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Promoting critical knowledge, skills and qualifications for sustainable development in Africa: How to design and implement an effective response by education and training systems

Sub-theme 1

Common core skills for lifelong learning and sustainable development in Africa

Towards Inclusive and Equitable Basic Education System: Kenya's experience

by

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ACRONYMS AND ABBREVIATIONS

ADEA	Association for the Development of Education in Africa
AIDS	Acquired Immune Deficiency Syndrome
AKF	Aga Khan Foundation
ASAL	Arid and Semi-Arid Lands
CDF	Constituency Development Funds
CEDAW Women	Convention on the Elimination of All forms of Discrimination Against
CRC	Convention on the Rights of the Child
DPs	Development Partners
EARCs	Education Assessment Resources Centres
ECD	Early Childhood Development
EFA	Education For All
GMR	Global Monitoring Report
EMIS	Education Management Information System
ERSWC	Economic Recovery Strategy for Wealth and Employment Creation
FDSE	Free Day Secondary Education
FPE	Free Primary Education
GER	Gross Enrolment Rate
GoK	Government of Kenya
GPI	Gender Parity Index
HIV	Human Immuno-Deficiency Virus
KCPE	Kenya Certificate of Primary Education
KEMRI	Kenya Medical Research Institute
KESSP	Kenya Education Sector Support Program
KIE	Kenya Institute of Education
KISE	Kenya Institute of Special Education
KNEC	Kenya National Examination Council
LATF	Local Government Transfer Funds
MDGs	Millennium Development Goals
MoE	Ministry of Education

MoPHS	Ministry of Public Health and Sanitation
MTR	Mid-Term Review
NASMLA	National Assessment System for Monitoring Learner Achievement
NER	Net Enrolment Rate
NGOs	Non-Government Organization
OVC	Orphans and Vulnerable Children
PCR	Pupil Classroom Ratio
PETR	Pupil English Textbook Ratio
PMTR	Pupil Mathematics Textbook Ratio
PTR	Pupil Teacher Ratio
RHP	Rural High Potential
RP	Rural Poor
SACMEQ	South African Consortium for Monitoring Education Quality
SHN	School Health and Nutrition
SII	School Infrastructure Improvement
SMCs	School Management Committees
SNE	Special Needs Education
SWAP	Sector Wide Approach
TSC	Teacher Service Commission
UN	United Nations
UNESCO	United Nation Education, Scientific and Cultural Organization
UPE	Universal Primary Education
USAID	United States
WFP	World Food Program

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1. ABSTRACT

1. The rapid quantitative growth in formal education in Kenya since independence has focused on promoting access, retention, equity, quality and relevance. However, challenges of quality, equity and relevance have persisted with regions with higher poverty index showing lowest indicators. To address these disparities, the Government implemented Free Primary Education (FPE) program with specific interventions contained in the Kenya Education Sector Support Program (KESSP 2005-2010) to enhance inclusive and equitable access and participation in basic education. These interventions had not been well assessed.

2. This is a report of the responsiveness of selected KESSP targeted interventions aimed at enhancing inclusive and equitable primary education in Kenya. Using desk reviews, case studies as well as survey, the study focused on how the interventions were implemented, monitored and evaluated and whether they enhanced inclusive and equitable primary education. Data were obtained from education officers and purposively sampled schools in regions with unfavorable education indicators.

3. The study found that, despite interventions enhancing enrolment since 2003, ASAL and pockets of rural poor and urban informal settlements witnessed absenteeism, repetition and drop-out rates. Other findings included large numbers of children in these areas enrolled in privately-owned low cost primary schools that did not receive FPE grants with many children remaining out of school. Children in poverty-stricken areas within high agricultural potential did not benefit from the school feeding program.

4. Some of the specific programs being implemented have not been very effective in enhancing inclusive and equitable basic education hence the need to review their implementation process.

5. The study recommends addressing factors influencing educational wastage, infrastructure and teacher shortages, monitoring and evaluation mechanism, an integrated approach among stakeholders for mobilizing adequate resources, including capacity building for implementing policies addressing inclusive and equitable basic education with special focus on children with special needs. A conceptual framework for an effective monitoring and evaluation system has been proposed.

2. EXECUTIVE SUMMARY

6. Kenya's education policy is committed to achieving EFA by 2015 through specific educational objectives and programs for providing equitable, all-inclusive quality education and training. Several interventions have been initiated to promote access, retention, equity, quality and relevance to enhance the sector's efficiency. Despite implementation of Free Primary Education (FPE) program, about 1 million school going age children are still out of school. These children include; marginalized and vulnerable children (MVC), such as those with special needs, those affected by HIV and AIDS as well as those in urban slums. There was need, therefore, for a study to assess the impact of the interventions since 2003.

7. This study assessed on-going interventions focusing on their objectives, formulation, implementation and contribution to access, equity and quality in basic education. The interventions were assessed on responsiveness in enhancing an all-inclusive and equitable education. Findings of the study shall inform the Kenya's Taskforce on re-aligning education to the *Constitution of Kenya (2010)* and *Kenya Vision 2030*.

8. A desk review, case studies and a national cross sectional survey were used to gather both qualitative and quantitative data on targeted interventions in the context of inclusive and equitable basic education. Interviews were conducted with key informants, including education officials, primary school head teachers, teachers, pupils, out-of-school children, representatives of School Management Committees (SMCs) and civil society organizations. Three case studies were undertaken on interventions targeting marginalized and hard-to-reach populations in ASAL, rural poor and urban slums. Results from the survey were triangulated with information derived from the qualitative approaches.

9. The review showed that the following interventions were in place to address access to an all-inclusive and equitable education: Free primary education; school health and nutrition; school infrastructure improvement program; special needs education; HIV and AIDS program; and Gender in education.

10. Case studies were carried in three schools from each of the selected districts; Wajir South (ASAL), Teso North (rural poor) and Embakasi-Nairobi (urban slum). In Wajir South, the schools were characterized with; high disparities, inadequate classrooms, inadequate desks, inadequate toilets, teacher shortages and lack of special education unit classes. The interventions did not adequately meet the needs of the schools with FPE funds being inadequate, school feeding was irregular and the infrastructure support minimal causing many children to stay out of school. High poverty levels, drought and long distances to schools, led to low retention, high absenteeism and drop-outs especially for girls. Nomadic lifestyles of the population affected the learning environment.

11. In Teso North district, there was inadequate teaching and learning materials and lack of day meals. There was concern of accountability of FPE funds and frequent loss and damage of textbooks by the school management committee members. The Government had no intervention on school feeding for schools in the district. Due to high poverty levels, parents could not afford contribution for provision of day meals for pupils. However, some schools benefited from water and sanitation program initiated by a Non-Governmental Organization. The school environment for the respective schools was fair, having benefited from school infrastructure improvement and hygiene training.

12. In Embakasi-Nairobi, two Non Formal Schools and one public primary school were selected. The schools were characterized with; crowded classrooms, high pupil teacher ratio, semi- permanent classrooms, located in poor habitats. The public primary school had a special unit with two special education trained teachers. The Non Formal schools enrolled orphans who are financially supported by philanthropies. Both the Government and development partners have initiated interventions on textbooks, school infrastructure and support to orphans. The schools have a school feeding program that has improved enrolment and retention.

13. The cross sectional survey covered 96 sampled schools that were categorised into; rural high potential, rural poor, ASAL, gender and urban. The findings indicate; head teacher gender composition was 23% female though overall 60% of teachers were female. Also, 93.5% of the teachers were qualified, 87.3% were Teachers Service Commission employees. The implementation of interventions at school level was varied; free primary education (100%), school health and nutrition (74%), school infrastructure improvement (52%), special needs education (41%), HIV and AIDS (54%), and gender in education (42%). The implementation process was assessed using an implementation index. Overall, FPE attained a high level of implementation index at 89.8%. HIV&AIDS (72.3%) and SHN (65.3%) were satisfactory. While both gender in education and SNE had a low implementation index at 36.2% and 58.3% respectively.

14. Most school got resources from Government, CDF/LATF, NGOs and community/parents. In general, head teachers were satisfied with disbursement of FPE funds. However, the resources were inadequate with delays in transfer of funds to the school accounts. The head teachers were less satisfied with the process of resource allocation for the other five interventions. A resource allocation index for the interventions was computed and resource allocation index was high for FPE (91.7%) followed by gender in education (93.8%), SHN (89.6%), HIV&AIDS (89.4%) and SII (82.7%). However, SNE attained a satisfactory score of 79.5%. Further analysis indicates that, urban category schools were disadvantaged in SNE interventions, having attained a low resource allocation index (50%).

15. The contribution of the interventions was assessed based on trends in access, equity, retention and quality in education. There was 16.3% increase in enrolment in 2003 followed by 5.6% in 2004 and 3.0% in 2009. The high increase in 2003 was due to introduction of FPE and hence the subsequent growth decline is the expected increase in enrolment. This finding corresponds with the increase in national primary schools enrolment from 5.9 million in 2002 to 7.2 million in 2003 and now standing at 9.4 million in 2010. Special needs enrolment in the sampled schools increased more than three times from 895 in 2002 to 3207 in 2010. A total of 71.9% of the schools reported existence of out of school children in their catchment areas. The main reasons for non-enrolment were; poverty (41.7%) and lack of parental support (41.7%). Based on gross enrolment, the gender parity index (GPI) was computed. In overall, the GPI was 0.93 indicating that there more were boys enrolled than girls. Further analysis indicates that rural high potential and gender school categories had a GPI of 1.0 and 1.04 respectively signalling a likelihood of new perspective of boy child marginalisation. Girls' access to education was lowest in the ASAL and Urban category schools with a GPI of 0.78 and 0.81 respectively. This is attributed to socio-cultural practises and poverty in the ASAL areas and poverty in the urban areas. Indicators of quality show that the Pupil Teacher Ratio (PTR) was 1:45 with the highest in ASAL school category (1:55) while Pupil Classroom Ratio was 1:41(highest, Urban, 1:54 and ASAL 1:47)). The Pupil Text Book Ratio for English and Mathematics was both at 1: 3. The rural poor and ASAL areas recorded the poorest pupil textbook ratio for both mathematics (1:3 for both)

and English (1:4 and 1:3 respectively). The challenge schools have is loss and damage of books with 10.8% indicating to no action taken to replace or repair the textbooks.

16. The retention was assessed based on the drop out and repetition rate. The overall dropout rate was 2.3% (Girls=2.1% and boys=2.5%) in 2011. The schools in Gender and rural poor recorded the highest dropout rate at 6.1% and 3.1% respectively. The main factors causing drop out were; poverty (45.5%), pregnancy and early marriage (35.7%) and inadequate parental support (30.3%). The overall repetition rate was 5.9 %(Girls=6.1% and Boys=6.8%) with the highest repetition taking place rural high potential (8.1%) and lowest in urban (0.3%). Grade 1 and 4 pupils from the rural high potential recorded the highest repetition at 10.1% and 9.5% respectively. The main causes of repetition was; chronic absenteeism (48.6%) followed by poor academic performance (48.4%) and parental request (20.4%).

17. The national Kenya Certificate of Primary Education (KCPE) were analysed to assess the learning achievement. There was a decline of 3.9% in mean score from 257 in 2002 to 247 in 2010 while disparity in the school categories continued to widen in 2010 compared to earlier years. Performance of pupils in the rural high potential, gender and ASAL categories was above average while those in the rural poor and urban categories was below average over the period. Pupils in urban category of schools had the lowest mean score. The variation in performance among pupils was highest in rural poor at a standard deviation (sd) of 62 followed by Urban (sd=47) and ASAL (sd=44) schools category. Further analysis was done by looking at the performance and implementation of the interventions. The results indicate that there was no significant influence of the implementation of the interventions on KCPE scores. It was also verified that pupil classroom ratio is a predictor of performance though not significant.

18. The monitoring and evaluation of interventions were rated at an average of 46.7%. The urban and gender category of schools had the highest M&E score of 56.7% and 51.9% respectively. The findings indicate that M&E is a significant predictor of implementation index. Therefore, interventions that were regularly monitored attained a higher implementation level. In general, FPE grants were useful but inadequate.

19. Key recommendations are to: build capacity of education managers for implementation of interventions; establish close partnerships with other actors, enhance follow-up of interventions as well as in provision of adequate resources; introduce school feeding program in partnership with communities in all schools; address the factors contributing to drop outs and out of school children as well as challenges facing special needs children; improve timeliness and equity in disbursement of FPE funds, among others. A framework for an effective monitoring and evaluation system is proposed.

3. INTRODUCTION

3.1 Background

20. Since independence in 1963, the Government of Kenya (GoK) has remained committed to the provision of quality education and training for its citizens. In implementing education and training programs, the GoK has made efforts to meet obligations under the Kenyan laws and international commitments including the Educational for All (EFA) goals and Millennium Development Goals (MDGs).

21. The GoK is fully committed to provision of inclusive quality education and training that offers a competitive edge in a global market as articulated in the Ministry of Education's Vision and Mission statements. The **Vision** of the Ministry of Education is: *"to have a globally competitive education, training and research for Kenyan's sustainable development"* while the **Mission** is to *"provide, promote, and coordinate the provision of quality education, training and research for the empowerment of individuals to become responsible and competent citizens who value education as a lifelong process"*.

22. Over the years, education sector in Kenya has focused on promoting access, retention, equity, quality and relevance, which have implications of the sector's efficiency. The GoK has therefore initiated key reforms to make education more responsive to the needs of the country. The ongoing process of reforms in the sector is expected to re-align education to the Constitution of Kenya (2010) as well as the country's development blue-print, the *Kenya Vision 2030*. The right to education for every person including persons with disabilities, the minorities and marginalized groups is affirmed in the Constitution of Kenya (2010) in Chapter Four (Bill of Rights) Article 43 Sec.1(f) & Article 54 Sec.1 (b). In addition, Article 55 (a) commits the state to take measures including affirmative action to ensure citizens access relevant education and training.

23. Recent policy documents that focus on the attainment of EFA and MDGs include: Economic Recovery Strategy for Wealth and Employment Creation (ERSWC) 2003-2007; the Sessional Paper No. 1 of 2005 on Education Training and Research; policies on the HIV and AIDS and Gender in Education (2007); the Non-Formal Education sub-sector Policy (2008); Special Needs Education Policy (2008); the Nomadic Education sub-sector policy (2010); and Kenya's Vision 2030.

24. After independence in 1963, Kenya made gains towards Universal Primary Education (UPE) by adopting policies that supported increased participation in education. However, these gains were eroded during the 1990s due to the introduction of cost-sharing policies which required households to contribute more towards the cost of education. Consequently, a decline in enrolment and retention was experienced at the primary and secondary school levels in the last decade. Children from poor households were most affected and many dropped out of school while others found it difficult to access education. In January 2003 the GoK introduced Free Primary Education (FPE) by abolishing school levies and introduced capitation grants. These opened opportunities for more children to enter into primary schools and enrolments rose from 6.1 million in 2002 to 7.2 million in 2003. This also increased the Net Enrolment Rate (NER) from 77.3% to 80.4% and Gross Enrolment Rate (GER) from 88.2% to 102.8%.

25. In November 2003, a national stakeholder's conference was held to deliberate on *"Meeting the challenges for education and training in Kenya in the 21st Century"* (Republic of Kenya, 2003). Recommendations from the conference were consolidated into *Sessional Paper No. 1 of 2005 "A Policy Framework on Education, Training and Research"* (Republic of Kenya, 2005). To implement the recommendations, the Kenya Education Sector Support Program (KESSP) 2005-2010 was developed through a Sector Wide Approach (SWAP). KESSP (2005-2010) constituted 23 investment programs, among them targeted interventions to address equitable and inclusive basic education. The targeted intervention includes:

- School Health and Nutrition
- School Infrastructure Improvement
- Primary school instructional materials
- Gender in Education
- Expanding Education Opportunities in ASAL
- Special Needs Education
- HIV and AIDS in Education
- Non formal education
- Guidance and counseling

26. Among the achievements of these interventions is the increased access to primary education. Enrolment at primary school level at the end of 2010 stood at 9.4 million compared to 6.1 million in 2002, while GER and NER stood at 109.8% and 91.4% in 2010 from 88.2% and 77.3% in 2002 respectively. However, the increased enrolment led to overstretched physical facilities and increased Teacher/Pupil Ratio (TPR). Meanwhile Gender Parity Index (GPI) stood 0.94 in 2003 and increased to 0.97 in 2010, showing near gender parity, though regional disparities still persist. In collaboration with Development Partners, Civil Society, NGOs and other well wishers, the GoK has undertaken deliberate efforts to address the needs of marginalized groups with a view to bring them into the mainstream education system for sustainable development.

3.2 Statement of the Problem

27. Despite the implementation of FPE Program and other targeted interventions, 759,090 children (boys 351,277, girls 407, 813) were out of the formal school system in 2010 (MoE-EMIS, 2011). These out-of-school children include; orphans, children affected or infected by HIV and AIDS, street children, children in urban slums, children from pockets of poverty, children with special needs in education and those from Arid and Semi-Arid Lands (ASAL) (MoEST, 2005). A number of challenges have persisted in the provision of education leading to some groups, mostly the marginalized and vulnerable children, being excluded from this important social service and empowering tool for development.

28. Some of the challenges affecting Government efforts in providing education to these groups include; cultural practices that inhibit children from attending schools such as Female Genital Mutilation (FGM), early marriages, discrimination of female child in some communities; high levels of poverty; harsh environmental conditions and historical factors that governed the distribution of education institutions and opportunities; and drug abuse.

29. A national study conducted by UNESCO in 2004, one year after the introduction of FPE revealed that enrolment in public primary schools had declined "due to drop outs and to a lesser degree, transfer to private schools" (UNESCO, 2005:6; Oketch et al, 2007). In addition some children of school-going age had never been enrolled in school. To date, data reviewed imply that there are still children out of school. Therefore; this study has reviewed the interventions put in place towards inclusive and equitable basic education in Kenya. It sought to establish whether FPE and other targeted interventions have contributed to improved access, equity, retention of children in school and learning outcomes. The study was considered relevant and timely in view of the on-going educational reforms in re-alignment with the Constitution of Kenya (2010).

3.3 Objectives of the Study

30. The objectives of the study were to;

a. Identify existing interventions in provision of inclusive and equitable education for sustainable development
b. Review the objectives and implementation strategies of the interventions towards provision of an all-inclusive and equitable basic education

c. Document success stories of the interventions towards provision of an all-inclusive and equitable basic education
d. Identify challenges experienced in enhancing access, equity, retention, and learning outcomes in basic education
e. Propose recommendations for improving the provision of an all-inclusive and equitable basic education
f. Propose a monitoring and evaluation mechanism for tracking progress towards an all-inclusive and equitable basic education
g. Disseminate the findings of the study through presentation in the ADEA Triennale, publication, and other fora.

3.4 Research Questions

31. The study was premised on the following questions;

a. Which interventions have been put in place towards achieving an all-inclusive and equitable basic education?
b. How were the interventions formulated, implemented and evaluated?
c. How were the resources for the interventions mobilized, allocated and utilized?
d. To what extent have the interventions contributed to achieving an all-inclusive and equitable basic education?
e. What challenges were encountered during the implementation of the interventions?
f. What suggestions can be made for improvement of the provision of an all-inclusive and equitable basic education?

3.5 Justification of the Study

32. The 2010 EFA Global Monitoring Report (GMR) indicates that education is at risk as there are at least 72 million children, most in Africa, who are missing out on their right to education. The report urges countries to develop more inclusive approaches, linked to wider strategies for protecting vulnerable populations and overcoming inequality in line with EFA goal 2: *"ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality"*. This study is expected to contribute to EFA agenda through sharing of effective approaches for inclusive and equitable basic education.

33. Secondly, lost opportunities for education of children in Africa will act as an impediment to economic growth, poverty reduction, and progress in health, among others. The findings of this study will contribute to the regional efforts of ensuring that all children attend and remain in school to acquire critical knowledge, skills and qualifications that will lead to sustainable development in Africa.

