KENYA NATIONAL SPECIAL NEEDS EDUCATION SURVEY REPORT

REPUBLIC OF KENYA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

Dedication

This work is dedicated to children with disabilities in Kenya, their families and their educators.

Acknowledgement

The process of conducting a National Survey on Special Needs Education in Kenya was made possible through the concerted efforts of various institutions, organisations and individuals. We recognise the very important role played by DFID Kenya Office which provided the valuable funding through Development Alternatives Inc. (DAI) and Adam Smith International (ASI), and also provided technical assistance and support at different stages during the national survey. We also recognise the role of Sight Savers International and VSO who also financially supported the project by contributing match funding. We highly appreciate the partnership with the Ministry of Education Science and Technology, SNE department that enabled this work to come to fruition.

Sincere gratitude goes to the Research Steering Group: Fred Haga (Ministry of Education Science and Technology - SNE department), Andiwo Obondoh (Drivers of Accountability Programme), Jean-Claude Adzalla (Deaf Aid, and Action for Children with Disabilities), Elizabeth Oyugi (Sight Savers International), Hellen Obande (United Disabled Persons of Kenya), Mourine Wambugu (National Council for Persons with Disabilities), Rosaline Muraya, John Collins and George Awalla (VSO Jitolee).

We extend our unreserved appreciation for SMECT Consultants under the leadership of Charles Oranga who undertook both primary and secondary data collection and consolidated crucial information. We value the support of the ASI team under the leadership of Michelle Moffatt and Dr Thomas Tilson together with Dr Anil Khamis, Dr Cecilia Nyaga and Prof. Harry Kaane, who reviewed the survey report to ensure that it was sound in regards to methodology, coverage of disability issues and policy recommendations. We extend gratitude to Boka Nyachieo-Ngumba and Zipporah Wanaswa (VSO Jitolee) for the hard work and commitment in editing the final report.

To all who contributed in one way or another to the development and production of this report we say thank you

To all who contributed to Kenya National Survey on Special Needs Education in one way or another until the production of this report, we say thank you very much.

George Awalla,
HEAD OF PROGRAMMES, VSO JITOLEE

Foreword

The Government of Kenya recognises the importance of supporting Special Needs Education (SNE) in order to realise its goal of ensuring Education for All (EFA), and implementing in spirit, the provisions of the Constitution of Kenya and Vision 2030.

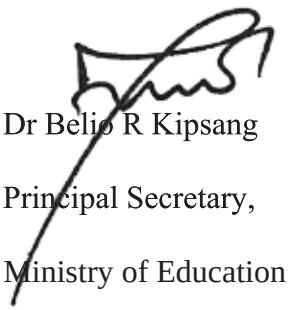
The Kenya National Special Needs Education Policy Framework (2009) supports research and development of SNE, documentation and dissemination of relevant information. This objective will be achieved through close collaboration with partners in carrying out relevant research in various sectors of education.

Knowledge and research on SNE and disability is limited in Kenya. Hence, Kenya has been slow in the uptake of new and emerging innovations in this field. Constraints facing research and development include lack of effective coordination between various actors, limited research funding, in adequate mechanisms and systems for dissemination and an absence of robust data. In response, the Ministry of Education Science and Technology (MoEST) collaborated with VSO Jitolee with support from DFID, to carry out the National Special Needs Education Survey (NSNES). This nationally representative sample survey, conducted in 2014 provides up-to-date and accurate data in the prevalence of disabilities among school and out of school children in Kenya.

The survey focused on assessing the prevalence of disabilities and the special needs among school and out-of-school children; determining the relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities; identifying factors that enable or hinder enrolment and attendance in school for children with disabilities; establishing views and perspectives of the community on access to education for persons with disabilities; and identifying policy gaps in the current delivery of special needs education and providing recommendations.

The survey established 13.5% disability pre valence among children. This is comparable to the global estimate of 15% as of 2010. The study also found that there were more children with disabilities (CWDs) out of school than those without disabilities; that more resources are required in public schools specialised institutions to attend to the needs of the learners with special needs. There is also a need to deploy more teachers who have specialised training to handle children with multiple forms of special needs.

The NSMES contains recommendations that could improve the situation of children with special needs, thereby helping improve equity in access to education in Kenya. Ensuring that inclusive education becomes a reality in Kenya will not only uphold the rights of children with special needs ,it will also improve the participation of people with special needs in our country's development.



Dr Belio R Kipsang

Principal Secretary,

Ministry of Education Science and Technology

Executive Summary

The National Special Needs Education Survey (NSNES) was conducted to provide up-to-date data on children with disabilities in Kenya. The objectives of the study were: 1) To assess the prevalence of disabilities and special needs among school-going and out-of-school children aged between 0-21 years, disaggregated into disability categories; 2) Determine the relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities; 3) Identify the enabling and disabling factors to school attendance by children with disabilities and special needs; 4) Establish the views and perspectives of the community and persons with disabilities particularly on access to education; and, 5) Identify and analyse policy gaps in addressing delivery of Special Needs Education (SNE) and the specific areas of improvements required in the country. The survey adopted a convergent parallel mixed-methods design, targeting various segments of the population in the country. Through multi-stage stratified random sampling and purposive sampling, children of 0-21 years in 8,679 households and 376 educational institutions in 21 counties were surveyed. In addition, information from community members and key informants was gathered.

The survey established that the prevalence of disabilities among children aged 0-21 years was 13.5%, which is comparable to the global estimate of 15%, as of 2010. The study also found that there were more children with disabilities (CWDs) out of school than those without disabilities. The study further found that resources and structures in many schools were not adequate and relevant for learners with disabilities. In regard to this, the ratios of special needs educators to learners were below the required thresholds for the number of children with disabilities in the schools. Additionally, many physical structures were not adapted for the needs of CWDs.

The study found that factors that contributed to school attendance by CWDs and children with special needs in the country included favourable government policies, support from non-governmental organisations (NGOs) and community based organisations (CBOs), availability of assistive devices and educational institutions catering for the needs of CWDs and children with special needs, care and protection provided for CWDs, parents with high education levels, positive attitudes of parents and children, increased advocacy, availability of SNE teachers among others.

