



## Office of Evaluation

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### **Impact Evaluation of WFP School Feeding Programmes in Kenya (1999-2008): A Mixed-Methods Approach**

**Vol 1**

### **Full Evaluation Report**

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## **Disclaimer**

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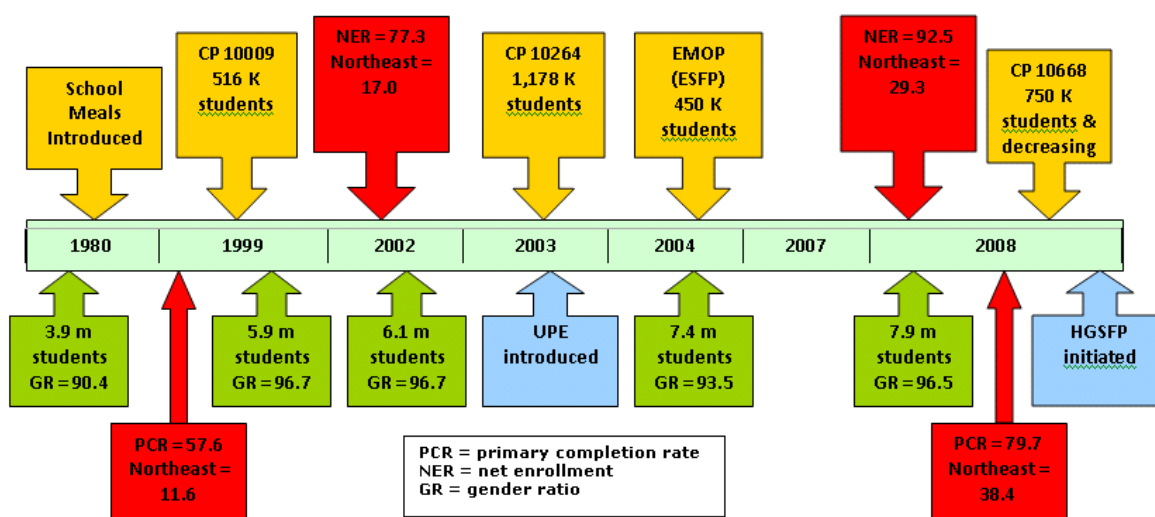
## Executive Summary

1. This evaluation covers a ten-year period of WFP-assisted school feeding in Kenya. In the global context of WFP, Kenya is one of the largest and most long-standing programmes of school feeding. Kenya ranks 147 out of 179 in the 2009 Human Development Index which places it toward the bottom of the middle-income class of countries (UNDP 2010). Kenya is an oil-importing, food-deficit country with an average per capita income of US\$680 (World Bank 2009). The country imports 20 percent of cereal needs. Although eighty percent of its almost 40 million people live in rural areas, most of the land is not suitable for rainfed agriculture and is subject to severe drought. The largest pockets of vulnerability are concentrated in the arid and semi-arid regions of the country (the ASAL), which account for around two-thirds of the total land mass.

2. Although WFP-assisted school feeding began in 1980, the significant growth period occurred over the last decade (see Figure below). The expansion of school meals in Kenya is a result of two major factors: the first has been the increased frequency of food crises due to drought and political violence, and the second was the introduction of free compulsory primary education for all children in 2003. The three school feeding activities under review here are the Country Programme 1999-2003 (CP 10009), Country Programme 2004-2008 (CP 10264), and the school feeding components of Emergency Operation (EMOP) activities during 2004-07. The WFP-assisted school meals target all schools in the arid lands, the most vulnerable schools in semi-arid lands, and the informal urban slums in Nairobi and Mombassa.

3. The predominant goals of the WFP/Kenya school meals programmes are consistent and coherent with national priorities and policies that emphasize universal primary education and healthy children in school.

### A historical timeline of school feeding in Kenya



## **Objectives of the Evaluation**

4. The objectives of this evaluation are as follows:

- i. Evaluate the outcomes and impacts achieved so far from the various modalities that have been used in relation to stated educational, gender and nutritional objectives;
- ii. Evaluate outcomes and impact achieved in relation to WFP's new social safety net objectives (even though these were not explicitly included in the programme design) and assess the extent to which the programme has already the elements or potential necessary to meet newer the Government of Kenya and WFP policy objectives concerning social safety nets and nutrition; and
- iii. Identify changes needed to enable fulfilment of potential to contribute optimally to Government of Kenya objectives and the objectives of the current WFP Strategic Plan and proposed School Feeding Policy.

## **Methodological Approach**

5. The methodology of this evaluation combines qualitative and quantitative approaches. The quantitative component is based on a survey conducted in ASAL districts and in Nairobi's slum areas. The sample for this survey was drawn from 68 schools, randomly selected, 1352 households, randomly selected from enrolment lists in these schools (approximately 20 per school), and 1341 primary age students (approximately, one from each household). Three separate questionnaires were applied to these three samples. From each school, data was collected on infrastructure, staff, enrolment and attendance, exam scores, school feeding activities, and the parental involvement in the school; from the households, data was collected on livelihood profiles, health and consumption, income, and educational patterns; the individual students provided data on diet and consumption using 24-hour recall.

6. In the absence of baseline data that could establish indicator levels prior to the introduction of school feeding, a control group was compiled using a randomly-selected set of schools from the semi-arid districts that had offered only a partial complement of school meal days over the previous two school terms. Thus, the outcome indicators are compared between schools with mostly uninterrupted school feeding and those with intermittent or no school meal days for the first two terms of 2009. The control schools, once assisted by WFP, had been handed over in 2008 to the Government to be included in its Home-grown School Feeding Programme (HGSFP). The Government support did not fully begin feeding, however, until around July 2009. The quantitative analysis thus draws comparisons across the intervention and control schools, across "agro-ecological zones" (urban schools, Government assisted semi-arid schools, WFP-assisted semi-arid schools and the arid schools), and across three vulnerability groups created using principal components techniques. The vulnerability comparisons apply only to the household level data and not to the school level data.

7. The evaluation's qualitative component employed a Participatory Impact Assessment (PIA) methodology with 16 of the sampled schools. This was a purposive sample drawn from the different arid, semi-arid, and urban areas, including the control group schools. The evaluation team spent approximately two days at each school, conducting participatory sessions with students, parents (including school management committee members), school staff, community leaders and parents who do not send their children

to school. In addition, past school feeding beneficiaries identified within the community were interviewed at length to better comprehend the dynamics relationship between school meals and success in later life. These oral accounts of the impact of the school meal on an individual's life are referred to as 'tracer studies'.

### **Results: Educational and Learning**

8. Based on both the quantitative and qualitative data, the analysis shows that the school meal has a significant positive effect on such indicators as attendance rates, primary completion rates, continuation to secondary school, and exam scores. Specifically, enrolment and attendance rates were higher, particularly in the early grades, in those schools that offered the school meal. The primary completion rate was also higher when meals were present, particularly for girls. Also, a higher percentage of children move onto secondary school after graduation from the primary schools that had offered meals. With regard to learning indicators, the children in schools with regular meals scored higher in their last exam, and a greater share of eighth grade students had scored over 300 in their KCPE finishing exam. In general, educational outcomes are more positive in the urban and less encouraging in the semi-arid and arid schools.

9. The school meal, however, does not reverse a major negative trend in educational outcomes. There is a significant attrition rate in primary school, more marked in case of girls in rural schools, as the students approach puberty. In the schools in arid and pastoralist semi-arid areas, most students do not finish primary school and among those who do, few move on to secondary school. Again, rural girls are less likely to finish primary school or to continue their studies.

### **Results: Nutrition**

10. Based on qualitative interviews and the analysis of 24-hour diet recall, the evaluation found a significant and positive contribution of the school meal to reducing hunger and to nutritional intake. The nutritional analysis assessed the value of the diet to recommended daily allowances (RDAs) of energy, protein, Vitamin A, iron, and iodine. Less than 10 percent of the children had reached RDAs for the target nutrients (except Vitamin A) during the previous day. The school lunch accounted for more than half the attained RDAs for about 40 percent of the students. The qualitative studies reinforced the finding that the school lunch provides the largest meal of the day and in frequent cases the only meal. School staff and parents also noted that a regular school meal improved the health of children, reduced the incidence of illness, and increased attentiveness and interest of students in the classroom. With regard to nutritional outcomes, then, the school meal provides important access to a nutritional meal, but the school lunch does not compensate for the inadequate diet intake at home, especially among the rural poor. This finding is further supported by the evidence that many households prepare less food at home when the child receives a meal at school.

### **Results: Safety Net**

11. The analysis determined that there are multiple levels of safety net effect derived from the school meals. Most directly, there is an economic benefit to the household from the school meal. In terms of cash savings (reduced food purchase), it represents between 4 percent and 9 percent of annual household income. The school lunch also allows parents to leave their children in school during the entire day, which frees up time that almost 30 percent of households (and slightly more urban ones) use to expand income-earning activities. More indirectly, the 'tracer studies' demonstrate that when children graduate from school and obtain a stable livelihood, there is a strong pattern of

reverse assistance to the stem households. This commitment to the household is deeply rooted and widely acknowledged by household members, and to the extent that school feeding improves completion rates, there is an important definite, albeit hard to measure, well-being impact.

### **How does School Feeding create Results?**

12. In the context of these overall successes of the SFP over the time period, there are areas where implementation might be improved.

13. The generalized absence of the elements of the Essential Package (EP) is a deterrent to the expected results of the school meals programme. This evaluation found that the physical and learning environments of the school are critical complements to the school meal. Where these environments are deficient, the health and learning outcomes of school meals are reduced. The priority elements of the EP that require urgent attention are the water and sanitation infrastructure in the schools. The lack of potable water, washing facilities, and adequate latrines is widespread. Water is particularly critical since food is sometimes not prepared because of water and the provisioning of water has fallen upon the shoulders of the students and parents. More permanent solutions to the water crisis are urgently needed.

14. Another priority element of the EP is the use of fuel-efficient cooking facilities (in sheltered structures), because the responsibility of firewood lies in the hands of parents and, in the case of water, is often relegated to children themselves. In addition, there is need for more emphasis on general nutritional and health orientation. Although present in some school syllabi, it is not adequately or systematically delivered to students or parents. The integration of these EP elements requires a much greater level of institutional collaboration than WFP has been able to mobilize in the past.

15. Two other key factors that constrain the positive school feeding effect in primary schools are the quality of the learning environment and the support of the parents and community to education. In those schools with meals, the overall student population is higher as is the classroom size and the student-teacher ratio. The lack of teacher time, of study spaces, and of school materials diminishes the likelihood that an appreciation of learning will be instilled and will propel students toward higher educational outcomes.

16. Similarly, the level of parental involvement in the school and in the education of their children is not adequate. Current MOE policy defines the role of the School Management Committees (SMC's) in terms of a set of tasks and responsibilities, including the supervision of several aspects of school feeding. But SMC in the schools visited do not systematically seek to promote community participation in the school other than exacting support (financial contributions, firewood, water, labour, etc.) from the parents. Currently, in most of the schools visited, the school is perceived as a Government (or church) building and not as a community asset. Experience from elsewhere indicates that if the school itself becomes a platform for broader community development, this will help erode the constraints that separate school from home and create cultural tensions. For example, using the school as a centre of learning for all members of the community, where adult education takes place, where technical training for farmers and pastoralists can occur.

17. The intervention set of EP and HGSFP represent a step in the direction of making the school a community asset. The gradual expansion of the Government's HGSF programme is also the key WFP sustainability strategy for school feeding. The success of HGSFP, however, will depend upon an increased level of inter-sectoral collaboration. The



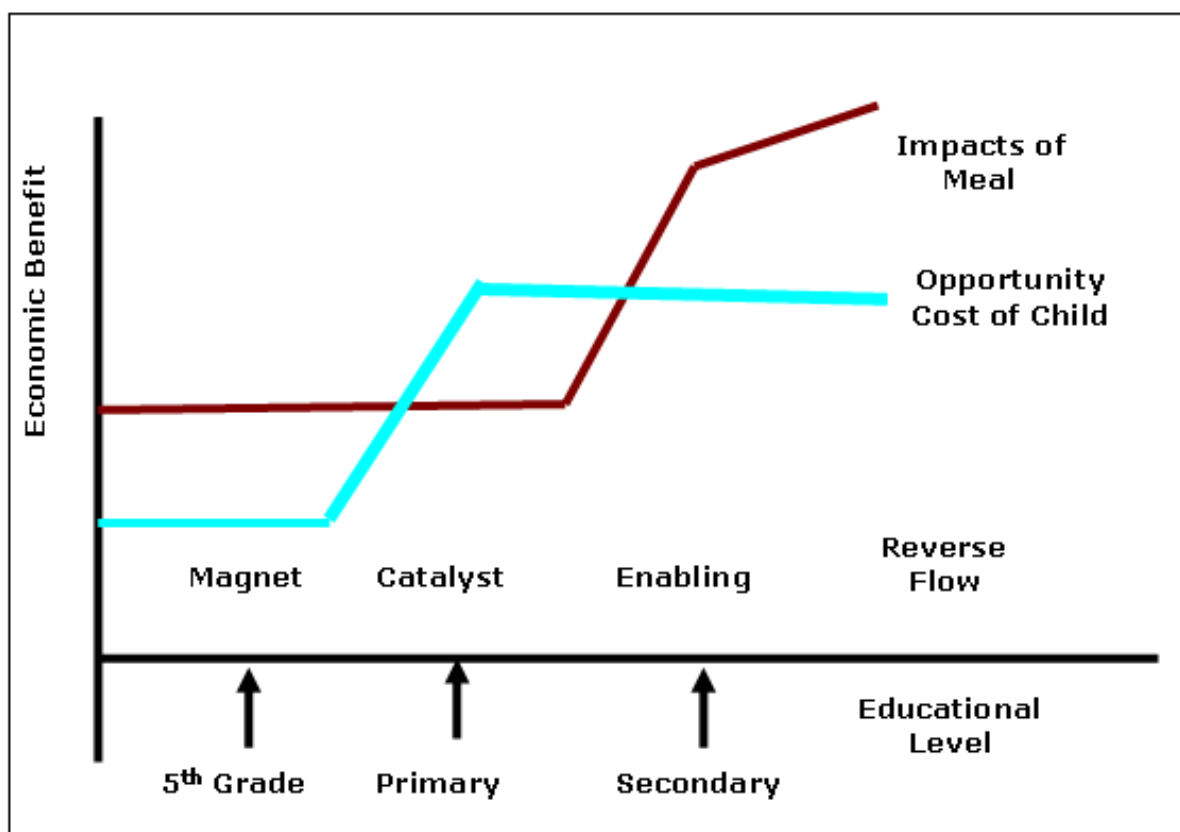
inter-ministerial cooperation necessary for this programme to generate the expected community-wide development goals is still poorly defined and needs WFP support. Although WFP is not responsible for the design or management of the HGSFP, it is committed to institutional capacity building within Government. By thinking strategically about its role in this school-based development approach, WFP can play a key role. As an example, many ASAL districts have not yet developed the productive capacity to supply food for school meals and can only partially take advantage of the programme benefits. During a transition period, WFP could support MOE in compensating food shortages (or potential market distortions) with a food bank option until the districts develop an adequate procurement infrastructure.

18. There is great school-specific variability in the particular factors that constrain the effectiveness of the programme. For example, the team found discrepancies in the number of meal days programmed and the number of meal days reported at the school (particularly in the semi-arid districts assisted by WFP); portion sizes were considered inadequate at certain schools (perhaps due to lack of food supplies); and children were often obliged to provide water and firewood.

19. Such challenges are to be expected in a complex programme in a difficult environment and WFP field staff were found overall to be highly skilled and dedicated. However, currently, the focus of the monitoring process is primarily on food management, including delivery, storage, preparation, and distribution. Problems, when encountered, are identified ex post and reported to Nairobi. The team concluded that the factors that constrain the effectiveness of the meal programme could be monitored more systemically and in a more timely fashion.

### **The Impact Chain**

20. There is an impact chain that describes the dynamic relationship between school meals and improved livelihoods (see figure below). To assert that the presence of school meals by itself can result in healthy, educated children (the overall WFP objective) misinterprets the reality of household decision-making. In the analysis, it was clear that the school meal plays a major role in attracting children to school and exposing them to the experience of learning. Children do come to school because food is available, especially at an early age. The evaluation calls this the "magnet" effect. If the school environment is conducive, then a "catalyst" effect can occur, by which a student acquires a love of learning and begins to perceive optional pathways in life. The school meal is not sufficient to trigger the catalyst effect, and there are a number of other factors that must be present, such as adequate infrastructure and a nurturing learning environment. As a child approaches puberty, his/her value to the household becomes significantly greater than the (direct) value of the school meal, and there are economic and cultural pressures for a child to abandon the education option. At this point, the children who do pursue a secondary education often do so because of a supportive family and community environment or the intercession of a "well-wisher", perhaps an educated sibling, an NGO programme, or another basis of support. The evaluation terms this the "enabling" effect, and it involves school feeding only to the extent that a school meals programme can be designed to break the economic and cultural constraints.



## Conclusions

21. Over the last ten years, WFP in partnership with the Government of Kenya and NGO counterparts has implemented its school meals programme with overall effectiveness and efficiency. It has targeted the most vulnerable populations, developed effective partnerships with the Government at both the national and local levels, and systematically adjusted the scope of the feeding operation to meet changing needs and circumstances in a timely fashion. Its school feeding programme is fully relevant to and coherent with Government priorities in the educational and health sectors.

22. Overall, the gender parity objectives of the WFP country programmes are being achieved in terms of enrolment and attendance, but not in terms of completion rates. Again, this result cannot be solely attributed to the presence of the meal, because of the binding non-food constraints to female education.

23. However, there is one overriding conclusion that has been carefully examined and analyzed. It is that the beneficial impacts attributable to school feeding are highly limited if one attempts to extract school feeding from the larger context of how learning, health, and livelihood outcomes are achieved. School feeding without the appropriate learning environment and family/community support is a weak intervention and its impacts are mostly restricted to food security outcomes. It follows, therefore, that a school feeding programme which does not systematically incorporate other strategic programmatic interventions that reduce the economic, social, and cultural constraints to health and learning will not generate the stated goals and objectives that substantiate and justify school feeding investments, such as the WFP Country Programme. On the other hand,

with inter-institutional and inter-sectoral cooperation and coordination, the “value” of food in school meals can be significantly increased in terms of the desired results.

24. The major implication of this conclusion is that a comprehensive approach involving cross-sector, inter-agency collaboration is necessary to maximize the gains of school feeding. The Government of Kenya has made an important step in this direction by integrating improved health practices and interventions into the school context and by introducing the HGSFP as a sustainable and community approach to school feeding. These early successes should encourage even more ambitious institutional dialogues and creative programming to create seamlessness between school and home learning environments to maximize the impacts of school meals. Due to its extensive experience and expertise in Kenya, WFP is in a key position to contribute significantly to this process.

## **Recommendations**

### **A. *Recommendations within the purview of WFP:***

**Recommendation 1: WFP/Kenya should re-orient the monitoring role of its field staff.** The evaluation team recommends a reorientation to an ex ante system that monitors the key indicators that impede school meal effectiveness, such as (seasonal) lack of firewood and water (or the burden of providing them), student-teacher ratios, student-classroom ratios, sudden changes in enrolment (e.g. due to violence), deterioration of physical infrastructure. The Nairobi country office would manage and analyze such school profile indicators to anticipate when problems are likely to occur in which schools, to develop prior field response strategies, and to share information with other development actors in the district.

**Recommendation 2: WFP should consider piloting a fortified morning biscuit intervention in the particularly vulnerable ASAL schools.** Qualitative evidence suggests that around half the children come to school hungry. Yet, children need energy at the beginning of the day to enhance overall learning. Since many parents are not able to provide a breakfast in the household, a fortified snack could provide the energy needed for concentration. This intervention could be implemented on a pilot basis, specifically targeting a limited number of the most vulnerable semi-arid and arid schools where poverty constraints are most binding. The results of this initiative would be rigorously evaluated (with a control and baseline).

**Recommendation 3: initiate an advocacy campaign in which “graduates” from participating communities—living locally or outside the region—to contribute to funds that support scholarships in recognized secondary schools for girls with high potential.** One of the major constraints to the education of girls is the cultural dissonance between traditional pathways and an educational pathway. Part of the cultural context is the perceived value of girls to future household plans (e.g. through marriage). This constraint could be addressed directly by WFP and its partners through a prestigious province-wide scholarship programme that builds upon private individual and community contribution. The scholarships (and the winners) would be widely disseminated through the media and promoted as a source of community/ethnic pride. Such programmes not only create the “enabling” effect discussed in this evaluation but also help to involve the community in the affairs of education.

**Recommendation 4: introduce mentorship programmes to increase the effectiveness of school meals.** Under this initiative, the better-performing schools would meet with the more poorly-performing schools to share the best practices at their

schools and to create mechanisms of mutual support. Currently there appears to be little opportunity for school administrators, teachers, and SMCs to interact within a given district or province. A Mentor's Award could be presented to a mentor school—perhaps with resources to invest in an aspect of school meals. Such an incentive again is designed to stimulate community pride and ownership in the school as well as to share best practices.

**Recommendation 5: integrate WFP food aid modalities (e.g. FFA/FFT) to enhance the school environment and encourage community participation.** WFP has a range of food aid modalities and under the last CP used food aid to improve school physical infrastructure (in 500 schools). The expanded monitoring of non-food indicators (Recommendation 1) provides the information to develop needs-based integrated packages of food aid interventions that address learning constraints (such as fence-building to keep animals out, water source protection, dining hall construction, etc.) and attract community members to the school grounds for training sessions that focus on health and hygiene, animal husbandry, IGA activities, etc. Partnerships with NGOs can be employed to implement this goal.

**B. Recommendations that require collaboration between institutions and partnerships:** *These recommendations cannot be implemented solely by WFP, for they require an integrated institutional approach that involves the effective participation of different Government and other agencies. They are offered as WFP looks to future programming options in the light of the current corporate strategic plan and new School Feeding Policy. The team acknowledges that WFP has a food mandate and recognizes that institutional cooperation is fraught with inherent challenges. On the other hand, the stated core goals of providing health and education through the school meal programme cannot be met with food alone. Thus,*

**Recommendation 6: as a major priority within the Essential Package, move to develop a school water strategy in collaboration with the Government of Kenya partners, sister UN agencies, NGOs, and donors.** The lack of potable water is a major constraint in most schools in the ASAL districts, and it is a major deterrent to the achievement of the learning and health results of school feeding. Water scarcity is often a seasonal as well as drought-related constraint. Based on field monitoring information (Recommendation 1), WFP can begin by identifying the nature of the water constraint in each of the SFP schools. In collaboration with institutional partners (Government and other development agencies), including for example UNICEF's WASH programme and Child Friendly Schools initiative) create a water improvement plan that can be used as a blueprint to present to donors. Again, alternative food aid modalities can be used to implement water improvement projects.

**Recommendation 7: The major programmatic recommendation of this evaluation is that WFP develop comprehensive integrated strategies to maximize the development impacts of the school meal.** The school meal has inherent, if limited value; but in combination with other complementary interventions that address the school, home, and community environmental constraints, the power of school meals can increase dramatically. In practice, this means that school feeding would not be programmed in an isolated manner. Similar to the very effective food security working groups, WFP could begin by advocating for expansion of the mandate of existing working groups (e.g. the School Nutrition Health and Meals group in the MOE) or integrating new members from relevant agencies. A precedent exists for such collaboration in the new MOE/MOPHS integrated model. This group would assume the responsibility of a comprehensive school feeding approach with multiple, complementary interventions directed at specific needs.

**Recommendation 7a: The first action of the expanded working group would be to take advantage of the Kenya Educational Sector Support Programme (KESSP) II timing and process to propose a needs assessment of all the primary schools in the country, beginning in the ASAL and urban slums.** This inter-sectoral needs assessment would build upon the current EMIS data base and would identify a set of key indicators at each school that address not only enrolment and attendance data, but also information on school infrastructure, pupil-teacher ratio, student-latrines ratio, water availability, kitchen and eating facilities, and other factors that influence the learning environment (see Recommendation 6 for water). The assessment —available to all stakeholders— would then form the basis for an integrated and coordinated approach to health and education through school feeding. It would also create a baseline for future assessment of KESSP progress.