34. Thirdly, Kenya considers education a right to every child and has formulated policies and initiated Programs within the education reforms agenda that aim at providing an all-inclusive and equitable basic education. These interventions have been implemented over the years either through joint Kenya Education Sector Support Program (KESSP) financing framework or through non pooled partners in different parts of the country. The year 2010 marked the completion of the primary school cycle of 8 years since the inception of FPE in 2003. This study was considered critical, in that although there has been reviews of KESSP including a Mid-Term Review (MTR, 2009), the contribution of FPE and other targeted interventions have neither been comprehensively reviewed nor documented to establish their contributions toward inclusive and equitable basic education.

35. Monitoring and evaluation is a critical component of ensuring effective implementation of education interventions. This study has recommended a monitoring and evaluation system for tracking progress of interventions towards inclusive and equitable basic education.

3.6 Delimitation of the Study

36. Basic education in Kenya includes pre-primary, primary and secondary education cycles. However, this study focused on the primary education level. There are many interventions for inclusive and equitable basic education in Kenya. However, this study focused on selected interventions, which were considered key in addressing contextual issues of exclusion and inequality in basic education. Case studies were conducted in three selected Districts (Wajir South, Teso North and Embakasi, Nairobi) to represent ASAL, rural poor and urban slums, areas considered to have a higher proportion of out-of-school children. In addition, a survey was carried out in a representative sample of 30 out of the 285 districts in Kenya. There are many indicators of inclusion and equality in basic education. However, this study focused on; enrolment, regional and gender disparities, pupil teacher ratio, pupil classroom ratio, pupil textbook ratio, repetition rate, dropout rate and end of primary education cycle summative evaluation scores. These indicators were considered appropriate for tracking achievement of inclusiveness and equality in basic education.

3.7 Assumptions

37. Any changes in the indicators that are used to track achievement towards inclusive and equitable basic education in this study could be due to many factors. However, since the implementation of the interventions did not include control groups for comparison, it was assumed that any observed trend in the indicators would be attributed to the interventions for enhancing inclusive and equitable basic education and not any other factors. The case study approach relied on experiences and perceptions of respondents through accurate decoding and recording of responses by data collectors.

4. LITERATURE REVIEW ON CONCEPTS OF INCLUSIVE AND EQUITABLE EDUCATION

4.1 Concept of Inclusive Education

38. The concept of inclusive education is based on the fact that all children and young people, despite different cultural, social and learning backgrounds, should have equivalent learning opportunities in all kinds of schools (UNESCO, 2008). UNESCO emphasizes that education systems, schools and teachers should focus on generating inclusive settings that uphold the values of respect and understanding of cultural, social and individual diversity. Essentially, inclusive education is an approach that looks into how to transform education systems and other learning environments in order to respond to the diversity of learners. Removing barriers to participation in learning for all learners is at the core of inclusive education systems (UNESCO, 2005). Focusing on inclusive education can be useful in guiding development of policies and strategies that address the causes and consequences of discrimination, inequality and exclusion within the holistic framework of EFA goals.

39. The Concept of inclusive education is enshrined in international conventions including: the UN Convention on the Rights of the Child (1989), which sets out children's rights in respect of freedom from discrimination and in respect of the representation of their wishes and views; the UNESCO Salamanca Statement (1994) which calls on all governments to give the highest priority to inclusive education; and the UN Convention on the Rights of Persons with Disabilities (2006) which calls on all States Parties to ensure an inclusive education system at all levels.

4.1.1 Conceptualization of Inclusive Education in Kenya

40. The GoK is committed to the provision of inclusive education to all children, youth and adults through targeted support to specific or vulnerable groups. Furthermore, the GoK emphasizes inclusive education with particular focus to marginalized groups, especially the girl child and children with special needs and those with disabilities. This commitment includes establishment of a Sector-Wide Approach to Planning (SWAP), enhanced legislation, resource mobilization and allocation and ratification of relevant international conventions and declarations.

4.1.2 Commitment to International Conventions

41. Kenya is a signatory to and has ratified several International Conventions and Declarations on inclusion which include: Universal Declaration on Human Rights (1948); Minimum Age Convention (1973); Convention on the Elimination of All forms of Discrimination Against Women (CEDAW) (1979); Convention on the Rights of the Child (CRC) (1989); Jomtien World Conference (1990); International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families (1990); Beijing Declaration and Platform for Action (1995); Convention on the Elimination of the Worst Forms of Child Labour (1999); Dakar Framework of Action on EFA (2000); Millennium Development Goals (MDGs) of 2000; Convention on the Rights of Persons with Disabilities (2006); as well as the Goals of the African Union. These conventions provide a broad framework for the attainment of the right of every citizen to quality education and reiterate the need to eliminate all forms of discrimination in this respect.

4.1.3 National Regulatory and Legal Framework

42. The GoK has domesticated the International Conventions cited above, through legislative and policy pronouncements which include: Constitution of Kenya (2010); Education Act (1968); Children Act (2001), which committed the Government to the provision of at least 12 years of compulsory, free and continuous schooling to all Kenyan children; Persons with Disabilities Act (2003), which provides for the education of persons with disabilities.

43. Government policy frameworks and programs supporting inclusion in education in the broader sense include: Economic Recovery Strategy for Wealth and Employment Creation (ERSWC) 2003-2007; Kenya's Vision 2030, the Sessional Paper No. 1 of 2005 on Education Training and Research; Kenya Education Sector Support Program (KESSP); policies on the Education Sector including; Education Sector Policy on HIV and AIDS (2004), the National Early Childhood Development (ECD) Policy Framework (2006), Gender Policy in Education (2008), Technical, Industrial, Vocational and Entrepreneurship Training (TIVET) Strategy (2008); National Special Needs Education Policy framework (2009), Alternative Provision of Basic Education and Training Policy (2009), the National School health policy (2009), National Policy Framework for Nomadic Education (2010); and Adult and Continuing Education Policy (2010). As earlier mentioned, the Constitution of Kenya (2010) also affirms education as a right to every person, including persons with disabilities, the minorities and marginalized and vulnerable groups.

4.2 Concept of Equitable Education

44. Equity is a concept that flows from the concern for equality and social justice in a democratic society (Ainscow et al, 2011; OECD, 2007). Ainscow and colleagues further note that despite years of educational reforms in many countries, children still enter school systems from unequal backgrounds, are given access to unequal experiences and then leave with unequal outcomes. This context describes three elements of equity in education systems; equity of resources, equity in process and equity of outcomes. The first form of equity is in relation to various forms of funding formulas and financial support allocation models - the *resources* for public education. The problem is the inequitable distribution of resources within regions and education institutions.

45. Pursuing equity in the process of education is more complex (Scottish Executive Education Department, 2007; Ainscow et al, 2011). Educators agree that equity in educational programming does not mean all learners should receive the same educational programming. In seeking to serve all learners, public education should be adaptive in order to meet their varying needs. Therefore, all learners should not receive the same education. Instead, there should be multiple curricula, modified curricula, adapted curricula, differentiated education, differentiated programs and individualized education plans to meet individual learner needs. In addition to the national curriculum at primary school level,

46. The equity of outcomes is the most difficult aspect. Since we have already observed that school programs should be adapted to meet individual learner needs, it is not logical to seek the same outcomes for all. Arnold (2005) notes that defining equity in outcome is a challenge because issues of skills and competences, age, grade, education attainment levels, and norms of assessment of skills across regions are varied and have to be given critical consideration.

4.2.1 Conceptualization of Equitable Education in Kenya

47. The GoK has over the years strived for equity in education in terms of geographical regions, gender and levels of education. This is done by ensuring equitable distribution of educational resources and opportunities, process and outcomes.

4.2.2 Equity of resources

48. Under the FPE program, the GoK disburses capitation grants to all public primary schools for instructional materials and running costs. Although the GoK has a formula for disbursement of FPE funds, the amounts are the bare minimum for school requirements (KESSP, 2005). The GoK provides resources for training and management of teachers in public schools. However, there is a shortage of

70,000 teachers (primary and secondary) as at June 2011. Therefore, parents and communities are expected to meet the resources gap. Due to the disparities in incomes across the regions in Kenya, some schools are well endowed with resources while others are less endowed and this has implications on equity in education. In addition, the GoK allocates capitation grants to primary schools irrespective of regional resource disparity.

4.2.3 Equity in process

49. Kenya has a national curriculum which is customized for children with special needs, non-formal education (KIE, 2008) curricula, Adult Basic Education and Training (ABET) curricula and e-curricula that include digital and broadcasting (KESSP, 2005). These curricula are geared towards addressing the education needs of all learners. However, inadequate resources hamper effective delivery.

4.2.4 Equity of outcomes

50. Learner assessment is both continuous and summative. Summative evaluation occurs at the end of primary education cycle when learners sit an examination offered by the Kenya National Examination Council (KNEC). This evaluation is based on a common national curriculum developed by the Kenya Institute of Education (KIE). Evaluation for special needs learners is based on the adapted curriculum. To ensure effectiveness in education system, monitoring of learner achievement is carried out at standards three and six (grade 3 and 6) using NASMLA and SACMEQ mainly focusing on literacy and numeracy skills only.

5. METHODOLOGY

5.1 Study design

51. This study employed mixed method approach that included desk review and an empirical study. The desk review focused on FPE and other targeted interventions while the empirical study involved multiple case studies and a national survey. The case study approach was used to gather information from national and field level target groups while the national survey focused on a sample of 90 head teachers of primary schools. The data obtained was triangulated for in-depth of the contributions of specific interventions towards inclusive and equitable basic education.

5.2 Target population

52. The desk review focused on documents with information on FPE and other targeted interventions while the case studies focused on targeted education policy makers, national and district education officials, primary school head teachers, teachers, pupils, out of school children, School Management Committees (SMCs) and civil society organizations providing educational interventions to the marginalized and vulnerable populations. The national Survey targeted 90 primary school head teachers sampled from 30 districts.

5.3 Sample and sampling procedure

53. At the national level, the case studies targeted education managers and policy makers and investment Programs team leaders. At the field level, three district representing ASAL, rural poor and urban slums were purposively sampled for the case studies. These were; Wajir South District (ASAL), Teso North (rural poor), and Mukuru kwa Njenga in Nairobi (Urban slums). The rural poor are characterized by more than 60% absolute poverty index. In each district, two regular public primary schools and one special needs or integrated school were selected. For the national survey, a representative sample of 90 primary head school teachers were sampled through multi-stage sampling using 2009 national census data.

5.4 Instrumentation

54. The instruments used were: document analysis guide (annex), interview guides, focus group discussion guide and school observation checklist. The national survey used a questionnaire that was administered to the head teachers.

5.5 Data collection procedures

55. A list of documents with information on FPE and targeted interventions was compiled and the document analysis guide was used to review issues that were the focus of the study. The researchers undertook case studies in the areas of focus using interview guides, focus group discussion guides, observation guides and document analysis guide. For the national survey data was collected by Quality Assurance and Standards Officers (QASOs) in the field who were inducted on the process of data collection.

5.6 Data analysis procedures

56. The data obtained was analyzed using both quantitative and qualitative techniques. The quantitative data were processed and analyzed using descriptive and inferential statistics where appropriate with the aid of the Statistical Package for Social Sciences (SPSS version 17). The qualitative data were collated around the objectives of the study and themes that emerged from the data.

6. DESK REVIEW ON INTERVENTIONS FOR INCLUSIVE AND EQUITABLE BASIC EDUCATION IN KENYA

6.1 Introduction

57. The GOK has put in place several interventions to ensure basic education is inclusive and equitable. The following are some of these interventions.

6.2 Free Primary Education

58. Since independence in 1963, the GoK had always desired to offer Free Primary Education (FPE) in order to reach and support the children of the disadvantaged communities (Sifuna, 2005). FPE was first introduced in 1970, but the program was not sustained and soon school levies were gradually re-introduced. This was re-introduced in 2003 in recognition that education is a basic right for all Kenyan children and a fundamental factor for human capital development. Under the FPE, fees and levies for tuition were abolished as the GoK and development partners met the cost of basic teaching and learning materials, as well as wages for critical non-teaching staff and co-curricular activities. The FPE funds are disbursed directly to schools through two Bank Accounts, namely, the school instructional materials Bank Account (Simba Account) and the general purpose account.

59. Reviewed literature on FPE indicates that the program has improved access to school for children from poor socio-economic backgrounds, especially girls. Several studies have confirmed positive impact of FPE on enrolments (Elimu Yetu Coalition, 2004; Sifuna, 2005; Kenya, 2008; Koskei, 2009). Following introduction of FPE in January 2003, enrolments rose from 6.3 million to 7.6 million; a 22.3% increase nationally. However, an assessment by UNESCO in collaboration with the MoE on challenges of implementing FPE in Kenya, established that after an initial increase in enrolment, public schools were beginning to experience a decline in enrolments due to drop outs and to a lesser degree, transfer to private schools (UNESCO, 2005). This was attributed to unfriendly learning environments, poverty, child labour and HIV and AIDS among others. The study cited lack of information on roles of various stakeholders as one of the weaknesses of the implementation strategy.

6.3 School Health and Nutrition

60. In KESSP, an integrated multi-pronged strategy that consolidates interventions of health, nutrition, infrastructure development and water and sanitation was proposed under the school health and feeding investment program. In this study both health and nutrition components were reviewed.

61. The School Feeding Program in Kenya is a partnership between the World Food Program (WFP) and GoK and the on-going activities include; provision of mid-day meal to 1.2 million pre-primary and primary school children in 64 ASAL districts and selected urban slums. The program was initiated as a result of children who were dropping out of schools due to drought in the 1970s. Initially WFP supported the program fully. However, in 2008, the GoK took over responsibility for half of the program, while WFP focused on providing meals in primary schools with the lowest education indicators in the most food insecure part of the country.

62. An Impact Evaluation of WFP School Feeding Programs in Kenya found that Enrolment rates were on average 28% higher in schools that offered school meals, than in those that did not (WFP, 2010). The difference was even more marked in the early grades. The assessment also found that the rate of completion of primary school was also higher in schools offering school meals, especially for girls, and a higher percentage of children from primary schools that offered meals moved on to secondary school after graduating. It was further confirmed that school meals had a positive effect on attendance rates and on scores in examinations in the final year of primary school. Educational outcomes were more positive in urban areas than in rural semi-arid and arid areas. In schools with nearly as many women teachers as men, the number of girls and boys are also closer to parity.

63. Morbidity is prevalent among Kenyan school children in rural and urban informal settlements and is mainly related to multiple intestinal parasitic infections and malaria (UNICEF, 2006). This is attributed to lack of safe water, low standards of hygiene in and around the schools and inadequate information on sanitation and hygiene practices. Morbidity is associated with children starting school late, dropping out, and generally under-achieving in education. On-going activities to improve health include; provision of hand washing facilities and drinking water containers to selected schools, de-worming of school children, Vitamin A supplementation, immunization and vaccination, school malaria survey by KEMRI-Welcome Trust and MoPHS

6.4 School Infrastructure Improvement

64. Access to quality education in Kenya has for a long time been inhibited by poor school infrastructure. The increased enrolment in ECD and primary schools as result of FPE in 2003 created an additional pressure on existing primary school infrastructure, leading to overcrowding in some schools (KESSP, 2005; UNESCO, 2005). In addition, there are few primary schools serving populations in areas of Arid and Semi Arid lands (ASAL) and informal settlements in urban areas. In ASAL regions for example, young children walk long distances to schools that are far apart.

65. The GoK in partnership with communities, Development Partners, Churches, Non Governmental Organizations (NGOs) and individuals has made huge investments in the Infrastructure sub sector. Under the KESSP initiatives, funds were disbursement directly to primary schools for refurbishment of existing infrastructure, construction of new classrooms, toilets, administration blocks, kitchens, provision of water and sanitation facilities as well construction of new ECD centres and Primary schools. According KESSP Mid-Term Review (2010), some of the specific achievements include;

- refurbishment of 3,537 Primary school classrooms against a target of 8,000 by 2010,
- construction of 3,528 new Primary school classrooms surpassing the overall target of 3,880,
- capacity building of 225 District Infrastructure Coordination teams (DICT), 203 Education officers and 30,432 school infrastructure committees,
- construction of 5,057 new toilets along with provision of 577 water tanks and installation of 179 water lines,
- provision of 34,260 new desks and
- construction of 165 new Primary schools.

66. Despite the huge investments in infrastructure provision, there remains a major backlog, particularly in poor regions, urban slums and in pockets of poverty in high potential regions. Therefore, there is need for continued and systematic investment not only in new Primary schools but also in rehabilitating, upgrading and maintenance of existing Primary schools through a participatory process that involves the community and school committees.

6.5 Special Needs Education

67. Special education is important for human capital development as it prepares those who would otherwise be dependents to be self-reliant. Several programs were initiated by GOK, aimed at enhancing equity, increased participation and improved quality of education to learners with special needs (KESSP, 2005). These initiatives recorded positive impact on enrolment rates and the quality of education offered. Enrolment increased from161, 825 (2003) to 207,761 (2007), an increase of 78%. Gender parity tilted substantially in favour of girls (2003, girls 54%, boys 46% and in 2007, 55% and 45% respectively. For a long time, special needs education has been provided in special schools, special units attached to regular schools, and more recently through inclusive settings in regular schools. Special schools and units in Kenya only cater for children with special needs in the areas of hearing, visual, mental or physical challenges. This leaves out other areas of special needs

such as gifted and talented, psychosocially different, autism, multiple handicapped, those with specific learning difficulties and communication disorders.

68. The main challenges relating to provision of education and training to children with special needs include; lack of clear guidelines on the implementation of an all inclusive education policy, lack of reliable data on children with special needs, inadequate tools and skills in identification and assessment, and curriculum that is not tailored to meet special needs (KESSP, 2005; Republic of Kenya, 2009). The situation is compounded by inappropriate infrastructure, inadequate facilities and lack of equipment, which make it difficult to integrate special education in regular programs. In addition, inadequate capacity among many teachers to handle children with special needs, lack of co-ordination among service providers, inappropriate placement of children with disabilities, inadequate and expensive teaching and learning materials and inadequate supervision and monitoring of special education programs exacerbate the situation (Republic of Kenya, 2009).

69. To overcome these challenges, the Government is currently implementing measures aimed at improving the participation of children with special needs. Under the FPE, additional capitation grants are provided to physically challenged children enrolled in special education institutions and units attached to regular primary schools. Initial support has also been provided to each public primary school to begin removing existing barriers that make the school environment un- friendly to the physically challenged learners. Each special education unit has been given a grant to facilitate procurement of the necessary teaching/learning materials and equipment. In addition, the Government continues to train primary school teachers in special education as well as training teachers at university level in order to improve the necessary national capacity to handle special needs education.

6.6 HIV and AIDS Intervention

70. In the education sector, HIV and AIDS remains one of the major challenges that could prevent the country from achieving educational targets at national and global levels such as EFA and MDGs education related goals. The increasing number of orphans as a result of the scourge continuously erodes the gains realized in the achievement of an inclusive and equitable basic education. The pandemic affects the demand for schooling, enrolment, transition and completion rates. To reduce the impact of HIV and AIDS in the education sector, the MoE in partnership with UNESCO and USAID developed the Education Sector Policy on HIV and AIDS in 2004. The main focus of the policy includes;

- creating an environment in which all learners are free from HIV infection,
- creating an education sector in which care and support is available for all, particularly orphans, vulnerable children and those with special needs,
- emphasizing non discriminatory labour practices, terms and conditions of service frameworks put in place and are sensitive and responsive to impact of HIV and AIDS,
- creating management structures and programs at all levels of the education sector that ensures and sustain quality in the context of HIV and AIDS.