However, the survey also found home-based and systemic factors that hindered CWDs' school attendance. The former included parents keeping their children away from school for fear of exposing them to social stigma in the ‘outside world’, high levels of poverty, lack of assistive devices such as wheelchairs, and lack of aides for children. Systemic factors included lack of proper transportation to schools, inadequate number of special schools in the communities, and lack of enough trained SNE teachers and aides. Further, findings showed that there were mixed perceptions towards children with disability. Whereas there were positive perceptions, the survey established that there was persistence of stereotypes, misconceptions, stigma and discrimination towards children with disabilities in the schools and community. Finally, the survey established that lack of a specific inclusive education policy, funding policy, and medical policy as well as lack of examinations policy as some of the gaps.

On the basis of these findings, various recommendations have been proposed to address the issues of disability and special needs education in Kenya. Firstly, there is need for targeted intervention in the rural areas and focusing on boys, who were found to be the most affected. Secondly, there's need for increased access to appropriate rehabilitative measures, improvement of the relevance and adequacy of education structures, learning facilities and resources to support children with disabilities and increased awareness of disability issues in the community in order to develop an adaptive society towards these children. Thirdly, it is important for the schools’ curriculum to be reviewed and adapted in a manner that it is competence-based for CWDs based on their different capabilities and disabilities. Finally it’s important for the education system to be flexible so that the duration of any level of education for learners with disabilities is not based on the calendar year but on whether the learner has covered the content required for that level.

Table of Contents

CHAPTER ONE: INTRODUCTION

CHAPTER 2 : LITERATURE REVIEW

CHAPTER 3 : STUDY DESIGN AND RESEARCH METHODOLOGY

CHAPTER 4 : SURVEY FINDINGS

CHAPTER 5 : CONCLUSIONS AND RECOMMENDATIONS

List of Tables

List of Figures

Acronyms

ADA	Americans with Disabilities Act
BBC	British Broadcasting Corporation
CBOs	Community Based Organisations
CRC	Convention on the Right of the Child
CWDs	Children with disabilities
DEOs	District Education Officers
DPOs	Disabled Persons' Organisations
EARCs	Educational Assessment Research Centres
ECDE	Early Childhood Development and Education
ECE	Early Childhood Education
EFA	Education For All
EOs	Education Officers
FGD	Focus Group Discussion
FPE	Free Primary Education
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICF	International Classification of Functioning
IDEA	Individuals with Disabilities Education Act
KICD	Kenya Institute of Curriculum Development
KIE	Kenya Institute of Education
KISE	Kenya Institute of Special Education
KNBS	Kenya National Bureau of Statistics
KNSPWD	Kenya National Society of Persons With Disabilities
MGDs	Millennium Development Goals
MoE	Ministry of Education
NGO	Non-Governmental Organisation
NSNES	National Special Needs Education Survey
QASOs	Quality Assurance and Standards Officers
RAs	Research Assistants
SNE	Special Needs Education
SPSS	Statistical Package for Social Scientists
TPR	Teacher Pupil Ratio
TSC	Teachers Service Commission
TTC	Teacher Training College
TVET	Technical and Vocational Education Training
UK	United Kingdom
UN	United Nations
UNCRC	United Nations Convention for the Rights of the Child
UNESCO	United Nations Education Science and Cultural Organisation
UNICEF	United Nations Children Fund
UPE	Universal Primary Education

UPIAS	Union of the Physically Impaired Against Segregation
VSO	Voluntary Service Overseas
WHO	World Health Organisation

Glossary

Inclusion: The philosophy which focuses on the process of adjusting the home, the school, and the society so that all the individuals, regardless of their differences, can have the opportunity to interact, play, learn, work and experience the feeling of belonging and experiment to develop in accordance with their potentials and difficulties.

Inclusive Education: The approach in which learners with disabilities and special needs, regardless of age and disability, are provided with appropriate education within regular schools.

Integration: The process in which learners with special needs and those without are taught together; to the maximum extent possible in a least restrictive environment and, the child is expected to adapt to that environment.

Disability: A physical, sensory, mental or other impairment including any visual, hearing, learning, or physical incapability, which impacts adversely on social, economic or environmental participation

Regular Schools: Institutions referred to as mainstream schools and which normally admit learners who are not disabled.

Special Needs Education (SNE): Education which provides appropriate modification in curriculum delivery methods, educational resources, medium of communication or the learning environment in order to cater for individual differences in learning.

Special Schools: Schools set aside to offer education to children with special needs in education, based on their respective disability.

Special Units/Special Classes: Classes set aside either in regular or special schools to cater for needs of learners with special needs.

CHAPTER 1 : INTRODUCTION

1.1 Definition of disability

Disability is a complex phenomenon that has been defined variably over the years by a number of individuals and organisations. The Americans with Disabilities Act (ADA) of 1990, defines disability (in part) as a physical or mental impairment that substantially limits one's ability for one or more of life's major activities. In the UK it is defined under the Equality Act of 2010 as a physical or mental impairment that has a substantial and long-term negative effect on one's ability to perform normal daily activities. In the medical profession it is viewed as a feature caused by disease, trauma or other health conditions that necessitates medical care or treatment.

Social scientists on the other hand, view disability as a socially created problem and not at all an attribute of the individual. The genesis of this view is the definition of disability first advanced in 1976 by the UK's Union of the Physically Impaired against Segregation (UPIAS) which defined it as:

> *"The disadvantage of restriction of activity caused by a contemporary social organisation which takes no or little account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities".*
> (UPIAS, 1976: 14).

In other words, social scientists conceive disability in relation to the interaction between persons with impairments and environmental or social contexts in which accommodations to overcome such impairments are afforded or not afforded.

In Kenya, the Persons with Disability Act of 2003 defines disability as:

> *"A physical, sensory, mental or other impairment including any visual, hearing, learning, or physical incapability, which impacts adversely on social, economic or environmental participation."*

Further, the Children's Act of 2001 which focuses on children, defines disability with reference to a disabled child as:

> *"A suffering from physical or mental handicap which necessitates special care for the child."*

Together, both of these definitions recognise the aspects of impairments, activity limitations, and participation restrictions imposed on the individual as a result of the disability. This is an important recognition, especially, with regard to educational opportunities for children with disability.