**Recommendation 7b: The second action is to use school feeding to enhance the status of the school as part of the community.** Food brings children to school, but it can also be used to bring parents and other community members to school. The true potential to food lies in its magnet effect and how the gathering of parents and communities members at the school presents a major opportunity for learning and information sharing. Such approaches are not new and have been successfully institutionalized in Afghanistan where schools are centres for adult literacy and gender leadership courses; in Brazil where the associations of farmers have coalesced to produce food for school meals; in Sierra Leone where food monitors deliver HIV/AIDS awareness messages to parents and teachers at schools; and in Honduras where a rotation of mothers actually prepare the food and distribute it to the students.

## 1.0 Introduction

1. A convergence of three major changes in the context has stimulated a revision of focus and direction of WFP's work on school feeding in Kenya. First, increases in food prices and international and local transport costs without a corresponding increase in resources has resulted in a dramatic reduction in WFP's school feeding coverage in Kenya and creates a degree of urgency to reviewing priorities for optimum effectiveness. Second, the Government of Kenya National School Health Policy and Guidelines (2009) and the revision of the current KESSP open new opportunities as well as demands. Thirdly, the adoption of WFP's new Strategic Plan 2008-2011 and new School Feeding Policy 2009 have broadened the objectives of school feeding to become a key element of safety net programmes that enable households to maintain livelihood asset packages and endure transitory shocks.

2. Coupled with the fact that Kenya has one of the largest and long-standing school feeding programmes in WFP's global portfolio, this convergence of changes provides both the context and rationale for this mixed methods impact evaluation.

### 1.1 Evaluation Design

3. The objectives of this evaluation are those presented in the original terms of reference (Annex A):

- i. Evaluate the outcomes and impacts achieved so far from the various modalities that have been used in relation to stated educational, gender and nutritional objectives;
- ii. Evaluate outcomes and impacts achieved in relation to WFP's new social safety net objectives (even though these were not explicitly included in the programme design) and assess the extent to which the programme has already the elements or potential necessary to meet newer the Government of Kenya and WFP policy objectives concerning social safety nets and nutrition; and
- iii. Identify changes needed to enable fulfilment of potential to contribute optimally to the Government of Kenya objectives and the objectives of the current WFP Strategic Plan and proposed School Feeding Policy.

4. The ten-year time frame of the evaluation covers the period 1999-2008 (Country Programmes 10009 and 10264) and includes the school feeding component of the Emergency Operational Programme (EMOP 10374) from 2004-2007.<sup>1</sup> These programmes cover the ASAL, or the arid and semi-arid lands of Kenya, and Country Programme 10264 has also expanded school feeding in the spontaneous urban settlements of Nairobi and Mombasa. As Figure 2 shows, the ASAL region constitutes about two-thirds of the country from the coastal districts in the east and southeast to the districts to the north and northwest. In the arid districts, all primary schools are targeted by WFP assistance; in the semi-arid districts and urban settlements, only the areas most vulnerable to food insecurity are targeted.

5. The evaluation is focused on the intended outcomes specifically designed into the WFP programmes for this period, and it assesses a set of concrete indicators associated with those outcomes. Thus, the evaluation considers changes in such key indicators as school

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<sup>1</sup> A small amount of WFP-assisted school feeding occurs in the refugee camps of Kakuma and Dadaab under a PRRO. Because of its limited scale and unique implementation strategy, this activity is not included in the evaluation, as per the TOR.

enrolment and attendance, gender ratios, food security and nutrition, and student performance. This part of the evaluation directly addresses the effectiveness of these programmes with regard to intended outcomes and impact. Figure 3 below shows the logic of the school feeding interventions emerging from the project documents. The format is deliberately adapted from the logic model in the WFP School Feeding Policy 2009, which carries forward education objectives and indicators from the past and adds to them. In this way, data collected during this evaluation on key indicators that are in use under the new policy can serve as baseline data for future evaluation. The second page shows objectives and outcomes from the new Policy that were not explicit in past operations but have been considered possible ancillary outcomes.

**Figure 1 A coupled logical framework for WFP school feeding, 1999-2008<sup>2</sup>**

SAFETY NET				
INPUT	OUTPUT	TYPE OF OBJECTIVES	INTENDED OUTCOMES	IMPACTS
MICRO-NUTRIENT FORTIFIED MEALS, SNACKS, TAKE-HOME RATIONS WITH DE-WORMING	NUMBER OF CHILDREN FED, RATIONS AND DE-WORMING TABLETS DISTRIBUTED, SCHOOLS REACHED	Nutrition	Improved micronutrient status of school children <i>*Indicator: Quality &amp; diversity of diet in school &amp; at home</i> Improved calory and protein intake <i>*Indicator: Kcal transferred to schoolchildren in school &amp; at home</i> Enhanced child nutrition, health & growth; decreased morbidity <i>*Indicator: household morbidity rates</i>	Improved learning <i>*Indicator: Rate of transition to secondary school</i> <i>* Indicator: Scores in final primary school exam</i>
		Education	Increased enrolment <i>Indicator: Enrolment: average annual rate of change in number of boys/girls enrolled</i> Increased attendance <i>Indicator: Attendance Rate</i> Increased retention/Decrease in school dropout <i>Indicator: Retention rate/Dropout rate</i> Improved school achievement <i>Indicator: Promotion rate</i> Short term hunger alleviated leading to improved child cognition <i>Indicator: Teachers' (evaluation added: parents' &amp; students') perception of children's ability to concentrate and learn in class</i> Completion of basic education <i>Indicator: Pass Rate</i> Essential Package interventions at school (safe water, fuel-efficient stoves, woodlots) promoted <i>Indicator: Proportion of schools with assets in place</i> School infrastructure (school buildings, school kitchens, access roads) promoted <i>Indicator: Proportion of schools with school assets in place</i>	Increased HH human and financial capital <i>*Indicator: social mobility</i> Increased lifetime earnings of targeted children Increased access to education for girls
		Gender	Increased gender equality in education <i>Indicator: Gender disaggregation of girls to boys for all indicators shown <u>underlined</u> above</i>	Increased HH human and financial capital <i>*Indicator: social mobility</i>

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<sup>2</sup> \* Indicators developed and used by the current evaluation.

Light grey highlighting concerns objectives and indicators from the WFP School Feeding Policy 2009 that were explicit in the Project Documents for school feeding in Kenya from 2004.

Dark grey highlighting concerns objectives that were also explicit objectives in the Project Documents for school feeding in Kenya from 1999 to 2008.

Figure 1 cont.

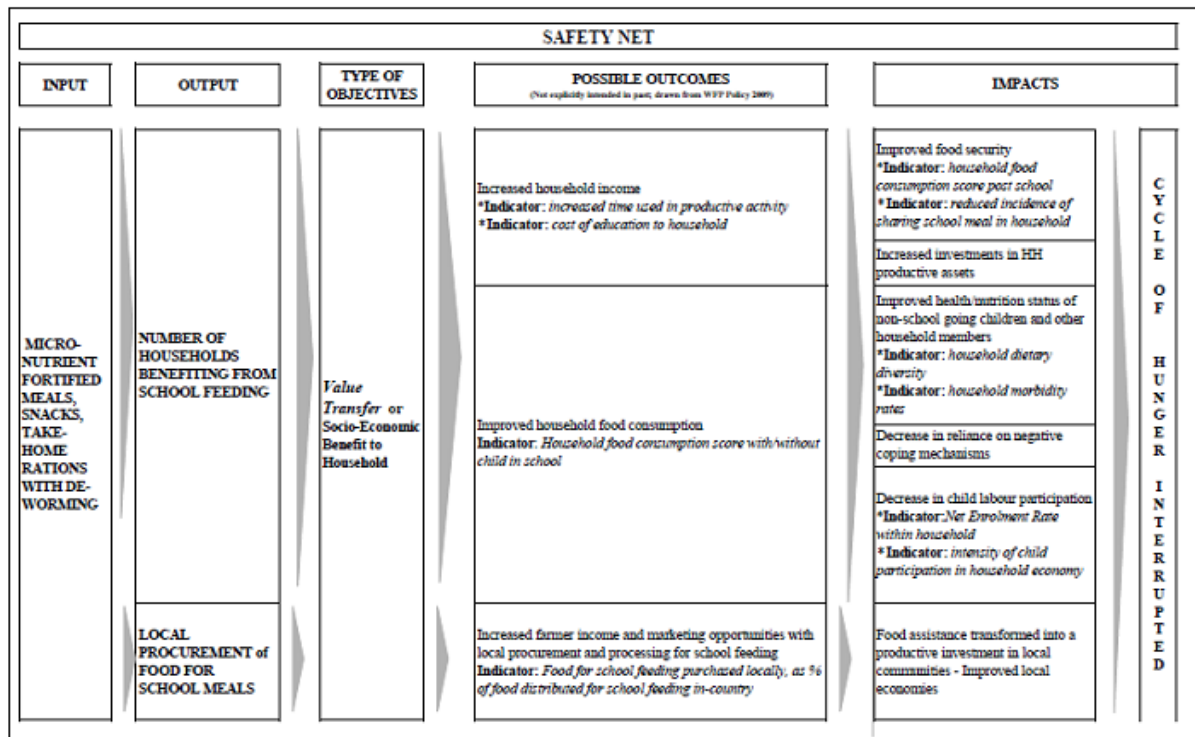
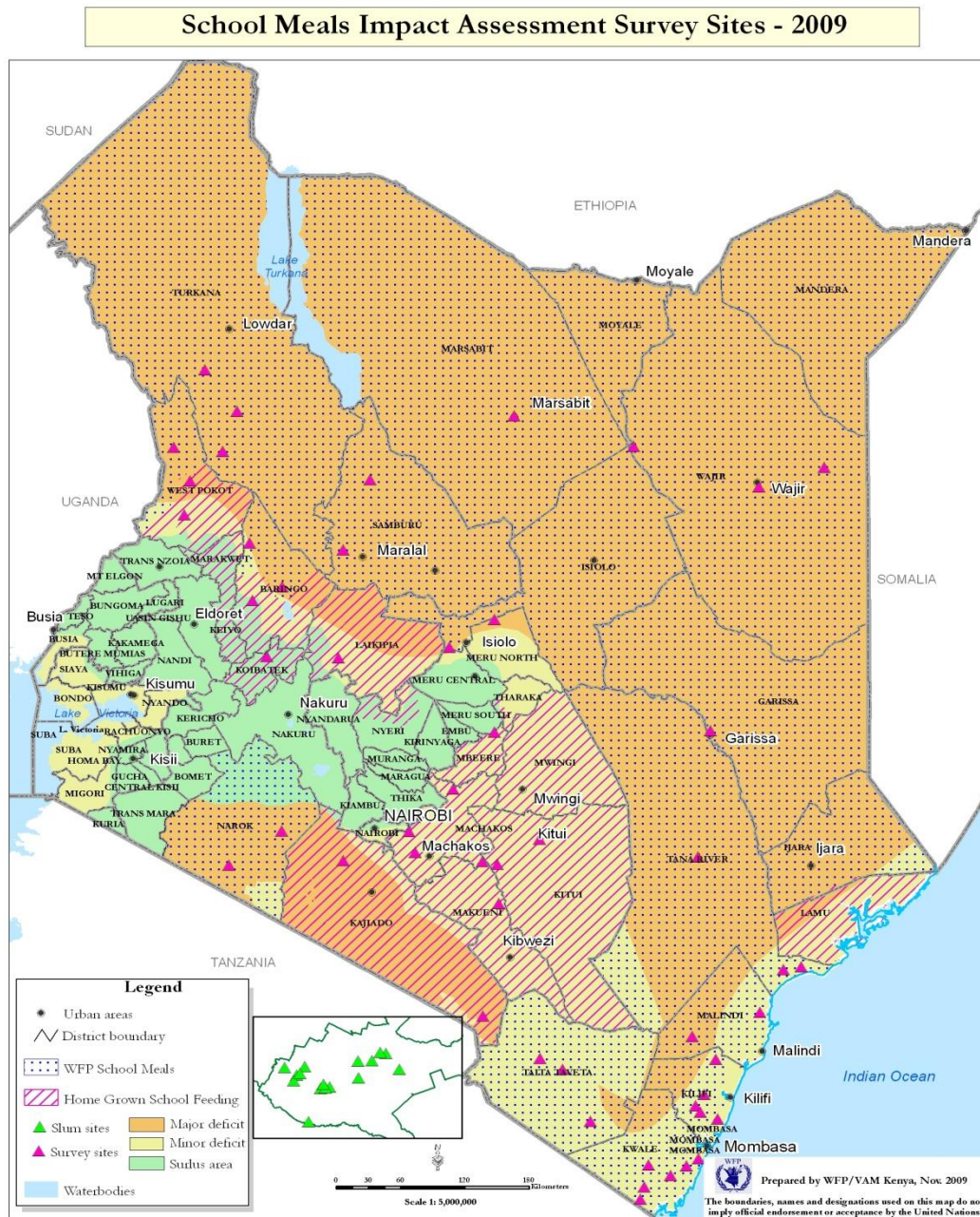




Figure 2. Distribution map of sampled schools



## Methodology of the Evaluation

6. This evaluation, given its ambitious scope and 'real-world' limitations, has adopted a mixed-methods approach that uses data and information from various sources and tools to triangulate a set of systematic findings. Most evaluations of school feeding have directed the analytical light on schools, school staff, and, in some cases, students. The methodology here incorporates a wide array of stakeholders in the process of impact assessment including students, households of the students, teachers and school staff, the Government of Kenya representatives, WFP staff at all levels, other UN agency staff, NGO field workers, community leaders, successful graduates of school feeding programmes, and even families that do not send their children to school.

7. The strategy of triangulation is pursued through the integration of quantitative and qualitative methods. Hence, a quantitative survey was conducted within the operational school feeding area of the WFP programmes (CP and EMOP), including the arid, semi-arid, and urban settlement districts. Using a two-stage random sampling process, a total of 68 schools was selected from a sampling frame comprised of four different lists: schools located in arid zone (19 schools); schools located in the semi-arid zone with WFP-assisted school meals (17 schools); schools located in semi-arid zone currently without WFP-assisted school meals (15 schools); and schools located in the informal urban settlements (17 schools).

8. The non-assisted schools in the semi-arid districts had previously been part of either the WFP regular school feeding programme (CP) or the Emergency School Feeding (ESFP) EMOP operative until the end of 2007. After a WFP retargeting exercise in 2008, these schools were handed over to the Government of Kenya, which in 2009 assumed responsibility for school meals under its Home-Grown School Feeding Programme (HGSFP).

9. From each of the 68 schools, approximately 20 students were selected randomly from enrolment lists, and the households of these students were interviewed with a formal household survey instrument (N=1352 households).<sup>3</sup> In addition, the school headmaster was interviewed using a school survey instrument (N=68 schools), and one student, a school feeding beneficiary, was selected from each household in the sample for an individual interview employing a questionnaire that focused on food consumption and domestic labour tasks.<sup>4</sup>

10. It is acknowledged that the robustness of the quantitative survey design is constrained by a number of factors. First of all, there is no baseline available that would establish indicator values prior to the period of this evaluation (i.e. ten years). A baseline was conducted in 2002, but the data were only partially analyzed and are difficult to interpret. Another, more systematic baseline was published in 2008, and the results of that study are presented for comparative purposes, although the short timeframe (i.e. one year) precludes an interpretation of change patterns. Second, several of the variables used to assess results in this study are proxies for such outcomes as nutritional status and learning. It was not possible to establish nutritional status using biometrics or hematological analysis, nor was it possible to test learning outcomes in a more controlled environment. Finally, school feeding is not a randomized intervention, since it targets the most vulnerable and food insecure populations. In the arid districts, the WFP-assisted school meals have completed coverage of all primary schools. In the semi-arid

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<sup>3</sup> During the field interviews, eight households were not able to participate in the survey, and it was not possible to replace them at the time.

<sup>4</sup> The eldest SF beneficiary was selected because older children could answer the questions more easily.

districts, WFP-assisted school meals are provided to the most vulnerable communities (while the Government of Kenya -sponsored meals reach about 500,000 children more). Thus, there is not a well-defined control group that would allow for a randomized control design within similar agro-ecological environments.

11. The albeit imperfect solution adopted here was to identify a set of schools where school feeding had been discontinued or was irregular (for whatever reason) over a significant period of time—at least one school term. The qualitative interviews suggest that enrolment and attendance gains from primary level school feeding can erode quickly when the meals are discontinued.<sup>5</sup> Thus it was assumed that schools that did not offer school meals for at least an entire term or which offer meals only intermittently would in effect constitute a control group against which a set of outcomes could be compared.<sup>6</sup> This control group came primarily from the semi-arid districts where WFP had handed over a number of schools to the Ministry of Education (MOE) in 2008 to be included under the HGSFP. The Government of Kenya allocated resources for the HGSFP only in 2009, and school feeding was initiated in the school term beginning in September of that year. In effect, these schools had no school feeding for a complete school year or more (although some had left-over food stocks and continued to feed until the supply was exhausted).

12. In addition, there were WFP-assisted 11 schools in the semi-arid districts that had reported no school meals for the first term of 2009, and these were also included in the control group. In total, 24 of the 68 schools, all randomly selected, constitute the control for this study. The WFP target number of school meal days is 65 per term or 130 for the two terms. In the control group of schools the average number of meal days over the two terms was 35, while the intervention group number of meal days was 127. The entire list of schools and their respective locations is found in Annex C.

13. The qualitative component of the methodology employed a combination of participatory tools including focus group discussions that sought detailed depictions of how school feeding works at the school level, how it is perceived within schools, households, and communities, and how it affects education and well-being. A set of participation sessions called PIA was conducted among a sample of 16 schools distributed across each of the four spatial regions (in the ASAL and urban).<sup>7</sup> In the PIA, different voices of the community are solicited to generate perceptions of school feeding and of education in general—both positive and negative. The stakeholder members of the community include students, boys and girls, mothers and fathers representing poor and non-poor families, school management committees, and school staff. The PIA process is highly participatory and minimally facilitated. Each group, separated by status and gender, is invited to discuss among themselves and record positive and negative features of school feeding and positive and negative impacts of education. The analysis focuses on both the topics that stimulate the greatest number of responses and on the content of the responses. The interesting insights derive from the repeated patterns of responses and also upon the variability in these patterns by stakeholder group. Above all, these are non-influenced perceptions. Participants decide what is relevant and what is not from their frame of reference, regardless of what intended programme objectives were. In addition, other focus group discussions were held with parents who do not send their children to school, teachers and administrative staff, including the headmaster.

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<sup>5</sup> This pattern was also identified in India. Afridi, Farzana (2008) *The Impact of School Meals on School Participation: Evidence from India*. Unpublished manuscript

<sup>6</sup> The cutoff point for total schools meals during the two terms was 30. Schools serving 30 or less meals over this time period and those schools not serving meals for an entire term are in the control group.

<sup>7</sup> While the number of participants varied from school to school, each PIA visit involved the participation of up to 50-100 people during the course of the different components.

14. At each school, several individuals were identified that had finished school, most with the benefits of school feeding, and had proceeded to lead accomplished and fulfilling lives—from the perspective of the local community. The evaluation team met with these individuals and developed a set of 26 “tracer” interviews which sought to uncover the process and the dynamic decision-making which determined the success of this tracer group. Selected tracer histories are shared in this report.

15. The advantage of this mixed methods approach is that the patterns and associations established in the quantitative interviews are enriched with the detail that emerges from the qualitative exercises. In effect, the quantitative output is a set of indicators related to livelihoods, vulnerability, education, food security and nutrition, and learning outcomes. The qualitative information, in a complementary way, offers significant insights into the dynamic process by which households make decisions within the framework of constraints and opportunities.

16. A major effort was spent in the training and supervision of the field teams in order to reduce the incidence of measurement error. It is anticipated that estimates of more sensitive information, such as income revenue and animal herds, might be somewhat distorted; however, the relative levels between households in terms of wealth and assets appear to be consistent. The interview protocols are compiled in Annex D.

### **Strategy of Analysis**

17. Several categories of comparative analysis are employed in the findings below. Several of the findings are presented by agro-ecological zone (arid, WFP-assisted semi-arid, the Government of Kenya -assisted semi-arid, and urban). Technically, the term “agro-ecological” is more convenient than accurate. It distinguishes the schools in the arid regions from those found in the two semi-arid districts (WFP-assisted and Government of Kenya -assisted) and from those of the informal urban settlement schools. Differences could be expected from this comparison because of the different livelihoods practiced in these districts. The term “control group” refers to the schools from the home-grown districts and from those WFP-assisted semi-arid district schools where the school meals were intermittent and interrupted. Gender differences in outcomes are also distinguished throughout the analysis.

18. The vulnerability categories were derived from three sets of variables. The first was an estimate of annual income from all sources, including agricultural/pastoral activities, income-generating activities, and several forms of social transfers (including remittances, food aid, and NGO savings groups). The second compositional variable was an asset index of consumer items. Since it was not possible to obtain actual values, relative values were used to construct the index. The third variable was a dietary diversity score calculated from consumption data based on 24-hour recall. These three indicators—income, wealth, diet—were then analyzed using a principal components technique to identify three distinct clusters. In this way, each household is assigned one of three vulnerability values: most vulnerable, least vulnerable, and moderately vulnerable.

19. Table 1 summarizes the distribution of household vulnerability category and agro-ecological zone. As expected, the arid zone has the highest percentage of households in the most vulnerable category, followed by the semi-arid households. The home-grown households are slightly less vulnerable, and the least vulnerable are the urban households.

20. The findings are substantiated by a process of “contextualized” analysis, whereby the quantitative patterns and statistical associations are complemented by more detailed explanations of the social, cultural, and economic factors drawn from the richness of the qualitative insights.

**Table 1. Vulnerability distribution by agro-ecological zone**

<i>Vulnerability Categories</i>	<i>Agro-Ecological Zone</i>				
	<i>Urban</i>	<i>Government Semi-Arid</i>	<i>WFP Semi-Arid</i>	<i>Arid</i>	<i>Totals</i>
<i>Most Vulnerable</i>	54 (15.9)	96 (32.1)	144 (42.0)	177 (47.8)	471 (34.8)
<i>Moderately Vulnerable</i>	175 (51.5)	131 (43.8)	132 (38.5)	117 (31.6)	555 (41.1)
<i>Least Vulnerable</i>	111 (32.6)	72 (24.1)	67 (19.5)	76 (20.5)	370 (24.1)
<i>Totals</i>	340 (25.1)	299 (22.1)	343 (25.4)	370 (27.4)	1352 (100.0)

## 1.2 The Kenyan Context

21. Kenya is one of the poorest countries in the world and ranks 147 out of 179 in the 2009 Human Development Index which places it toward the bottom of the middle-income class of countries (UNDP 2010). Kenya is an oil-importing, food-deficit country with an average per capita income of US\$680 (World Bank 2009). The country imports 20 percent of cereal needs. Although eighty percent of its almost 40 million people live in rural areas, most of the land is not suitable for rain-fed agriculture and is subject to severe drought.<sup>8</sup>

22. This is a country of great variability in terms of agro-ecological characteristics, livelihood systems, and income levels. Rainfall regimes favour the central highlands of the country, where most of the agricultural production is concentrated. Annual precipitation decreases to less than 1000 mm in the semi-arid zones away from the highlands, and from 200-700 mm in the arid districts to the north and east. Population density also decreases with annual rainfall levels, so that 30 per cent of the population resides in the semi-arid lands and 20 percent in the arid districts.<sup>9</sup> Livelihoods in the semi-arid lands are diversified and based upon small-scale mixed farming of cereals, primarily maize, sorghum/millet, and wheat. These farms also tend to raise some livestock as part of the livelihood system. The Vulnerability Assessment Mapping (VAM) vulnerability classifications of livelihood zones (of Famine Early Warning System Network) suggest that the primary emphasis on either crop production or livestock varies in localized pockets throughout the semi-arid districts depending on the availability of natural resources (i.e. soil and water). Farms on average are less than three hectares in size (USDA 2009). In the arid lands, the predominant livelihood is based one nomadic or transhumant pastoralism, with cattle predominating to the north western districts and camels to the drier north eastern districts. In the arid districts,

<sup>8</sup> World Food Program (2008a), Country Program Project Document (10668.0). Rome: World Food Program; USDA (2009) Local assessment of production for school feeding in Kenya. USDA FAS. Washington, D.C.

<sup>9</sup> USDA (2009) Local assessment of production for school feeding in Kenya. USDA FAS. Washington, D.C.

there are localized areas of rainfed agriculture (i.e. the Marsabit plateau) and even small-scale river and lake-based irrigated farming (e.g. Mandera and Lake Turkana). In the informal urban settlements, household livelihoods are widely diversified, but most families are engaged in the informal sector, primarily casual day labour or services, which provides highly variable and unstable income streams. It is likely that the expanding rural-urban exodus is fed at least in part by the growing livelihood crises in the ASAL areas.