71. A recent situational analysis of implementation of HIV and AIDs education sector policy reports that implementation is hampered by poor dissemination of the policy, limited human resource capacity to manage the response and teacher challenges (UNESCO, 2011). In addition, there is poor coordination of HIV and AIDs activities in the education sector and among partners. Under KESSP, the Primary School Action for Better Health (PSABH) covered 17,140 primary schools while the Secondary Schools Action for Better Health (SSABH) covered 600 secondary schools from 2005 to 2007. From 2007 to 2009, 5000 primary schools were covered under the HIV and AIDS Prevention and Life skills education Programs in which 11,538 (78%) participants were trained. In order to

mitigate on the socio- economic impact of the pandemic, KENYA SHILLINGS: 200,000.00 were disbursed to each of the 3,251 primary schools under the MVC support grant by June 2009. In total 600.1 Million was disbursed and the number of children benefiting was estimated at 610, 000. Other Key achievements in the fight against HIV and AIDS are:

- Capacity building on HIV and AIDS prevention and life skills
- Development and dissemination of the education sector policy on HIV and AIDS;
- Availability of data on HIV and AIDS to guide Programs and;
- training of school management committees on HIV and AIDS prevention and life Skills

6.7 Gender in Education

72. The commitment of the GoK to attain gender equality is underlined in various national and international legal and policy documents. The Constitution of Kenya (2010) and the Sessional Paper No.1 on African Socialism and its Application to Planning in Kenya (1965) outlaw discrimination on the basis of gender and emphasize social justice and equal opportunities with regard to education. The Children's Act (2001) unequivocally stipulates every child's entitlement to education, thus ensuring inclusion of all children particularly girls in basic education. Other GoK documents that address gender issues in education are the PRSP (2001), NARC Manifesto (2003), ERS 2003-2007, National Development Plan (2002-2008), ROK (2005), ESR (2003), KESSP (2005) and Gender Policy in Education (2007). As aforementioned earlier in this paper, the GoK is also a signatory and has domesticated international protocols relating to education and human rights of women and girls which further affirm its commitment and determination to address legal and policy issues that facilitate attainment of gender parity and equality in education.

73. With increased investment in promotion of gender parity and equality in education, and pursuance of strategies such as provision of boarding facilities in ASAL, bursary allocation, affirmative action in the admission to universities, community sensitization and mobilization and promotion of gender responsive instructional materials and practices, more girls are now enrolling in primary and transitioning to secondary schools relative to 2002, thus increasingly narrowing gender gap. However, persistent barriers such as socio-cultural and religious practices, poverty and lack of community awareness continue to contribute to inequitable access, participation and performance in education, mainly in favour of boys.

7. CASE STUDIES

7.1 Introduction

74. Information at the national level was obtained from some Directors of Education and Investment Program Team Leaders while field level information was gathered from selected sites representing ASAL, rural poor and urban slums in Wajir South, Teso North and Embakasi districts respectively that were purposively sampled. The case studies enabled in-depth understanding of factors affecting provision of an all-inclusive and equitable basic education in Kenya. The first sub-section contains a summary of findings from key informant interviews at the Ministry of Education headquarters, followed by information from field level case studies.

7.2 MoE Headquarter Case Study

75. Apart from discussing general information that illuminated the meaning of inclusive and equitable basic education, the interviews focused on the specific interventions that were being implemented in Kenya to address inclusiveness and equity in basic education. Further discussions included details on intervention formulation process, intervention implementation process, mobilization, allocation and utilization of resource for the interventions, monitoring and evaluation of the interventions and the impact of the interventions as well as the challenges experienced during implementation of the interventions. There was consensus on the meaning of inclusive and equitable basic education among top Ministry of Education officials which demonstrated a common understanding of these important concepts, which were at the centre of the country's education policy.

76. This study confirmed that the Directorate of Basic Education was charged with the responsibility of advising on coordination, formulation and implementation of policies on Early Childhood Development and Education,, special needs education, primary education , Non-formal schools, school health and feeding programs; facilitation of the provision of textbooks to primary schools, and registration of basic education institutions among others. Indeed all these programs directly enhanced inclusive and equitable basic education.

77. On the other hand, the Directorate of Planning and Policy was responsible for planning and development of policies in the education sector and reforms, maintenance of accurate educational statistics, reviewing of education policies, and coordinating education projects in the country as well as coordinating the KESSP Secretariat. The Directorate of Secondary and Tertiary Education advised the Minister on formulation and implementation of government policies on secondary and higher education. In discharging this responsibility, the Directorate coordinated admissions and transfers of students into public secondary schools, took leadership in the management of funding of secondary and higher education, including bursaries and grants. These functions enhanced inclusive and equitable basic education.

78. The study found that there were specific policies that were guiding the implementation of inclusive and equitable basic education and that these policies had been formulated through a consultative process where wide consultations were made through all the stages. Among others, these policies include the following:

- Gender in Education Policy (2007);
- National ECDE policy in Kenya;
- Special Needs Education Policy;

- Policy on Marginalized and Vulnerable Children;
- National HIV and AIDS policy;
- Policy Framework for Nomadic Education in Kenya;
- Health and Nutrition program policy;
- Policy framework on the Provision of Alternative Basic Education and training (APBET) 2010.

79. The following specific programs were being implemented by the Ministry of Education to enhance inclusive and equitable basic education:

- Free Day Secondary education launched in 2008;
- Free Primary Education 2003;
- Secondary Education Bursary Fund (SEBF) commonly known as the Constituency Bursary Fund);
- Re-entry policy for girls who may have dropped from schools due to early marriages or pregnancies;
- Scholarship program for girls (UNICEF and GoK) specifically in ASAL districts, (NEP) but expanding to other regions; to sponsor them up to college. Program has been transferred to Ministry of Northern Kenya with effect from 2010
- Laboratory grants to schools (secondary schools equipment grants) : schools identified by DEBs; and
- School Instructional Materials.

During the key informant interviews, challenges that affected inclusive and equitable basic education as well as the impacts of specific initiatives were highlighted. These are summarized in the following sub-sections.

7.2. 1 School Instructional Materials

80. Communities targeted by the School Instructional Materials initiative suffered from the effects of vast distances covered by learners to schools, general insecurity as well as the difficulties of tracing families of pastoralist communities. Providing financial resources to non-formal schools which were started in some areas as rescue or feeding centres have been developed into low cost formal primary schools thereby increasing pupil enrolment in the primary education sub-sector. It was reported that non-formal schools do not receive equal capitalization as formal schools. Key challenges facing the School Instructional Materials initiative included the following:

- Delayed and erratic disbursements to schools in the past with Kenya's development partners and other donors delaying cash disbursements.
- Inadequate capitalization grant per child (Kenya Shillings 4,000.00 per annum) was reported. As a result of inadequate resources, there was a shortfall of over Kenya Shillings 340 million, thus making it difficult for the MoE to financially support 205 additional schools that had newly applied for funding.
- There were cases of poor book-keeping that had implications on accountability of public resources.
- Weak capacity of school management committees (SMCs, BOGs).

81. Despite these challenges, School Instructional Materials initiative had notable impacts:

- Enrolment/access enhanced with enrolment rising from 5.9 million in 2003 to about 8.5 million in 2010.
- Despite inadequate and rigorous research data, it is expected that beneficiary schools had experienced improved academic performance

- There was evidence that gender equity was improving - overall near gender parity for alternative education, except for ASAL areas where socio-cultural factors affected girls who stayed away from schools
- Parents were relieved of the cost burdens and were now able to send their children to schools.

It was gratifying to note that the MoE was taking appropriate action to address some of the challenges affecting the implementation of the School Instructional Materials initiative.

82. The training program for school governance organs was reportedly affected by high turnover. KESI is expected to spearhead capacity building efforts. To support non-formal schools, it was revealed that the MoE was developing registration guidelines to enable new schools meet the criteria of registration. At the same time, the MoE was being flexible in registration of these schools due to inherent constraints such as shortage of land. To monitor resources for the School Instructional Materials initiative, the MoE had a 3-tier follow-up system that covered 2.5% of all schools in the country, 25% of the schools at the provincial level as well as all schools at the district level. However, a shortage of staff in the School Instructional Materials Unit hampered the effectiveness of the monitoring program. Whereas the MoE should increase the per child capitation thus increasing funding to schools, more private-public partnerships should be encouraged in the education sector.

7.2.2 Non Formal Education

83. Nomadic herders are among the poorest and most vulnerable population groups in Kenya and reaching them with formal schooling has been difficult and hence thousand of nomadic pastoral children remain outside the education system. Being a signatory to a number of International Conventions focusing on education such as MDGs and EFA, the GoK has an obligation to promote equity in access to education for all the citizens. It is for this reason that the Non-Formal Education initiative was initiated. Through this initiative, the MoE disburses grants to all schools including those in urban slums so as to enhance inclusive and equitable basic education.

84. It was revealed that the Non-Formal Education initiative faced some challenges:

- There was a shortage of teaching/learning facilities and resources. Expansion of physical facilities was hampered by inadequate land in urban areas
- Shortage of teachers
- Some target groups felt alienated because relevant policies focused on the North Eastern Province and not other marginalized regions such as Turkana
- parents complain that school graduates are no better than those herding (issue of poor quality of education)
- Due to inadequate resources for the Non-Formal Education initiative, the quality of educational services in the affected regions was low
- The implementation of relevant policies has been piece-meal, thus making the programs ineffective.

85. Despite these challenges, this study found that during enrolment drive workshops for Non-Formal Education initiative, communities were being encouraged to come up with their action plans to enhance enrolment in schools.

- There were very successful efforts especially in Turkana, Marsabit and Mandera districts where there were more children joining schools as parents were challenging MoE to send teachers to schools.

- Following a blanket intervention where the TSC deployed fifty full time teachers to every constituency in nomadic areas in 2010, there is reported improved learning in beneficiary schools
- Multi shift teaching in urban centres has reportedly improved learning in schools that have a shortage of teachers. Multi-grade teaching in smaller populated areas to respond to teacher shortage.
- Nomadic low cost boarding schools that had been established have attracted girls who could have remained at home.

86. In order to enhance resource mobilization, the study received a number of recommendations;

- Communities should provide land for the construction of schools
- For mobile schools, communities should set up schools and employ school leavers as teachers (in some cases ECD, P1 teachers);
- Stakeholders such as NGOs and CBOs should mobile schools with mobile school kits (donkeys/cattle/camels, solar lamps, tents for use in the night; text books, employ teachers, balls and nets for sports);
- The MoE should take over the funding/staffing of school that has been established and which has been running for quite a while.
- More public-private partnerships should be enhanced in order to provide resources to support on-going initiatives. For instance, DFID, E-MACK, ADB, USAID to build infrastructures where needed.

87. For better management challenges facing the Non-Formal Education initiative, key informants suggested that the proposed Nomadic Education Commission (NACONEK) should be made operational and be located in these regions in order to champion the implementation of relevant policies. It was also recommended that relevant policies should be reviewed and gaps filled accordingly. Other recommendations include;

- The intervention of mobile schools should be evaluated
- INSET on pedagogy should be initiated by relevant INSET providers such as the INSET unit in the MOE
- The TSC should enhance the process of developing unique staffing norms for sparsely populated areas (the normal case is a teacher for a class of 50 learners in primary and 40 in secondary schools).

7.2.3 Curriculum Development

88. As far as the Kenya Institute of Education (KIE) is concerned, inclusiveness in education means having children with special needs learning together with other children in the same classrooms, except for children with special needs who need specialized attention. On the other hand, equitable education implies giving equal chance to all children to get education.

89. The KIE has a role in making inclusive and equitable basic education possible in the national education system. This is done through adapting the curriculum for both primary and secondary education to all children. This is done by KIE organizing capacity-building workshops throughout the country in order to sensitize teachers on a new curriculum that has been developed. This study found that the induction of curriculum implementers was done through face-to-face workshops, on-line using 30 trainers a platform that has won a continental award. Key challenges that affect this initiative include the following;

- Funding for sensitization efforts is limited, thus making the orientation programs difficult
- There are limited facilities for face-face orientation at the KIE

- Limited funding has not made impact assessment of the orientation initiative possible.

There is need for KIE to step up resources support so as to enhance its programs, including those that enhance inclusive and equitable basic education.

7.2.4 Special Needs Education

90. For a long time, the main challenges relating to access and equity in the provision of education and training to children with special needs include lack of data on children with special needs and inadequate tools and skills in identification and assessment. Furthermore, special schools and units in Kenya only cater for children with special needs in the areas of hearing, visual, mental or physical challenge. This left out other areas of special needs such as gifted and talented, psychosocially different, autism, multiple handicapped, specific learning difficulties and communication disorders.

91. However, the development and enactment of the Special Needs Education Policy was a landmark in an effort to enhance inclusive and equitable basic education. During the key informant interviews, it was reported that this policy was developed through a participatory process that was initiated by stakeholders with MoE facilitating the process. However, it was revealed that only a few of the following proposed activities have been implemented;

- Disbursing Grants-in Aid to SNE Institutions
- Developing an SNE Policy Implementation guidelines
- Conducting a national dissemination workshops of the SNE Policy
- Convening a stakeholders interlink age conference
- Conducting capacity-building workshops on Inclusive Education
- Carrying out a National Monitoring and Evaluation exercise on MOE SNE programs.

92. The major challenges that reportedly affected implementation include;

- Inadequate funding, for instance, assessment tools were ready but could not be distributed
- Except for KISE, there was limited training because there was no line-budget for it
- Limited technical capacity at the MoE and in schools
- Stakeholders pushing their own agenda thus difficult to meet diverse stakeholder needs and as a result, there were small scattered efforts by many actors in SNE who were involved in "territory marking" , and therefore no synergy
- Limited infrastructures in schools
- Limited awareness and negative attitude towards disability among many communities
- There were serious data gaps on special needs education;

93. Inadequate funds and low capacity have particularly made the implementation of the SNE policy difficult. Despite these challenges however, curriculum differentiation at KIE was underway. Some of the possible strategies of enhancing the Special Needs Education initiative include;

- Strengthening linkages with other service providers such as MoH, NGO and CBOs
- Strengthening of assessment at grassroots at EARCs at all districts by developing appropriate tools as well as deploying qualified personnel
- The MoE should top up the relevant component of the FPE grants for procuring specialized instructional materials, which are costly
- Strengthening of Kenya Institute of the Blind (KIB) in order to provide Braille materials to schools and other learning institutions.
- In order for institutions offering services for children with special needs to retain them, these institutions should be adequately supported.

7.2.5 School Feeding Program

94. During the interviews, it was noted that, owing to the GoK commitment to education, the policy on School Health and Nutrition was developed and enacted, thus heralding a Home-Grown School Feeding program that adopted a cross-sectoral approach, which includes commitment to providing a 'balanced' meal at school. However, one of the main challenges during the formation of this policy was associated with co-ordination, with the line ministries being involved in tag-of-wars regarding who was to lead the implementation process. Initially, this had implications on its effectiveness.

95. During this study, it was noted that the major challenge that is facing the SFP is inadequate or declining funding, with WFP reduced funding from Kenya Shilling 1.2 million to Kenya Shilling 750, 000/- in the year 2008. WFP's exit strategy of offloading 50,000 beneficiaries every financial year continues to hurt the program. The current allocation of resources (Kenya Shilling 7.00 per child per day) is inadequate. Despite these challenges, SFP has enhanced enrolment in schools, with beneficiaries rising from 250 at inception to 1.2 million in 2008. Unlike other government interventions, the criteria of selecting beneficiary schools reportedly meet inclusiveness and equity.

96. However, the key informant for this initiative reported stabilized attendance and the Impact Evaluation of WFP School Feeding Programs in Kenya showed that school meals do not reverse the significant drop in primary school completion rates and attendance rates in the last two years of primary school, as students reach puberty.

97. The SFP had reportedly enhanced retention of children in schools with income transfer from parents being evident due to financial relief. At the same time, in addition to job creation (about 3000 cooks had been hired), better health had improved academic performance of children in beneficiary schools. One can therefore conclude that because it targets the most vulnerable populations, the program is coherent with Government priorities on education and health.

7.3 Field Level Case Studies

98. This sub-section presents three case studies on selected sites representing ASAL, rural poor and urban slums in Wajir South, Teso North and Embakasi districts which were purposively sampled. Wajir South district, representing ASAL, is located in North Eastern Province was selected to represent this category because it had several interventions focusing on the marginalized and vulnerable populations. Teso North district represented the rural poor category characterized by absolute poverty households (>60% poverty index). The district is isolated pocket of poverty within a high potential area and has high incidences of cultural practices such as early marriages. Nairobi slums were selected because access is low which is compounded by the high cost of living in Nairobi compared to the other cities making access to education a major challenge. Mukuru slums in Embakasi District of Nairobi were purposively selected for the study because they are relatively large but under-researched compared to Kibera.

99. Three primary schools (two public primary schools and one special needs school/ integrated school) in each of the District were selected and rrespondents were; head teachers, teachers, SMC members and pupils. A school observation guide was used to assess the condition of infrastructure and facilities and status of textbooks. The area District Education Officer and an NGO representative at District level were interviewed for each district as key informants. In addition, focused group discussions with out of school children, including those with special needs within the school

catchment area were held. The responses from these respondents were thematically analysed based on the research questions

7.3.1 Free Primary Education (FPE)

100. The Government's commitment in 2003 to provide Free Primary Education to all children led to provision of grants for instructional materials and general purposes that may include paying bills and salaries for non-teaching staff repair of school infrastructure, among others. All public primary schools reported receiving grants from the MoE for the FPE functions. However, low cost private primary schools, a constituency that serves majority of the primary education needs in urban informal settlements do not receive FPE grants. In the three schools studied in Embakasi district, only one public primary school (Mukuru Kwa Njenga Primary School) reported receiving grants for instructional materials and general purpose consistently. At introduction in 2003, FPE grants targeted public primary schools only. However, this was reviewed and NFE schools that met the criteria set by the MoE received government support under the NFE grant. The two low-cost private schools reported receiving support, of inconsistent nature, from government, well-wishers and donors. One of the schools reported receiving MOE grants for Non Formal Education (NFE) but it was inconsistent and unpredictable:

> *"The school has received three grants since 2005 (2005, 2009, and 2010[d]). The FPE funding is not consistent and only meets half of the requirements for the enrolled population."*

101. The total costs of primary education are still a major contributor to lack of access and participation. Interview with out of school children revealed that 'lack of money' was the main reason for dropping out of school. Some of the children transferred schools severally in a short span of time due to fees areas:

> *"I went to Mukuru Kwa Njenga Primary (public)in standard 1 but then I left to join St. John (private) in standard 2 because I was sent away for fees and my parents did not pay. I then went to Shalom (private) where I learnt standard 3 and one term of standard 4. At Shalom we used to be caned if we did not pay school fees. One day I was caned (10 canes) till my arm was injured and I was asked to pick my bag and go home till I pay fees. I never went back to the school."* [10 year old out of school girl in Mukuru slum]

102. The FPE grant is structured to address school level inputs only. Given the poverty levels in some contexts in Kenya, some of which the case studies sought to represent, home factors are a key contributor to children enrolment and participation to completion of the primary cycle. In a slum context where family incomes are low and do not often meet the competing demands, children sometimes drop-out of school or irregularly attend in order to supplement family income. Children engaging in petty businesses at the Kenya-Uganda border after school were cited as a major contributing factor to school drop-out rates and low performance. A teacher in one of the schools report:

> *"There is a case for instance of a class four boy, whose case was brought to me by the class teacher for absenteeism. You know they go picking scrap metal even on school days. The boy is in and out of school. When I asked him why he chooses to go 'Kuc[1]hemba' and miss school, he told me that he does it for survival. He stays with a single mother who cannot feud for his*

[1] *'Kuc[1]hemba'* is a local slang reference for the trade of picking scrap metal and selling it to middle men who supply metal processing industries. Mukuru slum is located amidst an industrial area.

survival so he needs to chip in by collecting the scrap metal." [Senior teacher in the public primary school in Mukuru slums]

103. While FPE is a welcome relieve for households, in some context, grants supporting school level inputs may not entirely ensure all children enroll and stay in school. Additional family level support may contribute to mitigate other factors that contribute to children's lack of enrolment or/and drop-out. On instructional materials, it was noted that school level discretion on purchase of textbooks means that course books titles may change from year to year depending on the personal preferences of teachers. It was reported that the policy that regulate purchase of textbooks grants members of the school instructional materials committee leeway to decide on the course books that are to be purchased. However, the committee relies on choices made by the subject teachers who are required to recommend their preferred course books. This presents a problem in that different teachers may choose different authors based on their personal preferences. In some cases, teachers end up buying few copies of different authors/publishers for one subject which in the end translates into few books per author/publisher and therefore higher number of children sharing that particular text. Schools need an understanding of the rationale for provision of textbooks from the perspective of increased access and use of textbooks rather than getting variety of authors/publishers but still more children sharing.