Indeed, as a complex notion, disability means different things to different people. Consequently, the World Health Organisation (WHO) has endeavoured to provide a common language of terms and definitions that provide a basis for understanding it. In this regard, WHO has developed a framework for describing health and health-related states including disability. In its framework, the International Classification of Functioning, Disability and Health (ICF), WHO has defined disability as an umbrella term for **impairments**- problems in body function or structure, **activity**

limitations - difficulty encountered by an individual in executing a task or action and **participation restrictions** - problem experienced by an individual's involvement in life situations. In this way, the ICF description brings the concept of disability to the mainstream by recognizing it as a universal human experience, rather than something that happens to just a few people. For ICF's complete list of impairments, activity limitations, and participation restrictions, see Appendix1.

Often times, the term disability is confused with impairment. Although these two are closely related and used interchangeably, they are different. Whereas impairment refers to the loss or limitation of physical, mental, or sensory function on a long term or permanent basis, disability is much broader and it describes the condition whereby physical and social barriers prevent a person with impairment from taking part in the normal life of the community on an equal footing with others (UNICEF, 2007).

1.2 Global contextualization of education

Education, in general, is considered to expand a child's knowledge, experiences and imagination; and therefore, promote the child's responsible and active participation in society. This kind of general education increases a child's awareness of moral values, codes of conduct and mannerisms, and the capacity to enjoy life in general. Formal education, on the other hand, provides children with the opportunity to gain abilities that will allow them to be as independent as possible (Warnock, 1978) and acquire whatever meritocratic status that they strive for. However, even though the overall purpose of education for all children is the same, the path each child follows can be (and often is) dramatically different. There are many reasons for these differences but central among them is the health and disability status of the children.

Education is considered a right of every child and is legally guaranteed in most countries. This right was first explicitly stipulated in article 26 of the Universal Declaration of Human Rights of 1948 (UN, 1948). Articles 28 and 29 of the UN Convention on the Right of the Child (UNCRC) (1989) declare that the education of the child shall be directed to the development of the child's personality, talents, mental and physical abilities to their fullest potential. Article 13(2) of the International Covenant on Economic, Social and Cultural Rights (ICESCR) of 1967 requires member states to actively pursue the development of schools at all levels, making secondary education "generally free" and "progressively free". In this way, states would extend the right to fundamental education to adults as well - rather than just to children and young people.

The Jomtien World Declaration of Education for All (EFA) conference (1990), primarily focused Millennium Development Goals (MGDs); emphasised that every person, child, youth and adult would be able to benefit from educational opportunities designed to meet their learning needs by 2015 (UNESCO 2003). Specifically, it has six goals of education that cover the lifespan of an individual. These include: (i) expand early childhood care and education, (ii) provide free and compulsory primary education for all, (iii) promote learning and life skills for young people and adults, (iv) increase adult literacy, (v) achieve gender parity and gender equality, and, (vi) improve the quality of education. Furthermore, Universal Primary Education (UPE) was specifically set as a goal for both EFA (Jomtien, 1990; reaffirmed in Dakar, 2000) and MDGs. It was subsequently adopted as a goal by UN member states in 2000.

Indeed, it is critical that all children of member countries are granted the opportunity to pursue a free basic education, by their governments. Unfortunately, obstacles abound in meeting this goal. Children with disabilities are often stigmatized and marginalized in school, in the community and sometimes (even) at home; causing their learning to be adversely affected. In recognition of such challenges, Article 2 of the CRC warns against discrimination of a child of any kind on the basis of race, colour, religion, disability or any other status (UNESCO 2001; 2003).

1.3 Government of Kenya and education

Kenya is currently showing strong commitment to funding education. The government's contextualization of education and training sector contains the following levels in terms of structure:

- Early Childhood Development and Pre-school Education
- Primary Education
- Secondary Education
- University Education
- Technical and Vocational Education and Training (TVET)
- Teacher Education and Training
- Non-formal Education and Adult Education
- Special Education

1.3.1 Primary education

The Kenyan government is a signatory to various international and regional frameworks for education. These include: The Universal Declaration of Human Rights (1948), the 1989 United Nations Convention on the Rights of the Child (UNCRC), the 1990 African Charter on the Rights and Welfare of the Child, Salamanca Statement (1994), the Frameworks for Action on Special Needs Education (1999), the Millennium Development Goals (MDGS) (now sustainable development goals) and Education for All (EFA). More important, the Kenya Government enacted the Children Act of 2001 whose section 7(1) addresses the right to education and states that:

> *"...Every child shall be entitled to free basic education which shall be compulsory in accordance with Article 28 of the UNCRC"*

In this respect, the government introduced Free Primary Education (FPE) in 2003 with the objective of increasing access to basic education for all citizens. The number of children enrolled in primary school since then continued to increase from around 1.5 million (Ruto et al., 2010) to over eight million 2008 and 9.4 million in 2010 (GoK, 2012). This is a clear testament of the Kenya government's commitment to the global goal to education. However, in spite of this and other initiatives, it is estimated that nearly 1.7 million children who ought to be in school, are still out of school (KNBS 2006).

A recent study by UNICEF estimated the 2008-2011 net primary school enrolment ratios for school-age children in Kenya at 84% which is lower than the global ratio of 91%, and other regional ratios such as, Eastern and Southern Africa (86%), Tanzania (98%) and Rwanda (99%). The preceding ratios clearly show that more work needs to be done in Kenya in order to have all school-age children enrolled in school. Statistically, there's no clear figure of how many children with disability are in or out of school in Kenya. Out of the 16% of school-age children who are not in school, there is no clear indication of the proportion of children with disabilities. Of those enrolled in school, the number of children with disability who, need appropriate adaptations is also not clear. There is acknowledgment of the importance of early childhood education and pre-school education is important to child development and the total education experience.

