability

Table 2 above presents the regression model goodness of fit to establish if regression analysis is suited for the data. Pearson Correlation value of 0.853 was established depicting that the independent variables (community participation, funding, Board of Management and monitoring and evaluation) had a very good linear relationship with the dependent variable (programme sustainability). An R-square value of 0.769 was established depicting that this relationship was very strong and community participation, funding, Board of Management and monitoring and evaluation account for 76.9% of the SFPs sustainability. A Durbin Watson test for autocorrelation value of 1.989 was established depicting no (serial) autocorrelation within the

regression model residuals. Thus, the random (non-stationary) data was used in the regression analysis.

Table 3: Analysis of Variance (ANOVA)

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.368	4	0.592	2.655	0.001
Residual	17.617	79	0.223		
Total	19.985	83			

ANOVA analysis was conducted to determine the significance of the regression model. An F-significance value of 0.001 was established depicting that the regression model had low significance (confidence level) ($p < 0.05$).

Table 4: Regression Coefficient

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.946	1.355		1.500	0.574
Community Participation	0.456	0.209	1.634	8.901	0.002
Funding	0.842	0.062	0.927	33.335	0.000
Board of Management	0.873	0.149	1.388	3.566	0.005
Monitoring and Evaluation	0.345	0.058	0.992	2.994	0.012

a. Dependent Variable: Programme Sustainability

The study established the following regression model:

$$\text{Programme Sustainability} = 4.946 + 0.456 * \text{Community Participation} + 0.842 * \text{Funding} + 0.873 * \text{Board of Management} + 0.345 * \text{Monitoring and Evaluation}$$

The study established that when community participation, funding, Board of Management and monitoring and evaluation are zero, the programme’s sustainability would be 4.946. The study also established that holding other factors constant, a unit increase in community participation would lead to a 0.456 unit increase in programme sustainability; a unit increase in funding would yield a 0.842 unit increase in programme sustainability; a unit increase in Board of Management would result in a 0.873 increase in programme sustainability. When other factors are held constant, a unit increase in monitoring and evaluation would yield a 0.345 increase in programme sustainability. From the coefficients, it was established that each of the variables; community participation, funding, Board of Management and monitoring and evaluation were significant in explaining the sustainability of the school feeding programme of primary schools in Kajiado Central Sub County, Kenya.

CONCLUSIONS

The study concluded that community participation, funding, Board of Management and monitoring & evaluation were significant factors in ensuring sustainability of the school feeding programme in Kajiado Central Sub County, Kenya. The study concluded that community participation enhances the sustainability of school feeding programmes. Public primary school offer certain advantages like increasing the contact of education to the marginalized communities, leading to better rapport between the stakeholders such as parents and teachers, officials and others, making the parents to know much about what is happening in their schools.

The study also concludes that donor funding towards school feeding programme depend on the donor policies and the type of programme being funded. The study asserted that lack of innovative and creative ways of reducing costs associated with school feeding programme can affect its sustenance, funding remains a major challenge towards achieving a sustainable school feeding programme. The study concluded that funding and funds utilization influence sustainability of school feeding programme.

RECOMMENDATIONS

On the basis of the conclusions obtained, it is recommended that the programme managers and policy makers should build a consensus on policies and objectives that focus on how SFP can effectively contribute to improving education and meet the nutrition and health needs of school age children. The government and all partners in support of the SFP including NGOs should develop a targeting criteria and mechanisms that would ensure effective sustainability of the school feeding programme.

In addition, the Board of Management and the head teachers should strengthen the community and parental involvement in organizing and sustaining the SFP. This is because community assisted schools give parents the opportunity to become more aware of what goes on in the school. Furthermore, through proper integration, the parents could support the SFP by helping to pay cooks as well as providing fuel and water thus accept it as their own responsibility. The Board of Management should analyze and identify alternative financing and cost options, this could be achieved by starting income generating activities to raise funds to supplement the funds issued by government. In addition, initiate advocacy campaigns in which well-wishers from the community, political leaders, NGOs and church organizations contribute funds to support the SFP. They should also provide funds in good time for the feeding programme and ensure it is adequate for the schools according to the pupil population. In addition, the government should cushion schools from the escalating food prices by giving them some additional funds when prices shoot up unexpectedly to ensure that adequate food supply is purchased

Monitoring and evaluation tools need to be put in place in order to ensure there is accountability in usage of the food provided to the school and there is a reporting tool which can help during

audits. The National and county government should ensure that there is proper and regular feeding programme in all public primary schools in the ASAL regions characterized by acute food insecurity.

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