7.3.2 School Health and Nutrition

104. In KESSP, an integrated multi-pronged strategy that consolidates interventions of health, nutrition, infrastructure development and water and sanitation was proposed under the school health and feeding investment program. In this study however, each of the components; school feeding, health, water and sanitation and infrastructure development interventions were studied in isolation of each other in order to have an in-depth understanding of the implementation experiences, challenges and contributions. This approach was also found appropriate as the different components are targeted differently (zoning) and are implemented in partnership with different partners. The 3 schools in each of the target districts had benefited from the various school health and nutrition program components including school feeding, vitamin A supplement and de-worming.

School feeding program (SFP)

105. School Feeding Program (SFP) was designed to target socio-economically, disadvantaged and nutritionally vulnerable children, especially in Arid and Semi-Arid Lands (ASAL) and informal urban settlements (KESSP, 2005). A mid-day meal is provided daily to targeted pre-primary and primary school children in 29 ASAL districts and some of the Nairobi slums. Consistent with the KESSP plan, a regular school feeding program supported by MoE and World Food Program (WFP) was reported implemented in all public primary schools under study in ASAL and Nairobi slums. WFP provides food while parents subsidize by providing fuel and labour for food preparation. In addition to the mid-day meal, households also benefit, either due to level of vulnerability or due to severe food shortage like is the case during drought.

106. The lunch meal was considered a key contributing factor to children enrolment and retention. In the ASAL case study, in particular, boys were left behind by their nomadic families because of the school meal. Schools in Teso North do not receive any GoK direct funding for school feeding program. Families sometimes cannot afford food while for others; it is the distance from school that deters them from accessing lunch meals.

"Come lunch time and you will see most of these children will just be loitering in the compound without lunch. They don't eat the whole day and in the evening they may only have

a piece of cassava and some water. We have not been on the WFP feeding program and if we can get help, it is welcome". [Head Teacher of one primary school in Teso North District]

107. Although there were attempts by community and parents contributing to a lunch time meal, particularly for the candidate classes, none of the attempts had succeeded as competing needs for money works against the school efforts.

"We had a feeding program for ECD children and standard 8 but we had a lot of challenges, like in first term, the program was going on very well but in second term because there is no food at home, you know the food was being provided by the parents. So the program cannot go on and we were only charging them Kenya Shillings 50.00 for paying the cooks and buying cooking fat. The program was being supported fully by the parents and not the GOK". [Head teacher of one of the schools in Teso North District]

108. The importance of school feeding program is recognized by all members of the school community. One pupil in Teso North district had this to say:

"We get late when we go home for lunch and some don't even go home for lunch and in the afternoon they doze off in class due to hunger". [A pupil in one of the schools in Teso North District]

Evidence from head teachers, teachers and pupils demonstrated direct linkages between school attendance and school feeding program. When the school meal stops, enrolment goes down as some of the children stop coming to school. The implication is that school feeding program effect on enrolment is conditional and not likely to be sustained without food. Some respondents reported that "*children stay at home when there is no food in school".*

109. The GoK plan to work in partnership with WFP and other partners to build capacity for schools to develop home grown strategies for sustainability of school feeding was not focused in this study. However, from school observations, there was no evidence of practices like kitchen gardens. In the informal settlements, space is a challenge, often hardly sufficient for school essential infrastructure. In the ASAL adverse weather conditions and water shortage do not support concepts like school gardens.

School Health

110. All schools reported benefiting from interventions on hand-washing, de-worming, and vitamin A supplementation (for ECD only) and immunization and vaccination provided by local health centers and some NGOs.

"The local dispensary staff visits the school to provide the health services. At least once a term the children are de-wormed. Sometimes, health workers provide some vitamin supplement. Girls get donations of sanitary towels occasionally from NGOs. Various NGOs have occasionally visited the school and provided health and hygiene talks to pupils. Nairobi City Council maintains the drainage; toilets built by Barclays Bank; and parents share the cost of borehole water from a well wisher." [Head Teacher in Mukuru Slums]

The implementation was ad hoc and respondents were unclear of the benefits. There is need to have planned implementation strategies and expected benchmarks in order to track implementation and impact.

7.3.3 Special Needs Education (SNE)

111. GoK planned provision of grants to children with special needs in education in special schools or SNE units in primary schools. The grants are used for purchase of specialized teaching and learning materials for SNE units and development of disability friendly physical environments. The GoK has invested in in-service training of teachers in special education to bolster SNE capacity.

112. Out of the nine case study schools, two public primary schools (ASAL and NFE) were purposefully selected because they had SNE units. Both units were for mental challenged children. The study findings demonstrate distinct differences in level of support to SNE. In NFE case study, the SNE unit with nine pupils enrolled has basic equipment, a teacher with a university degree specialization on mental retardation and an additional five teachers with training in special needs. The SNE unit receives regular funding from the MoE, approximately Kenya Shillings 2,000.00 per child per year. In addition, the government employed teacher is paid an additional 10% to his basic salary for the extra duties as the SNE teacher.

113. In the ASAL case, the SNE unit was poorly equipped and did not have an SNE-trained teacher. It was not clear if the school receives any funding from GoK. Although other schools reported having children with special needs in education enrolled, there were no programs or interventions specifically catering for these children integrated in the regular schools. In ASAL, for instance, children with polio were seen struggling to cope with the school environment. The Wajir South DEO reported that the SNE has not been given the necessary support in the district. Similarly, in the two low cost primary schools, (NFE) in Mukuru Kwa Njenga slums, there were no SNE interventions reported.

114. Children with special needs constitute a significant proportion of the out school children. In one of the non-formal schools, when the SMC was asked to identify children below 14 years in the school catchment who were not in school, 11 children accompanied by parent or guardian assembled with less than a day's notice. Out of the 11, six were children with special needs. Similarly, in the ASAL case study, FGDs were held with 60 out-of-school children accompanied to school by their parents on this occasion. Conditions ranging from severe and numerous cases of polio to minor conditions such as 'girl with a stammer' led to children staying out of school. In Teso North district, pupils reported a case of a class seven girl who 'stopped coming to school because she was so big and could not read or even writer her name.'

7.3.4 School Infrastructure Improvement

115. In all the public primary schools that were studied, respondents indicated that the school had benefited from the school infrastructure improvement funds from MoE and in ASAL, from Aga Khan Foundation and USAID. The funds were used for construction of physical facilities in the schools including construction of classrooms, dormitories for low-cost boarding schools, toilets and purchase of desks. The contribution of the school infrastructure improvement funds was aptly captured by the head teacher of one of the schools in Teso North district:

> "*There was this program called KESSP which really helped us particularly to construct enough toilets and some classrooms although there is one classroom that is stalling. It also enabled us to acquire desks, so right now we don't have pupils who sit on the floor although the desks are not really enough. This program was really shaping the schools and I don't know what really happened that it stopped and we want that money back".*

From the fore-going, respondents confirmed the positive contribution of the SII funds but they also highlighted the fact that it was disbursed once and therefore was not enough to cater for the

infrastructure needs of the schools and they would like the funding to continue. It is also clear that the beneficiaries were not sure of the criterion that was used for allocation of SII funds.

116. Infrastructure needs are still high particularly in ASAL. Most classrooms did not have chairs and therefore the pupils sit on the ground. In one of the schools in Wajir South district, multi-grade teaching was implemented for Standards 2 and 3, Standard 4 and 5, and standard 6 due to lack of teachers and classrooms.

8. NATIONAL SURVEY

8.1 Background Information

117. A total of 96 head teachers out of the target of 99 responded to a questionnaire representing a response rate of 97% and majority (77%) were male against female at 22.9%. This indicates a gender imbalance in school management in favour of male head teachers which does not meet the Kenyan constitutional requirement of at least 30% of either gender in public appointments. This finding indicates a slight improvement to NASMLA (2008) which found male head teachers were 85.4% while only 14.6% were female. All the head teachers were qualified with at least P1 qualification and over 29% had a Bachelor of Education Degree which indicates they have taken personal initiative to acquire higher qualifications and this is likely to improve their school management skills. In addition, more than two thirds of the head teachers had management experience of more than 5 years which may have positive implications on their effectiveness in management of interventions for inclusive and equitable basic education in Kenya. Overall, male pupils were slightly more than female pupils at 51.2% and 48.8% respectively.

118. In Kenya, primary school teachers undergo a two year training course to attain a primary teacher's certificate (P1) which is the minimum requirement prescribed by the Teacher Service Commission (TSC) for teaching at primary school level. This study found that 93.5% of the teachers were qualified and only 6.5% were not qualified and all the unqualified teachers were employed by the Parent Teachers Association (PTA). The results also revealed that 87.3% of the teachers are employed by the TSC while 12.7% are employed by the PTA, an indicator of significant teacher shortage in the country given that it is the responsibility of the GoK to employ teachers in all the public primary schools. This study also found that despite female teachers being the majority (59.5%), majority (77.1%) of head teachers were male.

8.2 Interventions that are being implemented

119. The six interventions that were the focus of this study were being implemented though to different extents in the five categories of sample schools. Instructional materials and general purpose expenditure components of FPE were being implemented in all schools. However the water and sanitation component had been implemented in 62% of the sample schools.

120. Under School Health and Nutrition (SHN), de-worming and immunization/vaccination components were implemented in 74% and 40% the schools respectively. Implementation of the school feeding component of SHN was significantly lower in rural high potential and rural poor compared to the other categories of schools probably because children in these areas return home for lunch or carry lunch to school. Meanwhile, slightly over half (52%) of the schools had received grants for infrastructure development. However, this intervention was a one off disbursement to each beneficiary school.

121. Special Needs Education has not received adequate attention as only 39 of the 96 schools were implementing SNE interventions. Of the 39 schools, about 70% neither received grants for facilities maintenance and capitation nor were they implementing advocacy and awareness creation program regarding special needs education in their schools. Meanwhile about 60% of the 39 schools had not received any support from Education Assessment Resources Centers (EARCs) which could partly be explained by inadequate funding of EARCs as well as their low capacity to conduct assessment. Data from case studies show that SNE units in schools do not cater for all types of special education needs and therefore some cases of special needs children are unable to access education. In this regard, the MoE and partners should provide adequate resources and trained personnel to cater for all types of special needs.

122. Furthermore, despite the National Special Needs Education Policy Framework (2009) making clear provisions for inclusive education, its implementation has largely been slowed down for lack of an implementation framework. Consequently, inclusive education has not been well understood in

Kenya. It should be noted that despite efforts to provide inclusive education in Kenya especially for children with special needs, there is no legal framework to ensure its implementation largely because the Education Act (1968) is not explicit on this matter.

123. Generally HIV and AIDS interventions are implemented in less 50% of the sample schools while over 70% had not established Orphans and Vulnerable Children (OVC) committees. It is instructive to note that none of the schools in the gender category was implementing life skills program, making it an obvious possible cause for gender issues leading to school drop outs and poor performance. Meanwhile, over 70% of the schools were not implementing gender empowerment and mentorship programs which are components of the Gender in Education program and 68% of the schools were not implementing the advocacy and training on gender issues and this has serious implications on the implementation of the gender policy in education.

8.3 Process of Implementation of Interventions

124. The process of implementation of interventions focused on whether head teachers were trained or sensitized on how to implement the intervention, had guidelines for implementation, whether follow-up of implementation was done, and whether the interventions were on-going. These aspects were considered as critical indicators of successful implementation of the interventions. For FPE, over 95% of head teachers were adequately prepared for implementation in terms of training; provision of implementation guidelines; follow up of implementation; and continuity of the intervention (Annex 6).

125. Compared to FPE, the head teachers were not adequately prepared for implementation of SHN, SNE and Gender in Education interventions. Inadequate preparation of head teachers for implementation of SHN could contribute to low uptake of health interventions which should be a matter of concern for all education stakeholders. A high proportion (79%) of head teachers in 39 schools that were implementing SNE reported receiving support from EARCs which could be due to the fact that the sample included at least a special or integrated school from each of the districts. However, fewer of these schools (60%) received support under the grants for facilities maintenance and capitation component of SNE. Furthermore, few head teachers (68%) in the 39 schools had been prepared for implementation of the advocacy and awareness creation program and this could explain why this program was not on-going in majority of the schools.

126. A relatively high proportion of head teachers had been adequately prepared for implementation of HIV and AIDS interventions. However, except for life skills and school peer training programs, the continuity of other components of HIV and AIDS intervention was low. Among the six targeted interventions in this study, head teachers were least prepared for implementation of Gender in Education program and the components in this intervention were the least on-going.

127. A large proportion of head teachers (85%) were prepared for implementation of school infrastructure development. However, a small proportion reported continuity of this intervention which could be due to the fact that it was a one off intervention and although communities and parents are expected to continue supplementing GoK efforts, only 55% of head teachers reported continuity of this intervention.

Interventions Implementation Index

128. The four items that were used to measure extent of implementation of the each of the 21 components of the six interventions were: whether training or sensitization on implementation was done, availability of implementation guidelines, whether follow-up of implementation was done, and whether the intervention was on-going. A positive response to these four items for each of the 21 components scored one (1) while a negative response scored zero (0). An intervention implementation index was computed for each component and expressed as a percentage. It was then used as an indicator of the level of implementation of that component and comparisons were made

across interventions and school categories. Table 7.1 shows the benchmark that was used for interpretation of the intervention implementation index.

Table 7. 1: Benchmarks for Interpretation of Intervention Implementation Index

Score range (%)	Level of implementation
80.0 and above	High
60.0 to 79.0	Satisfactory
Below 60	Low

The data that were obtained was used to compute mean intervention implementation score across intervention and school categories. The results are presented in Table 7.2.

Table 7. 2: Intervention Implementation Index

Intervention	N	RHP	RP	ASAL	Gender	Urban	Overall
FPE	45	90.5	87.5	94.4	80.6	86.7	89.8
SHN	16	52.1	0.0	90.0	0.0	80.0	65.3
SNE	19	67.9	52.8	55.0	100.0	33.3	58.3
HIV & AIDS	13	72.5	22.5	90.0	85.0	100.0	72.3
Gender in Education	14	32.8	25.0	25.0	0.0	56.3	36.2

The results in Table 7.2 show a wide variation of implementation between interventions and across school categories. The FPE attained the highest overall implementation (89.8%) and across all school categories. The ASAL category of schools scored the highest index (94.4%) which could indicate that head teachers in ASAL areas are well prepared to implement FPE as evidenced by high presence of NGOs that offer management training for head teachers.

129. Overall, the Gender in Education program attained the lowest level of implementation (36.2%) and across all school categories though the urban category of schools attained the highest index (56.3%) in this intervention. Meanwhile, schools in the Gender category were not implementing the Gender in Education program which implies that gender issues are not being adequately addressed. Therefore, the MOE and partners should find out why head teachers in these areas are not implementing the Gender in Education Program. Some of the reasons could be inadequate funding and low capacity to implement this program.

130. Within the HIV and AIDS intervention, urban schools scored the highest implementation index (100%) which could be attributed to the high level of advocacy and training programs in these areas. The implementation was lowest (22.5%) in rural poor category of schools and therefore the MOE and partners should focus on enhancing implementation of HIV and AIDS programs in rural areas to bridge the gap.

131. Although SHN was initiated in 16 of the sampled schools across all the categories, head teachers in Rural Poor and Gender Category of schools had not been prepared at all for implementation of this intervention which implies that they were not trained, had no guidelines for implementation, no follow up was done and these interventions were not being implemented in their schools. The MOE should investigate the mechanism in place for monitoring with a view to develop a comprehensive mechanism for monitoring these interventions.

132. With the exception of schools in Rural High Potential and [2]Gender categories, implementation of SNE was low in all 19 schools that were implementing this intervention. It is important to note that the SNE policy has not been fully implemented which could be attributed to inadequate funding, lack of an implementation framework and low capacity of the EARCs at district level. Therefore, the MOE should develop a comprehensive framework and allocate adequate funds for implementation of SNE interventions.

8.4 Resource Mobilization

133. The study focused on four sources of funds for the interventions: MOE, devolved fund (CDF/LATF), NGO/FBO, and community/parents. Except for Gender in Education intervention, the main contribution for the interventions was the MOE with community/parents making a significant contribution. The study found that as would be expected, funding for the FPE components was largely from the MOE with little support from the other sources. For the SHN components, the main contributors were MOE, NGO/FBO and community/parents.

134. Funding for school infrastructure development was mainly by MOE and devolved funds while for SNE and HIV and AIDs, the MOE, NGO/FBO and community/parents were the main contributors. The contributions of the different players in support of these interventions should be harmonized and coordinated with MoE contributions to avoid duplication of efforts. For example, the unplanned construction of schools through devolved funds (CDF/LATF) resulting from undue pressure from local communities creates "artificial" teacher shortages. To overcome these challenges, there is need for a policy on development and registration of new schools based on school mapping data. In addition there is need for harmonization of the contribution of the MoE and CDF/LATF in school infrastructure development.

135. Under the SNE, it is important to note that none of the schools were receiving support for advocacy and awareness creation program at school level. In addition, information from case studies indicate that children with disability and other forms of special needs are a taboo in some communities and are therefore hidden from the public. This argues a strong case for the MOE and other stakeholders to strongly support the advocacy and awareness creation program at school and community levels.

136. On the other hand, 70% of head teachers indicated that they received resources from the MOE for supporting OVC sub-committees, followed by 63% for NGOs and FBOs. This is as expected in line with the MOE policy of disbursement of OVC grants that cover HIV and AIDS orphans. CDF/LATF is the least cited contributor to the HIV/AIDS program as indicated by 10% of the head teachers. Whether or not this is in line with the CDF/LATF policy of funds disbursement should further be investigated. The sustainability of HIV and AIDS programs remains a challenge as long as most funding for these initiatives is drawn from development partners. It is recommended therefore, that the Government allocates enough funds to actualize the HIV and AIDS policy in education.

137. All the 30 head teachers who responded to Gender in Education issues indicated that they received sanitary towels from NGO's & and FBO's who were also the main contributors towards the advocacy and training on gender issues at school level. The fact that MOE lags behind in these initiatives may create a challenge of sustainability. In addition this implies there is a gap in implementation of gender in education policy. Further investigation should be done on whether or not the gender policy is being implemented.

8.5 Resource Allocation for Interventions

138. The three factors that were used to assess extent of resource allocation were: whether head teachers were satisfied with the mechanism of resource transfer, whether they were consulted on school resource requirements and if they experienced delays in delivery of resources to schools.

[2] Only one school in this category

Whereas majority of head teachers were satisfied with the manner in which FPE resources were being transferred to schools, they were less satisfied in the other five interventions (Annex 8).

139. Generally, the head teachers felt that there was inadequate consultation with regard to the school resource requirements which could lead to lack of ownership of the interventions in question. Considering their focus on implementing the school curricula in order to prepare learners for national examinations, it is highly probable that head teachers do not adequately respond to ongoing consultations regarding some of the interventions.

140. The head teachers reported general delays in delivery of resources for implementing interventions that are aimed at enhancing inclusion and equity in basic education in Kenya. With the reported high success of the FPE program in Kenya, one could imagine that its impact would be much higher with efficiency in delivery of resources to schools.

Resource Allocation Index

141. The three factors that were used to assess extent of resource allocation for the 21 components of the six interventions were: whether head teachers were satisfied with the mechanism of resource transfer, whether they were consulted on school resource requirements and if they experienced delays in delivery of resources to schools. A positive response to each of these 21 items scored one (1) while a negative response scored zero (0) and based on these responses, a resource allocation index was computed for each component and expressed as a percentage. It was then used as an indicator of the process of resource allocation and comparison were made across interventions and school categories. Table 7.3 shows the benchmarks that were set in this study for interpretation of resource allocation index.

Table 7. 3: Benchmarks for Interpretation of Resource Allocation Index

Score range (%)	Level of Resource Allocation
80 and above	High
60 to 79	Satisfactory
Below 60	Low

The data that were obtained was used to compute mean resource allocation score and comparisons were made across intervention and school categories. The results are presented in Table 7.4.

Table 7. 4: Resource Allocation Index

School Category	RHP	RP	ASAL	Gender	Urban	Total
FPE	91.7	87.5	94.4	80.6	100	91.7
SHN	81.3	0.0	90.0	0.0	100	89.6
SII	78.6	87.5	85.7	87.5	87.5	82.7
SNE	79.2	79.2	100	100	50.0	79.5
HIV & AIDs	75.0	100	95.0	0.0	100	89.4
Gender in Education	78.1	100	100	0.0	100	93.8

142. For FPE, the process of resource allocation was rated high (91.7%) with the urban category of schools attaining 100% resource allocation index while the gender category of schools had the lowest index at 80.6%. In general the head teachers appreciated the mechanism of resource transfer, consultation on resource allocation and timeliness for FPE. However head teachers in the case study schools expressed dissatisfaction with resource allocation and timeliness in disbursement of resources. This could be associated with unique challenges they may be facing.