1.3.2 Secondary and tertiary education

In February, 2008, the government introduced a free secondary schooling education program, whose target was to increase student enrolment to 1.4 million by the end of that year[1]. The program was based on a cost-sharing model in which the government proposed to pay tuition fees for students while parents would meet boarding fees and the cost of school uniforms. Enrolment increased from 1.18 million students in 2007 (639,393 boys and 540,874 girls) to 1,328,964 (735,680 boys and 593,284 girls) students in 2008 and further to 1,701,501 (914,971 boys and 786,530 girls) students in 2010. The GER for secondary increased from 27.3 % (28.8% for boys and 25.7% for girls) in 1999 to 47.8 % (50.9 for boys and 46.3 for girls) in 2010 (Muliru S, 2012).

After completing secondary school, students who proceed to pursue a higher education enrol either at a university (public or private), Technical Vocational Education and Training (TVET) institute, Teacher Training Colleges (TTC) and other institutions of higher learning. In addition to pursuing a four-year degree course at the university, some universities offer students options of shorter-term certificate and diploma courses in various trades. Enrolment in these tertiary institutions has also been increasing along with those in primary and secondary schools.

However, although the number of students in both secondary and tertiary institutions has increased over time, and quite rapidly in the last five years, it is unclear how many children with disabilities are enrolled in these institutions. Recent statistics show that 6.7% of Kenya's GDP was spent on education in 2010, an increase from the 5.4% spent in 1999. This strong spending helped increase the primary net enrolment ratio from 62% in 1999 to 91.4% in 2010 (KNBS, 2014). Compared with other sub-Saharan African countries, a relatively small proportion of the education budget is funded by aid, around 4%.

1.3.3 University Education

Kenya offers university education level of education through public universities and private universities.

- Undergraduate education takes a minimum of 4 academic years and enrolment is over 63,000 students.

[1] Free Secondary Schools for Kenya. BBC News. 11 February, 2008

- There are several postgraduate degrees on offer for different programmes; most of them lasting at least 2 years.

1.4 Disability and special needs education in Kenya

As stated earlier, the Kenya government is committed to providing access to education for its citizens. This fact is, in part, reflected in its participation of various regional and international education bodies and signing of various International and regional conventions. However, the number of school-age children who do not have access to educational services in the country is still high. It is estimated that out of 750,000 school-age children with disabilities, only 45,000 (6%) are schooling (MOE, 2009). This implies that the EFA goals will be difficult to achieve by 2015. In fact, even beyond 2015, more aggressive efforts will be needed for these goals to be achieved. But, for any meaningful intervention measures to be undertaken, reliable data on prevalence and types of disability among school-age children is essential. Currently, such data is not available in a complete and usable format and hence, the reason for the current study. The government currently supports education based on regular schools and schools for children with disability. While children in regular schools receive Kes 1,020 each, children with disability receive Kes.1,020 and an additional Kes. 2, 000 - a total of Kes 3,020 per child.

1.5 Study problem, purpose and objectives

The availability of such data is critical in advocacy efforts to make special education needs visible in the national policy agenda and thus inform appropriate and equitable allocation of resources. The National Special Needs Education Survey (NSNES) is an endeavour prompted by the government's commitment to improve delivery of educational services with particular focus on five thematic areas. These are: (i) Promotion of equitable access to education, (ii) Enrolment and retention of girls and boys with disabilities and special needs in school, (iii) Reduction in gender disparities, (iv) Promotion of skills development, and (v) Enhancing learning outcomes. The survey's main aim is to provide up-to-date and accurate data on children with disabilities and special needs in Kenya. Consequently, the survey was guided by the following five objectives:

1. Assess the prevalence of disabilities and special needs among school and out-of-school children aged between 0-21 years;
2. Determine the relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities including availability of qualified teachers, support and auxiliary staff;
3. Identify the enabling and disabling factors to school attendance by children with disabilities and special needs;
4. Establish the views and perspectives of the community and persons with disabilities particularly on access to education; and,
5. Identify and provide an analysis of policy gaps in addressing the delivery of special needs education and specific improvements that are required in the country.

1.6 Scope of the study

The study investigated the countrywide prevalence of children with disabilities and special needs among school and out-of-school children between the ages of 0-21 years in Kenya. It undertook a countrywide assessment of the prevalence, relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities and the factors contributing to school attendance by children with disabilities and special needs. The study further explored the views and perspectives of communities and persons affected with disabilities and analysed the policy gaps that exist in addressing the delivery of special needs education.

1.7 Limitations of the Study

One of the major limitations of the study is that although measuring children's disability household survey, using a modified multiple indicators cluster survey (MICS) tool developed by UNICEF and WHO (2007), was deemed the most ideal and has been used widely across different continents, it may not have distinguishably discriminated children between 0-2 years who were included in the study. The tool is based on a two-stage questionnaire and in this study only the first stage was done due to the study mandate. Another limitation could be related to issues of accessibility, logistics and timelines that may have contributed to skewed data in some counties.

1.8 Assumptions of the Study

One of the assumptions of this study was that participants would provide honest and true responses to the different items in the different instruments in this study.

The other assumption was that the heads of institutions and the different leaders would allow permission for data to be collected in the sampled schools and counties.

CHAPTER 2 : LITERATURE REVIEW

2.1 Categories of disability and special needs

Classification of persons with disability and/or special needs is covered widely in the literature and under various statutes. For instance, as stated earlier, the Persons with Disability Act of 2003 defines disability as *"…a physical, sensory, mental, or other impairments including any visual, hearing, learning, or physical incapability, which impacts adversely on social, economic or environmental participation"*. In the diction of this act, sensory relates to hearing and vision impairments, physical relates to functions performed by hands and legs, while mental (sometimes referred to as intellectual or cognitive impairments) relates to mental processes of knowing, awareness, attention, memory, perception, reasoning, and learning. In addition to occurring naturally, these impairments may be caused by injury, and/ or disease.

The Individuals with Disability Education Act (IDEA, 2012)[2], identifies thirteen different categories of disabilities for children of ages 3-21 years. These are autism, deaf-blind, deafness, emotional distance, hearing impairments, intellectual disability, multiple disabilities, orthopaedic impairments, other health impairments, specific learning difficulties, speech or language impairment, traumatic brain injury and visual impairment (including blindness).