23. The ASAL districts of Kenya and the informal urban settlements are the concentrated points of vulnerability and poverty in the country. Seventy percent of arid lands households and more than half the semi-arid households fail to meet their daily food requirements. An estimated 70 percent of the urban slum dwellers do not meet minimum food requirements. The nutritional situation of Kenyans is equally precarious, especially in the ASAL and in the informal urban settlements. In certain arid districts, acute malnutrition is estimated at more than 15 percent of the population, an indicator of an emergency situation. Government of Kenya data from 2005/06 reveal that almost one-third of the population suffers from stunting and around 20 percent are underweight.<sup>10</sup> Micronutrient deficiencies (e.g. iron and Vitamin-A) are particularly prevalent in the ASAL areas. A substandard nutritional profile due to unstable and inadequate access to quality food is further aggravated by high rates of illness due to poor hygiene conditions and lack of clean water (WFP 2008a).

24. Currently, Kenya has been in the throes of an extended five-year drought, the effects of which are dramatically manifest across the ASAL region. Seven major droughts have occurred in Kenya over the last three decades (WFP 2008a), and the current one has been particularly severe and widespread. The 2009 "long" rains (April-May) never materialized throughout most of the ASAL, and grain production on semi-arid farms was either decimated or non-existent. The continued poor precipitation in the pastoral zones has seriously diminished the productivity of the rangelands forcing the pastoralists to seek pasture further away from water sources. Animal mortality at the current time is extremely high. Many say that Kenya is already experiencing climate change in that the periodicity of drought events has become significantly more frequent, and the pastoralist livelihoods are in imminent danger of major restructuring toward a more sedentary existence.

25. Another major impact of this long drought has been the reduction of water sources for both human and animal consumption. The public water point infrastructure is inadequate even in normal rainfall regime, and pastoralist groups particularly have relied upon ephemeral water sources such as shallow wells in dry river beds and deeper hand-dug wells as well as man-made and naturally occurring surface water points to water both herd and family. These sources have largely disappeared, and the ASAL population is predominantly dependent on public boreholes, the distribution of which does not always conform to settlement patterns. The evaluation team witnessed districts in which women are travelling up to 40 km per day (one way) to retrieve water for the family. The pervasiveness of water scarcity documented by the team permits a general assessment that the lack of water has reached critical levels throughout much of the semi-arid and arid regions.

26. As stated above, there is a relationship between drought and the increase in violence among pastoral ethnic groups. The pastoralists are now forced to take their herds to areas that had been negotiated as "buffer" zones between different ethnic groups. Not

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<sup>10</sup> The major comprehensive set of nutritional data comes from the 2005 Kenyan Integrated Household Budget Survey. Government of Kenya: Nairobi

only are these rangelands situated far from watering points (up to four days apart), but rival groups find themselves in more direct competition for scarce resources. Consequently the level of raiding and violence has become more frequent and has assumed a more intense character.<sup>11</sup> The effects of this violence have direct relevance for local schools, as shall be seen below.

27. In terms of education, great strides in national educational policy have been made. In 2003, the Government of Kenya established a goal of Universal Primary Education and Education for all (EFA) and introduced a policy of compulsory primary education free of all fees. Specifically, the policy aimed at correcting the historical gender imbalances in formal education in Kenya. This policy is directly related to the Millennium Development Goals 2 and 3—universal primary education and gender equity. The KESSP 2005-2010 (Kenyan Government 2005) provides the blue print for a comprehensive development programme in education, in which an integrated school feeding, health, and nutrition programme sits forestage. The KESSP-II, under preparation, again demonstrates a strong commitment to Kenyan education. A formal policy strategy that integrates health activities into school has been formulated and is about to be implemented (MOPHS-MOE 2009). The stated goal is that all children shall have access to a “balanced meal” at school (ibid.:28).

28. Net enrolment figures for primary school and pre-school have significantly increased (in the case of primary schools, from 77 percent in 2002 to 92 percent in 2007); nonetheless these gains are not equally distributed across the educational landscape. There are nearly a million children of primary age who are not in school, and they are concentrated in arid and semi-arid districts as well as in the urban areas.

### **1.3 The WFP School Feeding Programme 1999-2008**

29. The Government of Kenya and WFP initiated school feeding activities in 1980, and school feeding has remained a core development intervention in the educational sector since that time. At the global WFP level, school feeding continues to occupy priority institutional space, as articulated in Strategy Four of its 2008-11 Strategic Plan.<sup>12</sup> While WFP has traditionally designed school feeding interventions toward the achievement of goals in combating hunger in children, improving nutrition, and increasing educational and learning outcomes, its new School Feeding Policy 2009 also casts school feeding as a key element of safety net programmes that enable households to maintain livelihood asset packages and endure transitory shocks. As a result of this re-orientation (WFP 2009a), WFP has begun to develop concrete indicators of safety net results to incorporate into country programmes.

30. Kenya has one of the most long-standing and largest school feeding programmes in WFP’s portfolio. WFP-assisted school feeding in 2007 reached 1.2 million children in 3600 schools at an estimated cost of 66 million dollars and has consistently been one of WFP’s three largest programmes globally since 2002. School feeding began in Kenya in 1979 with a school milk program,<sup>13</sup> but the programme proved too costly and was replaced by the Government-WFP partnership in 1980. The first WFP-assisted programme targeted

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<sup>11</sup> The team encountered several accounts that the cross-border raiding has assumed more of a commercialized nature; herds were taken in numbers across into Sudan or Uganda to be sold in large market towns. With this activity comes the use of more sophisticated and destructive weaponry.

<sup>12</sup> As the world’s largest implementer of school feeding programs, WFP spends almost half a billion dollars annually to feed more than 22 million children in 70 countries World Food Program (2008), WFP Strategic Plan (2008-11), Rome; .

<sup>13</sup> During the evaluation fieldwork, the team encountered several beneficiaries of this milk-in-school program, which they recalled with great nostalgia.

220,000 students at the pre-school and primary school level. In 1999, WFP integrated school feeding into its 5-year Country Programme (CP) cycle (1999-2003 and 2004-2008). In 2004-2007, the school feeding coverage under the CP was expanded in response to the widespread drought conditions that required an emergency response. The additional schools assisted by the ESFP were located in the semi-arid districts. WFP continues to use school meals as a means of timely response to emergency food security crises in targeted locations.

**Table 2. Historical sequence of WFP-assisted school feeding, 1999-2008**

<b>Programme Title</b>	<b>Programme number</b>	<b>Period</b>	<b>Amount of Food (MT)</b>	<b>Cost of Programme ('000 US\$)</b>	<b>Beneficiaries Planned (N)</b>	<b>Beneficiaries Actual (N)</b>	<b>Gender Ratio</b>
<b>CP - School Feeding</b>	10009.0	1999-2003	83,710	24,475	491,835	516,723	40.8
<b>CP - School Feeding</b>	10264.0	2004-2008	157,294	95,111	1,079,168	1,178,808	48.0
<b>EMOP (ESFP only)</b>	10374.0	2004-2007	32,623	6,861	509,910	450,649	47.0
<b>Totals</b>		1999-2008	273,627	126,447		2,146,180	

Source: WFP Country Programme project documents; WFP Standard Project Reports (SPRs)

31. Table 2 lists the historical sequence of WFP school feeding programme in Kenya since 1999. The first CP (10009.0) lasted until 2003 and provided school meals to almost 517,000 beneficiaries annually, of which 41 percent were girls. This programme utilized nearly 84,000 MT of food at a cost of US\$24.5 million dollars. In 2003, the Government of Kenya declared free (and compulsory) primary education for all Kenyans, and the primary school population increased by well over a million students. After 2003, the average annual beneficiary level more than doubled to over a million.

32. The second CP (10264.0) school feeding cycle began in 2004 and the number of beneficiaries increased to nearly 1.2 million per year, 48 percent of which were girls. The second programme required more than 157,000 MT of food and cost over US\$95 million. The coverage of this programme included all of the arid districts and some of the more vulnerable semi-arid districts (as well as the urban informal settlements). In 2004, in the wake of a severe drought, emergency conditions prevailed, and WFP launched an emergency programme (EMOP—10374.0) to address the critical food security needs of the population. It was decided that school feeding offered an effective mechanism of reaching hungry children while allowing them to stay in school. Thus, an ESFP was included to reach the more vulnerable semi-arid districts. This programme served an annual level of more than 450 thousand primary and preschool children, 47 percent of them girls. More than 22.5 thousand metric tons of food was allocated to this operation at a cost of approximately US\$6.6 million.

33. During the 2004-07 period, WFP-assisted school feeding reached its peak of around 1.85 million beneficiaries in primary schools and in pre-school programmes (Early Childhood Development Centres) distributed across 5200 schools in 29 districts. At this magnitude the programme was feeding nearly a quarter of the total primary school population in the country. The global food crisis of 2007 increased the price of food staples to unprecedented levels, and WFP was compelled to reduce its coverage. Data from the Standard Project Reports (2004-2007) indicate that the number of actual beneficiaries in the Country Programme school feeding was greater than the planned number throughout the project period, but the number of feeding days—thus total annual beneficiary days—had been reduced by about 20 percent by 2008. The reduction in school feeding days reflects the challenging influence of such factors as poor physical



infrastructure, delays in school delivery, lack of utensils and water, and other factors not under the control of WFP.

34. In 2007, the enhanced school feeding programme under the EMOP was discontinued and these schools were eventually absorbed by the Government of Kenya home-grown programme in 2009.<sup>14</sup> As a response to fewer resources for school feeding, WFP country office developed a comprehensive, data-intensive methodology for identifying the priority districts and divisions for SFP assistance beginning in 2008. This methodology favours districts where educational performance measures are lower, where school infrastructure is adequate, and where poverty levels are highest. In the logic of the targeting model, the priority areas are those with significant constraints to school enrolment and where poverty is most acute. As a result, the total number of beneficiaries covered by the current five year CP (10668.0) has shrunk to 750,000 annually, with a designed reduction of 50,000 beneficiaries per year. On the other hand, the Government of Kenya covers 550,000 children in the semi-arid districts under the HGSFP.

35. The WFP-assisted school feeding programme provides a lunch-time meal to children in the primary grades. The meal ingredients vary depending on food availability and school, but the standard pattern is 150g per person per day of cereal—usually corn or bulgur wheat; 40g of pulses—usually peas or yellow split peas; and 5g of vegetable oil. Salt (3g) is also provided in schools. This ration provides around 700 Kcals with 13.5 from protein. In addition, in some early childhood development schools (52,500 children under the current CP) pre-primary aged children receive a micronutrient-fortified blend in the form of porridge as a mid-morning snack, then lunch at noon. Nine such schools were identified in the evaluation sample of 68 schools.

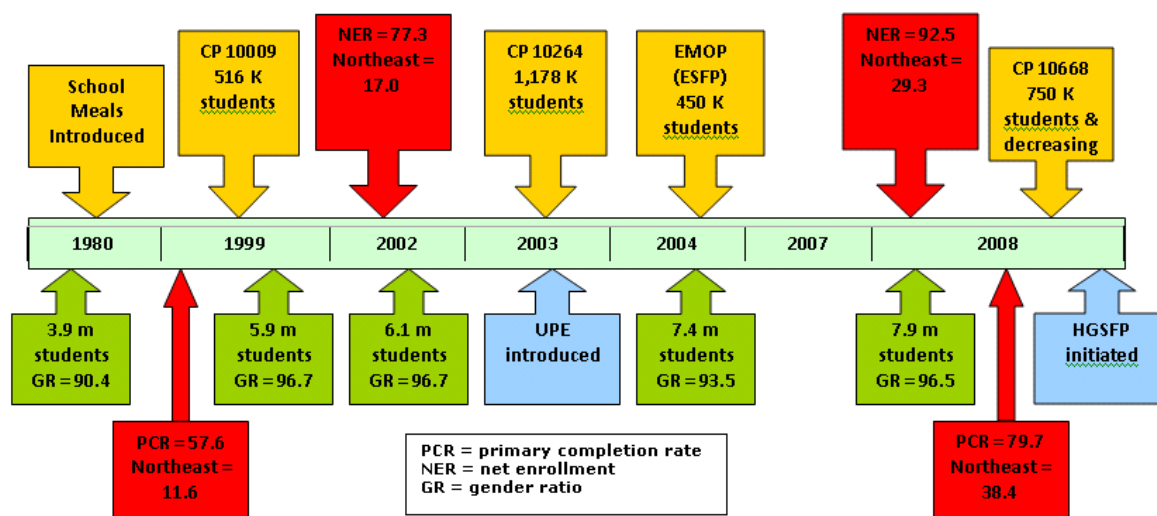
36. The evolution of school feeding is summarized in the timeline presented in Figure 3. The yellow boxes below the timeline represent the policy initiatives of the Government of Kenya, the yellow boxes above the timeline are the WFP interventions. The green boxes demonstrate the increase in primary enrolment; the red boxes present the patterns in primary completion rate and net enrolment rate. The timeline graphically depicts both the successes and the areas of continuing concern, both of which are discussed below.

37. The timeline suggests an organizational flexibility within WFP that allows the institution to scale up its SF coverage in response to crisis or deterioration of livelihood circumstance. The mechanisms that provide capacity to expand are found in its Vulnerability Assessment Mapping unit and in the Food Security Working Groups—at both the national and district—levels. Every six months, the assessment of the food security situation is updated, and emergency stocks can be mobilized to meet these unanticipated needs. At the time of the evaluation field mission, the school meals caseload was extended (under the existing PRRO) to additional coastal and semi-arid schools where the vulnerability situation had been identified as critical. These expanded numbers are outside the scope of this current report.

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<sup>14</sup> Internal document: Concept Note: Targeting of School Feeding Programme. WFP/Kenya. October 15, 2008.

**Figure 3. A historical timeline of school feeding in Kenya**



38. It is important to note that WFP has implemented a General Food Distribution (GFD) to the most vulnerable families in the ASAL districts, and was doing so at the time of the household survey. This activity is relevant to the SF evaluation, since many of the families with children in school (and thus being fed) are also beneficiaries of the GFD. The programme provides a large safety net, particularly in the impoverished rural areas. According to the 2008 SPR, the EMOP (10745.0) general food distribution reached 959,000 beneficiaries during that year. For purposes of the evaluation, it is necessary to identify the dynamic interactions of GFD and school feeding benefits at the household level.

39. The WFP/Kenya food programmes, due to their magnitude, urgency, and targeting, are complex. The effective implementation of WFP-assisted school feeding requires a dense, active network of partnerships with the Government of Kenya, sister UN agencies, and NGOs. For school feeding, the most critical partnership for school feeding is with the Ministry of Education and its investment programme in School Health, Nutrition and Feeding (KSSSP 2005). WFP works closely with MOE staff at the national level and at the district level where the District Education Officer (DEO) is a direct homologue. Whenever possible, WFP purchases food for school meals locally or regionally; however, the major share of food for the school meals had been donated under the McGovern-Dole Food for Education programme. WFP transports the food from point of receipt (usually Mombassa) to district-level storage sites, and the DEO then oversees the management of school food and its allocation to schools according to enrolment figures. WFP field staff are responsible for the regular monitoring of the implementation process.

40. In the informal urban settlements, WFP partners with the international NGO Feed the Children. Again, WFP transports the food to local storage points, from which it is distributed to the urban schools. NGO field staff and WFP field staff collaborate to oversee the implementation. For the general food distribution interventions through the ASAL, the major partnerships are also with national and international NGOs.

41. There is widespread agreement that the goals of school feeding—especially those associated with educational and nutritional outcomes—also require non-food inputs. Basic food preparation infrastructure, clean water, appropriate hygiene, and disease

prevention are core elements of a successful school feeding programme. This reality has been acknowledged at the institutional level and sanctioned as policy, known as the “Essential Package,” which is discussed in more detail later in the report.<sup>15</sup> Since WFP is limited to the range of food-based interventions, strategic partnerships with Government units (e.g. Ministry of Public Health and Sanitation, Ministry of Agriculture), sister UN agencies (e.g. UNICEF, FAO), and others are needed to provide these non-food interventions. Such is the case in the current country programme (CP 10668.0) and its de-worming goal.

## 2.0 Results: Outcomes and Impacts of School Feeding

42. The findings of the evaluation are organized to directly assess the intended outcomes of school feeding as explicitly stated in the country programme documents as well as the unintended outcomes and impacts of the school meal programme. First, the findings will profile the 1352 households that participated in the survey and the 68 schools that were visited. Then the educational outcomes are assessed, followed by the food security and nutritional outcomes, and then by the social safety net results. Each category of outcomes is embedded within the decision-making logic that households employ to assure their livelihoods and the future of their children.

### 2.1 Household Context

43. The basic livelihood characteristics of the sampled households are characterized in terms of their demographic structure, their educational profiles, and income. As Table 3 depicts, family size is relatively larger in rural areas but does not vary spatially across the ASAL districts. The urban households have several distinguishing characteristics in that the household head is younger and much better educated. Less than ten percent of the urban household heads never attended school, and 70 have finished primary or higher. More than 40 of the urban households are headed by women, half of them separated, divorced, or widowed. In contrast, the household heads in the semi-arid and arid districts have much less education, and a large percentage (more than half in the arid districts) never attended school. The share of female household heads in the arid districts is significantly lower at around one-quarter of the households. There is also a significantly higher rate of polygamy among the arid households, which is related to the predominance of Islam in the northern and north eastern districts.

**Table 3. Demographic profiles by agro-ecological zone**

<i>Agro-Ecological Zones</i>	<i>Demographic Characteristics</i>					
	<i>Size of HH (N)</i>	<i>Average Age HOH</i>	<i>HOH Female (%)</i>	<i>HOH Never Attended School (%)</i>	<i>Net Enrolment (%)<sup>a</sup></i>	<i>HHs with Children Not Enrolled (%)</i>
<i>Urban</i>	5.3	38	41.8	7.1	95.1	8.8
<i>Government Semi-arid</i>	6.3	44	30.4	20.1	97.4	7.0
<i>WFP Semi-Arid</i>	6.6	46	35.9	30.5	93.3	16.0
<i>Arid</i>	6.4	45	24.6	53.2	88.9	21.0
<i>Totals</i>	6.2	43	33.1	31.1	93.3	13.6

a/ Calculated as the percentage of HH members between 6 and 18 years who are currently in school.

<sup>15</sup> World Food Program/UNICEF (2005) The Essential Package: Twelve Interventions to Improve the Health and Nutrition of School Age Children. Rome

## **Educational Profiles at the Household Level**

44. To assess educational profiles at the household level, a “net enrolment” rate was estimated by calculating the percentage of household members within the 5-18 years age group who were currently reported to be in school. Table 3 shows that 93 of the sampled school age children are enrolled in school, although the rates are slightly lower in the semi-arid and arid districts. There is, however, significant variability at district level with six of 27 districts reporting less than 90 percent enrolment (Turkana, Narok North, Narok South, Kinango, Tana River, and East Pokot). The observed rates within the sample are, of course, higher than the official enrolment levels published by the MOE, since the sampling frame consisted of households with at least one child in primary school.

45. At the same time, the analysis identified those households who kept at least one school-age child from school for whatever reason. The results in Table 3 demonstrate that in the semi-arid and arid schools, 16 and 21 percent of the households respectively do not place all their children in school. The decision motives behind this pattern are explored further below.

## **Income Profiles of the Households**

46. One of the primary household constraints to education is the lack of economic wherewithal. The household survey collected estimated annual income levels from production sales, income-earning labour allocations, and various types of transfers, including the value of food distribution (but not school meals). Annual income was compiled from discreet income-earning episodes during the previous year, and more than twenty different income categories were collapsed into income from agricultural and animal/animal product sales, from day labour either in agriculture or outside, from salaried positions (e.g. teacher, NGO worker), and from entrepreneurship, including petty trading and handicrafts. The annual income estimates also include self-reported values of remittances and social transfers, including food aid from general food distribution (but not the value of school meals).

47. For the entire sample, households reported an average of 2.1 income-earning activities over last year and an overall annual income of slightly over 86,000 KES, or around 15,000 KSH per capita.<sup>16</sup> The urban, the Government of Kenya, semi-arid, and WFP semi-arid households varied little in annual income, while arid households were significantly higher, perhaps due in part to temporary distress sales of livestock.<sup>17</sup> The source composition of the household income package differs across agro-ecological zone. Although three-quarters of the rural-based households reported income from agriculture, either through the sales of agricultural or livestock products, the relative contribution of this income source to total income is greater in the WFP-assisted semi-arid households (54 percent) and arid households (44 percent) than among the Government of Kenya semi-arid households. Almost thirty percent of the WFP semi-arid households also depended upon occasional labour sale, while this source of income is negligible among the arid households. Around one-quarter of the rural households also generated income through entrepreneurial activities, such as small-scale business, charcoal sales, and handicraft production. The structure of urban income is heavily reliant on occasional

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<sup>16</sup> This per capita income figure is approximately 200 US dollars, well below the national per capita income of 680 dollars.

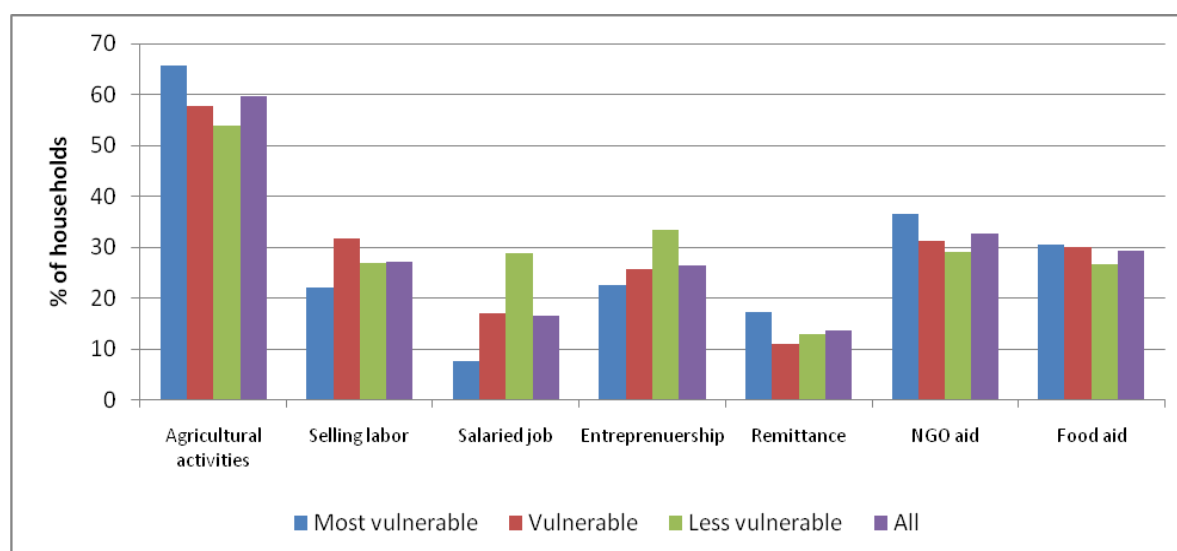
<sup>17</sup> It is also possible that due to a sampling frame of households with children in school, there is bias toward arid households that are less nomadic and more sedentary, thus having access to a more diverse set of income-earning activities.

labour and small-scale business, although these households also have more access to salaried and skilled labour opportunities.

**Table 4. Income patterns by vulnerability class**

Source of Income	Most Vulnerable		Moderately vulnerable		Least vulnerable		All	
	KES '000	Total (%)	KES '000	Total (%)	KES '000	Total (%)	KES '000	Total (%)
<b>Agricultural activities</b>	17.0	44	29.2	37	50.9	31	30.2	35
<b>Selling labour</b>	4.4	12	15.1	19	18.8	11	12.2	14
<b>Salaried job</b>	4.9	13	16.7	21	39.2	24	18.0	21
<b>Entrepreneurship</b>	6.7	17	13.1	17	48.8	28	19.5	23
<b>Remittance</b>	1.2	3	1.0	1	1.0	1	1.0	1
<b>NGO assistance</b>	3.1	8	3.3	4	6.7	4	44.1	5
<b>Food aid</b>	1.2	3	1.2	2	1.0	1	1.1	1
<b>Total</b>	38.7		79.4		166.2		86.1	

**Figure 4. Access to income sources by vulnerability group**



48. There are significant differences in how the different vulnerability groups earn income. As Table 4 shows, the most vulnerable households are more dependent on agriculture and occasional labour, while the least vulnerable households have greater access to more stable employment and entrepreneurial sources of income. The percentages of households engaged in different income sources are summarized in Figure 4.