143. The process of resource allocation was rated lower (79.5%) for SNE intervention though both ASAL and Gender category of schools attained high resource allocation index of 100%. Meanwhile, the urban category of schools rated process of resource allocation for SNE very low (50%). Whereas all head teachers reported receiving resources for the SNE intervention, it would be interesting to find out if and how these resources were being utilized to support learners with special needs in their schools.

144. The Rural Poor and Gender category of schools were not likely to implement SHN interventions. With the exception of Rural High Potential category of schools the other categories attained very high resource allocation index of at least 85% for SII. The Gender category of schools was less likely to be allocated resources for HIV and AIDS and Gender in Education interventions. Meanwhile, Rural Poor, ASAL and Urban category of schools were more likely to be allocated funds for Gender in Education interventions.

8.6 Contribution of interventions towards achieving an all-inclusive and equitable basic education

8.6.1 Access in Education

145. The enrolment trends in the sample primary schools is presented in Table 7.5 for the years 2002 to 2011

Table 7. 5: Trend in enrolment in sample schools (2002-2010)

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Ordinary Enrolment	35,594	41,403	43,713	44,826	46,366	47,317	48,665	50,138	50,114	48,552
SNE Enrolment	895	1168	1091	1285	1400	1731	2177	2596	3207	3385
Total	35,594	41,403	43,713	44,826	46,366	47,317	48,665	50,138	50,114	48,552
% Annual Change		16.3	5.6	2.6	3.4	2.1	2.9	3.0	-0.1	-3.1

(Source: Authors, 2011)

146. Nationally, enrolment increased steadily from 2000 to 2011 (5.9 in 2000, 7.2 million in 2003, 8.3 million in 2008 to 9.4 million in 2010) which is attributed to introduction of FPE. In the sample schools, enrolment increased tremendously by 16.3% in 2003 but growth in enrolment steadily declined from 5.6% in 2004 to 3.0% in 2009. The decline in growth of enrolment is partly attributable to declining numbers of overage children in schools. The National Assessment Report on

challenges of implementing FPE in Kenya one year after launch of the program indicated that only a quarter of pupils were in a grade suitable for their age while 44% were overage for the grade by 2 or more years (UNESCO, 2005). Data from MOE shows that 18.6% of pupils in 2010 were overage and there is need for a study to determine the extent of overage children accessing primary education.

147. Although the national trend in enrolment increased from 2000 to 2010, enrolment in the sample schools declined by 0.1% and 3.1% in 2010 and 2011 respectively. Information from the case studies revealed that some children were migrating from public to private schools especially in non-formal settlements in urban slums and this could partly explain this trend. These findings agree with those of the National Assessment Report (UNESCO, 2005) and Case Study of private schools in Kibera slums in Nairobi (Tooley, 2008). These two studies revealed that parents were dissatisfied with conditions in public primary schools which they perceived as offering low quality education based on low KCPE scores compared with private schools.

148. The data from sample schools shows that special needs enrolment more than tripled from 895 in 2002 to 3,207 in 2010. This is attributable to targeted interventions by GoK and NGOs, including awareness creation programs, grants for purchase of teaching and learning materials, training of teachers on SNE, compensation of teachers and development of a National Special Needs Education Policy Framework in 2009. However, as earlier cited, information from Case Studies indicated that awareness creation programs were largely run by the Ministries of Gender, Children and Social Services and Public Health and Sanitation and NGOs. In KESSP (2005), awareness creation program was one of the components for SNE. It was expected that materials for induction and awareness on the rights of people with disabilities will be developed. Additionally, 85 field officers and 200 parents/community members were to be inducted every year to conduct the advocacy and awareness creation in schools and communities. However, this study established that the program was not being implemented in the sample schools nor were there awareness creation materials casting doubt on effective implementation.

149. Despite the increased enrolment of children with special needs, information from Case Studies indicated that there were many non-enrolled children of school going age with special needs. Some of the reasons for non-enrolment were accessibility to SNE Centres, slow process of assessment and placement, late assessment and stigmatization as articulated in the Case Study section. A study should be conducted to establish the number of children with special needs who are out of school and the capacity of EARCs and other existing institutions to effectively implement SNE programs.

8.6.2 Equity in education

8.6.2.1 Gender Parity Index 2002-2011

150. The Gender Parity Index in this study was used to determine the status of gender equity in enrolment. The UNESCO EFA goal 5 is to achieve gender parity in primary education by the year 2015. In this study the GPI was computed as a proportion of girls' enrolment to boys' enrolment in the sample schools. The Gender Parity Indices for the years 2002 to 2011 are presented in Table 7.6.

Table 7. 6: Gender Parity Index 2002-2010

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
GPI	0.95	0.96	1.20	0.95	0.94	0.92	0.93	0.94	0.95	0.93

(Source: Authors, 2011)

The results in Table 7.6 show that the Gender Parity Index has remained slightly below parity for the years 2002-2011 with more boys enrolled than girls except for 2004.

8.6.2.2 Gender Parity Index by School Category 2011

The Gender Parity Indices by School Category for 2011 are presented in Table 7.7.

Table 7. 7: Gender Parity Index (GPI) by School Category 2011

Grade	RHP	RP	ASAL	Gender	Urban	Total
1	0.97	1.00	0.87	0.87	0.78	0.92
2	0.95	1.07	0.77	1.04	0.80	0.92
3	1.01	0.90	0.78	1.07	0.80	0.92
4	1.03	0.97	0.77	1.05	0.79	0.93
5	0.99	0.91	0.78	1.08	0.89	0.93
6	1.06	1.03	0.71	1.06	0.74	0.94
7	1.03	1.02	0.78	1.07	0.79	0.95
8	0.93	1.02	0.75	1.21	0.90	0.93
Overall	1.00	0.99	0.78	1.04	0.81	0.93

(Source: Authors, 2011)

151. The results in Table 7.7 show that, overall, the GPI was 0.93 which indicates that there were more boys than girls in schools. However, there is gender parity in rural high potential schools category and near gender parity in rural poor category of schools. Case study data revealed that there are gender issues that are context specific. Data from Teso North District representing rural poor indicates that there are more girls than boys in schools which were attributed to petty trade (e.g. [3]*boda boda*) across the Kenya / Uganda border, provision of cheap labour in quarries and washing of trucks. This finding implies that in addition to Teso North being considered as a rural poor district, gender issues were revealed in access to education. Survey data from gender category of schools corroborated the sampling as data revealed that there were more girls than boys in schools under this category (GPI=1.04).

152. In addition, there are more boys than girls enrolled in ASAL and urban schools at 0.78 and 0.81 respectively indicating a significant level of marginalization of girls. In Wajir South for example, case study data indicates that boys' enrolment is twice that of girls in every grade. This is attributed to socio-cultural practices such as early marriages and domestic chores that hinder girls from joining schools and distance to schools. Although case study data show near gender parity in enrolment in the NFE schools, survey data revealed that there are more boys than girls in urban schools. To address the gender disparity in enrolment, a study should be conducted to identify contextual issues that lead to marginalization of either gender participation in education in these areas. Based on the findings from

[3] Bicycle / Motor cycle taxi

the study, the MOE should develop an appropriate implementation framework of the Gender in Education Policy that addresses the contextual issues revealed.

8.6.3 Quality of Education

153. In this study, the quality of education was assessed using four indicators; Pupil/Classroom Ratio (PCR), Pupil / Teacher Ratio (PTR), Textbook /Pupil Ratio (TPR). For TPR, Mathematics (PMTR) and English (PETR) Textbooks were used. The results are presented in Table 7.8.

Table 7. 8: Indicators of Quality of Education in Sample Schools

Indicator	RHP	RP	ASAL	Gender	Urban	Total
PCR	39	36	47	38	54	41
PTR	43	42	55	40	40	45
PMTR	2.1	3.3	2.9	2.6	1.7	2.5
PETR	2.0	4.1	3.1	1.8	1.7	2.5

(Source: Authors, 2011)

8.6.3.1 Pupil Classroom Ratio (PCR)

154. The results in Table 7.8 show that, overall the PCR was 41:1 which is slightly higher than the recommended international standard of 40 pupils per class. However there were disparities across grades and category of schools. Schools in Urban Districts had the highest PCR which is attributed to high population density and low drop-out rates (Figure 7.2). On the other hand the high PCR in ASAL areas could be associated with fewer classrooms as it was noted during the Case Study that in Wajir South, pupils were being taught under trees in some schools while multi-grade teaching was being practiced in some classes. Meanwhile, the rural poor districts had the lowest PCR which could be associated with the high dropout rates (3.1%) as indicated in Figure 7.2. Comparison by grade shows that there were disparities in PCR across in all categories with a tendency of high ratios at early grades than upper grades which could also be attributed to dropouts in later grades.

8.6.3.2 Pupil/Teacher Ratio (PTR)

155. Overall, the PTR was 45:1 which was above the recommended ratio of 40:1. According to UNESCO EFA [4]GMR (2007), ratios above 40:1 make it difficult for teachers to maintain adequate quality standards. Comparatively, the PTR was highest in ASAL category of schools (55:1) because of the acute teacher shortage which was confirmed with data obtained from the Case Studies where for example, El-Adow Primary School in Wajir South District had 4 teachers including the head teacher against an enrolment of 258 (PTR=66:1). However, despite this high pupil teacher ratio, this study established that schools in ASAL had relatively high KCPE 2010 (253) compared to the mean score of 247 for the sample schools and was second to RHP category of schools (259). Therefore, the high PTR in ASAL did not seem to negatively affect the KCPE scores.

8.6.3.3 Textbook /Pupil Ratio (TPR)

156. The TPR ratio for Mathematics and English textbooks was assessed across the school categories and grades. The average TPR was 2.5 which was higher than the expected ratio of 1:1, nine years after the introduction of FPE, more so in the upper primary classes (grades 4-8). On average, 2 to 3 pupils a share a Mathematics textbook and comparatively slightly more pupil share in upper than lower classes. The differences are partly attributable to high rate of text book loss, damage and movement of pupils with books from one school to another on transfers, as revealed from the Case Study data. The high pupil text book ratio is likely to adversely affect performance in examinations

[4] Education For All (EFA) Global Monitoring Report

157. In spite of uniform capitation grants for FPE, about 3 pupils were sharing Mathematics textbooks in Rural Poor, Gender and ASAL areas compared to schools in Urban and Rural High Potential where about 2 pupils were sharing a textbook. It is possible that households in Rural High Potential and Urban areas were supplementing stock of textbooks due to their relatively higher incomes. Information obtained from Case Studies indicates that capitation grants under FPE were given to public primary schools. Some [5]NFE schools that are registered under the MOE receive grants for school improvement. However, some NFE schools are not registered by the MOE for fear of loss of ownership to GOK. Alternative Provision of Basic Education and Training Policy (2009) aims to streamline education provision in NFEs, among other areas.

158. The average pupil textbook ratio in English is 2.6 which is much higher than the expected national ratio of 1:1, with wide disparities across schools and grades. Rural poor recorded the highest PTR at 4.1, a similar trend as in mathematics followed by ASALs at 3.1. Similarly, urban schools recorded the lowest PTR at 1.7.

8.6.3.4 Action taken on lost or damaged textbooks

159. Head teachers were asked to indicate action taken when books are lost or damaged. Their responses are summarized in Table 7.9

Table 7. 9: Action taken on lost or damaged textbooks

Action	N	f	%
Replacement	88	86	97.7
Repair	74	34	45.9
No action	65	7	10.8

(Source: Authors, 2011)

Although a high proportion (97.7%) indicated replacement as action taken, findings from the case studies indicate the replacement of damaged or lost textbooks was rarely done by parents or guardians and pressure to have them replaced make the pupils to transfer to other schools. A sizable proportion (10.8%) indicated that no action is taken when textbook are damaged or lost.

8.6.4 Retention

160. The drop-out rate and repetition rate are indicators of internal efficiency in the education system. The introduction of FPE was an attempt to; among others, reduce the dropout rates by cushioning poor households from school fees and other levies. In this study, information on drop outs and repetition was gathered from head teachers.

8.6.4.1 Drop-out Rates

162. The data obtained was used to compute the drop-out rates for boys and girls at different grade levels in 2011. The results are presented in Figure 7.1.

[5] Most of the NFE schools are registered under the department of social services as community schools or private businesses under the office of the Attorney General.

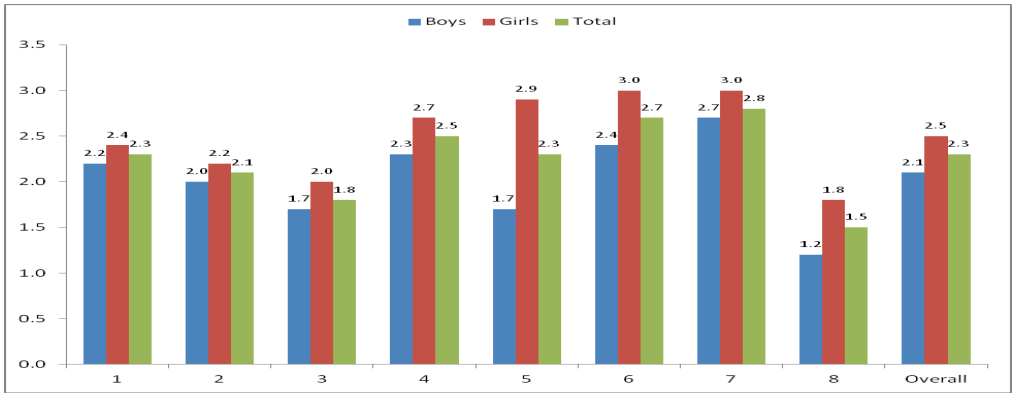

Figure 7. 1: Dropout rate by Grade and Gender 2011

(Source: Authors, 2011)

The results in Figure 7.1 show that the overall dropout rate was 2.3% in 2011 which imply that out of every 100 pupils, about 3 dropped out of school. Overall, comparison by gender shows that dropout rate was higher for girls than boys at 2.5% and 2.1% respectively and at every grade. This information was corroborated by head teachers in the case study schools. The dropout rates were highest for both girls and boys at grades 6 and 7. However data from case studies show a lot of cross school transfers. Therefore it is important to carry out trace studies to confirm accuracy of drop-out data from school registers.

8.6.4.2 Regional Disparity in Dropout Rates

163. The dropout rates in the five school categories were computed and the results are presented in Figure 7.2.

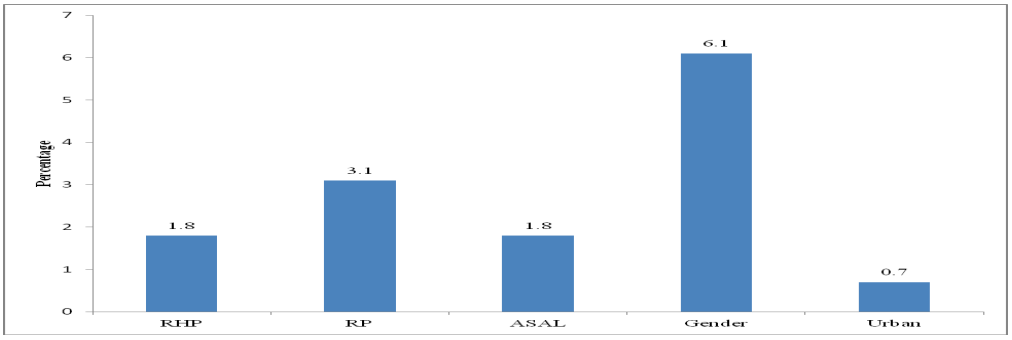

Figure 7. 2: Regional Disparity in Dropout Rates

(Source: Authors, 2011)

The results in Figure 7.2 shows that schools in the category of gender had the highest dropout rate followed by those in rural poor at 6.1% and 3.1% respectively. Case study data from Teso North District indicated that drop-out was higher for boy than girls due petty trade across along the Kenya / Uganda border. It is significant to note that 56% of head teachers in the rural poor category cited extreme poverty as a cause of school drop outs. The urban schools category recorded the lowest dropout rate of 0.7%. Generally, children in the gender category of schools were six more times likely to drop out of school than those in urban schools. Improving household incomes is a key strategy of mitigation against school drop-outs.

8.6.4.3. Dropout Rate 2009-2011

164. The interventions in place are expected to address issues of retention in primary education. In order to determine the achievements, information on drop-out rate was gathered for the years 2009 to

2011. The data obtained were used to compute dropout rates for years 2009-2011 and the results are illustrated in Figure 7.3.

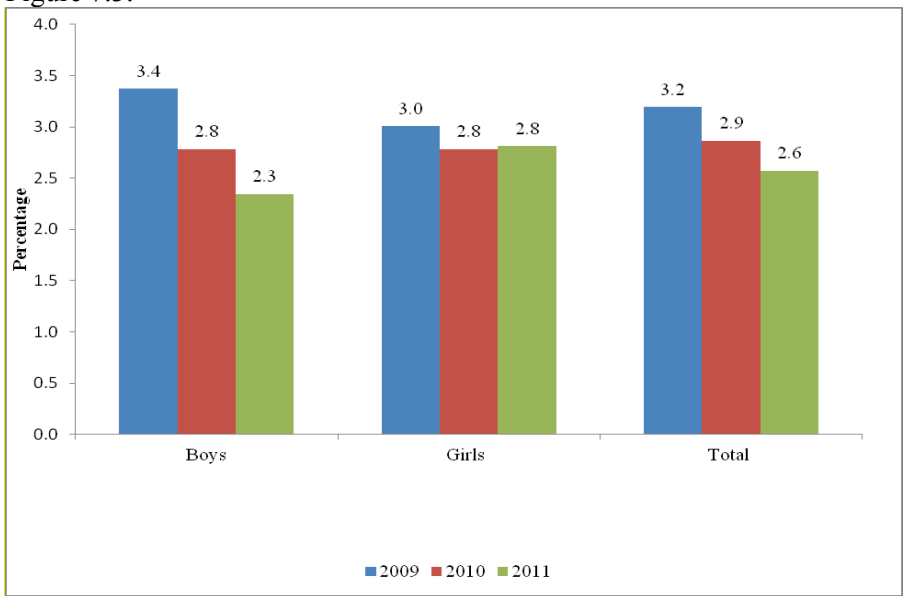

Figure 7. 3: Drop-out Rate 2009-2011
(Source: Authors, 2011)

The results in Figure 7.3 show that, overall, dropout rate has declined for the years under review from 3.2% in 2009 to 2.6% in 2011. Though the dropout rate for boys was higher in 2009, it declined and was lower than girls in 2011. Meanwhile, drop-out rate for girls remained steady between 2010 and 2011. In general the trend in dropout rates indicates improved retention over the years under review though boys had a higher chance of remaining in school than girls. This is corroborated with case study data which indicate that more girls than boys were dropping out of school.

8.6.4.4 Causes of Dropouts

165. The head teachers were required to indicate the causes of dropout in their schools. The data that was obtained was used to compute percentages and the results are presented in Table 7.10.

Table 7. 10: Factors Contributing to Primary School Dropout by School Category

Factor	RHP	RP	ASAL	Gender	Urban	Total
Cultural practices	11.6	11.1	22.2	22.2	12.5	15.9
Pregnancy and early marriage	39.5	38.9	50.0	0.0	50.0	35.7
Extreme poverty	51.2	55.6	27.8	55.6	37.5	45.5
Poor performance	11.6	0.0	5.6	0.0	12.5	5.9
Lack of motivation	18.6	0.0	22.2	11.1	0.0	10.4
Inadequate parental support	41.9	16.7	22.2	33.3	37.5	30.3
Family conflicts	23.3	44.4	0.0	22.2	25.0	23.0
Peer influence	9.3	38.9	11.1	11.1	0.0	14.1
Health complications	18.6	22.2	22.2	22.2	12.5	19.5
Drug abuse	2.3	16.7	5.6	11.1	0.0	7.1

Migration	2.3	11.1	22.2	22.2	12.5	14.1

(Source: Authors, 2011)

The results in Table 7.10 show that pregnancy, early marriage and extreme poverty were major contributing factors to primary school dropout. Pregnancy and early marriage was more prevalent in ASAL and Urban school categories while extreme poverty was more prevalent in rural poor and Gender School categories. It is significant to note that 51% of head teachers in the rural high category cited extreme poverty as a cause of school drop outs. This could mean there were pockets of poverty in the category of rural high potential. Inadequate parental support and family conflicts were also identified as other major contributing factors especially in rural high potential and rural poor respectively. Comparatively peer influence and drug abuse were rated higher in rural poor than other school categories. Migration as a contributing factor was identified more in ASAL and Gender school categories.