In Kenya, the National Special Needs Education Policy Framework (2009) outlines twenty two categories of disabilities and special needs. These include children who have hearing impairments, visual impairments, physical impairments, cerebral palsy, epilepsy, mental handicaps, down syndrome, autism, emotional and behavioural disorders, learning disability, speech and language disorders, multiple handicaps, albinism, other health impairments, gifted and talented, deaf-blind, orphaned, abused, living in the streets, heading households, nomadic/ pastoral communities, and internally displaced. This study focused on fifteen of these categories of disability in children, but also included the gifted and talented as a special need. For definitions and descriptions of each of the disabilities see Appendix 2.

2.2 Government efforts and organisations focused on addressing issues of disability and special needs education

People with disabilities are a marginalized group, often being excluded from mainstream society, whether in education or employment. As a result of this marginalisation, people have over time, organised themselves and advocated for change. The earliest such agitation in Kenya came soon after independence (Macha, 2007). In 1964, a group of people with disabilities camped all night outside the state house in Nairobi, the official residence of the then prime minister and later president Jomo Kenyatta, seeking audience. In response, Kenyatta established the Kenya Education Commission chaired by Ominde (1964) to examine the situation of people with disabilities and advise him and the government on which actions to take. The commission recommended that children with mild handicaps should be integrated to learn with their peers in

[2] Individuals with disability Education Act (IDEA, 2012): Category of disability under IDEA, 2012, a US Federal law.

regular schools. Since then, many more commissions have been formed and policy guidelines developed by the government with regard to special needs education (See Box 1).

Box 1: Efforts to improve education by the Government of Kenya:

(i) *Committee on Care and Rehabilitation of the Disabled* chaired by Ngala Mwendwa (1964), which resulted in the formulation of Sessional Paper No. 5 of 1968

(ii) *National Education Commission on Education Objectives and Policies* (Gachathi Report, 1976), which recommended, among other measures, that (a) there should be coordination of early intervention and assessment of children with special needs; (b) the public should be made aware of the causes of disabilities to promote prevention; (c) there should be increased research to determine the nature and extent of handicaps; and, (d) in order to provide SNE, ECDE programs to be established as part of special schools and a policy for integrating learners with special needs to be developed;

(iii) *Presidential Working Committee on Education and Training for the next Decade and Beyond* (Kamunge Report, 1988) that emphasized the deployment of SNE inspectors at the district level;

(iv) *Totally Integrated Quality Education And Training Taskforce* (Koech Report, 1999) that recognized the lack of a comprehensive SNE policy or legal framework on SNE and recommended the establishment of a national special education advisory board; and

(v) *Task Force on Special Needs Education* (Kochung Report, 2003), which recommended that there should be training and in-service programs for teachers of children with special needs; Educational Assessment and Resource Centres (EARCs) strengthened through increased equipping and budgetary allocation; a special needs national survey carried to determine the population of special needs children in and out of school and have an inventory of assistive devices and equipment available in schools; and that special needs schools made barriers-free to enhance access.

In addition to the preceding commissions, the government further established an SNE section in the Ministry of Education (MOE) in 1975 and posted an SNE specialist at the Kenya Institute of Education (KIE) in 1977 (MOE, 2009). In order to oversee and engage in the task of preparing teachers of learners with special needs, the Kenya Institute of Special Education (KISE) and other SNE departments at Kenyatta, Moi, Maseno, and Kenya Methodist Universities were established and have been in place to date.

2.3 Prevalence of disabilities

Accurate statistics of people with disabilities in the world are not well known. Part of the disparities result from different definitions of disability and different ways of measuring it. Censuses and surveys in different countries have used varied approaches to measure disability. In some cases different instruments within the same country are used and often report very different rates of disability. For example, the reported rate of disability in 2001 in Canada, ranged from 13.7% (from an activity limitations survey)to 18.7% (census) and 31.3% as reported in a community health

survey (Rietschlin and MacKenzie, 2004), as cited in (Mont, 2007). As such, depending on one's source, one is likely to arrive at varied figures.

In this regard, developed nations have made commendable strides in obtaining relatively accurate numbers of people with disability, which they use for targeting various social programs to this group of citizens. However, the numbers used in developing countries have often been rough or ad hoc estimates, which lack up-to-date data. For example, the 2009 Kenya Census indicated that the population was approximately 40 million with 3.25% (1.3 million) of the people having a disability (KNBS, 2009)[3]. Similarly, the Kenya National Survey of Persons with Disabilities (2008), a household based survey, arrived at an overall disability rate in the country of 4.6%. This is contrary to other estimates that give the proportion of people with disabilities in Kenya as 10% of the total population (WHO, 2006; MoE, 2009). Based on the 2009 census, this percentage would translate to approximately 4 million people with disability. Most likely, the different definitions of disability - depending on what families define as disability - and the reliance on self-reported information in censuses might explain the large discrepancies in the figures. It is also plausible to expect self-reported information gleaned from census data to underestimate the number of persons with disability because of the stigma usually associated with this group of people. Clearly, a more consistent method of measuring and consequently arriving at reasonably accurate statistics of persons with disability is needed in developing nations in general, and in Kenya, in particular.

2.4 Status of Special Needs Education in Kenya

2.4.1 School enrolment

A UNESCO report (2010a) estimated that there are 150 million children living with disabilities worldwide. The report further suggested that a third of the 72 million of primary school age children who were not in school in 2007 have a disability. Additionally, it reported that over 90% of children with disabilities in the world's poorest countries did not go to school. These figures underscore the need to have accurate statistics that can be used by policy makers to target educational and other programs to this group of children.

In Kenya, SNE started after the end of the Second World War (MoE, 2009), when church-initiated programs to rehabilitate (wounded) disabled men during the war later became educational institutions. The earliest recorded such initiative was established by the Salvation Army Church to rehabilitate blinded men, a program that would later become the first school to offer formal education for blind children in Kenya and East Africa (Macha, 2007). In 1960, the same church opened a rehabilitation center for children with physical disabilities in Thika. Similar to the previous program, this later became the first school for the physically handicapped in Kenya. With this precedence, and the gradual departure of missionaries, the government became more active in the provision of SNE with a focus on four categories, including children with hearing impairment, mental handicap, visual impairment and those with physical handicap. However, education to these children was only offered in special schools until the 1970s when units and integrated programmes were initiated (MoE, 2009).