49. Figure 4 also indicates levels of reliance on remittances and social transfers. Around 12 percent of the households received remittance income, while around a third of the households reported NGO assistance. Around 40 percent of the arid and the Government of Kenya semi-arid households and just over 30 percent of the WFP semi-arid households received food aid.<sup>18</sup> The urban households had significantly less access to

<sup>18</sup> It is possible that respondents confused food aid and NGO assistance, since NGOs implement the general food distribution. It is not possible, however, to identify where this confusion might lie in the data set.

NGO assistance and food aid. For the sample as whole, the total amount of transfers represents around 15 percent of the income for the most vulnerable and 6 percent of total household income for the other vulnerability groups. These transfers do not include the value of school meals.

50. When compared to total household income across the sample, the contribution of food aid to the household economy appears unexpectedly low, given reigning perceptions of the food insecurity in the ASAL and urban slum communities. The food aid values here should be interpreted with a note of caution for several reasons. First, for those who report receiving food aid, the contribution to total income increases to around 4 percent (6 percent for the most vulnerable households). In effect, food transfers have a much higher value in the household economy to those who actually receive them. Second, from interviews with families and NGO staff, it is evident that a large amount of food sharing occurs with the general food ration, which might diffuse its reported value to an individual household. Finally, it is also possible that the perceived value of received food has been under-reported during the interview due to the difficulty of assigning a value to an in-kind transfer.

51. It is important to put these overall income results in perspective. The absolute poverty line in Kenya is set at 1562 KES per person per month and the food poverty line is set at 988 KES.<sup>19</sup> If these thresholds are applied to the survey data, 75 percent of the sampled households are beneath the absolute poverty line and 61 percent are under the food poverty line. Even if the possibility of undercounting income sources and underestimating income levels is present, the portion of the population living in dire straits is startling. This conclusion is corroborated by the qualitative information, which also points to the severe intensity of the socio-economic and food security crisis in the ASAL regions. And against this household livelihood context the outcomes and impacts of school feeding should be considered.

## **2.2 Educational Outcomes and Impact**

52. Within WFP and the Government of Kenya, enrolment, attendance, gender ratio, and completion rates are the standard indicators used to assess educational outcomes. The national reporting on enrolment rates estimates the actual population of school-age children based on adjustments to decade-old census data; and the new census, conducted in August 2009, will provide the basis for more accurate assessments of enrolment rates. The enrolment patterns of the household sample were presented above, but further insights into the role of school feeding can be drawn from the analysis of the school level data.

### ***School Enrolment***

53. The household survey provided an estimate of enrolment rates at 93 percent with a lower (88 percent) rate in the arid districts. According to data from the Ministry of Education, from 2002 to 2007 national net enrolment increased from 77 (girls = 78) percent to 92 (girls = 89) percent. In the arid pastoral areas and in the urban centre however, the MOE data show much lower primary Net Enrolment Rate (NERs). For example in North Eastern Province, rates have increased from 17 (girls = 14) percent to 28 (girls = 21) percent; in Turkana, NER has grown from 31 (girls = 28) to 40 (girls = 35); and in Nairobi from 27 (girls = 30) percent to 29 percent for both boys and girls. Since these national figures differ significantly from the household survey (taken from a sampling frame of households with at least one child in school), it is likely that there are

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<sup>19</sup> These thresholds are taken from the Kenya Integrated Household Budget Survey (KIHBS 2005-06)

numerous families in the pastoral and urban slums that do not send any of their children to school.

54. Other enrolment patterns are discernible from the sample of 68 schools. The qualitative interviews suggest that schools with meals attract students. Comparing enrolment levels across the different zones, Table 5 shows that the average school size varies significantly from urban schools (627 students) to the home-grown schools (350 students). The average semi-arid school has 538 students, while the arid school has 693 students. For those schools with meals, the average enrolment is 28 percent higher.

**Table 5. Average school enrolments by gender**

<b>Agro-ecological Zone</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
Urban	316	311	627
Government semi-rid	177	173	350
WFP Semi-arid	288	250	538
Arid	399	294	693
<b>School Meals</b>			
With meals	334	278	612
Control	246	230	476
<b>Total</b>	<b>302</b>	<b>260</b>	<b>562</b>

55. In any given school, the largest number of students is found at the pre-school level, but only around 60 percent of these preschoolers actually pass into first grade; from first grade to second grade, there is also around a 15 percent attrition rate (Table 6). In the schools without meals, a larger share of preschoolers moves on to first grade and more first graders to second. This pattern is likely due to the fact that the schools with

**Table 6. Grade attrition rates by gender**

<b>Grade</b>	<b>Drop-out Rates (from previous year)</b>			
	<b>With Meals</b>		<b>Control</b>	
	<b>Boys</b>	<b>Girls</b>	<b>Boys</b>	<b>Girls</b>
<b>EDC</b>	n.a	n.a	n.a	n.a
<b>1</b>	42.2	46.3	17.8	16.9
<b>2</b>	16.8	15.6	12.8	14.9
<b>3</b>	5.9	0.9	6.4	5.1
<b>4</b>	4.4	6.1	13.5	6.9
<b>5</b>	8.3	7.8	-2.6	3.9
<b>6</b>	-1.0	3.3	18.5	22.6
<b>7</b>	0.6	-0.7	-4.8	5.3
<b>8</b>	25.6	31.9	28.7	28.8

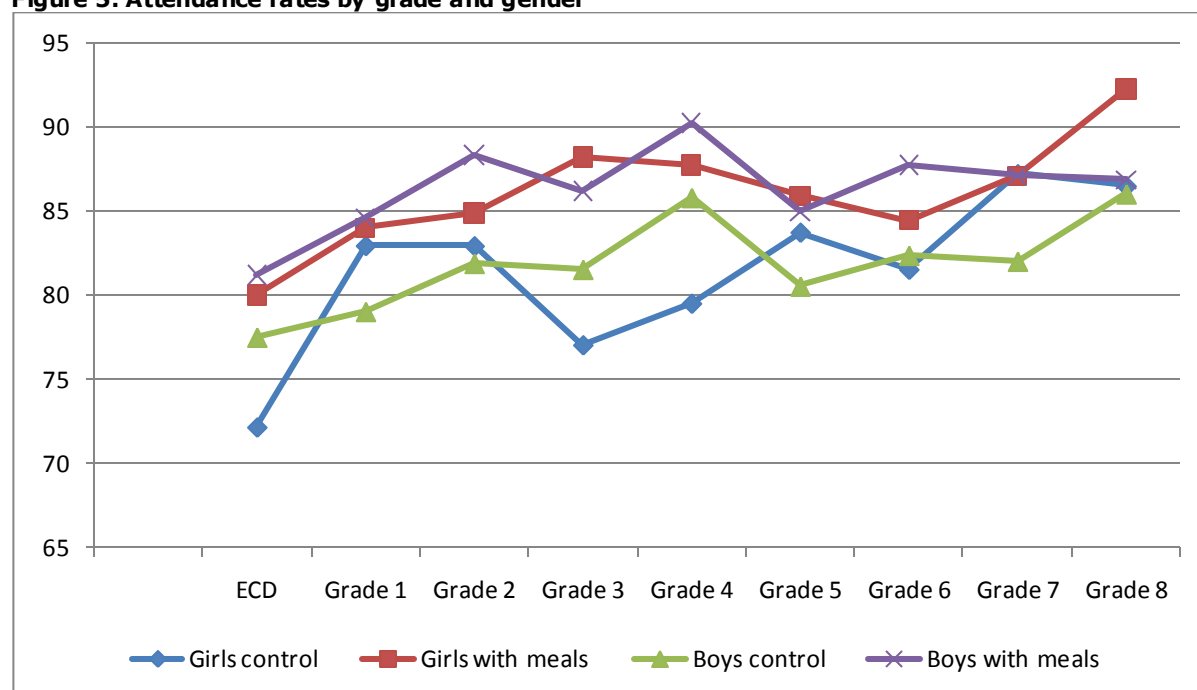
56. Meals attract an exaggerated number of children who are not yet ready for primary school. For the schools with meals, the annual grade attrition rate remains low and stable until the seventh grade, when approximately 28.5 of the seventh graders do not enter eighth grade. For the schools without meals, the attrition rate presents itself much earlier—around 10 percent of third graders drop out, 20 percent of fifth graders, and 28 percent of seventh graders. Overall, about half the first-graders enrol in the eighth grade in schools with meals, while this ratio is 44 percent for schools without meals. The attrition rate is higher for girls overall across the grades, but markedly greater in the schools without meals. These patterns demonstrate that school meals have a positive effect on enrolment and may help to keep children in school through the primary years.

But the high attrition rate for all primary children requires a broader focus on the decision-making factors that generate these large numbers of drop-outs.

### Attendance Rates and the Gender Ratio

57. Conventional wisdom offers the hypothesis that schools with meals will have a higher attendance rate. The qualitative team verified that the attendance data collected by schools is subject to unreliability for several reasons. There are three terms in Kenyan primary school system, and, in principle, school enrolment figures are gathered at the beginning of each term when students are registered. Since enrolment can vary throughout the term, the number of registered students at the end of the term serves as the basis for allotments of food for the meals in the following term. Attendance, on the other hand, is taken every morning by the teachers, and this number determines how much food is prepared for that day. In this process there is ample room for imprecision in attendance figures either on the high side or low side. In fact, one DOE official complained of record sheets in which the attendance records in a given class never changed throughout the entire term.

**Figure 5. Attendance rates by grade and gender**



58. In about 30 percent of the cases for the eight grade levels of the 68 schools, attendance exceeded enrolment. These attendance rates may indeed demonstrate the magnet effect of school meals, since mean rates in schools with meals are around 125 percent compared to 85 percent in control group schools. The attendance rates exceeding 100 percent are found mostly in the urban slum schools and only infrequently in the rural schools. This pattern is also worrisome, because it suggests that the size of the food allocation fixed on enrolment figures at the end of the previous term would not be adequate for the "real" demand for the meals. In fact, a number of students in the PIA activities did complain about the small size of the portion. The possibility of inconsistencies in the system of registering attendance is motive for caution in interpreting attendance rates.



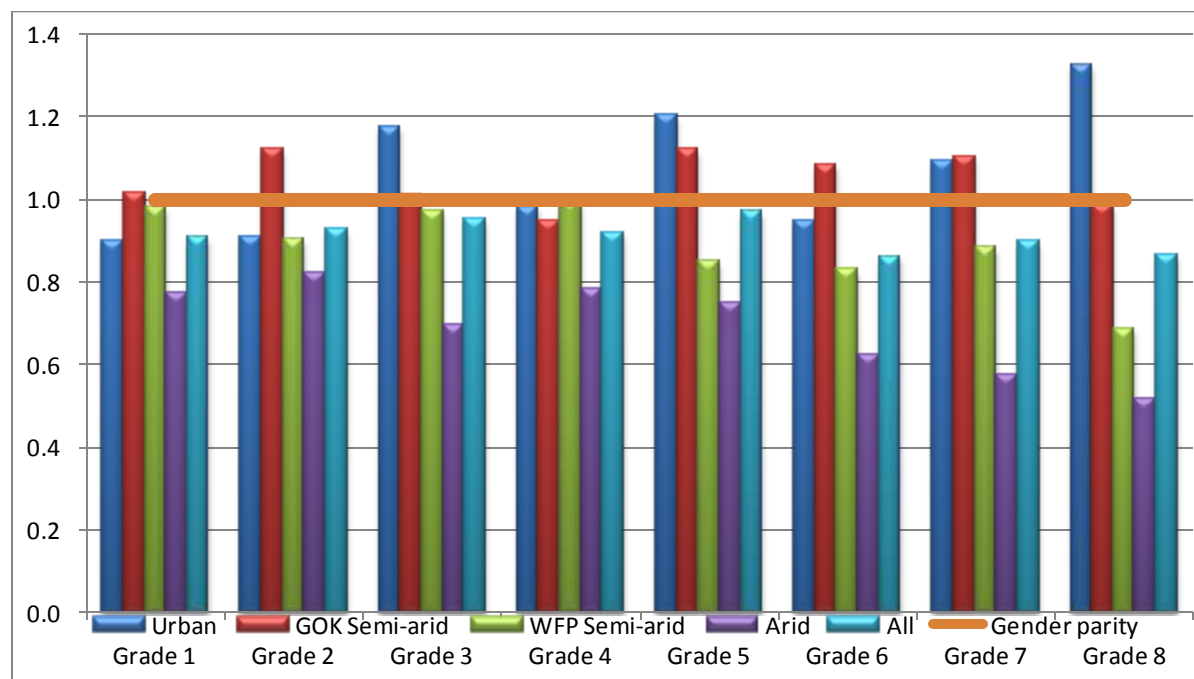
59. To calculate the data found in Figure 5, the attendance rate was forced to 100 when the registered attendance surpassed enrolment. Even with these adjustments, the attendance rates depict the positive effect of school meals. As the figure illustrates, the school meal increases the attendance rate of boys by about five percentage points in most grades, while for girls, the meal effect is more prominent in the middle grades (grades 3 and 4), for reasons that are not immediately apparent. The qualitative data corroborate this finding of a positive association between school attendance and school feeding. The urban areas have a significantly higher attendance rates (even after adjustment), while the Government semi-arid schools have the lowest rates. Most of these schools are found in the control group.

60. The gender ratio is one of WFP’s core indicators as part of its commitment to the Millennium Development Goals 2, (universal primary education) and 3 (gender equity). The Kenyan Government has also prioritized gender equity in primary education as part of the KESSP investment programme. As discussed above, there are many factors that challenge the opportunities for girls attend and finish primary school, and it is thought that school meals can be a strong incentive to attend school. In Table 7, the overall gender ratio in the sampled schools is around 89 percent, which is similar to the findings of the 2008 baseline study of 220 schools in WFP-assisted areas (WFP 2008b). In the urban and Government semi-arid districts, the gender balance is close to parity, while in the WFP semi- arid and arid districts, there are significantly fewer girls than boys in school. Figure 6 presents the distribution of gender ratios by grade (and region). In the urban and Government semi-arid schools, the gender ratios are at or above parity throughout most of the grades; however, in the arid and WFP semi-arid schools, where the economic and cultural constraints on girls’ schooling are more binding, the gender ratio is lower and declines through the eighth grade.

**Table 7. Gender Ratios**

<b>Agro-Ecological Zone</b>	<b>Gender Ratio</b>
Urban	98
Government semi-arid	99
WFP semi-arid	87
Arid	74
<b>School Meals</b>	
With Meals	84
Control	96
Total	89

**Figure 6. Gender ratio by grade**



61. The gender ratio indicates that girls drop out of primary school at a higher rate than boys. Table 7 also suggests that the school meal does not have a differential impact on girls (relative to boys). The factors responsible for improvements in the gender ratio are likely due to improvements in the school environment, which is addressed further in the report. In fact, the 2008 baseline demonstrated that where the female teacher ratio is closer to parity, so is the gender ratio of students.

### **Primary Completion and Rates of Transfer to Secondary School**

62. At this point of the analysis, the patterns of educational outcomes confirm previous studies and published national figures. Enrolments at schools with meals are higher, and attendance rates also appear positively influenced by the presence of food. The urban and Government semi-arid schools have higher enrolments and attendance and provide more equity of access to boys and girls. In contrast, the arid and WFP semi-arid regions have poorer showings in all these categories. When compared to the schools in the control group, the schools with meals attract more students and retain them during the school year. But the school meal appears to have less influence on the dramatic attrition rates that are a cause of national concern. The relevant question now is whether school feeding plays a longer term role in securing an education for children and launching them on a successful career pathway.

63. A first critical indicator of longer term impacts on education is the primary completion rate. As discussed previously, the high enrolment numbers in the ECD pre-primary grades are not maintained in the first year of primary school. Whoever has the opportunity to observe the ECD group in action can readily appreciate the attraction of playtime and the uninhibited enthusiasm for the meal. It is not clear, however, how successfully the preschool experience prepares children for primary school, because many of them do not in fact move on. As shown above, the attrition rate takes its toll throughout primary school at different rates for schools with and without meals, but the benchmark to greater impact is the completion of primary school. This completion rate is

measured here by the number of students who took the KCPE Grade 8 exam, thus finishing primary as a share of the number of students who begin in Grade 1.

**Table 8. Primary completion rates**

<b>Completion Rate</b>		
<b>Agro-ecological zone</b>	<b>Boys</b>	<b>Girls</b>
Urban	77.3	92.4
Government semi-arid	60.4	64.1
WFP semi-arid	66.6	37.8
Arid	43.0	25.2
<b>School Meals</b>		
Schools with meals	59.5	57.9
Control	64.6	46.3

64. Table 8 depicts a significant difference in completion rates by agro-ecological zone and by gender. Children in the urban schools have a much greater chance of finishing primary, especially girls. In the Government semi-arid schools, which are generally a bit less vulnerable, the completion rate is above sixty percent. In the WFP semi-arid schools, the completion rate for girls drops significantly; and in the arid schools, the completion rate for both boys and girls plummets. The presence of the school meal does not make a significant difference for boys, but it does seem to contribute to girls' success in finishing primary school. As stated above, the highest drop-out rate occurs between seventh and eighth, when boys are at a young-adult age and are ready to begin their contribution to the household economy and when girls reach an age when marriage is culturally acceptable.

**Table 9. Rate of transfer to secondary school**

<b>Students Moving on to Secondary Level</b>		
<b>Agro-ecological zone</b>	<b>Boys</b>	<b>Girls</b>
Urban	76.4	68.2
Government semi-arid	55.9	51.8
WFP semi-arid	32.4	26.9
Arid	51.7	38.2
Total	52.9	45.0
<b>School Meals</b>		
With Meals	56.3	46.5
Control	46.4	42.1

65. A second key indicator of the impact of school meals is the rate of transfer to secondary school. Although the value of primary school in the personal development of the child is inarguably significant, actual livelihood opportunities for those who finish primary school are few. The major payoff in economic success usually occurs with completion of secondary school, as the qualitative interviews confirm. It is common for headmasters to evaluate their own school performance by the number of primary students that were "placed" in secondary schools. On the other hand, secondary education entails significant costs and, often, relocation to areas distant from the household.

66. Table 9 examines the distribution of eighth grade students who took the KCPE exam and then went on to secondary school. Slightly more than half the primary students continued their education, and boys were more likely to move on relative to the girls, particularly in the arid and semi-arid districts. School feeding does seem to play an important role in students moving up to the next level of education. The boys who had access to school meals had a ten-point advantage in entering secondary school, while the advantage for girls was more than four percentage points.

### Impacts of School Meals on Learning

67. The availability of school meals is considered to have a positive effect on cognition and learning, as a number of studies have maintained (Adelman et al. 2008; Kristjansson et al. 2007). As an indicator of educational performance, the last exam scores were compared for the 1352 students from the sampled households.<sup>20</sup>

**Table 10. Last exam scores for 1352 students**

<b>Test Scores (Last Exam)</b>	
<b>Whether provided school meal</b>	<b>Average test score</b>
Schools with meals	297.7
Control	286.9
<b>Agro-ecological zone</b>	
Urban	323.2
Government semi-arid	286.8
WFP semi-arid	275.6
Arid	291.2
<b>Vulnerability status</b>	
Most vulnerable	290.2
Moderately vulnerable	293.4
Least vulnerable	299.5
<b>All</b>	<b>293.8</b>

68. The students in Table 10 were randomly selected from the enrolment lists used to identify the surveyed households. In effect, these scores represent a proxy variable for learning outcomes in school. The urban students scored significantly higher, but there is little difference among the rural students. Levels of vulnerability also don't seem to affect the average scores. There is, on the other hand, an 11-point difference in the scores of those children in schools which provide a meal compared to those that did not last year.

69. Another indicator of sustained learning is presented in Table 11, which summarizes the proportion of students over the last four years who scored higher than 300 points in the KCPE exam that marks the completion of primary school, a score that signifies above average performance. By this indicator, the urban students performed substantially better than the rural students confirming a pattern that is consistent with the other measures of school performance. In this analysis, school feeding has an impact of around seven percentage points. As the table shows, however, such factors as the pupil-teacher ratio and the quality of the teaching staff (i.e. a positive learning environment) demonstrate similar effects on the learning outcomes. The interactive effect of school meals and school environment are further examined below.

<sup>20</sup> The scores are from various grade levels and reflect performance precisely over the time period in which meals were present or absent.

**Table 11. Percentage of students scoring over 300 in the KCPE exam**

	<i>Proportion of students with KCPE scores higher than 300</i>			
	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>
<b>School Meals</b>				
With Meals	17.0	16.1	16.0	15.3
Control	11.7	11.8	9.6	13.4
<b>Quality of teaching</b>				
Low student-teacher ratio	16.5	19.2	21.9	23.7
High student-teacher ratio	14.0	12.1	13.5	13.1
<b>Teacher quality</b>				
Adequate teaching staff	18.2	18.8	19.4	18.0
Inadequate teaching staff	10.0	10.4	9.7	16.1
<b>Agro-ecological zone</b>				
Urban	26.9	24.2	27.2	22.7
Government semi-arid	14.8	19.6	15.5	15.3
WFP semi-arid	8.6	6.5	9.1	14.7
Arid	16.6	11.1	10.7	14.4

70. Reviewing the evidence for school feeding from the qualitative data, a picture begins to emerge of the process by which educational goals are achieved. In the urban schools of Nairobi's informal settlements, the value placed on education within the home is relatively higher than among the rural schools, and there are more teachers available with lower student-teacher ratios. Children also perceive the value of education in an everyday context, through the media and through their daily interaction. As a result, their aspiration horizon appears to be wider and more ambitious. In this urban slum setting, the school meal has strong attractiveness to both student and household, but the meal itself is only one factor that encourages students to seek an education.

71. In the rural areas, however, school feeding engages a different dynamic. Agricultural households (including pastoralists and even fisher households along the coast) see their children as an important economic resource, and the value of a primary education is not always apparent in the logic of these livelihood systems. The PIA interviews at schools did reveal that there are parents committed to their children's education, but there are also those who feel that the economic rewards of a primary education are minimal since they do not have the resources to maintain their children in secondary school and beyond. The tracer experiences in case after case told the story of the children who at first were attracted by food at the school then came to develop a similar taste...for learning. These were students perhaps influenced by a role model who fed their aspirations; or, in some cases, they benefited from unanticipated good fortune ("well-wishers" in local parlance) that allowed them to continue on despite the absence of parental financial or even emotional support.

72. In many rural schools, the children arrive at ECD and primary school for motives that are strongly linked to food security and economic necessity. As they advance in school, however, the pressures to consider non-education options become more prevalent, in part because the economic value of students increases with age. There is a generally stable period in the enrolment sequence from Grades 4-7. But in Grade 8 there is a significant reduction in students taking the KCPE, then about half of these discontinue their education after finishing primary. In these schools, the meals have a definite magnet impact in the early years and they seem to favour enrolment, attendance, cognitive development, and learning (as seen in the KCPE scores in Table 11). For those students who advance to the higher grades, other factors, such as the learning environment, begin to compete with the school meal as a motivation for staying. As the

teachers in the school survey suggest, the well-fed students are more attentive, more active and involved in the learning process, and a certain percentage of them discover "success" in school. They receive positive feedback, enjoy the ambience, and begin to see alternative life paths. The critical decision point seems to be Grade 8 where the economic constraints become more binding. Of all the adults over 18 years of age in the household sample, only one-third of those in the urban and Government semi-arid districts, one-quarter of those in the WFP semi-arid districts, and less than twenty percent of those in the arid districts succeed in completing primary school. Also, only about twenty percent of the most vulnerable households finished their primary education. Thus, the attraction of school meals in introducing a child to the school experience is supported by the evidence; however, economic and cultural factors come into play during the later years of primary which determine if this child will finish and move into secondary school. As the tracer stories poignantly relate, a significant level of courage and determination is necessary to follow the path of betterment through education.