8.6.4.5 Repetition Rates

166. The repetition rate is one of the indicators of internal efficiency in an education system. Information on repetition was gathered from head teachers using questionnaires. The data obtained were used to compute the repetition rates for the years 2009-2011 by gender. The results are illustrated in Figure 7.4.

Figure 7. 4: Trends in Repetition Rate by Gender 2009-2011
(Source: Authors, 2011)

The results in Figure 7.4 show that the overall repetition rate declined over the years from 6.8% in 2009 to 5.9% in 2010 a relatively similar trend with drop-out rate. Comparatively, the repetition rate was higher for boys than girls except for 2010. The repetition rates were also computed for the five school categories at different grades. The results are presented in Table 7.11.

Table 7. 11: Repetition by School Category and Grade 2011

Grade	RHP	RP	ASAL	Gender	Urban
1	10.1	7.4	4.1	6.3	0.0
2	8.2	6.3	3.0	8.1	0.0
3	8.8	5.8	4.7	4.3	0.0
4	9.5	6.7	5.3	7.7	1.4
5	7.1	6.7	4.2	2.4	0.0
6	8.2	6.8	4.2	3.1	0.1
7	8.7	9.5	6.7	2.4	0.0

8	3.4	3.8	4.2	1.1	0.5
Total	8.1	6.6	4.5	4.4	0.3

(Source: Authors, 2011)

The results in Table 7.11 show that the schools in the rural high potential category had the highest repetition rate at 8.1% followed by the rural poor at 6.6% while schools in urban category had the least repetition rate at 0.3%. The highs in rural high poor and rural poor categories could be attributed to the earlier cited high poverty levels as a factor contributing to drop out. The repetition rate is highest in grade 1 and 4 in the rural high potential at 10.1% and 9.5% respectively.

8.6.4.6 Causes of Repetition

167. The causes of repetition are presented in Table 7.12.

Table 7. 12: Factors Contributing to Repetition of Primary Pupils

Factors	RHP	RP	ASAL	Gender	Urban	Total
Extreme poverty	30.2	55.6	16.7	11.1	0.0	22.7
Teenage pregnancies	9.3	0.0	5.6	0.0	0.0	3.0
Poor academic performance	55.8	61.1	44.4	55.6	25.0	48.4
Chronic absenteeism	51.2	66.7	55.6	44.4	25.0	48.6
Parental request	39.5	5.6	48.9	22.2	12.5	25.7
Health complications	18.6	33.1	37.8	0.0	12.5	20.4
Others	9.3	29.4	11.1	0.0	0.0	10.0

(Source: Authors, 2011)

The results in Table 7.12 show that, overall, the frequently cited reasons for grade repetition were chronic absenteeism and poor academic performance at 48.6% and 48.4% respectively. Other reasons that were cited as causes for grade repetition were request by parents, extreme poverty and sicknesses. This study reveals that grade repetition persist despite GoK policy on automatic promotion.

8.6.4.7 Out of school children

168. Respondents were asked to indicate if any children within the vicinity of their schools were out of school. Their responses are summarized in Table 7.13.

Table 7. 13: Reporting existence of out of school children

Category	N	%
Rural High Potential	43	72.1
Rural poor	18	66.7
ASAL	18	77.8
Gender (B/G)	9	66.7
Urban	8	75.0
Total	96	71.9

(Source: Authors, 2011)

The study found that there were children reportedly out of school in the catchment area of all sampled categories of schools. Interviews with parents and out of school children in the case studies revealed that the main reasons for being out of school was poverty and school levies and the most affected were children in informal urban settlements and children with special needs. This is a significant finding considering that FPE was meant to enhance enrolment of learners in schools. The FPE was conceptualized to focus on school inputs while there are other factors impeding school participation. It is expected that the GoK proposal to implement the voucher system may address some of these factors.

Some of the factors that were cited by head teachers as causes of out of school children are presented in Table 7.14.

Table 7. 14: Percentage of schools reporting reasons for school age children being out of school

Factors	RHP	RP	ASAL	Gender	Urban	Total
Poverty	39.5	50.0	22.2	33.3	87.5	41.7
Child labour	32.6	27.8	33.3	11.1	25.0	29.2
Special Children Needs	11.6	16.7	16.7	11.1	12.5	13.5
Orphan hood	23.3	27.8	22.2	22.2	37.5	25.0
Lack of motivation	16.3	11.1	5.6	0.0	0.0	10.4
Health complications	7.0	22.2	0.0	22.2	12.5	10.4
Migration of families	2.3	5.6	16.7	0.0	0.0	5.2
Socio-cultural practices	16.3	11.1	27.8	33.3	0.0	17.7
Lack of parental support	41.9	27.8	44.4	44.4	62.5	41.7

(Source: Authors, 2011)

As table 7.14 shows, there were various factors that caused children to remain out of schools. Poverty and lack of parental support were common reasons why children were kept out of all categories of the sampled schools closely followed by child labour. This is consistent with the literature on educational wastage in schools in developing countries. The relatively low figures of reported of children out of schools for children with Special Needs may be due to limited capacity of assessments. It is possible that a multiple of factors may be keeping children out of schools.

8.6.5 Learning outcomes

169. The Kenya Certificate of Primary Education results were considered as indicators of pupil performance in this study.

8.6.5.1 Trends in KCPE score

Figure 7.5 shows analysis of KCPE results for all school categories from 2002 to 2010.

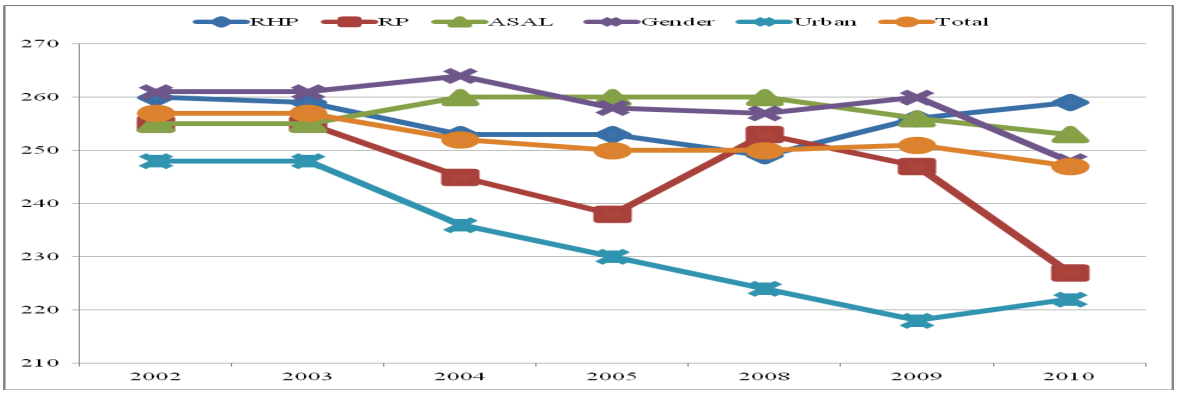

Figure 7. 5: Comparison of KCPE trends for Rural High Potential, ASAL and Total Sample 2002-2010
(Source: Authors, 2011)

The results in Figure 7.5 show a general decline in performance in mean score of 3.9% from 2002 to 2010 for the total sample. The disparity in performance at KCPE across the school categories continued to widen from 2002 to 2010 which raise equity issues and hence there is need to investigate the causes of these inequalities. Comparatively, performance of pupils in the rural high potential, gender and ASAL categories was above average while those in the rural poor and urban categories was below average over the period. Pupils in urban category of schools had the lowest mean score.

8.6.5.2 Implementation Index and KCPE scores

170. Simple regression of interventions implementation index (refer paragraph 130) against KCPE score indicates that there is no significant influence of implementation of the interventions on KCPE scores for the years 2003-2010 (Table 7.15).

Table 7. 15: Relationship between implementation index and KCPE scores

	Un-standardized Coefficients		Standardized Coefficients		
Year	B	Std. Error	Beta	t	Sig.
2010	-.145	.218	-.075	-.663	.509
2009	.078	.214	.043	.364	.717
2008	.150	.209	.087	.721	.474
2007	.167	.184	.110	.906	.368
2006	.269	.192	.169	1.396	.168
2005	.306	.199	.184	1.535	.130
2004	.170	.201	.103	.843	.402
2003	.067	.256	.033	.262	.794

(Source: Authors, 2011)

The results in Table 7.15 shows that the implementation index was not a significant predictor of KCPE mean score. In all the years under review, the implementation index in the sample schools was not a significant predictor ($P \leq 0.05$) of performance in KCPE. Therefore there is need to understand how the FPE inputs are being utilized at school level, teaching and learning process and teacher shortage.

8.6.5.3 Predictors of performance in KCPE

171. To determine whether pupil /teacher ratio, number of English and Mathematics textbooks and pupil / classroom ratio were predictors of performance in KCPE, multiple regression was conducted on these independent variables against KCPE 2010 mean scores (Table 7.16).

Table 7. 16: Multiple regression of KCPE 2010 performance predictors

Model	Un-standardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Constant	253.368	19.261		13.155	.000
Pupil Teacher ratio	-.098	.413	-.037	-.237	.814
Number of English textbooks	-.033	.068	-.274	-.492	.625
Number of Math textbooks	.019	.074	.150	.262	.794
Pupil classroom ratio	.233	.516	.077	.453	.653

a. Dependent Variable: KCPE Score 2010
(Source: Authors, 2011)

The results are presented in Table 7.16 which shows that these factors are not significant predictors of performance at KCPE. However the PCR has a higher, though not significant, prediction over performance, compared to the other factors.

8.7 Monitoring and Evaluation

172. A monitoring and evaluation index was computed and used as an indicator to assess the level to which monitoring and evaluation of the interventions has been done. The index was computed using four factors which were considered critical in monitoring and evaluation process: capacity building on M&E, feedback on follow-ups, sharing of feedback and implementation of feedback. Table 7.17 shows the benchmarks that were used to assess the level of monitoring and evaluation of interventions.

Table 7. 17: Benchmarks for interpretation of level of monitoring and evaluation

Score range (%)	Level of Monitoring & Evaluation
80 and above	High
60 to 79	Average
Below	Low

(Source: Authors, 2011)

A high score would indicate high monitoring and evaluation of interventions. A low score would indicate low level of M&E.

8.7.1 Monitoring and Evaluation of the Interventions

173. Table 7.18 shows that overall, monitoring and evaluation of the interventions was rated low (46.7%). The extent of monitoring was highest in urban category schools (56.7%) while it was lowest (44.8%) in rural poor category of schools.

Table 7. 18: Monitoring and Evaluation Index per School Category

Category	Mean	SE	SD
RHP	45.1	3.3	21.8
RP	44.8	5.0	21.2
ASAL	45.2	5.1	21.5
Gender	51.9	6.7	20.2
Urban	56.7	10.2	28.7
Total	46.7	2.3	21.9

(Source: Authors, 2011)

8.7.2 Relationship between M&E and Implementation

174. Simple regression of the monitoring and evaluation index with the implementation index indicates that monitoring & evaluation is a significant predictor of implementation index (Table 7.19). This means that interventions that are monitored and evaluated regularly have a higher level of implementation.

Table 7. 19: Relationship between monitoring and evaluation and implementation of interventions

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	3.457	4.334		0.798	0.427
M&E Score	0.673	0.084	.636	7.997	0.000

a. Dependent Variable: Implementation Score2

(Source: Authors, 2011)

8.7.3 Conceptual framework for an effective monitoring and evaluation system for inclusive and equitable basic education.

175. KESSP (2005) has described a comprehensive monitoring and evaluation framework. However the study found that existing monitoring and evaluation system for education interventions was weak. Some of the challenges that were identified in this study include:

176. Lack of coordination in data collection, management and feedback among the various actors. For example, the study identified up to 7 data collection mechanisms, namely: national assessment centre (learning achievement); EMIS (enrolment, completion); KIE (Curriculum assessments & evaluations); Directorate of Quality Assurance and Standards; (School Assessments Reports); Public Expenditure reporting; Indicators tracked through Vision 2030; and TSC teacher management data.

177. School and district level officers do not appreciate the value of monitoring and evaluation and the collection of accurate data is looked upon as additional work. In most cases, they perceive data collection as an exercise for either the MoE to disburse funds or for donors to justify and attract funding.

Based on the findings, a conceptual framework for effective monitoring and evaluation of education interventions is proposed in Figure 8.1.

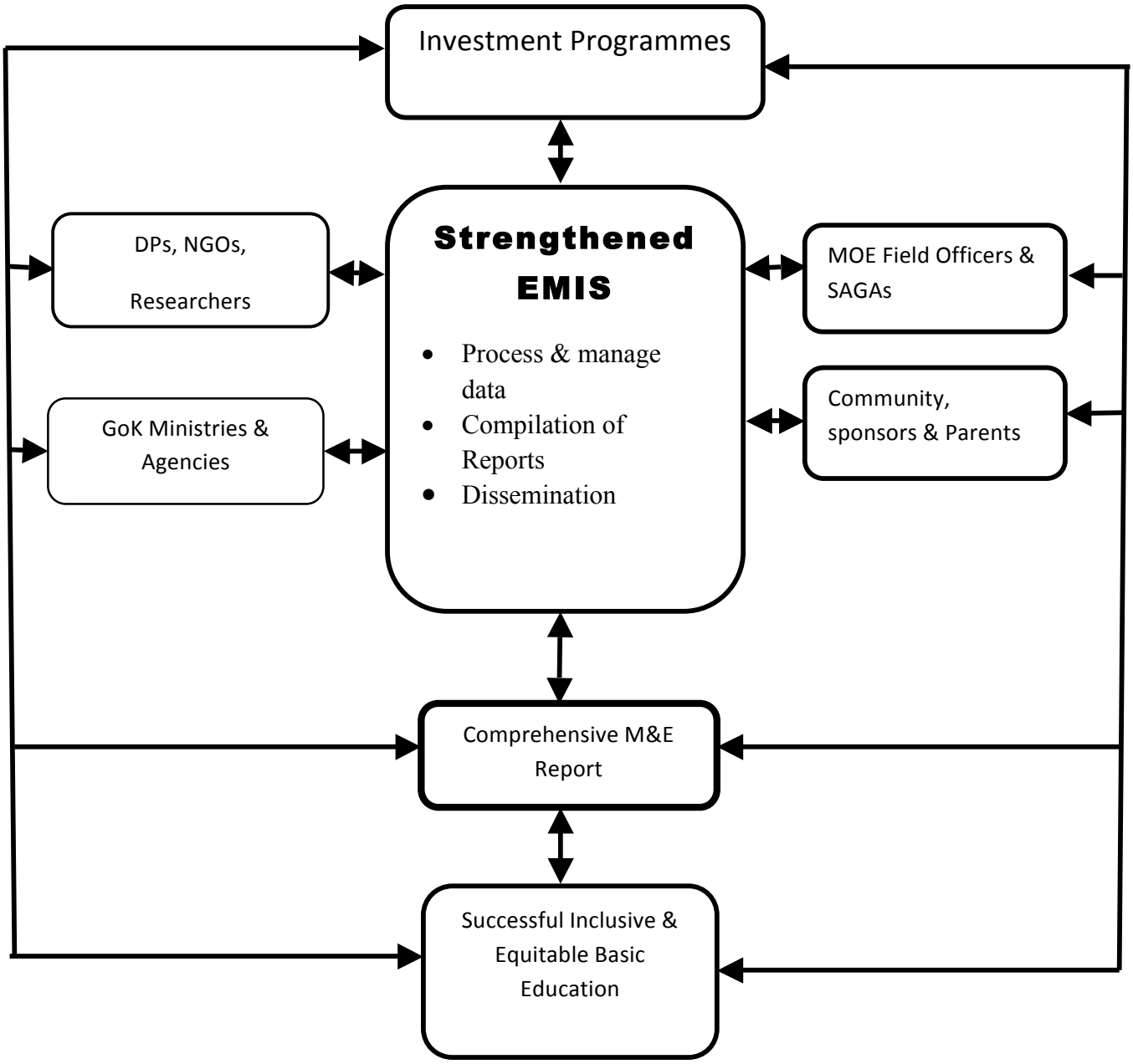

Figure 8. 1: Conceptual Framework for an effective monitoring and evaluation system of educational interventions
(Source: Authors, 2011)

178. In this framework, it is proposed that a strengthened EMIS will collect, manage and process data from various departments involved with education monitoring and evaluation, and disseminate comprehensive periodic monitoring and evaluation reports. The departments identified in this study which should work in collaboration with a strengthened EMIS, are the MOE investment programs, education field officers (DEOs, head teachers etc), development partners, GoK ministries and agencies, community and parents, NGOs and researchers. The comprehensive M &E report should be used to provide feedback to all departments including policy makers to ensure a successful inclusive and equitable basic education.

9. SUMMARY

9.1 Introduction

179. The purpose of the study was to review the initiatives undertaken in Kenya for provision of an all inclusive equitable quality basic education for all learners including the marginalized and hard to reach population for sustainable development The research findings will make a contribution to the theme of 2012 ADEA Triennale under Theme 1 and as expected it contributes to the body of knowledge in tandem with the theme "Promotion critical knowledge, skills and qualifications for sustainable development in Africa: how to design and implement an effective response by education and training systems?". As envisaged, the research findings have implications for theory, practice and policy and will contribute to improvement of basic education in Kenya in the context of re-alignment to the new constitution and in Africa in general for sustainable development.

180. Although in Kenya basic education includes both primary and secondary education, this study focused on primary education due to limitations of time and resources. The study adopted both a quantitative and qualitative approach in the evaluation of the status of the all-inclusive and equitable education in Kenya. The quantitative data used a cross sectional data from sampled districts while the qualitative information was generated from three case study districts representing marginalized areas on; urban slum, rural poor and ASAL. The key issues addressed: existence of interventions that address inclusive and equitable education; formulation of the interventions; process of implementation; resource mobilization and allocation; contribution of the interventions; and monitoring and evaluation.

9.2 Inclusive and Equitable Education

181. The relevance of inclusive and equitable education in the provision of basic education was sought from the policy makers, education officials, head teachers and NGO representatives. Slightly more than half had knowledge of the meaning of inclusive and equitable education. A clear knowledge among the education practitioners on the concept would have a reflection on their ability to translate knowledge to planning and formulation of targeted interventions at school and even up to national level.

182. The concept of inclusive education is to ensure that there are equal school opportunities to the school going age population. This is only possible by removing barriers to participation in schooling for all learners. The Government has enacted not less than 10 policy instruments that address the implementation of an all-inclusive education such as; Special Needs education, Nomadic education, Non Formal Education and even the citizens right to education in the new constitution among others. The other concept of equitable education is based on equity which is a concern for equality and social justice in the society. The process is made possible through provision of targeted approach to provision of education including curricula. It involves rationalized resource provision through funding formulas and financial support to the various interventions.

183. A scenario where the education implementers are proactive in mitigating an all-inclusive and equitable education would result in positive outcome in access to education especially targeting special needs, MVCs and children from pockets of poverty. The study findings indicate a mixed knowledge that negates probable successful planning and management of targeted interventions that address an all-inclusive and equitable education.

184. The education actors were further queried on existence of interventions that address an all-inclusive and equitable education. The findings show that in all the schools, Free Primary Education activities were carried out while not all the schools reported the other interventions such as; infrastructure improvement, school health and nutrition and special needs education.