[3] Kenya National Bureau of Statistics (2009)

Overall, the government has made remarkable efforts in expanding education in the country since independence. In 1963, there were 6,058 primary and 151 secondary schools with respective enrolments of 891,553 and 30,121 pupils (MoE, 2009). By 2008, following the implementation of Free Primary Education (FPE) in 2003, pupil enrolment numbers had increased to 20,439 (18,600 public and 1,839 private) primary schools with a total enrolment of 8,563,821 pupils (over 800% increase), and 4,111 (3,621 public and 490 private) secondary schools with an enrolment of 1,382,211 students, over 4,000% increase. However, in spite of these expansions in regular schools, the same cannot be said of SNE. Many of the children with disabilities and special needs do not access to educational services in the same way that their peers without disabilities do. For example, in 1999 there were only 22,000 learners with special needs and disabilities enrolled in special schools, units and integrated programs. In 2003, when FPE was introduced, the number had risen by 22% to 26,885 and subsequently increased by 67% to reach 45,000 in 2008. While this is a substantial increase, it nonetheless compares poorly with the corresponding increases in general education. With regard to educational institutions, there were 1,341 special units and 114 public special schools (including vocational and technical institutions) in the country in 2008 (MoE, 2009). Clearly, these efforts are remarkable but a lot more still needs to be done to ensure equitable access to appropriate education for learners with disabilities.

Based on the available statistics of people with disabilities, the percentage of children ages 21 years and below is unclear. To make matters worse, figures for those in or out of school are also unclear. The Ministry of Education Science and Technology (MoEST, 2004) projected that out of the 10% of the total population in the country estimated to be of persons with disabilities, 25% are children of school-going age. Further, of the 750,000 children with disabilities of primary school-going age, only 12% have been identified and assessed. Also, only 26,000 (3.5%) were in school, half of whom were enrolled in special schools while the other half were integrated in the regular schools. This implies that over 90% of children with disabilities are either at home (out of school) or are enrolled in regular schools with minimal or no specialized assistance.

A report by UNESCO (2010) citing the MoE (2008) as its source indicates that in 2003 there were 86,424 children with disabilities in school: 13,303 enrolled in special schools and 73,121 in special units and integrated programmes while in 2008, the numbers were 37,202 in special schools and 171,079 in special units giving a total of 208, 281. In contrast the MoE (2009) acknowledges that the majority of children with disabilities do not access educational services indicating that only 26,885 students in 2003 and 45,000 in 2008, were enrolled in special schools, units and integrated programs.

While these figures vary significantly, they indicate a notable improvement in enrolment, although it remains a small percentage of the estimated number of learners with disabilities who should be in school. In general, it is evident that the available statistics do not give an accurate picture of the actual prevalence of children with disabilities including those in and out of school. Hence, there is a need to collect and compile a new systematic database that is reliable.

2.4.2 Special, integrated and inclusive education

The Persons with Disability Act of 2003 prohibits discrimination in admission of learners with disabilities, mandating learning institutions to accommodate the needs of these students. The Act also provides for the establishment of special schools and institutions for the deaf, blind, and the

"mentally retarded" (Macha, 2007). These are schools established to offer education to children with the specific disability. In addition, the Ministry of Education adopted an integration policy in which children with physical and mental disabilities would be placed in regular schools. Integration of children with disabilities is a situation in which these children are brought into a pre-existing framework of standards and norms. In education, integration may be thought of as simply admitting children with disabilities to 'regular' schools. As of 2007, there were 103 integrated units in regular primary schools in Kenya in addition to special schools.

Inclusion, on the other hand, requires societies to make physical infrastructure, information and the means of communication accessible so all can use them, to eliminate discrimination such that no one is forced to suffer through it. Moreover, it also requires society to provide protection, support and services so that every child with a disability is able to enjoy her or his rights as do others (UNICEF, 2013).

Inclusion, needs to be viewed as a case where schools are designed in a manner that allows all children access to quality learning and recreation. It would involve providing learners with disabilities with needed accommodations such as sign language, ramps and adapted curricula that would enable them to have equal opportunities to learn and interact. In essence, inclusion:

> "…*in education refers to unconditional placement of students in regular education settings, regardless of type or degree of disability. Inclusion implies the existence of one comprehensive education system for all children."* Department of Health and Ageing (2006)[4]

In general, the concept of inclusive education presupposes that the education of learners with disabilities should be in mainstream schools where they and other children learn together (Aseka, 2013). This approach thus focuses on the school environment and its barriers, and perceives the impediments in mainstream education and school environment as challenges faced by children with disabilities. As such, inclusive education endeavours to 'fix' the school system to accommodate the learning needs of children with disabilities. It is thus a dynamic process - a 'journey and not a destination' (Topping & Maloney, 2005) of restructuring the school (Mittler, 2000, p2) especially through reforms.

In Kenya, the advent of inclusive education was occasioned by the Ominde Commission of 1964, in which it was recommended that learners with mild handicaps should be taught together with their peers in regular schools and classrooms. The implementation of FPE in 2003 saw an influx and inclusion of several categories of special needs children, such as those with autism, down syndrome, cerebral palsy, loco-motor impairment and gifted and talented learners into public schools (MoE, 2009). This surge not only increased demands on parents/guardians, but also overstretched teachers and the ministry's budget for providing learning facilities and resources for the education of children with disabilities.