73. A final issue to be addressed is presence of unintended negative outcomes derived from school feeding. On average and including the ECD preschoolers, the schools that offer a school meal have 125 more students and the average class has 11 more students per teacher (56 as compared to 45). There is qualitative evidence that parents will move their children to a school with meals, wherever school options are available. The increased population of students seeking a meal puts significant stress on the physical infrastructure and the learning environment of the school. The evaluation team noted that many of the 16 PIA schools do not have proper cooking facilities and most have no dining room, so students scatter to eat. Teachers and SMC members also complained about overcrowded classrooms, lack of sufficient textbooks and supplies as well as the time and disruption it takes to manage the feeding process every day. Parents also found the provisioning of firewood and water to be a burden on household resources. These issues are real, but, once known, they are amenable to solutions that emerge from a more informed and comprehensive planning process. As a critique of school meals as a development intervention, they are misdirected.

### **2.3 Health and Nutritional Outcomes**

74. The second category of outcomes targeted by WFP-assisted school feeding focuses on child nutrition and health. The 2008 EMOP (10745.0) document cites several sources that confirm alarming, emergency-level incidences of acute malnutrition throughout the ASAL as well as chronic micronutrient deficiency. In this context of nutritional crisis, the Country Programme for 2003-2008 (CP10264.0) identified the nutritional outcome to: "Promote equity of access to cost-effective quality nutrition as close to school children as possible." Since the study was not designed to measure nutritional status, the effects of school meals on food consumption and dietary intake were evaluated.

75. To determine the food consumption patterns and dietary intake of households and their children, 24-hour recalls were used. At the household level, the 24-hour recall provided quantitative information on dietary diversity. For the random sample of 1352 school children, information was recorded on all the foods and drinks consumed including the amounts taken during the previous 24 hours. Information on dietary intake from individual 24-hour recalls is generally considered more accurate.<sup>21</sup> Probing was employed to gather information on forgotten foods, and a detailed description of the food/drink, time taken, and ingredients used in the preparation was included. In order to

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<sup>21</sup> International Food Policy Research Institute (IFPRI). IFPRI Discussion Paper 00870 June 2009. Validation of the WFP's Food Consumption Score and Alternative Indicators of Household Food Security.

facilitate the estimation of portion sizes, household utensils, life-size drawings and generic food models were used. The generic drawings and two-dimensional models had previously been tested against real food portions and have been applied in other studies.<sup>22</sup>

76. The dietary intake data for the school were analyzed using the NutriSurvey 2007 software, drawing upon a food table of East African foods developed by WFP. In this evaluation, there were no foods consumed that were not available in the NutriSurvey software, and therefore it was not necessary to make any additions. The software also relies on the WHO/FAO Recommended Daily Allowance (RDA) for comparative standards. One limitation of this software is that it does not generate information regarding the contribution of each meal to the RDA. It only gives information on the proportion of the RDA achieved through nutrient intake from all the meals taken in the day. Therefore, the contribution of the school lunch towards RDA was separately calculated to give an indication of the role of the school lunch in the dietary intake of the pupils.

77. Published reports suggest that school feeding programmes contribute to increased cognitive attention, improved school attendance, reduced absenteeism and enhanced household food security.<sup>23</sup> To assess the nutritional outcomes of the WFP-assisted school feeding interventions, the food consumption patterns of households and children were documented. Food consumption patterns thus serve as an indicator set for household food security and, thus the dietary adequacy of school-going children. Diet *quantity* was assessed using proxy indicators such as food frequency,<sup>24</sup> dietary diversity,<sup>25</sup> and meal frequency.<sup>26</sup> Diet *quality* relied upon such proxy indicators as food frequency scores and dietary diversity. Food frequency scores have been demonstrated to be clearly superior to simpler measures of dietary diversity.

78. It is assumed that dietary adequacy translates into better nutritional status of the school children, and school feeding is part of the child's diet. The number of meals consumed, the household dietary diversity score, the proportion of households consuming foods from various food groups, and the number of times the foods were consumed (food frequency scores) were used as indicators of dietary adequacy.

79. For most of the sample, household dietary intake was inadequate. This is demonstrated by the fact that about half the households consumed less than three meals per day. It is also likely that in many cases the morning meal consisted of black tea and sugar. Furthermore, the diet was limited in diversity implying that the household members lacked a range of nutrients necessary for proper growth, development and maintenance of good health. In particular, the consumption of animal foods (eggs, milk and milk products, fish, and flesh meats) was low, and consequently the diet was likely to be limited in micronutrients such as zinc, iron, and vitamin A, whose main sources are available in animal foods. More detail of the health and nutrition findings is in Annex F.

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<sup>22</sup> Steyn N.P, Whadijah T, Nel J, et al. Dietary Intake of Adult Women in South Africa, Kenya and Nigeria with a focus on the Use of Spreads. 2006. Unpublished Report.

<sup>23</sup> Cullen K., Watson K., Zakeri I. Middle School Student Lunch Consumption: Impact of National School Lunch Program Meal and Competitive Foods. Washington, DC: United States Department of Agriculture; 2007. USDA/ERS Contractor and Cooperator Report No. 30.

<sup>24</sup> Food frequency in this context, is defined as the frequency (in terms of the number of times of consumption in a 24-hour period) that a specific food group is eaten at the household level.

<sup>25</sup> Dietary diversity is defined as the number of different food groups (in this case 16) eaten over a 24-hour period, not regarding the frequency of consumption.

<sup>26</sup> International Food Policy Research Institute (IFPRI). IFRPI Discussion Paper 00870 June 2009. Validation of the WFP's Food Consumption Score and Alternative Indicators of Household Food Security.

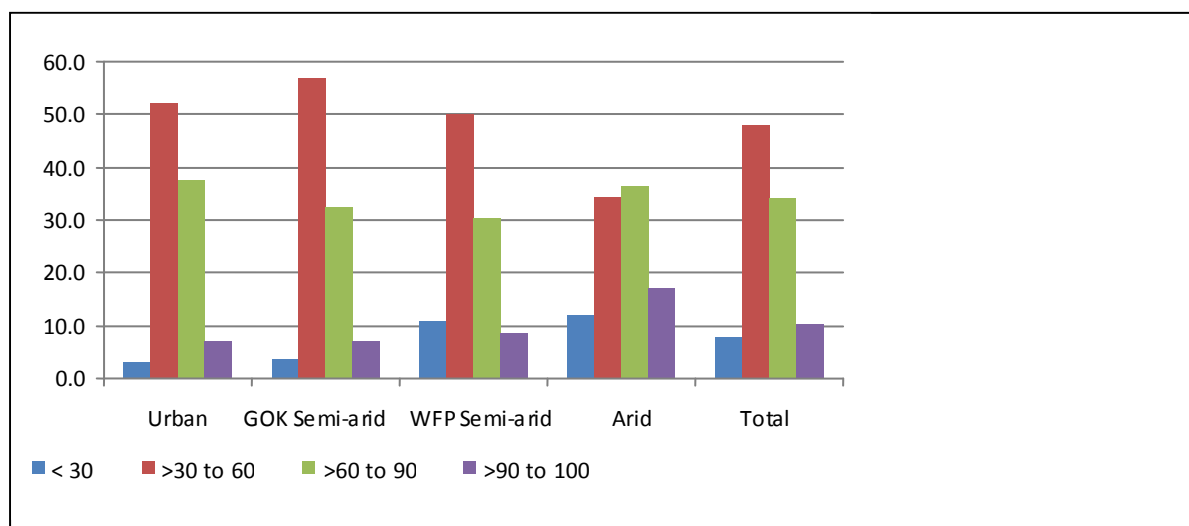
## School Meal Contributions to the Diet of Children

80. Acknowledging that the vast majority of students do not meet RDA standards of nutritional intake, the focus is now on the contribution to daily nutritional intake of the school lunch. For purposes of interpretation, the relative nutritional value of the school lunch is estimated in terms of its contribution to attained RDA. For the sample as a whole, the school lunch contributed between 30-90 percent of the attained RDA level for energy for over 90 percent of the children (Figure 7). For the arid region children, however, the importance of the school meal for energy intake varies widely, with one third obtaining 30-60 percent of attained RDA, but nearly 20 percent of the children relied on almost all of the attained RDA from the lunch.

81. Similar findings emerged for protein intake (Figure 8). For the majority of the children, the school lunch provided between 30-90 percent of the attained RDA; for about half the sample the level was 30 to 60 percent and for one-quarter, it was in the 60-90 category. Again, the lunch contribution to the RDA for protein is bimodal for the arid children. One third obtained 30-60 percent of attained RDA and almost thirty percent were almost totally dependent on the school meal for protein. This variability in the arid regions may be influenced by the patterns of food aid distribution.

82. In the case of vitamin A, the school meal accounts for almost all the intake of Government semi-arid and urban children (Figure 9). For most the WFP semi-arid and arid students, the school meal provides about one-third of the total RDA attained. This means that these children have other sources of vitamin A, many of them from the general food distribution.

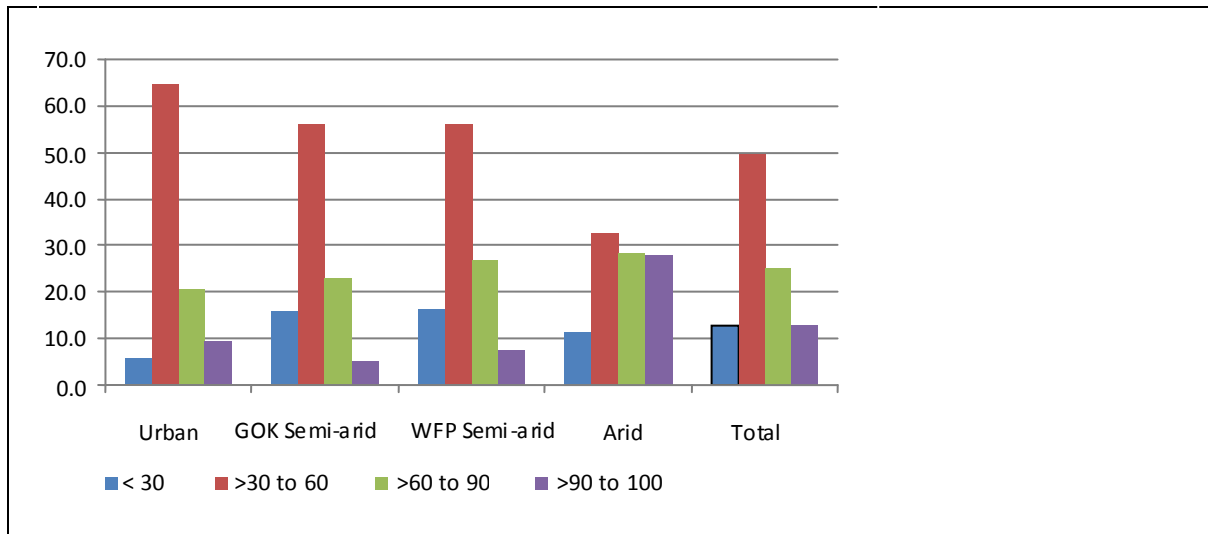
**Figure 7. Energy contribution of school meal to attained RDA**



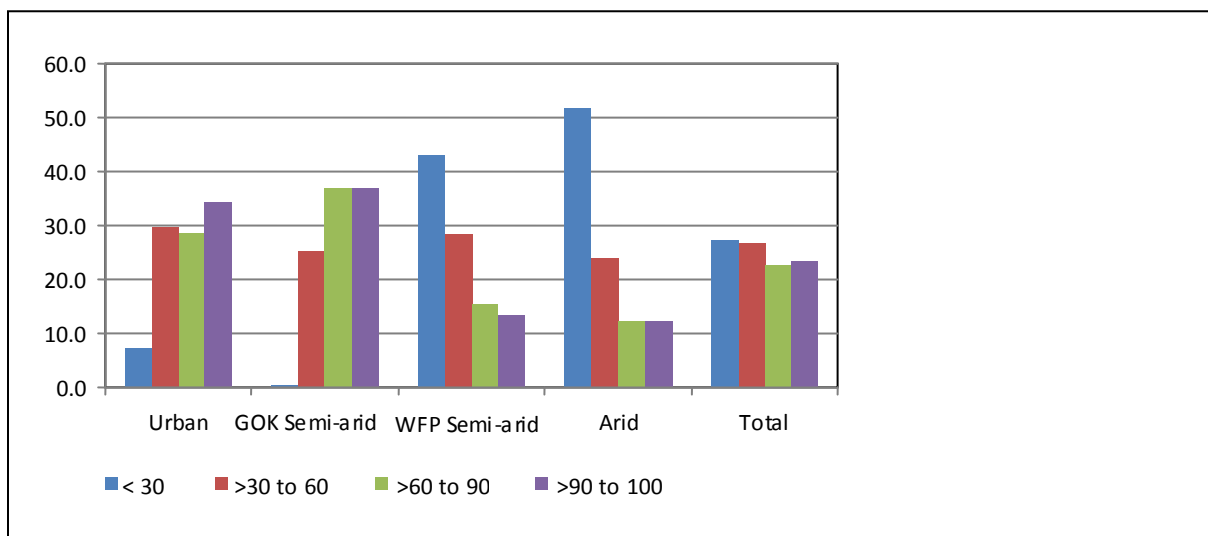
83. With regard to iron intake, the lunch provided 30-60 percent of the RDA for almost half the sample, with the highest proportion (63 percent) located in the Government semi-arid districts and the lowest proportion (28 percent) in the arid districts (Figure 10). For one-quarter of the sample, the lunch provided 60-90 percent of the RDA, with the highest proportion of children (29 percent) coming from the arid areas. The lunch also contributed 91-100 percent of the iron for about one-third of the children in the arid region. In the case of iodine, the school lunch contributed  $\leq 30$  percent of the RDA for almost all the children (91 percent).



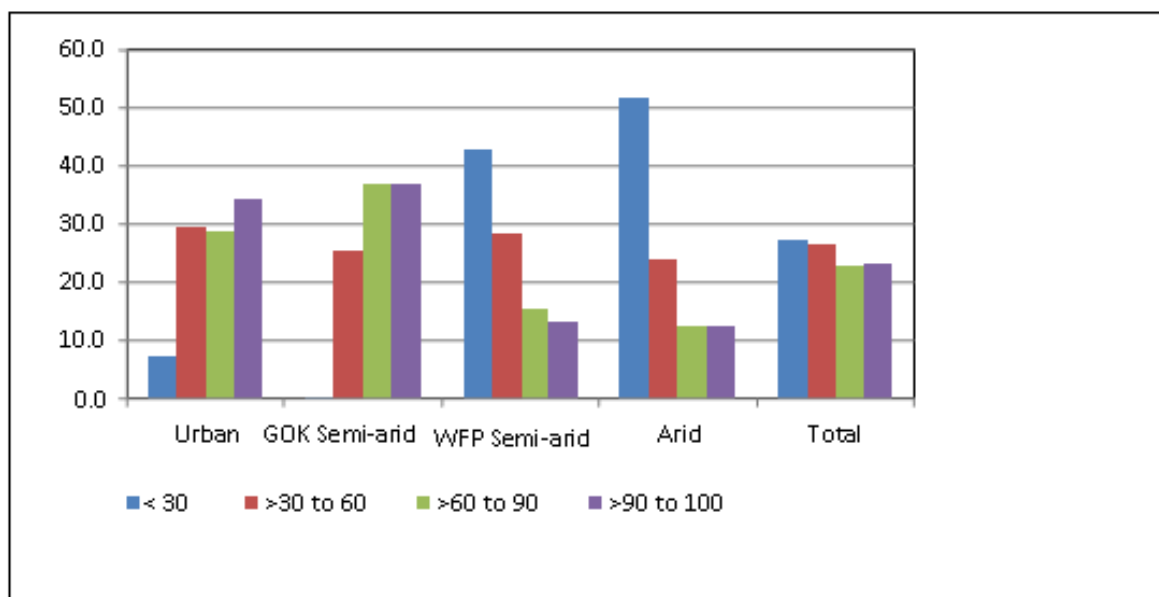
**Figure 8. Protein contribution of school meal to attained RDA**



**Figure 9 Vitamin A contribution of school meal to attained RDA**



**Figure 10. Iron contribution of school meal to attained RDA**



84. The nutritional analysis of the students is open to two seemingly opposed interpretations. On the one hand, the school meal makes a major contribution to the overall nutritional intake of these young individuals. These findings support a study conducted in Western Kenya that compares the nutrient intake and indicators of nutritional status of participants and non-participants in a parent-supported school lunch programme. The school lunch significantly enhanced the energy and protein intake of the pupils.<sup>27</sup> On the other hand, however, since so few are meeting the recommended standards for adequate intake, the implication is that the nutritional sources away from school are highly deficient.

### **A Summary of Nutritional Outcomes**

85. Despite several areas of inconsistency between the results from recall analysis and the qualitative Focus-Group Distribution regarding the number of meals and the adequacy of the school meal, it is uncontested that the reported diet does not meet the nutrient requirements of the pupils. Overall, the diet provided the RDA for energy, protein, vitamin A, iron and iodine for less than 10 of the children. The consumed quantities of vitamin A- and iron-rich foods and of animal foods were very low. For example, when milk was taken in tea, it was in very small amounts. Because of its cost, the amount of oil used for cooking food was minimal. The diet was thus deficient in the nutrients critical for health, nutrition, and educational outcomes. This dietary inadequacy reaffirms the state of food insecurity and vulnerability in the areas where WFP school meals are provided.

86. Also clear in both quantitative and qualitative sessions was the finding that the school lunch makes a significant contribution to the nutrient intake of the pupils. The school lunch is the main meal for the day for the majority of the children and it provides a wider variety of foods compared to what is available at home. For example, food at home is often cooked with little or no fat. The *githeri*, the traditional mixture of boiled maize and pulses, was said to have a higher nutritional quality when prepared in school

<sup>27</sup> Walingo M. K. and Musamali B. Nutrient Intake and Nutritional Status Indicators of Participant and Nonparticipant Pupils of a Parent-supported School Lunch Program in Kenya. *J Nutr Educ Behav.* 2008;40:298-304.

compared to the home. The school *githeri* has a higher proportion of beans to maize and is cooked with oil and salt.

87. That the school lunch is the major source of daily energy intake raises concerns. According to the body of knowledge on nutrition, energy requirements should be distributed over the meals of the day as follows: breakfast 30-35 percent; mid-morning snack 5 percent; lunch 30 percent; mid-afternoon snack 5 percent and dinner 25-30 percent. Breakfast is the most important meal of the day considering that the body will have been in a state of starvation for about eight hours; yet for most students, the breakfast was just a cup of black tea or tea with very little milk or some porridge. Some pupils come to school in a state of energy crisis, and this could impact negatively their concentration in class.<sup>28</sup> This situation is likely to be compounded by the fact that the dinner eaten the previous night was also inadequate in terms of nutrients.

### **The Impact of School Feeding on Nutrition**

88. While the school meal makes a major and significant contribution to the nutritional intake of energy, protein, vitamin A and iron, the impact on overall nutritional status was not measured in this study. The literature reports that increased gain in height and weight occurred among children who ate school lunch compared to those who ate at home or at nearby shops in Vietnam.<sup>29</sup> In Kenya, severe underweight, severe stunting, and severe wasting were found to be significantly higher among the non-participants of a parent-supported school lunch programme than among the participants.<sup>30</sup> On the contrary, a study conducted in Northern Uganda found no impact for school meals or for THR on the anthropometric measurements of children 6-13 years of age. Additionally, the SFP programme had no effect on the anemia status of the school-age children.<sup>31</sup> The absence of impact on nutritional status may be due to the fact that parents feed their children less at home knowing that they receive a meal at school, leading to no difference in caloric intake. On the other hand, improvements in diet quality or caloric intake may increase a child's activity level, resulting in an improvement in overall health not captured in a net change in weight or in other anthropometric measures. One cautiously concludes that the school meal does achieve the WFP stated objective of providing boys and girls with a meal of significant nutritive quality at the school; but the impacts on nutritional status would need a more rigorous experimental study outside the scope of this evaluation. It is clear that the nutritional value of the school meal has to be interpreted within the overall household and family decision-making context.<sup>32</sup>

## **2.4 Safety Net Results of the School Meal**

89. In current development thinking, the role of school meals has been promoted as a key element of a broader strategy of social protection (World Bank 2009; Miller del Rosso 2009; WFP 2009b). In this formulation, the value of school feeding is extended beyond the student to the household and even to the community. At one level, the school meal represents a direct social transfer to the family of the student, the value of which can meet immediate food security needs, relieve a stressed household budget, or contribute to the building of assets. At the same time, the school meal is seen to generate longer term benefits to household and community. As the school meal

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<sup>28</sup> This finding corroborates the 2008 Baseline Survey (WFP 2008) which showed that only 48 of the students came to school having eaten.

<sup>29</sup> Hall A, Harch T.T.M, Farley K, Quynh P.N, Valdivia F. An evaluation of the impact of a school nutrition programme in Vietnam. *Public Health Nutr* .2006;10:819-826.

<sup>30</sup> Walingo M. K, and Musamali B. Nutrient Intake and Indicators of Nutritional Status of Participants and Non-participant Pupils of a Parent-supported School Lunch Program in Kenya. *J Nutr Educ Behav*. 2008;40:298-304.

<sup>31</sup> Adelman S, Alderman H, Gilligan D.O, Konde-Lule J, IFPRI, Draft Report, June 25, 2008.

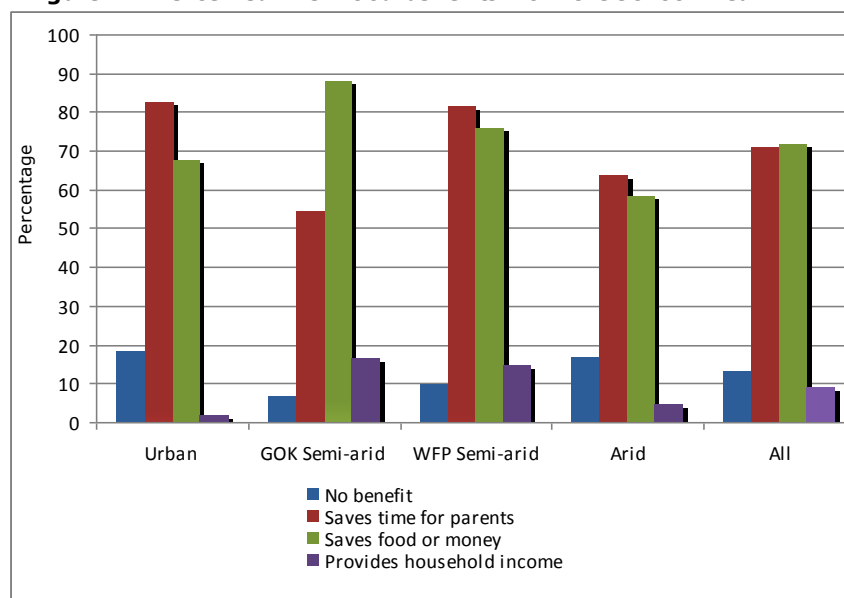
<sup>32</sup> Further detailed discussion of the nutritional outcome findings is found in Annex E.

contributes to educational and health outcomes of students, thus removing major constraints to individual fulfilment and well-being, the benefits can accrue back to stem households in cultures such as those of Kenya where family and community ties are highly valued. Thus the social protection and safety net benefits of the school meal are very much linked to the nature of households and local cultural values.

90. Accordingly, this evaluation examined the process by which the school meal is incorporated into household livelihood strategies. The monetary value of the school meal has been estimated at 12 KES (Boston Consulting Group[BCG] 2009), and the average household has approximately two children of primary school age (6-14 years). If the average number of feeding days was 142 in 2008 (although 195 school feeding days were planned), the total social transfer value (to the household) of the school meal is 3408 KES, which represents around four percent of average annual household income. However, for the third of the households in the most vulnerable category, this value represents around 9 percent of annual income. This “savings” to the household budget is thus significant.

91. The social protection benefit from school feeding is best considered in terms of a time horizon—the very short run, the short term, and the longer term. Over the very short run, the social protection benefit is directly measured by the value of the meal. The qualitative team encountered various situations in which the school meal served the role of an emergency intervention. Especially in the arid regions, the pastoralist communities find themselves in severe crisis due to the extended drought and the upsurge in violence both within Kenya and across the border with neighbouring ethnic groups (e.g. in Sudan, Uganda, Ethiopia, Somalia). The victims of this crisis have, in effect, sought refuge in local population settlements and are sending their children to the local school for food. In these cases, the meal benefit has a substantial protection impact on the household livelihood.