9.3 Formulation of the Interventions

185. The first intervention to be discussed is the Free Primary Education (FPE). FPE was introduced by the Government with the aim of increasing access to primary education through abolition of fees with the intention of reduced the burden of parents in financing of education. The study findings indicate that the intervention significantly enhanced enrolment by over 1 million children in 2003. The formulation of the intervention was by the Ministry of Education with guidelines sent to schools on the utilization of the funds. The school grants of Kenya Shillings 1,020 (10 USD) per child per annum were disbursed twice a year directly into the school bank accounts The school management committee is then responsible for the utilization of the funds based on the guidelines provided. Though the intervention covers all the schools, it faces numerous challenges. The main challenges include: delay in disbursement, frequent changes in the school, management committee, inadequate funds, frequent loss of textbooks and inappropriate use of funds Though it has increased access, the system still faces many children out of school due to requirements of uniforms, high household poverty and hunger due to drought in ASAL areas.

186. The second intervention is the school health and nutrition. This intervention was implemented to increase access and retention in primary schools especially in ASAL areas, which face serious droughts. The intervention had two components; the school health and hygiene and the school feeding program and is financed by World Food Program and the Government. The school health and hygiene involved provision of vitamin tables, de-worming and hand washing. The program was started in 1980s and targets 1.3 million children in the ASAL districts. Most of the schools that benefited from the school health and nutrition interventions were in ASAL areas. The formulation of the intervention was at the headquarters with the school management committees' responsible for the day to day management. The findings indicate that the school feeding program has been successful but faced a number of limitations. There have been delays in supply as reported by the schools and great challenges reported when parents have to meet the costs of workers and purchase of firewood and water. Due to high poverty levels, contribution from parents was erratic and hence the pupils could go without lunch meals. Some schools reported to have no alternative but to trade of food stuffs to meet the additional costs. The importance of the program was acknowledged as it improved attendance and was a source of food to the surrounding communities. The findings also indicate that school health and hygiene was carried out in an ad hoc manner. The interventions impact was not visible with a few schools reporting that they received de-worming and vitamin tablets only once in the last five years.

187. The third intervention is school infrastructure improvement whose objective was to provide funds for construction and equipping of school facilities such as classrooms, dormitories and toilets for improved access in targeted schools. The intervention was formulated at the headquarters with guidelines developed and training conducted for the school infrastructure committees. The implementation of the interventions was successful and the schools had a complete control of the process with supervision being carried out by the Ministry of Public Works. However, some of the schools reported incompleteness of the projects due to lack of funds while other schools did not benefit despite the need for more classrooms. The findings indicate lack of adequate resources to meet the requirements as a constraint in undertaking the school infrastructure improvement interventions. A

number of schools reported lacked toilet facilities and some risking the lives of the pupils who have to walk to the bush. Another aspect is lack of water facilities in schools especially in ASAL areas.

188. The fourth intervention is the special needs education whose aim was to improve access to education for children with special needs. This intervention relied on financing from the Free Primary Education as an additional support to the special schools and special units. An additional Kenya Shilling 2,000.00 (about USD 21) per child per annum was disbursed to the targeted schools. The districts also had assessment centres that were screening children for placement in special education schools. The schools with special units did have at least one qualified teacher on special needs. However, these teachers reported having to work long hours to take care of the special needs. Despite the requirement for integration, the findings show that most schools did not have facilities for special needs. The slum and ASAL areas had many out of school children with special needs. The discussion with the parents indicated willingness to take their children to school but lack of facilities and getting the children to schools on a daily basis was a challenge.

9.4 Process of Implementation of Interventions

189. The findings indicate that nearly all head teachers were adequately prepared for implementation of FPE but not for SHN, SNE and Gender in Education interventions. This is further confirmed with FPE getting the highest overall implementation (89.8%) and ASAL category of schools scoring highest index (94.4%). It can be said that head teachers in ASAL areas were well prepared to implement FPE which is attributed to capacity building jointly conducted with NGOs and district officials. Gender in Education program attained the lowest level of implementation.

9.5 Resource Mobilization and Allocation

190. The discussions held revealed four main sources of funds for the interventions: MOE, devolved fund (CDF/LATF), NGO/FBO, and community/parents. Funding for the FPE components was entirely from the MOE with and development partners under pool funding. The SHN components were financed by MOE, WFP, NGO/FBO and community/parents. Funding for school infrastructure development was mainly by MOE and devolved funds while for SNE and HIV and AIDs, the MOE, NGO/FBO and community/parents were the main contributors.

191. The schools reported receiving no support for advocacy and awareness creation program at school level. Also, there was inadequate consultation with head teachers on school resource requirements. However, the head teachers appreciated the mechanism of resource transfer, consultation on resource allocation and timeliness for FPE.

192. However, the FPE process of resource allocation was rate high (91.7%) with the urban category of schools reporting 100% resource allocation index while the gender category of schools had the lowest index at 80.6%. Conversely, an interview held with the head teachers revealed dissatisfaction with resource allocation and timeliness in disbursement of resources. Resource allocation rating varied with the category of schools, with ASAL and Gender category schools rating SNE at 79% and 100% respectively.

9.6 Contribution of Interventions

193. Information on the contribution of the interventions was analyzed. At the introduction of FPE in 2003, there was a drastic increase in enrolment of 16.3% followed by a declining growth rate from 5.6% in 2004 to 3.0% in 2009. The outcome has been a steady increase in total primary schools enrolment from 5.9 million in 2002 to 9.4 million in 2010.

194. Gender disparities were also analyzed based on gross enrolment. The Gender parity index was 0.93 indicating that there were more boys than girls in schools. Further analysis indicates that Gender parity was attained in rural high potential schools category and near gender parity in rural poor category schools. This regions exhibit high enrolment levels and hence a likelihood of having more girls accessing basic education (GMR, 2003). Comparatively, schools from ASAL and urban regions that have low enrolment reflected a lower gender parity index of 0.78 and 0.81 respectively. In Wajir South district for example, the data indicates that boys' enrolment is twice that of girls in every grade. This is attributed to socio-cultural practices such as early marriages and domestic chores that hinder girls from joining schools and distance to schools

195. Analysis of quality of primary education was carried with computation of Pupil classroom ratio (PCR), pupil teacher ratio (PTR) and textbook pupil ratio (TPR). The schools had an average pupil classroom ratio of 41:1 compared to an expected national standard class of 40 pupils per class. There were grade PCR disparities in PCR across in all categories with a tendency of high ratios at early grades than upper grades. This can be attributed to dropouts and repetition. Also, the PTR was 45:1 which was above the recommended ratio of 40:1(UNESCO EFA [6]GMR (2007)).The average pupil textbook ratio in English is 2.6 which is much higher than the expected national ratio of 1:1, with wide disparities across schools and grades. Rural poor recorded the highest PTR at 4.1, a similar trend as in mathematics followed by ASALs at 3.1. Similarly, urban schools recorded the lowest PTR at 1.7. Although a high proportion (97.7%) indicated replacement as action taken, findings from the case studies indicate the replacement of damaged or lost textbooks was rarely done by parents or guardians and pressure to have them replaced make the pupils to transfer to other schools. A sizable proportion (10.8%) indicated that no action is taken when textbook are damaged or lost.

196. Further analysis was done on the efficiency of the school system, by computing the dropout rate and repetition rate. Overall dropout rate was 2.3% in 2010 which implies that out of every 100 pupils, about 3 dropped out of school. The dropout rate was higher for girls than boys at 2.5% and 2.1% respectively and at every grade. The dropout rates were highest for both girls and boys at grades 6 and 7. The major reasons given for the drop out were pregnancy, early marriage and extreme poverty. Pregnancy and early marriage was more prevalent in ASAL and Urban school categories while extreme poverty was more prevalent in rural poor and Gender School categories. The schools in the rural high potential category had the highest repetition rate at 8.1% followed by the rural poor at 6.6% while schools in urban category had the least repetition rate at 0.3%. The repetition rate is highest in grade 1 and 4 in the rural high potential at 10.1% and 9.5% respectively. Based on the level of drop out and repetition rate, then the 2010 promotion rate was 90.7%. Despite the high promotion rate, it should be understood, that if a cohort analysis was computed then the education system could have a low retention rate, hence costs more, depicting a high wastage ratio.

197. Data on the KCPE scores for the pupils at end of primary cycle was analyzed. The pupils from schools in Rural High Potential category performed better. However, there was a higher mean difference between schools in the urban category which performed 36.7 points lower than the Rural High Potential category. The implication that though both regions are of high socio-economic potential, the urban category schools have slums which causes a large variance in performances. Schools in the ASAL category however had the least mean difference (5.5 points) when compared to Rural High Potential category. Simple regression of implementation index against KCPE score indicates that there is no significant influence of implementation of the interventions on KCPE scores.

[6] Education For All (EFA) Global Monitoring Report

10. CONCLUSIONS, RECOMMENDATIONS SUGGESTIONS FOR FURTHER STUDIES

10.1 Introduction

198. This chapter presents conclusions drawn from the research findings of this study. The study was driven by six research questions which have been adequately answered through a qualitative and quantative data collection and analysis.

10.2 Conclusions

Based on the findings, the following conclusions were drawn:

199. There is consensus within the Ministry of Education on the importance of inclusive and equitable basic education and has put in place specific interventions to address these issues.

200. The implementation of FPE was rated highly. However, the problem of timely disbursement of funds was frequently cited as a major challenge.

201. Enrolment has increased since the inception of FPE and other targeted interventions. However, a number of children are still out of school, a significant proportion being those with special needs.

202. Regions considered as having high incidences of gender issues had the highest dropout rate followed by those in rural poor at 6.1% and 3.1% respectively, while the urban school category recorded the lowest rate (0.7%). Repetition still persists and is more prevalent in upper primary.

203. Policies developed to address inclusive and equitable basic education have not been effectively implemented.

204. Overall extreme poverty remains the main barrier to attainment of inclusive and equitable basic education.

205. Among the six targeted interventions in this study, head teachers were most prepared for implementation of FPE and least prepared for implementation of Gender in Education program.

206. Socio-cultural factors are still major impediments to inclusive and equitable basic education particularly among girls and children with special needs.

207. There are no clear mechanisms for Monitoring and Evaluation of interventions

208. A decline in mean score of 3.9% in KCPE between 2002 to 2010 shows that implementation of the interventions has not translated into improved performance. In addition, disparity across the school categories continued to widen over the period.

209. Cumulatively, the specific programs being implemented have not been very effective in enhancing inclusive and equitable basic education.

10.3 Recommendations

210. The MOE should introduce the school feeding program in partnership with communities in all schools due to its potential of improving enrolment and retention.

211. The MOE should enhance close partnerships with other actors in the implementation and follow-up of interventions as well as in provision of adequate resources.

212. The MOE, partners and stakeholders should formulate an integrated approach to address the challenges facing children with special needs to ensure that they are included in school irrespective of their disabilities.

213. The MOE should develop and implement comprehensive frameworks for mobilization of adequate funds and implementation of all policies addressing inclusive and equitable basic education.

214. The GoK should put in place mechanisms for timely disbursement of funds. The possibility of synchronizing the school calendar with GoK fiscal year should be considered.

215. The MOE should develop and implement a comprehensive Monitoring and Evaluation system for the education sector.

216. The capacity of education managers at various levels to implement or supervise implementation of interventions should be enhanced.

217. The factors keeping children out of school and causing drop outs should be adequately addressed through multi-stakeholders involvement.

218. The GoK should review the allocation criteria for capitation grants to factor in regional disparities.

219. The MOE should address the infrastructure and teacher shortages as well as put in place effective quality assurance mechanisms to address gender and regional disparities.

10.4: Suggestions for Further Research

220. Among the six targeted interventions in this study, head teachers were least prepared for implementation of Gender in Education program and the components in this intervention were the least on-going. In addition, sampled study areas identified as having gender issues were found to have the least implementation levels of gender in education programs. Therefore, a study to find out why head teachers are not implementing the Gender in Education Program is proposed. In addition the study could explore the contextual issues and factors contributing to gender challenges.

221. The findings of this study indicated that policies developed to address inclusive and equitable basic education have not been effectively implemented. Specifically challenges affecting implementation of Gender in Education, SNE, HIV and Aids in Education, and School Health and Nutrition policies need to be studied.

222. Despite the increased enrolment of children with special needs, information from Case Studies indicated that there were many non-enrolled children of school going age with special needs. A study should be conducted to establish the number of children with special needs who are out of school and the capacity of EARCs and other existing institutions to effectively implement SNE programs.

223. Data from case studies show a lot of cross school transfers. Therefore it is important to carry out trace studies to confirm accuracy of drop-out data from school registers.

224. This study focused on efforts towards inclusive and equitable primary education in Kenya. It is imperative to conduct similar studies covering pre-primary, secondary and higher education levels.

225. The findings of this study indicated that implementation was highest where monitoring and evaluation occurred. In addition, M&E is not coordinated across interventions and within the system. A study is therefore proposed to establish the strengths and weaknesses of the current MOE M&E system.

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12. ANNEXES

Annex 1: Glossary

Basic Education: this is education offered at both primary and secondary levels in the Kenyan 8-4-4 education system (8 years primary, 4 years secondary and 4 years minimum university education)

Community leaders: Individuals in charge of groups of people in the community such as the church, a location or division

Equitable education: the education that take into consideration the fair distribution of educational resources and opportunities for all learners irrespective of special needs, gender , health, language, remoteness, poverty and other forms of vulnerability

Free Day Secondary Education: a program of the Ministry of Education in Kenya where the Government provides grants to public secondary schools for tuition waiver

Free Primary Education: a program of the Ministry of Education in Kenya where the Government provides grants to public primary schools and non-formal primary schools for instructional materials and general purpose expenditure

Implementers: Ministry of Education officials and stakeholders involved in implementing education policies and interventions

Inclusive education: the education that address and respond to the diversity of needs of all learners through increasing participation and reducing exclusion irrespective of special needs, gender, health, language, remoteness, poverty and other forms of vulnerability

Interventions: Policies or Programs that have been put in place towards the provision of inclusive and equitable basic education

Marginalized Children: Children who are disadvantaged in access to and retention in education because of socio-economic deprivation, special needs, socio-cultural background, geographical location and gender among others

Policy Makers: Senior Officials at the level of Permanent Secretary, Education Secretary and Directors in the Ministry of Education Kenya

Rural poor: In this study, these are districts where the average household absolute poverty index levels is 60% and above

Special needs children: These are children who have physical, mental, visual, hearing challenges. They also include the gifted and talented children

Urban settlements: In this study, these are towns and trading centres within ASALs and Rural poor districts

Urban Slums: These are informal and unplanned settlements characterized by acute lack of basic social amenities and are located in the vicinity of towns and cities.

Vulnerable Children: Children who are susceptible or exposed to danger because of socio-economic conditions, special needs, socio-cultural background, geographical location and gender among others

Annex 2: Sample Districts

NO	Province	District	Category	No. of schools
1	Central	MURANGA SOUTH	B/G	198
2	Central	KIAMBU EAST	Others	152
3	Central	NYANDARUA NORTH	Others	185
4	Coast	MSAMBWENI	R	109
5	Coast	MOMBASA	U	91
6	Eastern	IGEMBE (MERU N)	B/G	167
7	Eastern	MAARA	B/G	100
8	Eastern	MACHAKOS	Others	226
9	Eastern	KITUI	R	525
10	Eastern	MAKUENI	R	244
11	Eastern	MUTOMO	R	213
12	Eastern	MWINGI	R	232
13	N/Eastern	MANDERA WEST	A	30
14	Nyanza	BONDO	Others	148
15	Nyanza	KISII SOUTH	Others	59
16	Nyanza	NYAMIRA	Others	227
17	Nyanza	RARIEDA	Others	119
18	Nyanza	MANGA	R	63
19	Rift Valley	BARINGO NORTH	A	144
20	Rift Valley	LOTOKITOK	A	62
21	Rift Valley	SAMBURU NORTH	A	29
22	Rift Valley	KIPKELION	Others	132
23	Rift Valley	MOLO	Others	367
24	Rift Valley	NAKURU MUNICIPALITY	Others	63
25	Rift Valley	NANDI SOUTH	Others	124
26	Rift Valley	TRANS-NZOIA WEST	Others	87
27	Western	BUTERE	Others	132
28	Western	KAKAMEGA NORTH (MALAVA)	Others	118
29	Western	VIHIGA	Others	165
30	Western	BUNYALA	R	34

Annex 3: Document Analysis Guide

The document review will follow a chronological order starting with the earliest to the latest documents in order to track the trends of education reforms

1. Give citation of the document using the APA system
2. State the type of document (policy document, research report, research paper, progress report, specify other)
3. Identify the intervention(s) under focus in the document?
4. Who is the intervention targeted at? Describe the criteria used for selection of the target group.
5. How was the intervention formulated? State why the intervention was formulated and who was involved in the process (specify the roles of each of those involved in the formulation).
6. What are the objectives of the intervention?
7. Describe the implementation plan. Who is involved in the implementation plan at each level; school, district and national. Specify their roles.
8. How is the intervention monitored and evaluated? From the document what are the outcomes of the evaluation? Specify feedback if any.
9. What financial resources (specify amounts per year) are allocated to the intervention at the school, district and national level? What are the sources of the financial resources?
10. What are the criteria for resource allocation? From the document, were the criteria appropriate?
11. How are the financial resources managed at the school, district and national level?
12. From the document, are the resources considered adequate relative to the objective?
13. How the intervention(s) has/have influenced enrolments, levels of participation and retention in primary/ secondary schools?
14. From the document, what are the main challenges, foreseen or encountered in the implementation of the intervention?
15. From the document, what are the proposed alternatives to design, implementation, financing, and monitoring and evaluation, to improve the outcomes of the intervention?

Annex 4: Sampling for National Survey

In the first sampling stage, stratified random sampling was used to select the administrative units (districts) that provided the required respondents for the study. The 153 districts that existed at the time of the 2009 National Population Census were used as the sampling frame. These districts were sampled based on two stratification variables: region and category. The regions used were the Provinces while the category fell into five groups; ASAL, Rural Poor, Urban Slums, Gender and Rural High Potential. The category of Gender was Districts that were perceived to have gender issues that adversely affect access to education for boys. Using these criteria, the districts were stratified into eighteen (18) strata. The districts were drawn within stratum using probability proportional to size using the number of primary schools in a district as the measure of size. The districts within a stratum were ranked alphabetically and the specific district used in the study selected through simple random sampling using computer generated random numbers. Through this method, 29 districts were sampled and since strata 3, 5, 6, 11 and 14 could not raise a district they were combined to create a pseudo-stratum and through random sampling the 30th district was sampled from this pseudo-stratum. The final sample of 30 districts is presented in Annex II. In the second sampling stage, 3 primary schools were selected from each district using stratified random sampling. A list of schools from each district was used to stratify the schools according to three classification criteria; urban, rural and special needs / integrated schools. One school was selected randomly from each of these categories using computer generated random numbers. In case there is no special education needs school within a district, a school was identified in a neighbouring district as a substitute. The head teacher of the selected school responded to the questionnaire.

The following formula used was:
$(N_1 \div N_2)N_3$
Where;
N_1; The number of schools in each stratum
N_2; The total number of schools in the sampling frame
N_3; The required number of districts in this study
Using this formula, the number of districts that participated in the study are presented in Table 1.0.