As the government continues to make commendable progress towards providing SNE it faces several challenges as shown in Box 2:

[4] Australia Department of Health and ageing: Australian government, 2006

Indeed insurmountable challenges have been experienced in the areas of staffing, training, quality assurance, research, examinations, curriculum development and teaching/learning materials. Consequently, proper coordination and delivery of SNE have been hampered, leading to duplication, substandard, and sometimes, unregulated provision of services to learners with disabilities and special needs. A result of these challenges is that some learners with disabilities do not learn in environments that recognize and adapt to their special learning needs. It is important, however, to note that the challenges facing this sector are not unique to Kenya. For instance, a UNESCO (2006) report found that overall:

> *"…Special education suffers from inadequate funding, lack of clear policy framework, low progress in assessing and placing children with disabilities, few qualified teachers to handle children with special needs, lack of teaching and learning resources among others (pp28)".*

As a global issue, many countries, Kenya included, are thus struggling with providing appropriate and adequate SNE to their citizens that need it.

Box 2: Challenges Faced by Children with Disabilities in Kenya

(i) Inadequate (and not up-to-date) data on children with special educational needs and disabilities

(ii) Lack of a comprehensive SNE policy and proper guidelines on mainstreaming of special needs education at all levels

(iii) Lack of appropriate tools and skills for early identification and assessment of disabilities and special needs

(iv) Inadequate physical infrastructure, teaching/learning materials, facilities appropriate for SNE learners and inadequate skilled manpower; a

(v) Inappropriate placement of children with special needs and disabilities (MoE, 2009).

2.5 School attendance by children with disabilities and special needs

The fact that children with disabilities have the right to education without discrimination and on the basis of equal opportunity is indisputable (UNCRC article 28[5] and CRPD article 24[6]). These children, however, cannot benefit from this education if they are not present in the schools. As quoted in a UNICEF (2013) report, a 2004 study in Malawi found that a child with a disability was twice as likely to have never attended school as a child without a disability. Similarly, the Tanzania Disability Survey Report (2008) in the United Republic of Tanzania found that children with disabilities who attended primary school progressed to higher levels of education at only half the rate of children without disabilities.

There are a number of reasons why children with disabilities may fail to attend school. As the UNICEF (2013) report indicated, children with disabilities might not attend school for want of an accessible toilet. Due to their specific disabilities, a number of children find it very difficult to use the regular toilet facilities that have not been properly adapted to accommodate them. In other

[5] United Nations Convention on the Rights of the Child (UNCRC, 1989)
[6] United Nations Convention on the Rights of Persons with Disabilities (CRPD, 2008)

instances, families feel stigmatized for having a child with disability and are afraid to show the child in public. Also, girls with disabilities may be made caregivers to their siblings rather than attend school. The problem is compounded by educational systems that depend on standardized exams, which often pose substantial barriers to children with disabilities due to administration and grading processes that do not account for disability (UNESCO, 2012). In some countries students with disability are not even allowed to pursue certain careers and are therefore excluded from these careers even without being given a chance to try. For example, a key respondent notes that in China, university students with disabilities are not allowed to major in most sciences; supposedly because it is felt that the degree would be 'wasted' on an individual who would never be able to find a position in the field. It was also reported that in Ireland, high school students with disabilities are not allowed to enrol in the full range of academic courses, as do other students (Shevlin, Kenny, & McNeela, 2004).

The foregoing notwithstanding, tremendous progress has been made, especially in developed countries, to provide conducive educational environments and access to children with disability. As stated earlier, these countries have the advantage of more reliable statistics on children with disability than do developing nations. It is therefore imperative that developing nations, including Kenya, make concerted efforts towards obtaining reliable data on this group of children in order to provide educational opportunities that are relevant to them.

2.6 Analysis of differences in school attendance trends for children with disabilities and those without

For children with disabilities, as for all children, education is vital in itself but also instrumental for participating in employment and other areas of social activity. In most cultures, attending school and getting formal education is a key part of what children must do to be able to realise their 'dreams' of being 'successful' people in their communities. However, children with disabilities are less likely to start, stay and complete school (Filmer, 2008). In a study conducted by the World Health Organisation (WHO, 2011) in 51 countries, only 50.6% of males with disability had completed primary school, compared with 61.3% of their counterparts without disability. On the other hand, only 41.7% of female students completed primary school while 52.9% of those without disability did. Furthermore, the study found that even in countries with high primary school enrolment rates, such as those in Eastern Europe, many children with disabilities did not attend school at all.

This pattern is more pronounced in poorer countries (UNESCO, 2009). The gap in primary school attendance rates between children with disabilities and children without disability ranges from 10% in India to 60% in Indonesia and for secondary education from 15% in Cambodia to 58% in Indonesia. In Africa, the picture is equally gleam. For instance, Loeb & Eide (2004) report that data from Malawi, Namibia, Zambia and Zimbabwe showed that even though, between 9% and 18% of children of ages 5 years or older without disabilities had never attended school, corresponding figures for children with disabilities were between 24% and 39%.

School enrolment rates also differ by the type of impairment a child has. Children with physical impairments generally have better enrolment rates than those with intellectual or sensory impairments (UNESCO, 2010a). For example, in 2006, in Burkina Faso only 10% of deaf 7-12

year olds were in school compared to 40% of those with physical impairment. Similar patterns are found in other countries such as Rwanda (Karange and Kobusingye, 2007) or Ethiopia (Tirussen 2006).

In summary, there is overwhelming evidence that spans many countries, that children with disabilities have limited or no access to educational opportunities. Even in cases where access and accommodations are available, it is not available for all types of disabilities. The main reasons for such happenstance are: (i) lack of appropriate legislations, policy targets and plans (see ForlinandLian, 2008; Stubbs, 2009, Chimedza and Peters, 2001) and (ii) bottlenecks at the policy-making or implementing level (UNESCO, 2009). To overcome these challenges, a coming together of minds among all stake holders is essential and, many nations including Kenya, are making conscious efforts to this end.

CHAPTER 3 : STUDY DESIGN AND RESEARCH METHODOLOGY

3.1 Survey design

The survey adopted a convergent parallel mixed-methods design; an approach to inquiry that combines both qualitative and quantitative methods concurrently, prioritizing both methods almost equally (Creswell & Clark, 2011). In this case, the quantitative and qualitative methods complemented each other, and provided for the triangulation of findings, hence greater validity of the emerging inferences. Whereas the former approach gave a more general understanding of the issue of disability and special needs education in children, the latter provided a detailed understanding of the same. Quantitatively, data was collected using questionnaires and observation protocols, while interviews and focus group discussion protocols were used to collect qualitative data.