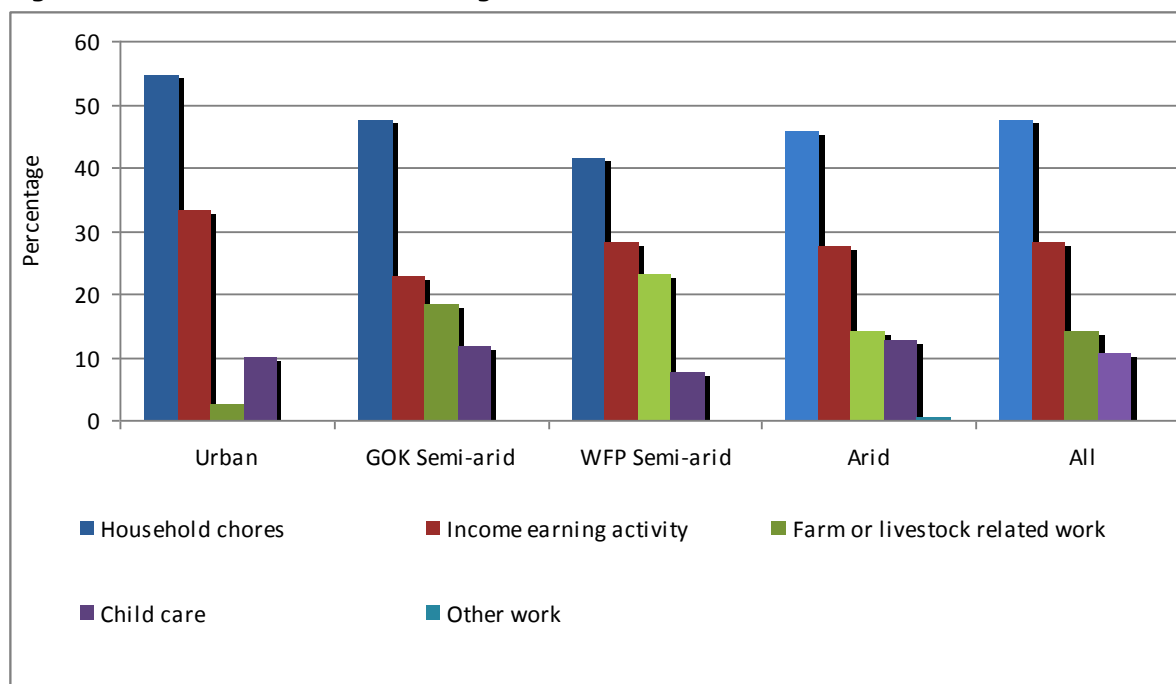
**Figure 11. Perceived livelihood benefits from the school meal**



92. Also, in the face of extremely dire circumstances due to the poor long rains, the Government approved a programme of continued school feeding over the August school holiday period. Many children continued to receive the school meal during this time, as part of the emergency response. Over the short run, the meal benefit to the household is

more indirect but strategic. As Figure 11 depicts, the perceived household benefit from the school meal is not only the money or food that is saved but also the time. The school meal allows children to go to school early in the morning and stay there all day in relative security. In the PIA session, this advantage accrues particularly to the most vulnerable children, who otherwise would not be able to attend school.

**Figure 12. Household use of time savings from the school meal**



93. Without the meal, parents either have to prepare a meal to carry to school or the child returns home at lunch time. Both these alternatives require time in food preparation and child care. The strategic importance of the meal, then, lies in the fact that the household can plan to allocate this time savings to other activities. Figure 12 suggests that about half the households allocate their time savings to household chores, while about thirty percent are able to expand income-earning activities. This latter benefit is particularly prominent in the urban slums where unskilled labour opportunities are more available. In the rural farming districts, more time is dedicated to agricultural or livestock activities. Around ten percent of the households stated that they devote the extra time to child care, which itself yields an indirect benefit.

94. It was not possible to gauge the actual monetary value of this time savings. If, however, the use of extra time is compared across vulnerability groups, more of the least vulnerable households allocate this time savings to income generation. This outcome suggests that these households have an advantage precisely because they are able to use the time in ways that produce more revenue for the household budget. At the other end, the most vulnerable households appear less likely to use this time to increase household income, for whatever constraints.

95. As Figure 11 suggests, the other social protection benefit from the school meal redounds to the household budget. When children get a meal at school, the great majority (more than 80 percent) of the households report that they spend less on food at home. The one significant exception to this pattern is found in the arid districts, where more than 40 percent of the households stated that they spend the same amount on food even when the child eats at school. Among the pastoralist groups, the principal

meal is consumed in the evening because, according to the qualitative interviews, one cannot sleep on a hungry belly, and a good night's rest is critical to the livelihood demands of herding. Moreover, for a small percentage of the households, the school feeding provides an income opportunity. Almost six percent of the households, mostly in the rural areas and among the most vulnerable, sell their labour to the school as cooks or helpers; five percent sell firewood; and a smaller number of households sell water to the school.

96. The longer-term effects of school meals in informal safety nets are engrained in Kenyan family culture and values. As household members leave home to pursue their individual pathways, the strong sense of affective attachment toward family and community often inspires a return transfer of resources in the form of remittances, in-kind support, and even labour. The household survey identified across nearly half the sample approximately 600 individuals who were considered part of the family but had left the household. The average age was 24 years, and the group was evenly divided between men and women. This group displayed a wide range of outcomes and fortunes. Many had married out or had gone on to study; others had set up their own herds or farms nearby. Slightly more than 20 percent had moved to a large city and around half of them had succeeded in establishing stable livelihoods as skilled or salaried workers, professionals, or business operators. Half the group had finished primary school or better, and 40 percent had been the beneficiaries of school feeding for at least one year. Of those who had reported occupations, including unskilled labour, between 70-90 percent supported the household or community in some way. Due to the wide variation of individual experience, no patterns emerged that could isolate the specific impact of school feeding. The school meal was not a significant predictor of level of educational completion, of type of profession, or of the inclination to support the stem household. This lack of clear impact is discussed later.

97. On the other hand, the qualitative tracer studies were able to shed light upon the process by which longer term benefits of school meals accrue to children and to households. Several of these tracer stories are shared and discussed in terms of the process insights they provide.

98. In the case of Mr. P., a Chief from Turkana, his pathway was determined by an exogenous event—the violent loss of his father and the family wealth. The coping response of his mother was to move him to a settled community and enter him into the school where he would, at least, be fed. Once in school, other fortuitous events gave him the opportunity to move forward with his education. Now, as a Government official, Mr. P. is a major respected figure in the community, the Government spokesman, a concrete role model, and a strong supporter of education.

### **Mr P Turkana North**

Mr. P is the Chief of Kalobeyei Location in North Turkana District. He is married with three children who currently attend ECD at Kalobeyei Primary school. He comes from a family whose father was killed and their family herd stolen during a violent cross-border raid. His mother, impoverished by the raid, had moved to a makeshift manyatta near a small urban settlement where he entered school. The availability of food allowed him to stay in school all day without placing a burden on scarce family resources. At one point, his uncles came to him and told him that he must return and assume his destiny as a herdsman, even threatening his life if he remained in school. But Mr. P was fortunate to find a sponsor in World Vision Canada so he could finish primary and then proceed on to high school with a government scholarship. He finally achieved a diploma level degree in Animal Husbandry, again sponsored by a national NGO. As Chief, Mr. P is entrusted with the responsibility of communicating government policy and directives to the grassroots, and he provides a major role model for children. In his barrazas, he promotes education and encourages children to attend school, exhorting them to develop and achieve their full potential to reach and surpass his own success. Mr. P firmly believes that the Turkana community increasingly views education as an alternative mode of livelihood as the drought continues to decimate cattle herds and the increased violence of cattle raids assumes a new and ominous commercial

### **Miss K Wajir**

Miss K. is the daughter of a Godia clansman in Wajir and the only child (among 18 siblings) who has finished high school. Her father was a man of means with 50 goats, 10 cows, and 15 camels, while the mother tended a shop in the market centre. The decision to go to school was influenced by the mother, an enlightened illiterate who hailed from the town before marrying, so in 1991 at five years of age, Miss K. entered a boarding primary school while her father and brothers herded in the bush. She did not like going to school in the early days and almost quit at third grade, but was talked out of it by the headmaster. In the fourth grade, she began to enjoy learning in class four when she discovered the eloquence of the ability to read and write. The feeding program made school more inviting to her. This very situation brought many more girls to enrol in school. The maize and beans lunch appeared as part of the relief efforts to ameliorate grim drought conditions of 1992. There was no food available except for the school meal and relief food distributed to the community. She has learned since, if it were not for the school feeding, her school would have been shut down completely. It was during this time of crisis that clan violence broke out between the Godia and Ajuant, and Miss K. lost many of her Ajuant girlfriends who moved away from the community with their families.

In 1995 peace was brokered with Government support. Due to the effects of the violence, there were only seven boys and three girls in her eight grade class. Miss K. was one of the two girls who qualified and got admitted to Wajir Girls High School, about two hundred and twenty km away from her home town. She completed high school successfully and proceeded for a Diploma course in Animal Health in Thika. She now works with the District Pastoral Association, a local NGO based in Wajir town, and she provides services to the surrounding pastoralist communities. In 2009, Miss K. married and lives with her husband in Wajir town.

**Mr. J. Taita**

Mr. J. graduated from Mwarombo Primary School in 2005 and was admitted to high school. But his parents couldn't afford the high school fees and he was unable to continue. Mr. J. is the fourth child of eight. His two eldest brothers are herdsman who take care of other people's cattle. A sister has married and has settled away from the community with her husband. Another brother is in fifth grade at Mwarombo, and the others are of pre-school age. Mr. J. walked five kilometers to and from school. His parents were poor and had not educated any of his elder siblings. Mr. J was motivated largely by the introduction of the school feeding program which had attracted many other neighbouring children they could make the long trek as a group. At school, they received morning porridge and a noon-time lunch, which was better than he could expect at home. Mr. J., now 21 years old, fondly remembers this school experience, and sometimes, he would carry some food from school back to home. The parents both worked and were seldom at home whenever he returned. Mr. J. believes he would not have been able return to school for afternoon classes had it not been for the school meal. When high school became impossible, Mr. J. decided that he would apprentice as a mechanic at a local vocational centre. Currently he works as a *bodaboda* rider ferrying passengers around town by motorbike and earns an average of 300 KES a day. In the meantime he has trained as a driver and has qualified to be a truck driver—one of his highest ambitions. He still lives at home with his parents

**Mr. G.: Marsabit**

Mr. G. was born in Marsabit in 1988, the son of Burji parents. In Marsabit, the Burji are mostly sedentary, although they live among the large pastoral groups, such as the Borana, Gabra, and Rendile. Spurred on by his father, he began his education in Early Childhood Development (ECD) class in 1994, where they were served porridge mid-morning before going home for lunch. The following year, he began his primary school and recalls how the school meal was such an incentive for children who had to walk long distances to get to and from school. It was a safety valve for those whose parents were nomadic with little to eat at home in the day. In 2002, Mr. G. was admitted into Meru High School, where graduated from in 2006 and he remembers what an achievement it was to be accepted at the University of Nairobi—the only one from a class of three hundred. He has just completed his first year at the University in Civil and Structural Engineering.

Mr. G. feels that he has benefited from much good fortune and is now committed to contributing to his community. He assists with tutoring high school examination classes during his holidays in Marsabit in an effort to increase the numbers of students who transition to institutions of higher learning. He focuses in helping bridging the gap in the syllabus, and he tutors math and sciences at his old primary school. Mr. G. volunteers with the Red Cross in sensitizing communities on HIV/AIDS, where the focus is on handling, care, of those infected with AIDS. His team has covered 10 schools in Marsabit Central. As a youth leader in the Anglican Church, he visits hospitals, contributes to orphanages, and participates in the delivery of water to both primary and secondary schools from a source 25 miles away. When he graduates, he plans to pay back to the community through engaging in conflict resolution and peace building initiatives.

99. The life story of Miss K. highlights not only the value of the school meal as the attraction to school but also the influence of her schoolmaster and the support of her mother. While the school meal helps break the immediate constraints imposed by hunger, violence, and drought, the nurturing school and household environment provides the sufficient conditions to open new pathways for pastoralist girls. Her position



in the NGO and her training in animal health have established Miss K. as a highly valuable community asset.

100. The experience of Mr. J offers another variant on how the school meal generates a long term outcome. This young man comes from a very poor farm family, and his mother works selling vegetables in the market. The family is large, and the father could not support his son for high school. To a significant extent, however, school feeding created an enabling environment for Mr. J. to obtain a primary education, to successfully complete a vocational course, and to pursue a career that he values. He can expect a stable livelihood, even though his education was cut short.

101. In sum, the tracer histories provide important elements to the impact analysis of school feeding. First of all, they are not uniformly narratives of success, at least as measured by conventional standards. There is the experience of a young adult woman in North Turkana who was unable to finish primary school. Her parents put her in school during a debilitating drought to take advantage of the school meal ("At least, I was going to be fed."). She developed a love of learning but family economics and cultural pressure led her to an early marriage and her education was discontinued at seventh grade. Nonetheless, she has remained active in school affairs, particularly when her husband went to work in Sudan, and was an elected member of the school management committee (of the same school she was forced to abandon as a student). From this vantage point, she has written a successful donor proposal to fund an additional classroom and is now developing a proposal for a dining hall at the school. By all accounts, this woman is a fulfilled and respected member of society who contributes to both her household and to her community.

102. One of the most commonly reported ways in which school meal beneficiaries contribute to the household is by supporting younger siblings and other family members. In this case, not only does the school "graduate" provide an alternative role model, he or she financially backstops the education of the other household members. The case of an NGO worker, again in Turkana, illustrates this pattern. He was the first child in his family to attend school, done so at the urging of a respected leader from the community. At first, the father demurred, but then agreed to let his son enter school, especially because of the school meal available there. The student took advantage of the opportunity and went on to obtain a university education. He has bank-rolled the education—both primary and secondary—of all his younger siblings, both boys and girls.

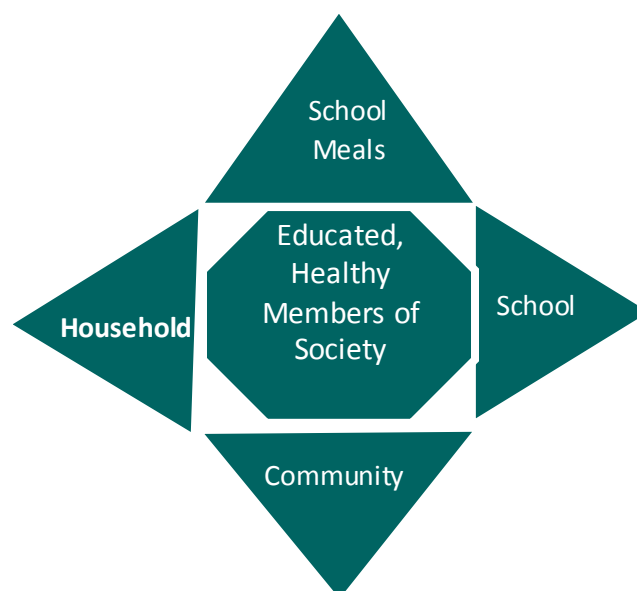
103. The tracer studies also demonstrate the limits of school feeding. In most cases, there has been an extraneous influence, force, or event that has propelled the student to greater levels of accomplishment. The value of the school meal is inextricably intertwined in a set of other conditions that create pathways for young people. The influence of an inspirational teacher, a distant relative, a missionary, an NGO programme, even a community narrative provides the aspiration horizon or the enabling environment that is so critical to educational progress. For example, a boarding school in Narok was established by foreign missionaries who lived in this isolated and remote community. The resident missionaries built an airstrip for small planes in order to improve communication. The airstrip is now abandoned and grown over, and no primary student actually remembers planes using the strip; but when asked what they wanted to be, there was an enthusiastic consensus around "pilot." This community narrative, probably nurtured by reminiscing elders, has an influence on children merely by expanding the range of expectations and aspirations. In almost every tracer story there is an example of an influence—either inspirational or financial—that provided this crucial impulse.

## 3.0 How does School Feeding Create Impact?

### 3.1 Four Cornerstones

**Figure 13. The four corners of education and health impacts**

104. In any impact assessment, the optimal outcome would be to isolate an intervention, in this case, the school meal, and to measure its direct effects on those variables and indicators targeted by the programme. This evaluation arrives at the conclusion that most school meal impacts are neither direct nor isolatable. The most direct and inarguable result of the school meal is that it staves off hunger and provides significant nutritional intake—certainly important and valuable results in their own right. From a strategic perspective, however, school feeding is intended to carry more weight. That is to say, the school feeding contributes significantly to more sustainable and fulfilling



educational, health, and livelihood (through social protection) outcomes that ultimately break the inter-generational cycle of hunger. The analysis indicates that these programmatic goals and impacts are much more complex and achieved through multi-dimensional and inter-sectoral interventions, of which school feeding is one key element.

105. It was evident from this evaluation that the development of healthy, educated citizens is built upon four cornerstones which have a high synergistic and interactive effect (Figure 13). Besides an effective school feeding programme, sustainable health and educational impacts require a functional school environment, a supportive household environment, and a community environment that values education. If the school environment is non-conducive, if the family is non-supportive, or if the cultural context is antagonistic to education, the sustainable impact of school feeding becomes diminished and attenuated. The organizational implication for WFP is that the potential of school feeding is best achieved in the presence of complementary interventions that address constraints in the household, school, and community environments.

### 3.2 The Role of Contextual Factors (outside WFP's control)

106. The results of the qualitative survey throw light on why children either do not start or fail to finish primary school. There are three classes of motives for not sending some or all children to school – economic, cultural, and environmental – as summarized below. Analysis of both quantitative and qualitative information suggests an association between economic constraints and decision-making in the semi-arid households, while the cultural constraints appear more binding in the arid, pastoralist households. The effect of the quality of learning environment is more prevalent in the rural schools compared to the urban ones.

<b>Economic</b>	<b>Cultural</b>	<b>Environmental</b>
1. Need the labour at home	1. Conflict with traditions	1. Quality of the school
2. Education-related expenses	2. School rules/role of women	2. Security
3. No real "pay-off" to school	3. Learning irrelevant 4. Early marriage	3. Distance

### **Economic Constraints**

107. In both the arid and semi-arid districts, families are more reluctant to send their children to school because of the livelihood contribution that children make to the rural household economy. This contribution, for boys, is with helping with the management of livestock and with agricultural tasks, as well as with income-earning activities, such as charcoal burning; for girls, their labour is also used in light agricultural tasks, the gathering of firewood and water, and domestic tasks, such as sibling care, cooking, and so forth. One group of parents in Turkana North whose children do not attend school, revealed that their children had "migrated." In fact, their school-age children had left home to relocate near Kakuma refugee camp in order to earn money providing labour services to the camp residents. Also, in the pastoralist ethnic groups, girls also have significant economic value at the time of marriage for the number of cattle that a girl can command as brideprice.

**Table 12. Reported household school costs**

	<b>HH Income</b>	<b>Median Cost of Schooling</b>	<b>Cost of Schooling/ HH Income</b>
	<b>KES ('000)</b>	<b>KES ('000)</b>	<b>%</b>
<b>Agro-ecological Zones</b>			
Urban	78	3	5.2
Government semi-arid	72	2.3	6.6
WFP semi-arid	77	2.3	7.6
Arid	114	1.5	2.3
<b>Vulnerability Groups</b>			
Most Vulnerable	39	1.6	8.3
Moderately Vulnerable	79	2.2	4.9
Least Vulnerable	166	3.0	3.1

108. At the same time, the education of children entails a real cost for household budgets, as Table 12 points out. The median value of direct educational expenses ranges from 1500 in the arid districts to twice that in the urban settlements. Again the most vulnerable spend about half as much on school expenses relative to the least vulnerable households. As the table estimates, the household economic burden of putting children in school can represent up to 8 percent of household income for the most vulnerable. The qualitative data clearly point out that even the costs of the school lunch (some schools are reported to charge two shillings a day if children do not bring firewood or water) are considered burdensome to the poorest households, as is the time spent in gathering wood and water. Thus, despite the national policy of free primary education, direct economic costs to the household act as a deterrent to education for some children.

## **Cultural Factors**

109. Cultural constraints are prevalent throughout the arid districts, especially among the pastoral ethnic groups. Both students and schools staff noted that education can be perceived as a threat to the pastoralist lifestyle and traditional values, rather than a pathway to a “better” life. Among the pastoralists, a child’s destiny is intimately enmeshed in the cultural definition of adulthood and fulfilled membership in the group. As they mature physically and intellectually, boys are introduced to detailed funds of indigenous knowledge regarding animal husbandry and range management, and they “graduate” through a set of rituals and traditions (including raiding) structured to prepare them for marriage and the establishment of their own herd. Young girls are similarly acculturated into their roles marked along the way by identity-forming ritual. In the patrilineal groups, marriage and brideprice (i.e. the transfer of cattle in exchange for the bride) are the economic and cultural foundation of a household. These roles and expectations are encoded in the value system which defines the essence of group membership and how people are to relate to one another. In the PIA exercises in the arid districts, education and school were frequently seen as causing conflict at home, precisely because education directs children down a different, non-traditional pathway. For example, school rules about appropriate dress and haircuts clash with the traditional rules and perceptions of the group. Similarly, women teachers stand up and assume public roles not consistent with cultural custom. The qualitative team talked to headmasters that had “rescued” girls from early marriage, although it is an accepted practice in the appropriate cultural sequence. Many perceive that school encourages children to abandon traditional livelihood and the culturally sanctioned sets of aspirations and ambitions and thus is considered a challenge to the very identity of the ethnic group.

## **School Environment Constraints**

110. There is wide variability among the sampled schools in terms of remoteness, quality of instruction, and quality of physical infrastructure. There were seven schools that had boarding facilities, five of them in the arid zone where they mostly provide accommodations for the children of the nomadic pastoralist households. In general, the schools service a catchment area of approximately a 5-kilometer radius, although some schools attract student from significantly longer distances. It is important to note that virtually all children walk to school, and there is no official transportation system.

111. The Government with support from UNICEF has initiated a mobile school system in which teachers accompany the pastoralist groups as they relocate in search of pasture. At each camp, the teachers conduct classes for the preschool children and the first three grades of primary school. The mobile schools are structurally related to a “base” primary school which the children attend to complete their education.<sup>33</sup> In the nomad camp, the children get access to meals prepared with WFP food. The mobile schools are considered to be an effective means of adapting educational access to a non-sedentary population.

112. Table 13 presents key indicators that constitute the infrastructural quality of the school environment. The major overriding constraint in the arid and semi-arid districts is the lack of water for human consumption—both drinking and washing. The evaluation team witnessed schools (e.g. in Marsabit) where food stocks were available but there was no water for cooking. Here, as elsewhere, children are required to bring water from home for use in the school. In Turkana North, girl students had been accosted and

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<sup>33</sup> Not all the children are invited to move on to the base school, only those who are deemed to be more inclined to formal learning. The mobile teachers identify who those children are among their students.

threatened when they went to a water point ten minutes from the school to obtain water and were confronted by a pastoralist group that was watering the herd. It is difficult to imagine, let alone depict, the magnitude of the water problem in the ASAL. As the table reports, only about half the sampled schools have a safe water source within the school compound, and in the semi-arid districts only a third of the schools have access to water on the grounds. For even a larger number of schools, the availability of water is seasonal. Only about 40 have water throughout the school year.<sup>34</sup>

113. The scarcity of water has implications not only for preparation of school meals, but also for sanitation and hygiene and thus nutrition and health. Only half the schools have a hand-washing facility (e.g. sink, faucet), and while students are encouraged to wash their hands before eating, few schools have water for washing after latrine use. The headmasters reported that nearly three-quarters of the schools have latrine facilities that were adequate and maintained, including separate latrines for boys and girls as well as for teachers. The qualitative visits to the schools, however, suggested that the quality of the hygiene infrastructure remains a major challenge. Although data on the number of latrines was not collected in the school surveys, the PIA sessions in several schools reported an insufficient student-latrine ratio as well as complaints about the cleanliness of the latrines. In the participatory sessions, girls particularly stated that the availability and quality of the latrines were negative aspects of the school experience.