Stratum	No. of schools	Number of Districts
Stratum 1	373	1
Stratum 2	1,584	2
Stratum 3	133	0
Stratum 4	962	1
Stratum 5	91	0
Stratum 6	198	0
Stratum 7	1,304	2
Stratum 8	532	1
Stratum 9	2,413	4
Stratum 10	351	1
Stratum 11	236	0
Stratum 12	2,852	4
Stratum 13	916	1
Stratum 14	113	0
Stratum 15	2,261	3

Stratum 16	3,358	5
Stratum 17	1,904	3
Stratum 18	371	1
Total	**19,952**	**29**

Annex 5: Percentage of Head Teachers Indicating Implementation of Specific Interventions

INTERVENTION		RHP	RP	ASAL	Gender	Urban	Total
N		43	18	18	9	8	96
Free Primary Education	Instructional materials	100	100	100	100	100	100
	General purpose expenditure	100	100	100	100	100	100
	Water and sanitation	65	67	72	56	50	62
School Health and Nutrition	School feeding	23	17	72	33	75	44
	De-worming	72	72	94	56	75	74
	Hygiene (hand washing)	67	50	61	44	75	60
	Vitamin A supplement	65	44	78	44	63	59
	Immunization & Vaccination	44	28	44	22	63	40
School Infrastructure Improvement	Grants for infrastructure development	51	61	56	44	50	52
Special Needs Education	Support from EARCs	42	56	28	44	38	41
	Grants for facilities maintenance and capitation	23	28	39	22	38	30
	Advocacy and awareness creation program	26	39	22	22	38	29
HIV and AIDS (care and support of Orphans, HIV prevention)	OVC sub-committees	21	39	44	11	25	28
	Provision of school items (uniforms and school bags)	33	33	50	22	25	33
	Extension of school feeding program	5	6	39	0	13	12
	Primary school peer training	26	61	39	44	38	42
	Life skills program	49	78	67	0	75	54
Gender in Education	Advocacy and training on gender issues at school	16	33	39	22	50	32
	Provision of sanitary materials for girls	40	33	67	22	50	42

	Re-admission of girls who become pregnant while in school	37	61	50	22	13	37
	Girls /boys empowerment and mentorship program	28	33	33	0	50	29

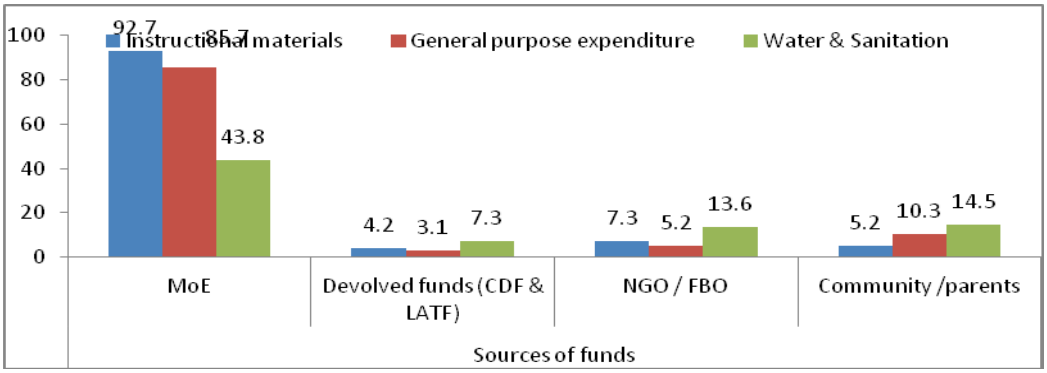
Annex 6: Percentage of Head Teachers Trained, With Guidelines, Reporting Follow-Ups And Continuity

Intervention		N	Trained (%)	Availability of Guidelines	Follow-up	Continuity	Total
FPE	Instructional materials	91	96	97	97	98	97
	General purpose expenditure	86	93	97	97	95	96
	Water and sanitation	55	86	75	79	75	79
SHN	School feeding program	35	71	68	80	71	73
	De-worming	59	81	69	78	77	76
	Hygiene (hand washing)	54	82	69	72	79	76
	Vitamin A supplement	38	68	46	63	64	60
	Immunization and vaccination	52	69	53	72	66	65
SII	Grants for infrastructure development	53	85	84	87	55	78
SNE	Support from education assessment and resource centres (EARCs)	39	77	71	84	82	79
	Grants for facilities and maintenance and capitation	29	66	54	68	50	60
	Advocacy and awareness creation program	29	72	57	75	68	68
HIV & AIDS	OVC sub-committees	35	74	81	79	66	75
	Provision of school items (school uniforms, school bags)	33	79	72	71	53	69
	Extension of school feeding program	19	74	74	72	61	70
	Primary school peer training	34	85	76	88	81	83
	Life skills program	51	90	89	89	91	90
Gender in Education	Advocacy and training on gender issues at school level	31	77	71	71	74	73
	Provision of sanitary materials for girls	30	63	48	54	57	56
	Re-admission of Girls who become pregnant		54	61	54	61	58

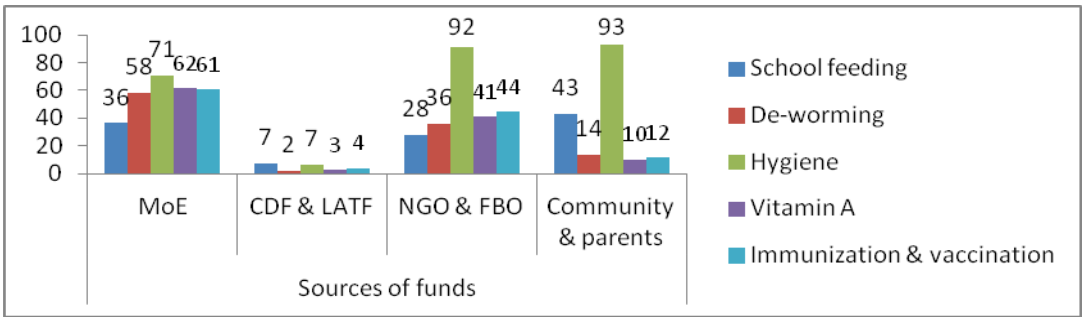
	while in school						
	Girls / boys empowerment and mentorship Programs	29	62	64	66	68	65

Annex 7: Sources of Funds for Interventions

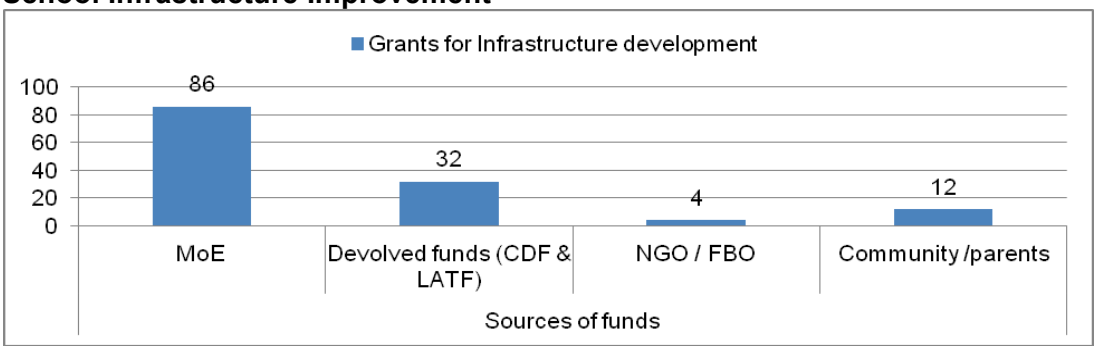
Free Primary Education interventions



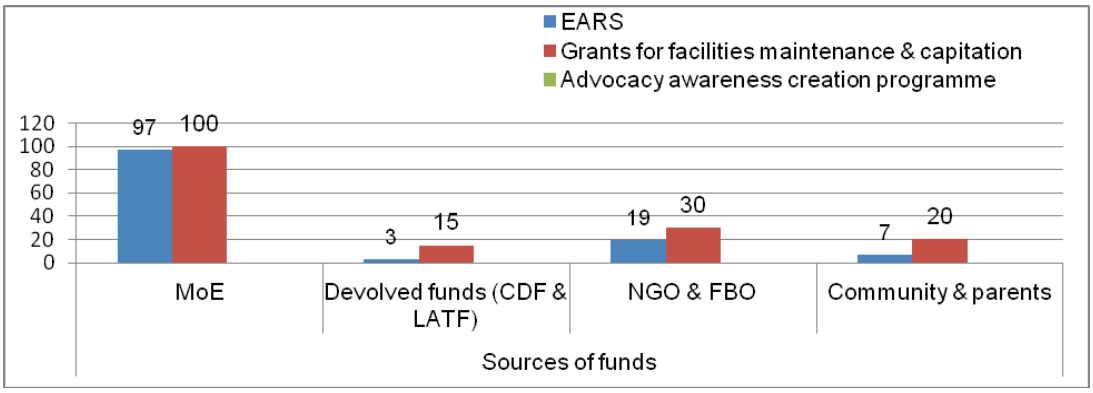
School Health and Nutrition



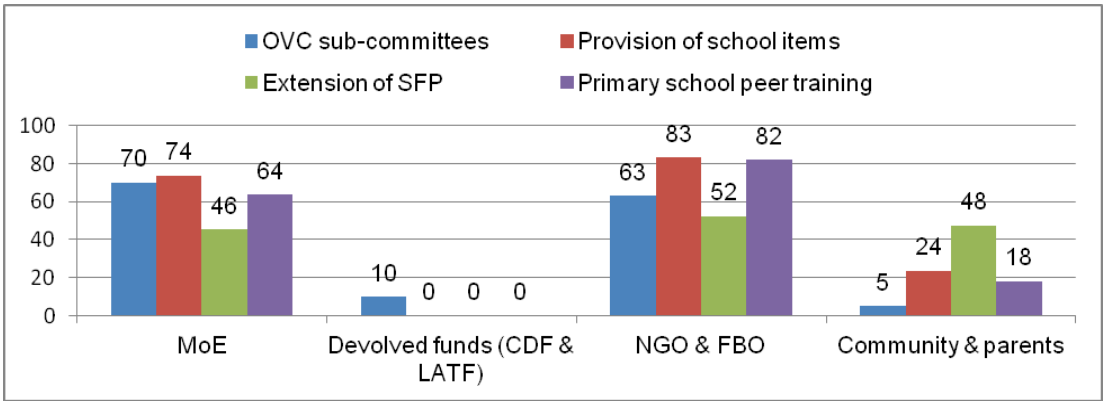
School Infrastructure Improvement



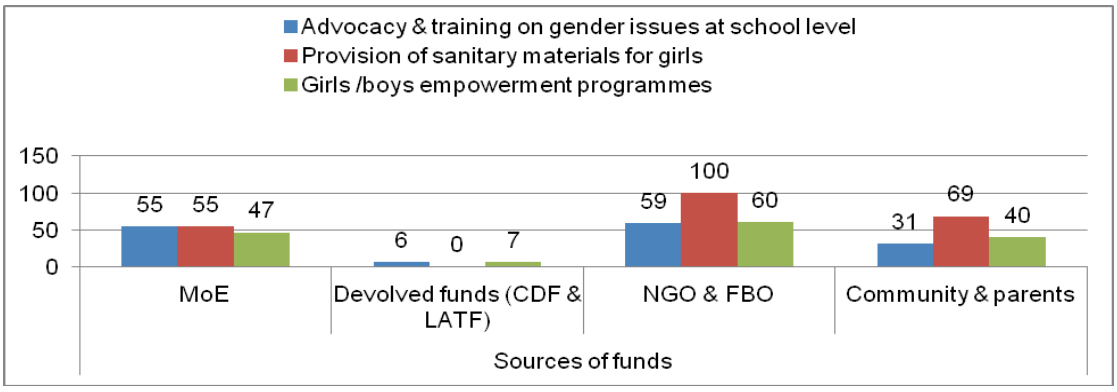
Special Needs Education



HIV and AIDS



Gender in Education



Annex 8: Resource Allocation

Satisfaction with mechanism of transfer of resources to schools

Intervention		N	No of respondents indicating satisfaction	%
FPE	Instructional materials	89	77	87
	General purpose expenditure	42	30	71
	Water and sanitation	83	67	81
SHN	School feeding program	31	18	58
	De-worming	50	36	72
	Hygiene (hand washing)	37	22	60
	Vitamin A supplement	41	24	59
	Immunization and vaccination	21	16	76
SII	Grants for infrastructure development	23	15	65
SNE	Support from education assessment and resource centres (EARS)	38	27	71
	Grants for facilities and maintenance and capitation	18	11	61
	Advocacy and awareness creation program	14	8	57
HIV and AIDS	OVC sub-committees	23	13	57
	Provision of school items (school uniforms, school bags)	29	14	48
	Extension of school feeding program	10	5	50
	Primary school peer training	19	13	68
	Life skills program	28	17	61
Gender in Education	Advocacy and training on gender issues at school level	19	12	63
	Provision of sanitary materials for girls	22	13	59
	Re-admission of Girls who become pregnant while in school	14	11	79
	Girls / boys empowerment and mentorship Programs	15	10	67

Consultation of the school on resource requirement

Intervention		N	No of respondents consulted	%
FPE	Instructional materials	92	32	64
	General purpose expenditure	83	28	34
	Water and sanitation	42	13	31
SHN	School feeding program	32	17	53
	De-worming	53	32	60
	Hygiene (hand washing)	38	18	47
	Vitamin A supplement	40	20	50
	Immunization and vaccination	22	11	50
SII	Grants for infrastructure development	39	19	49
SNE	Support from education assessment and resource centres (EARS)	22	12	55
	Grants for facilities and maintenance and capitation	18	8	44
	Advocacy and awareness creation program	14	8	57
HIV and AIDS	OVC sub-committees	22	12	55
	Provision of school items (school uniforms, school bags)	29	12	41
	Extension of school feeding program	10	8	80
	Primary school peer training	20	10	50
	Life skills program	28	16	57
Gender in Education	Advocacy and training on gender issues at school level	18	11	61
	Provision of sanitary materials for girls	22	12	55
	Re-admission of Girls who become pregnant while in school	14	9	64
	Girls / boys empowerment and mentorship Programs	15	8	53

Delays experienced in receiving the resources

Intervention		N	No of respondents delays	%
FPE	Instructional materials	89	87	98
	General purpose expenditure	79	73	92
	Water and sanitation	33	29	88
SHN	School feeding program	26	18	69
	De-worming	44	25	57
	Hygiene (hand washing)	35	20	57

	Vitamin A supplement	39	21	54
	Immunization and vaccination	21	7	33
SII	Grants for infrastructure development	38	22	58
SNE	Support from education assessment and resource centres (EARS)	20	14	70
	Grants for facilities and maintenance and capitation	14	12	86
	Advocacy and awareness creation program	12	10	83
HIV and AIDS	OVC sub-committees	19	16	84
	Provision of school items (school uniforms, school bags)	26	19	73
	Extension of school feeding program	9	5	56
	Primary school peer training	18	10	56
	Life skills program	28	16	57
Gender in Education	Advocacy and training on gender issues at school level	16	11	69
	Provision of sanitary materials for girls	16	11	69
	Re-admission of Girls who become pregnant while in school	11	5	46
	Girls / boys empowerment and mentorship Programs	13	7	54

Annex 9: Resource Allocation Indices

Free Primary Education Resource Allocation Index

School Category	N	Mean	SE	SD
Rural High Potential	21	91.7	2.64	12.08
Rural Poor	6	87.5	9.56	23.42
ASAL	9	94.4	3.68	11.02
Gender	3	80.6	10.02	17.35
Urban	4	100.0	0.00	0.00
Total Sample	43	91.7	2.11	13.85

School Health and Nutrition

School Category	N	Mean	SE	SD
Rural High Potential	4	81.3	10.87	21.75
Rural Poor	0	0.0	0.00	0.00
ASAL	4	90.0	7.07	14.14
Gender	0	0.0	0.00	0.00

Urban	3	100.0	0.00	0.00
Total Sample	11	89.6	4.88	16.20

School Infrastructure Improvement

School Category	**N**	**Mean**	**SE**	**SD**
Rural High Potential	21	78.6	6.05	27.71
Rural Poor	8	87.5	6.68	18.90
ASAL	7	85.7	7.44	19.67
Gender	4	87.5	7.22	14.43
Urban	4	87.5	7.22	14.43
Total Sample	**42**	**82.7**	**3.56**	**23.10**

Special Needs Education

School Category	N	Mean	SE	SD
Rural High Potential	6	79.2	6.36	15.59
Rural Poor	2	79.2	20.83	29.46
ASAL	2	100.0	0.00	0.00
Gender	1	100.0	0.00	0.00
Urban	2	50.0	49.99	70.71
Total Sample	13	79.5	8.04	28.99

HIV and AIDS

School Category	N	Mean	SE	SD
Rural High Potential	3	75.0	13.23	22.91
Rural Poor	1	100.0	0.00	0.00
ASAL	2	95.0	5.00	7.07
Gender	0	0.0	0.00	0.00
Urban	2	100.0	0.00	0.00
Total Sample	8	89.4	6.16	17.41

Gender in Education

School Category	N	Mean	SE	SD
Rural High Potential	2	78.1	21.88	30.94
Rural Poor	1	100.0	0.00	0.00
ASAL	1	100.0	0.00	0.00
Gender	0	0.0	0.00	0.00
Urban	3	100.0	0.00	0.00
Total Sample	7	93.8	6.25	16.54

Annex 10: Contribution of Interventions

Pupil Classroom Ratio by Grade and School Category

Grade	RHP	RP	ASAL	Gender	Urban	Total
1	42	35	47	41	49	42
2	39	39	51	38	54	43
3	41	37	47	40	56	42
4	42	36	46	41	61	43
5	38	37	50	40	57	42
6	38	38	43	38	62	41
7	35	38	44	36	51	39
8	38	36	31	33	47	37
Overall	**39**	**36**	**47**	**38**	**54**	**41**

Pupil/Teacher Ratio (PTR)

Category	RHP	RP	ASAL	Gender	Urban	Total
N	37	18	17	6	7	85

Mean	43	42	55	40	40	45

Pupil Textbook Ratio by Grade

The pupil textbook ratio in Mathematics 2011

Grade	1	2	3	4	5	6	7	8	Total
N	89	88	88	87	84	84	83	83	86
Mean	2.2	2.0	2.7	2.8	2.5	2.6	2.6	2.6	2.5
SD	1.33	1.21	3.57	3.66	3.52	3.57	4.07	6.85	3.47

Pupil Textbook Ratio by School Category

Mathematics

Grade	RHP	RP	ASAL	Gender	Urban
1	2.3	1.9	2.8	1.9	1.7
2	2.1	1.9	2.3	2.0	1.6
3	2.7	3.5	2.6	1.7	1.9
4	2.3	4.3	3.1	1.8	1.9
5	2.2	3.6	2.7	1.7	1.6
6	2.0	4.0	3.0	1.5	1.9
7	1.8	4.3	3.6	1.2	1.8
8	1.3	2.9	2.8	8.8	1.4
Total	**2.1**	**3.3**	**2.9**	**2.6**	**1.7**

Pupil textbook ratio in English

Grade	1	2	3	4	5	6	7	8	Total
N	89	88	87	87	84	84	83	82	86
Mean	2.2	2.2	3.1	3	2.4	2.9	2.9	2.2	2.6

Pupil Textbook Ratio in English by School Category

Grade	RHP	RP	ASAL	Gender	Urban
1	2.3	1.6	3.1	1.6	1.6
2	2.1	1.8	2.8	3.3	1.7
3	2.6	5.3	3.2	1.8	1.7
4	2.2	5.1	3.3	2.1	1.8
5	2.1	3.5	2.7	1.6	1.6
6	1.9	5.5	3.5	1.5	1.9
7	1.7	5.9	3.7	1.3	1.7
8	1.4	4.2	2.8	0.9	1.5
Total	2.0	4.1	3.1	1.8	1.7

Percentage Head Teachers Reporting Adequacy of English Textbooks by Grade and Category 2011

Grade	RHP	RP	ASAL	Gender Issues	Urban	Total
1	15.0	31.3	37.5	75.0	25.0	28.4
2	24.4	29.4	53.3	62.5	25.0	33.7
3	20.0	23.5	56.3	50.0	12.5	29.2
4	20.5	27.8	31.3	57.1	12.5	26.1
5	27.0	29.4	56.3	62.5	12.5	34.9
6	36.1	23.5	37.5	85.7	12.5	35.7
7	33.3	33.3	28.6	85.7	12.5	34.9
8	58.3	37.5	42.9	100.0	25.0	51.3
Overall	29.3	29.5	43.0	72.3	17.2	34.3

Percentage Head Teachers Reporting Adequacy of Mathematics Textbooks by Grade and Category 2011

Grade	RHP	Rural poor	ASAL	Gender Issues	Urban	Total Sample
1	26.8	41.2	37.5	75.0	12.5	34.4
2	26.8	29.4	46.7	75.0	12.5	33.7
3	30.0	25.0	43.8	50.0	12.5	31.8
4	20.5	23.5	46.7	57.1	12.5	27.9
5	21.6	23.5	43.8	50.0	12.5	27.9
6	38.9	17.6	31.3	57.1	12.5	32.1
7	40.0	22.2	21.4	75.0	12.5	33.7
8	58.3	33.3	42.9	100.0	25.0	50.0
Overall	32.9	27.0	39.3	67.4	14.1	33.9