**Table 13. School environment characteristics**

School Infrastructure	Agro-ecological zone				All
	Urban	Govt semi-arid	WFP semi-arid	Arid	
<b>Availability and access to safe water</b>	-----Percent-----				
Safe water facility located within the school	88.2	46.7	29.4	57.9	55.9
Availability of water throughout the year	52.9	26.7	29.4	52.6	41.2
<b>Toilet facility</b>					
Improved toilet facility	82.4	53.3	70.6	84.2	73.5
Well-managed toilet facility	88.2	73.3	76.5	78.9	79.4
Separate toilet for teacher and students	100.0	93.3	94.1	100.0	97.1
Separate toilet for boys and girls	100.0	100.0	100.0	94.7	98.5
<b>Hygiene facilities and practices</b>					
Hand-washing facilities within the school	76.5	53.3	47.1	36.8	52.9
Students usually wash their hands after using toilet	82.4	33.3	70.6	47.4	58.8
Students usually wash their hands before eating	88.2	86.7	100.0	100.0	94.1
<b>School has a school garden</b>	17.6	60.0	52.9	42.1	42.6

114. The Essential Package (EP), developed by WFP and UNICEF (2005), is comprised of a set of targeted interventions designed to complement school meals in promoting the health and nutrition of school children. Besides potable water and adequate sanitation infrastructure, the elements of the EP include school gardens, fuel-efficient cook stoves, de-worming, malaria and HIV/AIDS awareness, and other health, nutrition, and hygiene messaging activities. The school survey sought to identify the extent to which these EP elements were present in the sampled school. In general, the results are sporadic and do

<sup>34</sup> Many of the observed schools in the arid region have multiple cisterns to harvest water from the roofs of school buildings. This system is an important source of water throughout the school term, but the current multi-year drought has made the system non-functional.

not vary significantly across the region. Some schools have fuel efficient stoves, but many do not, nor do they have sanitary cooking facilities or dining halls. While rural schools often have gardens, they are not utilized for lack of water.<sup>35</sup> MOPHS, supported by De-worm the World, has conducted a major de-worming campaign in Kenya in an effort to reduce helminth infestation. However, the ASAL region is not designated a priority area because of relatively low incidence rates. Most schools do provide awareness orientation on HIV/AIDS but not on malaria prevention. With regard to health and nutrition messages, most schools provide training on hygiene practices and health, but not on nutrition and food. In sum, the Essential Package in most of the schools in the survey remains more a policy of good intentions but only sporadically applied.

115. The qualitative interviews, particularly the tracer cases, suggest that many children are attracted to stay in school because of the learning experience, the role models provided by teachers, and the receptiveness of the school environment. The quantitative survey sought to capture this aspect of the school environment through the analysis of several indicator variables. A teacher quality variable was constructed by simply summing the number of teachers weighted by their Government classification level (P-ATS), a school-wide measure which favours the larger schools. Then the average per teacher scores was calculated to control for the total number of teachers at a school.

**Table 14. Quality of learning environment indicators**

Teaching quality indicators	Agro-ecological zone				All
	Urban	Govt semi-arid	WFP semi-arid	Arid	
<b>Teacher quality (total school score)</b>	55.7	39.8	39.4	37.7	42.9
<b>Teacher quality (average)</b>	3.3	4.2	3.6	4.0	3.8
<b>Percentage of non-government teachers</b>	28.3	18.2	25.0	16.9	22.0
<b>Student-teacher ratio</b>	37.2	37.1	46.9	82.4	52.3
<b>Average number teachers/school</b>	16.2	9.5	10.3	9.4	11.3
<b>Percentage of schools with &lt; 8 teachers</b>	0	13.3	29.4	31.6	19.1
<b>Teacher gender ratio</b>	2.0	0.8	1.0	0.7	1.1

116. As Table 14 reveals, the urban schools have the highest teacher quality score; however, the average classification level of the teaching staff does not vary significantly across the areas because of the high percentage of non-classified teachers.<sup>36</sup> Attracting teachers to more remote schools has proven difficult, and schools have hired “community” teachers or have utilized “untrained” volunteer teachers in many schools. In the urban areas, large classroom sizes and constraints on hiring have also resulted in the use of non-government teachers. Almost half of the schools employ these “uncertified” teachers, both male and female, and as Table 14 indicates, over a quarter of the teaching staff in urban and WFP semi-arid schools is not Government-sanctioned.

117. Another measure of teaching quality is the un-weighted total number of teachers per school. Almost all the schools in the sample have eight grades and a pre-primary room. Commonly a school has a minimum of eight teachers, one for each class, and

<sup>35</sup> In urban schools the constraining factor for school gardens is usually space.

<sup>36</sup> The total school teacher quality index provides an indication of the teacher training level and can only be interpreted in relative terms; the teacher quality index is an indicator of the average training qualifications of the teaching staff. There are four ATS grades (1 to 4), two P grades (1 and 2), then untrained teachers and community teachers. The range of this average is between 1 (all untrained teachers) and 8 (all teachers at highest Government grade). Many other factors, of course, could affect teacher quality.

another staff to handle the pre-primary responsibilities. Overall, approximately 20 percent of the schools do not have a minimum complement of eight teaching staff (all the urban schools do), and the shortfall areas are in the WFP semi-arid and the arid regions where almost a third of the schools is without the minimum number of staff. The student-teacher ratio is another of the more robust measures of the learning environment, and the rural schools are significantly disadvantaged in this regard. The urban and Government semi-arid schools (which have easier access to Nairobi) enjoy the more attractive pupil-teacher ratios, but the average in the arid districts (82 students per teacher) indicates the difficulty in recruiting teachers for these schools. Overall, the student load of teachers in the lower grades is significantly higher compared to the more advanced grades.

118. A final consideration of learning environment is the gender ratio of teachers. Gender equity in education is a stated goal of WFP's school feeding programme. Reports on school feeding and education frequently cite that girls are dissuaded from going to school because they find the male-dominated environment intimidating and uncomfortable (e.g. Colclough et al. 2000). The presence of female teachers as role models and mentors is seen as a strategy to improve the learning context and make it more sensitive to vulnerable girls. The teacher gender ratios, summarized in Table 14, show that the urban schools have twice as many female teachers as males, while the Government semi-arid and arid schools have 8 and 7 female teachers for every 10 male colleagues. The WFP semi-arid schools have achieved gender balance among teachers. In fact, during the qualitative visits to 16 schools, it appeared that the security situation and the remoteness of the school posed the major obstacles to a more equitable teacher gender balance, although such factors did not seem to affect the mobile schools, where the teacher gender balance was close to equity.

119. The learning environment also influences household decisions to educate children. These factors include the quality of the physical infrastructure and the classroom and learning "ambience", the distance of the school, and the level of security. From the students' perspective the physical infrastructure of the school refers primarily to the availability of water, the size and quality of the classrooms, access to school books and supplies, fencing around the school, and, importantly, the availability of latrines for boys and girls. The more social aspects of the school environment refer to the tenor of discipline, the way in which teachers treat students, and the interaction among students. In the PIA sessions, students described teachers who were true role models but others who seemed uninterested and spent the class time talking on the mobile phones. In schools without adequate teachers, students sometimes sit that their benches in teacher-less classrooms with no activity to occupy their attention. Students who could not afford uniforms felt disparaged by teachers and their peers. In the absence of fencing, animals roam freely within the school grounds, which several students considered unhygienic and distracting. Girls are particularly sensitive to safe and clean latrine access, and it was stated that pubescent girls will not come to school during their menses, if latrines are not available.

120. The long distance to school is also a prohibiting factor, particularly for younger children and for girls. It is related to fatigue and to security. In one school in Narok district and in another in Kwale district, the team heard of young girls trampled by elephants while on the way to school and others harassed. There is anxiety among both parents and students who must walk five km or more twice a day (one school group stated they walked 15 km to school). Parents are seldom able to accompany their younger children to school, although mothers were sometimes seen at a number of schools awaiting the end of classes. The distance is even more discouraging when

children have to bring firewood or water with them. The factor of security occupies a priority level, particularly for girls, both on the way to school and at school.<sup>37</sup>

## **In Sum**

121. The importance of these environmental disincentives to education was made clear in the PIA sessions with students, teachers, and the school management committee. As these discussions reveal, it is misguided to assume that time in school results in learning. The boys and girls in the qualitative sessions provided highly reflective insights into the constraints to learning when in school. They pointed to the overcrowded classrooms and the lack of benches, so that students sit three to a single place; textbooks are scarce and must be shared among several students; they come to school without breakfast and cannot concentrate until the meal is served. The students also referred to the fact that they cannot study at home for lack of paraffin for the lamps. If a general lack of parental reinforcement is added to such formidable impediments to the learning process, it is possible to understand how some children fall victim to attrition.

122. The survey and PIA data both show that school feeding works to counteract the effects of the economic and the environmental constraints but has less influence on the widespread cultural perception (among certain groups) of education as anathema to the traditional way of life. The lure of food, especially under the current stress due to prolonged drought, has high value to parents and to children. The evaluation team in Turkana North repeatedly encountered situations in which pastoralist families had lost their herds to drought or violence and had retreated to the edge of small nucleated settlements to take advantage of school feeding for their children. In the PIA school sessions, all groups—parents, children, school staff—concurred that the school meal was the central magnet that brought children to school, especially in the early years.

123. The level of poverty and food insecurity is such that many children come to school without eating, and their principal meal of the day is consumed at school. There is evidence from the tracer accounts that some children take food home, when available, to either eat later or to share with family members. And it is common for children to bring their younger preschool siblings to partake in the school meal. The girls' groups noted that without a school meal, education would not be possible because the distance between home and school would not allow them to return for lunch.

124. Moreover, observations of lunch time interaction seem to portray a highly positive moment in the daily school routine. Children stand in disciplined lines, each with their utensils from home...sometimes just a recycled can or much battered plastic bowl, receive their meal then break off into small groups to sit and socialize. Some gather around a small mat with the food in the middle and eat communally as they would at home. The interval for lunch appears to be a time of satisfaction and fulfilment in an otherwise uncertain existence; it is, as a social scientist would proclaim, a "social moment." There is little doubt that the meal contributes a major benefit to the school experience, not only for the food itself, and it is easy to perceive how enrolments increase with school feeding and decrease without it.

### **3.3 The Role of Implementation Factors (within WFP's control)**

125. There are alternative ways to support the educational and nutritional outcomes pursued by WFP school meals programme. Part of the charge of this evaluation is to assess if indeed WFP has carried out its mission effectively and efficiently. Or are there

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<sup>37</sup> This concern was also foremost in discussions with teachers and parents in the 2008 Baseline Survey.



other modalities of food aid use or monetary transfers that could improve the educational and nutrition status of children without the logistical and financial challenges associated with an onerous programme that requires food procurement, food transport and delivery, food storage and monitoring, food preparation and distribution, etc.? This section will seek to address this question. It focuses on challenges that exist within the current programme—areas where effectiveness could be improved—and also acknowledges promising new initiatives that could enhance the effectiveness and efficiency of the programme.

## Targeting

126. With its school meals, WFP/Kenya explicitly targets the most vulnerable segments of the population both in rural and urban settings. Nonetheless, effective targeting is difficult to achieve because it begins at a national level with policies and directives, but in the end, it becomes a very localized activity and susceptible to local constraints. For sure, there are masses of hungry “clients” throughout Kenya (a recent “gap analysis” presented by BCG concluded that a million malnourished children are found even in the more privileged districts of the country where no school feeding occurs). It is also critical to remember that the number of “clients” is a moving target and changes rapidly and unexpectedly with changes in the natural and socio-political environment.

127. To achieve the targeting goals, WFP/Kenya employs a set of institutionalized processes and tools designed to identify where the most vulnerable people are located and how to reach them. The main mechanisms that define WFP’s targeting capacity are the national and district-level food security working groups (e.g. the Kenyan Food Security Steering Group), the VAM office with its assessment capacity, and the new targeting strategy (2008) developed through the Monitoring and Evaluation unit of WFP Country Office. This strategy relies upon a composite index which is applied at the division level rather than the (higher) district level, so that pockets of poverty within districts are better identified and included.<sup>38</sup> Effective targeting also implies a close coordination with counterpart agencies in the Government, which WFP has also achieved at the national and district levels. The record of school meals targeting over the time period of this evaluation has demonstrated the flexibility and response capability to adjust quickly to situational needs and to identify and prioritize the most vulnerable among a much larger group of “eligible” beneficiaries.<sup>39</sup>

128. The vast majority of schools provide preschool (ECD) classes (and lunches), but only nine of the sampled schools offer the mid-morning snack of corn-soya blend porridge, all but one located in arid district schools. In the schools without the snack, the pre-school children return home after their lunch. In the country project document (WFP 2003 10264.0), WFP provides the food to centres that are under the coordination of UNICEF, and in the current CP, the targeted number of preschooler beneficiaries is 52,000 highly vulnerable children in the 3-5 year age group.<sup>40</sup> The evaluation team did observe, however, that the children in the beneficiary schools did not necessarily appear more vulnerable than those in the porridge-less schools, although the targeting decisions are made on a basis of local vulnerability assessments.

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<sup>38</sup> This methodology is available in A Concept Note: Targeting of the School Feeding Programme, WFP Country Programme (CP 2008-13)

<sup>39</sup> The evaluation of the last CP and EMOP (2008) did state that the expanded school feeding program (ESFP) in the semi-arid districts did not coordinate adequately with the School Feeding Unit in the targeting and monitoring of ESFP schools.

<sup>40</sup> This number was recently increased to 115,000 due to the availability of stocks (WFP personal communication).

129. In sum, WFP/Kenya, with its institutional partners, has developed an improved targeting system that is more precise, objective, and sensitive to change in livelihood situation. Nonetheless, the accurate identification of the vulnerable population does not imply that the targeted beneficiaries actually receive the full complement of meals, due to the nature of localized constraints. This issue is addressed next.

### **Effectiveness and Efficiency of the Meals Implementation Process**

130. The effectiveness of meals implementation is assessed on the basis of the highly localized process by which adequate food is delivered in a timely and consistent way and meals are prepared and then distributed to the children. As stated above, WFP/Kenya assures the food is regularly transported to the district level education office, where it is stored and distributed to the schools by DOE staff. The quantity delivered is based on term enrolment figures, and the food is stored centrally in the district for subsequent distribution by the DEO to the schools. Since in many districts the population is mobile and the exact school demand for food is difficult to predict, there is the risk of not having adequate supplies to meet the number of beneficiaries. Over the last three years of CP 10264, the full complement of 195 meal days was planned—which represents a lunch for each student for each day of classes in the targeted schools. For reasons that are highly peculiar to each school and community, the number of planned meal days fell short of the actual days in which a meal was served.

131. The qualitative evaluation team documented ways in which the effectiveness of the meals was compromised. In several of the schools the full complement of food was delivered significantly late in the term (e.g. Malindi). At another school, the students were required to pay for the meal, if the parents did not provide firewood or water.<sup>41</sup> The price per meal was one shilling and if a child could not produce this amount, no meal was served; if the child paid two shillings, a double portion was served, and food could be taken back home. In fact, in some schools, the school meal was perceived as the food ration distributed as part of the general food distribution—it was meant to be shared.

132. In the household survey, around ten percent of the semi-arid households and 15 percent of the arid households stated that school food was brought back to be shared, at least once a week or more frequently (these are the two regions where GFD is concentrated). In several student PIAs, as discussed above, the size of portions in the meal was considered too small. While meals that were observed by the team visits did not appear small, it is possible that at certain times of the term, if the food supply is diminishing, cooks may cut back on portion sizes.

133. Efficiency requires a comparison of the costs and benefits of school feeding. The Boston Consulting Group, in support of WFP school feeding globally, has completed a cost analysis of the country programme in Kenya. This analysis estimates a cost of 11 KES per student per day for 2008, and 12.4 KES for 2009. In comparison to the global school meals programme, the Kenyan cost of around 2083 KES per beneficiary per year is around 60 of the global average cost for school meals. Around 85 of this cost structure is in food procurement, storage, and transportation, and the 15 is assigned to administrative support. To the extent that WFP local (and regional) procurement of food expands, the annual per beneficiary cost of the meal could be significantly reduced.

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<sup>41</sup> It is important to state that WFP does not permit charging for meals, and stops the practice when it is identified. It is possible that some parents actually prefer to pay for the meal rather than engage in the arduous task of providing firewood or water.

134. The other modalities of food aid for education include THR and fortified biscuits. The same BCG study estimates that THRs and biscuits have a lower cost per unit of food distributed; however, THRs have a significantly higher cost per beneficiary when compared to the school meal, likely due to the relative number of beneficiaries serviced by these two modalities. A major finding of this evaluation, however, is that the school meal creates a significant (albeit intangible) added value that is not achieved from a take-home ration.<sup>42</sup> This value derives from the social capital that is generated in the communal taking and sharing of food with classmates and teachers. Furthermore, the potential value for the school meal can be much greater than the conditional food transfer intervention when the meal is used to involve parents and community in the school, as is the case of school feeding programmes in other countries (e.g. Honduras, Brazil, and Afghanistan).<sup>43</sup>

### **The School Management Committee and Parental Involvement**

135. One of the important findings of this evaluation is that, despite the critical need for parental support in the education of children, such parental involvement is lacking in the visited schools. In many places, the school is perceived as an external institution, introduced by the Government, NGO, or church group to which parents have the responsibility to send their children. This sense of separation between school and community does little to bridge the strong cultural constraints to learning that have been discussed at length here. It also ignores the tremendous potential that a school AS community asset, brings to the overall development of the community as a whole.

136. The Government of Kenya has mandated that all primary schools create a SMC elected by parents. In effect, the SMC is the institution that helps set school policy (within the guidelines of the MOE), assist the headmaster in the management of school affairs, promote the school through fund-raising, and encourage parents to enrol their children in school. A sub-committee of the SMC is charged with the management of the school meals programme, which entails the storage of food, the hiring of staff for food preparation and ancillary tasks, establishing the responsibilities of the parents with regarding to the provisioning of water and firewood, and other necessary items. Members of the teaching staff are responsible for organizing the children, making sure the food is distributed equally, and the clean-up is completed.

137. The SMC is in practice a formal body with specific well-defined tasks, and the extent to which it links school and community varies greatly from one community to another. In some schools, the SMC manifests true interest and initiates activities to improve the school quality experience. In others, the SMC appears to be a pro forma group that sanctions the decisions of the headmaster. In the latter school, there was little evidence that the SMC effectively represents the parents of the students or the interests of the community at large. It was insightful to review the PIA outcomes of the SMC meetings and how much their concerns reflected those of the headmaster. They saw the positive results as student focused (e.g. better education, health) and the negative results as school related (e.g. poor infrastructure, insufficient books, students study under a tree). One would expect from the SMCs a set of references to the parents and community whom they are meant to represent. The absence of such emphasis in the responses suggests that parent involvement does not garner much awareness as a programmatic priority. The evaluation team considers this a lost opportunity.

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<sup>42</sup> Of course, the timing of food intake is critical to educational learning, and THRs provide no guarantee that the child will arrive in school well-fed and bring lunch from home.

<sup>43</sup> See Finan, T.J. (2009), An assessment of school feeding programs: programming food for development. World Vision, Food Programming and Management Group, Johannesburg.

## **The Home-Grown School Feeding Programme**

138. A key factor in the school meals programme at both the level of WFP/Kenya and at WFP globally is sustainability. In this case, sustainability refers to the continuity of the programme after it has been transferred to the control of the Government. In Kenya, the Government intends to have assumed the responsibility to feed a half million primary students and will increase the number by 50,000 each year (as “transfers” from the WFP-assisted schools). The long-term plan is to provide school meals to all primary children in the country.

139. The implementation mechanism of the Government of Kenya’s school feeding policy is the Home-Grown School Feeding Programme. Although it is not the purpose of this evaluation to assess the HGSFP, this programme has direct relevance to the issue of sustainability and to the conclusions and recommendations of the evaluation. If the HGSFP is successful, the WFP-assisted programme will eventually be entirely transferred to the hands of the Government. The HGSFP is managed by the MOE and began operation in July of 2009 in the semi-arid districts previously covered by the WFP-assisted programmes. Under this programme, the beneficiary school receives 7 KES per student as a cash transfer at the beginning of the term. The School Management Committee is charged with the procurement of food locally to supply the school lunchtime meal. Thus, the purpose of the programme is to stimulate local production thus generating a livelihood premium from school feeding to the local community. The programme is managed by the MOE.

140. The HGSFP has a tremendous potential to increase the “value” of food by promoting an effective integration of the community in the affairs of local education. On the strictly economic side, the programme creates a fixed and predictable demand for substantial quantities of food. From a broader social perspective, the programme has the capability to create opportunities for community participation in the activities of the school and, by extension, in the education of their children. This potential impact could revolutionize primary education in the country by creating schools that have a significant development role in their communities—not only educating children but supporting a broader development agenda.

141. The challenges to this initiative are substantial. Many communities do not have the production supply capacity to meet this demand, and there has been virtually no prior preparation of the community and its producers to respond to programme incentives. Institutionally, the Ministry of Agriculture has to date remained on the sidelines, even though this initiative clearly requires technical assistance and group organizational support. Consequently, the early benefits of the programme have accrued to the food traders and not to community level producers. The potential payoff for refining and adjusting the programme to better stimulate local production is extremely high, and it will require increased institutional cooperation with the Government and with the donor community.

142. The evaluation team considers HGSFP to be the key to the sustainability of Government-based school feeding in Kenya, and the role of WFP in supporting this transition will be critical, as discussed below. As an example, many ASAL districts have not yet developed the productive capacity to supply food for school meals and can only partially take advantage of the program benefits. During a transition period, WFP could compensate food shortages (or potential market distortions) with a food bank option until the districts develop an adequate procurement infrastructure.

## **Monitoring and Evaluation**

143. Adequate monitoring of the schools is challenged by the fact that many schools are very remote and of precarious access given the physical condition of local transport infrastructure and the risk of violence. Also, as past evaluations of the country programme have noted, both the DEO and the WFP field offices are understaffed given the number of schools. Every month, the WFP field staff randomly select and visit ten percent of the schools in a district. Thus any single school might only be visited once or twice during a school year. DEO staff are similarly constrained...perhaps even more for lack of transportation, as the team observed first-hand. Such periodic contact may not be adequate to identify problems in a timely fashion and to avoid the emergence of undesirable school-specific practices.

144. The evaluation team also reviewed the role of the field staff who monitor the school meal programme. It appeared that the principal duties of the field staff was to assess stocks, storage conditions, cooking facilities, attendance and enrolment records, etc.—to assure that nothing, such as pilferage, is amiss. There appeared to be less emphasis on factors that might reduce the effectiveness of the school meal programme and to channel them back into the management process. For example, the evaluation team drew its semi-arid sample from a list of WFP-assisted schools in the semi-arid districts. For each of these schools, the total number of meal days served during Terms I and II were expected to be 130. Indeed for the arid and urban schools, with minor exceptions, the meal days are consistent with expectations. In the semi-arid schools, however, 80 percent of the schools reported less than the expected value of meal days, and more than half reported serving under 65 meal days. Moreover, the team was told that the food portions were inadequate in some schools. Under the current system, it is possible that when food needs are calculated at the end of the term, school attendance changes significantly during the middle of the next term and smaller portions are prepared to allow the food to last.

145. The evaluation team acknowledges that staff shortages are perhaps a reality that must be adapted to. On the other hand, the nature of the monitoring output is amenable to improvement. Any discrepancy in planned and actual meal days is a monitoring issue; if indeed a school received food, but could not prepare it for lack of water or utensils, this is a monitoring issue. It is possible that the lack of water or utensils is not “WFP’s problem”, but that would be an exceedingly narrow definition of the WFP mission. The evaluation point is not that some schools appear not to have received food or not to have prepared the food they did receive or to have in effect charged beneficiaries for the food, but rather that the monitoring system does not seem to systematically identify and communicate discrepancies that might challenge the effectiveness of the programme and channel them into a problem-solving process.

### **3.4 The Impact Chain**

146. The impacts of school feeding occur in a non-linear, indirect fashion. As with a pebble dropped in a pond or as the effects of an explosion, there are measurable and direct effects closest to the point of contact, but these effects emanate out and become increasingly diffuse and dependent on the surrounding context. In the terminology used here, the effects of school feeding (e.g. sate one’s hunger) become outcomes (e.g. higher NER, especially for girls), and outcomes generate lasting impacts (e.g. completed education, livelihood stability). Thus, it is possible to think of an impact chain with the following linkages.

### **The Magnet Effect**

147. There is little doubt that a school meal attracts children to school. The presence of a school meal has a wide range of immediate effects that have been addressed in this evaluation. Hungry children get a nutritious and, for the most part, adequate meal, they demonstrate alertness and concentration, and they participate and play, and—very critically—they are *exposed* to a learning environment. The relatively larger numbers of children in the earlier grades are evidence of this magnet effect and give testimony to the value of the meal and the school feeding programme. Moreover, the school meal provides an environment for the basic human act of sharing food and thus enhances social skills and begins to build social capital.<sup>44</sup> The importance of using food to put children in a social and formal learning environment at least temporarily free of hunger cannot be underestimated in the context of Kenya.

### **The Catalyst Effect**

148. While the magnet effect is obtained almost independently of the other three cornerstones, it has a limited time frame. Since enrolment rates decline through the primary grades (while school feeding remains available), this pattern suggests that the value of the school meal, by itself, does not retain children in school. For many students whose first incentive was food, a second effect obtains. The catalyst effect describes the point at which the hunger for learning becomes as important as the hunger for food. While the presence of the school meal is still a critical element in the educational process, the child comes to appreciate the value of learning and the power of knowledge and to create alternative visions of what an alternative life pathway might be. The catalyst effect is a major determinant of the educational outcomes that are commonly measured (such as completion rate), but it is more subtle, individually experienced, and heavily dependent on the school and household environment—the other cornerstones. When school infrastructure is inadequate, the quantity and quality of teaching are lacking, not enough textbooks are available, etc., the catalyst effect of school feeding is reduced with the concomitant retreat in educational outcomes, such as completion rates. At the same time, if parents do not see the value of education or cannot provide the requisite conditions at home for continuing the learning process (e.g. time for study, lights to do homework), the catalyst effect is also compromised.

### **The Enabling Effect**

149. The evaluation shows that as children approach puberty, both boys and girls, educational outcomes become more dependent on a number of non-food effects in order to remain in school or to continue school post-primary. For many of the students, the pressures to discontinue school increase either for economic reasons as is prominent in the impoverished semi-arid households or due to cultural dissonance, as is the case with many pastoralist groups. At this critical juncture of young adulthood, as the tracer stories have identified, the influence of a role model or an older sibling or a supportive home environment often functions to overcome the diverse financial and cultural constraints to furthering one's education. The enabling effect is particularly necessary after the completion of primary school, because of the economic burden associated with secondary education. While there are public scholarship programmes (bursary funds) available, access to these resources is often difficult and highly limited.

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<sup>44</sup> This social capital effect of the school meal is little addressed in the literature, perhaps because the benefits are long-term.

## **The Reverse Flow Effect**

150. The reverse flow effect refers to the pattern of support that those with completed educations extend back to their stem households and communities. It is at this point that the impact chain of school feeding (and other factors) begins to break the intergenerational cycle of hunger and poverty. While the benefits of education and health accrue to the individual, the qualitative data have identified a strong flow of resources from educated family members back to the parent household and community. This value of this reverse flow effect has not been estimated quantitatively, but certainly a significant portion of this transfer can be seen as an impact of school feeding.<sup>45</sup>

151. In the analysis of the impact chain, the effects of school feeding are readily perceived (and measured) in the early years of primary schooling (including ECD). As the school meal exposes children to a learning environment, the catalyst effect is realized among some, and learning becomes a goal in itself. These students will tend to complete primary school, which is a core intended outcome of the WFP programme; but all of the benefit cannot be attributed to the school meal alone, because the evaluation shows the strong influence of the school environment itself, as described above. For a student to move on to secondary education, school feeding has contributed to a healthier, better performing student, but again the school meal by itself is not sufficient to assure this transition. At this point, the enabling effect is necessary. The reverse flow effect can also be partially considered an important long-term impact of school feeding, but only within the multivariate context of the other cornerstones. It can be concluded nonetheless that the dynamics of reverse flow effect contribute significant to a broader process of reducing intergenerational poverty and food insecurity.

## **The Role of School Feeding in Household Economy**

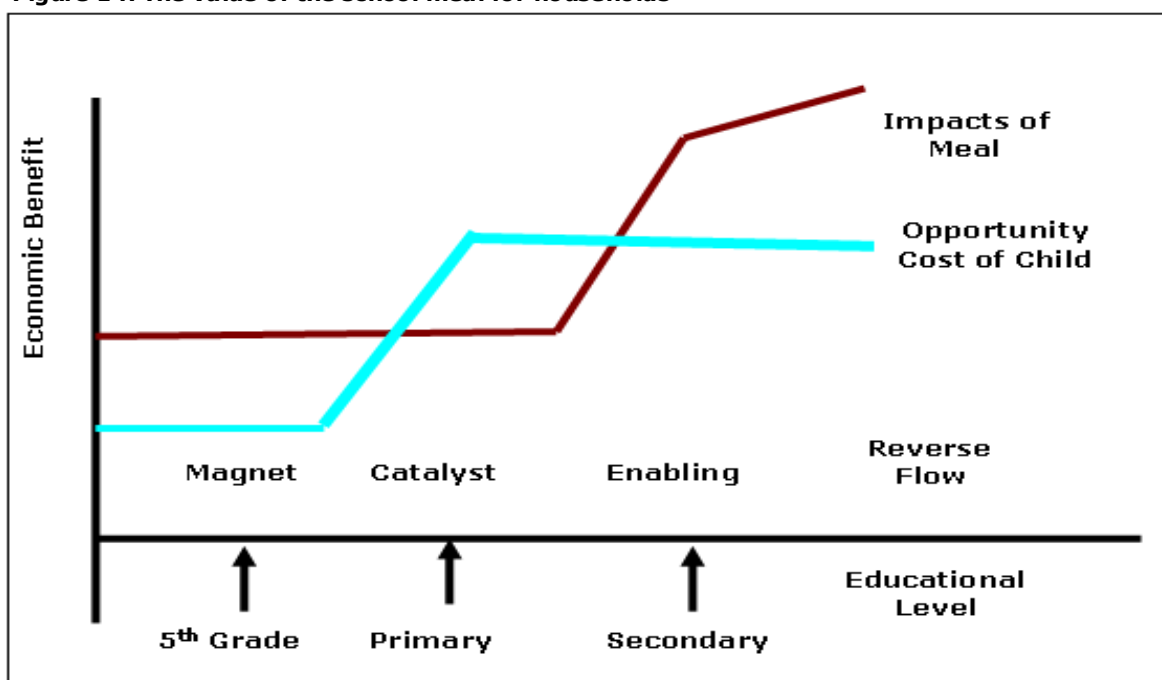
152. The results of the evaluation provide the basis of an understanding of how the school meal fits into household decision-making. As depicted in Figure 14, there is an implicit opportunity cost to the household of sending a child to school. The qualitative evidence shows that child assume responsibility for many household tasks, such as tending animals, gathering water and firewood, and childcare. At the same time, the meal received at school also has a value to the household.

153. During the first years of primary school, the value of the meal (i.e. the effect) can be assumed to be higher than the opportunity cost of foregoing the child's labour. This is the period of the "magnet effect." Through time, however, that opportunity cost increases and surpasses the perceived value of the meal. At this point, the household feels the pressure to remove the child from school unless it anticipates a future value higher than the opportunity cost. It is during this time (the later years of primary school) that the "catalyst effect" is operative. If a child demonstrates an inclination or vocation for school, it can influence the way in which the household perceives future value. As a child enters secondary school, the value of the school meal increases due to enhanced employment opportunities, but there are strong economic and cultural obstacles for many households. Here the enabling effect is felt. As the educational level increases, so does the ultimate impact of the school meal, and when that impact is restituted back at the household or community level, the "reverse flow" effect is achieved.

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<sup>45</sup> The Boston Consulting Group has sought to estimate the value of education to an individual by applying a set of assumptions regarding the number of working years and the annual average value of employment earnings. The results indicate a significant pay-off to education (and to school feeding), although the study lacks methodological rigor.

**Figure 14. The value of the school meal for households**



154. This analysis has strong strategic policy and programming implications for school feeding in Kenya. From the perspective of WFP and the Ministry of Education, the challenge is to overcome the constraints that occur at these key phases of educational development. Food is generally sufficient to achieve the magnet effect, but as the child advances in age, the household (and community) incentives begin to shift. Accordingly, the intervention set explicitly designed to achieve educational and health outcomes (and sustainable impacts) must also adjust to counter-balance the influence of the inherent, even predictable, constraints that emerge during the primary and secondary experience. WFP, in partnership with UNICEF, has already acknowledged the need for multi-sectoral intervention strategies in the Essential Package policy, but the components of the EP, as stated above, have not systematically been implemented—indeed no integrated and comprehensive plan exists in Kenya to introduce the EP elements.

155. There are three initiatives within the Government which are consistent with the scope of this analysis. The first is the recently approved National Health School Policy, which inserts health and hygiene messages and interventions (e.g. de-worming) within the school. This policy represents an “uncommon” example of inter-ministerial and inter-sectoral cooperation within Government, and it creates a very promising pathway for other forms of inter-institutional problem-solving. The second initiative is the *Njaa Marufuku* project within the Ministry of Agriculture, which operates in 12 districts and 48 schools. This project provides resources and technical assistance to groups of producers to support a system of food production that supplies food for school meals. It combines educational enhancement outcomes and agricultural development goals; and, most of all, it creates a point of community coalescence around education. These two initiatives inspire the overall conclusion of this evaluation, discussed below, that “value” of food used in school meals is in fact highly undervalued when it is used as it is currently: an isolated and solitary food security intervention.



## 4.0 Conclusions and Recommendations

156. This evaluation has sought to understand how school feeding has made a sustained difference in the lives of the people it has targeted, both children and their households. In other words, where and how has the school meal contributed to breaking the intergenerational cycle of food insecurity and poverty? Throughout the evaluation, the team has also kept core evaluation criteria in mind—efficiency, effectiveness, coherence, relevance, and, sustainability.

### 4.1 Overall Assessment

157. School feeding has had a significant effect on educational outcomes and makes an important nutritional contribution to the children in the ASAL regions and in the urban informal settlements. There is a measurable and significant difference in those schools with meals on the primary completion rate for girls, for continuing on to secondary school for boys and girls, and for exam scores—both for year end exams and for 300 points or better in the primary completion score. Nonetheless, the presence of school meals does not solve the problem of the high attrition rates for boys and for girls, because the causes of these patterns are found elsewhere (e.g. school environment, household support, and cultural values). Thus, to decrease attrition rates (and increase completion rates) school feeding *and* other complementary interventions are necessary.

158. There is a measurable contribution of the school meal to nutritional intake, since the school meal accounts for a significant share of the student's attainment of RDAs. The school meal is particularly helpful in contributing macronutrients, energy and protein to the diet. On the other hand, only a very small percentage of children actually meet or exceed the RDA thresholds. While the positive nutritional presence of food aid (GFD) in the arid areas have been identified in the analysis, it is generally true that children do not have adequate access to an appropriate quantity and quality of nutrition at home and may in more vulnerable households get less at home because of the school meal. Many children come to school hungry and do not eat adequately after school.

159. The school meal has a significant effect on vulnerable households not only in terms of the implicit cash transfer (equal to the value of the meals and any reduction in household expenditures on food). Of equal importance is the fact that the school meal keeps children secure during the day allowing parents to engage in other livelihood strategies. This time savings is invested by a significant number of households in additional income-earning activities.

160. There is an important indirect benefit to households from school feeding—here called the reverse flow effect. When young children attracted to school by the meal actually finish primary and go on to complete secondary school (and above), there is a positive social transfer impact on households and communities through the support that these “graduates” provide. There is also a strong iterative educational impact in that these graduates tend to support their siblings in school. All of this reverse flow benefit, however, cannot be attributed to school feeding, just as positive changes in primary completion rates are only partially explained by the presence of the school meal.

161. Over the last ten years, WFP in partnership with the Government of Kenya and NGO counterparts has implemented its school meals programme with overall effectiveness and efficiency. It has targeted the most vulnerable populations, developed effective partnerships with the Government at both the national and local levels, and systematically adjusted the scope of the feeding operation to meet changing needs and

circumstances in a timely fashion. Its school feeding programme is fully relevant to and coherent with Government priorities in the educational and health sectors.

162. Overall, the gender parity objectives of the WFP country programmes are being achieved in terms of enrolment and attendance, but not in terms of completion rates in the ASAL districts. Again, this result cannot be solely attributed to the presence of the meal, because of the binding non-food constraints to female education.

163. In the context of the overall successes of the SFP over the time period, there is room for improvement. There is great school-specific variability in the particular factors that determine the effectiveness of the programme, and these constraints are not adequately profiled in the monitoring system, including discrepancies in the number of actual versus planned meals days and portion sizes (perhaps due to lack of food supplies). Challenges are to be expected in a complex programme in a difficult environment, and it is important that a monitoring system has the capacity to anticipate where problems appear to be endemic (requiring institutional response) and where they are episodic (solved at field level).

164. The generalized absence of the elements of Essential Package is a deterrent to the impact objectives of the school meals programme. Where the physical and learning environments of the school are deficient, the health and learning outcomes of school meals are reduced. The priority elements of the EP that require urgent attention are the water and sanitation infrastructure in the schools and the use of fuel-efficient cooking facilities (in sheltered structures). The lack of potable water, washing facilities, and adequate latrines is widespread. Water is particularly critical since food is sometimes not prepared because of water. More permanent solutions to the water crisis are urgently needed. Responsibility for provisioning of water and firewood lies with parents and is often relegated to children themselves. In addition, there is need for more emphasis on general nutritional and health orientation, which although present in some school syllabi, is not adequately or systematically delivered to students or parents. The integration of these EP elements into school meals requires inter-sectoral and a much greater level of institutional collaboration than WFP has been able to mobilize in the past.

165. Two key factors that constrain the positive school feeding effect in primary schools are the quality of the learning environment and the support of the parents and community to education. In those schools with meals, the overall student population is higher as is the classroom size and the student-teacher ratio. The lack of teacher time, of study spaces, and of school materials, including books, diminishes the likelihood that an appreciation of learning will be instilled and will propel students toward higher educational outcomes.

166. Similarly, the level of parental involvement in the school and in the education of their children is not adequate. The school management committees have, in many cases, a very narrow definition of their responsibilities and do not serve the vital purpose of representing the school to the community. The team strongly concludes that the contribution of the school to the community could be dramatically expanded through the use of school meals as an opportunity to involve the broader community and redefine the role of the school as a community asset. Currently, in most of the schools covered by the evaluation, the school is perceived as a Government building (or church building) and not as a community asset. The school should be a centre of learning for all members of the community, a place where *barrazas* are conducted, where adult education takes place, where technical training farmers and pastoralists can occur. The greatest potential of school meals will be realized when the school itself becomes a platform for broader

community development. Greater community participation in the school will help erode the constraints that separate school from home and create cultural tensions.

167. The gradual expansion (and success) of the Government Home Grown School Feeding programme is the key to sustainability and should be seen as the principal component of WFP's exit strategy for SFP. This Government initiative holds great potential not only for achieving universal primary school feeding, but also for creating an effective platform for parental and community involvement in the school. The success of HGSFP, however, will depend upon an increased level of inter-sectoral collaboration. The inter-ministerial cooperation necessary for this programme to generate the expected community-wide development goals is still poorly defined and needs WFP support. Although WFP is not responsible for the design or management of the HGSFP, it is committed to institutional capacity building within Government and can play a role in the implementation of this programme.

168. There is one overriding conclusion that has been carefully examined and analyzed. It is that the beneficial impacts attributable to school feeding are limited if one attempts to extract school feeding from the larger context of how learning, health, and livelihood outcomes are achieved. School feeding without the appropriate learning environment and family/community support is a weak intervention and its impacts are mostly restricted to food security outcomes. It follows, therefore, that a school feeding programme which does not systematically incorporate other strategic programmatic interventions that reduce the economic, social, and cultural constraints to health and learning will not generate the stated goals and objectives that substantiate and justify school feeding investments, such as the WFP Country Programme. On the other hand, with inter-institutional and inter-sectoral cooperation and coordination, the "value" of food in school meals can be significantly increased in terms of the desired impacts.

169. The major implication of this evaluation is that a comprehensive approach involving cross-sector, inter-agency collaboration is necessary to maximize the gains of school feeding and to fulfil the great potential of this intervention and to adjust appropriate programming options to each phase of emerging impacts. The first step in inter-sectoral collaboration is to acknowledge that school feeding addresses some of the constraints that keep children from achieving an adequate education but not all of them. The Government of Kenya has made an important step in this direction by integrating improved health practices and interventions into the school context and by introducing the HGSFP as a sustainable and community approach to school feeding. These early successes should encourage even more ambitious institutional dialogues and creative programming. Due to its extensive experience and expertise in Kenya, WFP/Kenya is in a key position to contribute significantly to this process.

170. The evaluation team acknowledges that this report has focused on more than the isolated activity of provisioning school meals to pre-primary and primary children. Surely the school meal programme is complex, logistically and managerially challenging, and influenced by many factors not under WFP's immediate control. This study, however, was designed to address the broader objective of school meals, which is to promote a healthy, educated citizenry and by so doing break the intergenerational cycle of hunger and insecurity.

## **4.2 Recommendations**

171. Consistent with the tenor of the evaluation findings, two sets of recommendations are offered. The first set includes actions that lie within WFP's institutional purview and mandate, and they are presented as ways of enhancing the effectiveness of the

programme. The second set of recommendations is strategic and builds upon a broader development approach to school feeding. These recommendations go beyond the food-based mission of WFP and would require a decided commitment to institutional collaboration in both programme development and implementation.

#### **A. Recommendations within the purview of WFP:**

**172. Recommendation 1: WFP/Kenya should expand the monitoring role of its field staff.** The field office staff are highly skilled and dedicated. Currently, the focus of the monitoring process is primarily on food management, including delivery, storage, preparation, and distribution. Problems, when encountered, are identified ex post and reported to Nairobi. The evaluation team recommends a reorientation to an ex ante system that monitors the key indicators that impede school meal effectiveness, such as (seasonal) lack of firewood and water (or the burden of providing them), student-teacher ratios, student-classroom ratios, sudden changes in enrolment (e.g. due to violence), deterioration of physical infrastructure. The Nairobi country office would manage and analyze such school profile indicators to anticipate when problems are likely to occur in which schools, to develop prior field response strategies, and to share information with other development actors in the district.

**173. Recommendation 2: WFP should consider piloting a fortified morning biscuit intervention in the particularly vulnerable ASAL schools.** Qualitative evidence suggests that around half the children come to school hungry. Yet, children need energy at the beginning of the day to enhance overall learning. Since many parents are not able to provide a breakfast in the household, a fortified snack could provide the energy needed for concentration. This intervention could be implemented on a pilot basis, specifically targeting a limited number of the most vulnerable semi-arid and arid schools where poverty constraints are most binding. The results of this initiative would be rigorously evaluated (with a control and baseline).

**174. Recommendation 3: initiate an advocacy campaign in which “graduates” from participating communities—living locally or outside the region—to contribute to funds that support scholarships in recognized secondary schools for girls with high potential.** One of the major constraints to the education of girls is the cultural dissonance between traditional pathways and an educational pathway. Part of the cultural context is the perceived value of girls to future household plans (e.g. through marriage). This constraint could be addressed directly by WFP and its partners through a prestigious province-wide scholarship programme that builds upon private individual and community contribution. The scholarships (and the winners) would be widely disseminated through the media and promoted as a source of community/ethnic pride. Such programmes not only create the “enabling” effect discussed in this evaluation but also help to involve the community in the affairs of education.

**175. Recommendation 4: introduce mentorship programmes to increase the effectiveness of school meals.** Under this initiative, the better-performing schools would meet with the more poorly-performing schools to share the best practices at their schools and to create mechanisms of mutual support. Currently there appears to be little opportunity for school administrators, teachers, and SMCs to interact within a given district or province. A Mentor’s Award could be presented to a mentor school—perhaps with resources to invest in one or another aspect of school meals. Such an incentive again is designed to stimulate community pride and ownership in the school as well as to share best practices.

**176. Recommendation 5: integrate WFP food aid modalities (e.g. FFA/FFT) to enhance the school environment and encourage community participation.** WFP has a range of food aid modalities and under the last CP used food aid to improve school physical infrastructure (in 500 schools). The expanded monitoring of non-food indicators (Recommendation 1) provides the information to develop needs-based integrated packages of food aid interventions that address learning constraints (such as fence-building to keep animals out, water source protection, dining hall construction, etc.) and attract community members to the school grounds for training sessions that focus on health and hygiene, animal husbandry, IGA activities, etc. Partnerships with NGOs can be employed to implement this goal.

**B Recommendations that require collaboration between institutions and partnerships:**

*177. These recommendations cannot be implemented solely by WFP, for they require an integrated institutional approach that involves the effective participation of different Government and other agencies. They are offered as WFP looks to future programming options in the light of the current corporate strategic plan and new School Feeding Policy. The team acknowledges that WFP has a food mandate and recognizes that institutional cooperation is fraught with inherent challenges. On the other hand, the stated core goals of providing health and education through the school meal programme cannot be met with food alone. Thus,*

**178. Recommendation 6: as a major priority within the Essential Package, move to develop a school water strategy in collaboration with the Government of Kenya partners, sister UN agencies, NGOs, and donors.** The lack of potable water is a major constraint in most schools in the ASAL districts, and it is a major deterrent to the achievement of the learning and health results of school feeding. Water scarcity is often a seasonal as well as drought-related constraint. Based on field monitoring information (Recommendation 1), WFP can begin by identifying the nature of the water constraint in each of the SFP schools. In collaboration with institutional partners (Government and other development agencies), including for example UNICEF's WASH programme and Child Friendly Schools initiative, create a water improvement plan that can be used as a blueprint to present to donors. Again, alternative food aid modalities can be used to implement water improvement projects.

**179. Recommendation 7: The major programmatic recommendation of this evaluation is that WFP develop comprehensive integrated strategies to maximize the development impacts of the school meal.** The school meal has inherent, if limited value; but in combination with other complementary interventions that address the school, home, and community environmental constraints, the power of school meals can increase dramatically. In practice, this means that school feeding would not be programmed in an isolated manner. Similar to the very effective food security working groups, WFP could begin by advocating for expansion of the mandate of existing working groups (e.g. the School Nutrition, Health and Meals group in the MOE) or integrating new members from relevant agencies. A precedent exists for such collaboration in the new MOE/MOPHS integrated model. This group would assume the responsibility of a comprehensive school feeding approach with multiple, complementary interventions directed at specific needs.

**180. Recommendation 7a: The first action of the expanded working group would be to take advantage of the Kenya Educational Sector Support Programme (KESSP) II timing and process to propose a needs assessment of all the primary schools in the country, beginning in the ASAL and urban slums.**

This inters-sectoral needs assessment would build upon the current EMIS data base and would identify a set of key indicators at each school that address not only enrolment and attendance data, but also information on school infrastructure, pupil-teacher ratio, student-latrines ratio, water availability, kitchen and eating facilities, and other factors that influence the learning environment (see Recommendation 6 for water). The assessment—available to all stakeholders— would then form the basis for an integrated and coordinated approach to health and education through school feeding. It would also create a baseline for future assessment of KESSP progress.

**181. Recommendation 7b: The second action is to use school feeding to enhance the status of the school as part of the community.** Food brings children to school, but it can also be used to bring parents and other community members to school. The true potential to food lies in its magnet effect and how the gathering of parents and communities members at the school presents a major opportunity for learning and information sharing. Such approaches are not new and have been successfully institutionalized in Afghanistan where schools are centres for adult literacy and gender leadership courses; in Brazil where the associations of farmers have coalesced to produce food for school meals; in Sierra Leone where food monitors deliver HIV/AIDS awareness messages to parents and teachers at schools; and in Honduras where a rotation of mothers actually prepare the food and distribute it to the students. There are many creative programming options that can be developed around the existence of a meal at school and the natural attraction that this meal stimulates.

## Acronyms

ASAL	Arid and Semi-Arid Lands
BCG	Boston Consulting Group
DEO	District Education Office
ECD	Early Childhood Development
EMOP	Emergency Operation
ESFP	Expanded School Feeding Programme
GFD	General Food Distribution
HGSFP	Home-grown School Feeding Programme
KESSP	Kenya Educational Sector Support Programme
KFSSG	Kenya Food Security Steering Group
KES	Kenyan Shilling
MOE	Ministry of Education
MOPHS	Ministry of Public Health and Sanitation
NER	Net Enrolment Rate
OVC	Orphans and Vulnerable Children
PIA	Participatory Impact Assessment
PRRO	Protracted Relief and Recovery Operation
SMC	School Management Committee
SNHM	School Nutrition, Health and Meals (Investment Programme in KESSP)
SPR	Standard Project Report
THR	Take-Home Ration
TOR	Terms of Reference
UPE	Universal Primary Education
USDA	United States Department of Agriculture
VAM	Vulnerability Assessment Mapping
WFP	World Food Programme



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