3.2 Target population

The survey targeted various segments of the population in all the 47 Counties. First, it sought children between the ages of 0-21 years at home, in the pre-schools, primary schools, secondary schools and tertiary institutions. These included children with disabilities (CWDs) and those without. Second, it aimed at reaching education personnel. These included head teachers, teachers (those teaching special education or otherwise), teachers' aides, special education guides, Education Assessment Research Centres (EARCs) officials, occupational therapists, County and Sub-county education officers (EOs), Quality Assurance and Standards Officers (QASOs), and social work officers. Third, the study focused on national level key informants, including government officials; Teachers Service Commission (TSC) officials and personnel associated with Disabled Persons Organisations (DPOs). Last, the study targeted community members, including religious leaders, youth, and women, in the various counties.

3.3 Sample composition

The sample in the survey was generated using both probabilistic and non-probabilistic sampling approaches. Within the counties, educational institutions (special schools, integrated schools, regular schools with special units, regular schools without special units, and tertiary institutions) were randomly chosen. Additionally, households were randomly picked within wards. Based on this probabilistic sampling, the actual sample categories for the study were as follows:

i. Boys and girls with disability in special schools, special units, and in inclusive/integrated schools;
ii. Boys and girls without disability in regular schools and in inclusive/integrated schools;
iii. Educators including teachers and principals
v. Primary caregivers/parents of boys and girls with disability
vi. Primary caregivers/parents of children without disability
vi. Community members, such as religious and youth leaders and members of women groups

Further, purposive sampling (non-probabilistic in nature) was also employed in the study. The sample generated from this exercise consisted of personnel in various organisations from the selected wards and national level offices as follows:

i. Education Assessment Resource Centre (EARC) coordinators and officers
ii. District Education Officers (DEOs)
iii. Social work officials
iv. Quality Assurance and Standards Officers (QASO)whose mandate is to oversee proper running of the participating schools
v. National representatives of DPOs
vi. Government personnel from the Ministry of Education, Science and Technology, the Teachers' Service Commission

3.4 Sampling design

The survey used a five-stage stratified sampling design. Such a multi-stage sampling approach enables a broader sampling of the population than a single method (Agresti & Finlay, 2009)and therefore greater representation of the population in the sample.

a) First, the 47 Counties were categorized into thirteen geographic clusters (see Table 3.1); based on the proximity of communities to each other, and their similarities in culture, language, and social economic activities, among other factors. For example, Kisumu, Mombasa, Nakuru, and Nairobi are classified as urban centres while, the Central Rift region would be classified as an agro-pastoral region. Further, because the urban cultures in Kisumu, Nairobi, Nakuru, and Mombasa are deemed to be different, each city is in a different region. On the other hand, the areas in the North Rift are classified in the same region.

Table 3. 1: Counties by geographic clusters

Region	Counties
1. Western	**Kakamega[1], Bungoma[2]**, Busia, Vihiga Trans Nzoia
2. Nyanza	**Siaya[3]**, Homabay, **Kisii[4]**, Migori, Nyamira
3. North Rift	**Turkana[5]**, **West Pokot[6]**
4. Central Rift	Baringo, Elgeyo/Marakwet, **Nandi[7]**, Bomet, Kericho, **Uasin Gishu[8]**
5. South Rift	Narok, Kajiado, **Samburu[9]**
6. Coast	TaitaTaveta, **Kwale[10]**, Kilifi, **Lamu[11]**, Tana River
7. North Eastern	**Wajir[12]**, Mandera, **Garissa[13]**, Isiolo, Marsabit
8. Lower Eastern	Machakos, **Kitui[14]**, Makueni,
9. Upper Eastern	Embu, **Meru[15]**, TharakaNithi
10. Central	Kiambu, **Muranga[16]**, **Nyeri[17]**, Laikipia, Kirinyaga, Nyandarua
11. Nairobi	**Nairobi[18]**
12. Mombasa	**Mombasa[19]**
13. Kisumu	**Kisumu[20]**
14. Nakuru	**Nakuru[21]**

b) Second, in addition to the four urban regions, 30% of counties were randomly selected from each of the other regions.
c) Third, two constituencies were chosen from each county; one considered urban and the other rural. The urban constituency was purposively chosen; that is, one in which the largest town in the County is located. For instance, Lurambi constituency in Kakamega County, where Kakamega town is situated was chosen as the 'urban' constituency. The rural constituency was randomly selected from the remaining constituencies (Appendix 3). In the *urban* Counties, the constituencies were further categorized as being rural (Kisumu, Nakuru, and Mombasa) or as being primarily informal or formal settlements. For example, in Nairobi, Kibra constituency (where Kibra slums are located) is an informal constituency whereas Makadara constituency is a formal one. A total of six constituencies were chosen from Mombasa, Nakuru, and Kisumu (two from each urban centre based on the categories explained above) and four from Nairobi; two informal and two formal. The latter was the case because of the large population in Nairobi County and therefore the need to increase representation in the sample. Consequently, a total of 44 constituencies (14%) in the country were involved in the study.
d) Fourth, two wards were randomly selected from each of the chosen constituencies, with the exception of Nairobi in which a ward was chosen in each constituency, giving a total of 84 wards.
e) Last, a total of 8,400 households were sampled, from within the selected wards, to participate in the study. For each County, the number of households sampled was proportional to the County's total number of households based on the Kenya Census of 2009 statistics. The calculation for the sample size for each is shown in the next section below.

3.5 Household sample size determination

In order to determine prevalence of disability, it was important to know the actual number of boys and girls affected. However, that would require a census, which was not feasible. Therefore, a representative sample was used to estimate the proportion of children with disabilities. Due to the wide range of prevalence estimates available in the literature, this study chose to sample in a way that would yield the largest representative sample possible that would give credible results. To increase the reliability of the estimates arrived at, the study used a 95% confidence level in calculating the sample size. The sample size used was determined using the following formula (Hogg & Tanis, 1997):

$$n = \frac{z^2_{\alpha/2} p(1-p)}{\varepsilon^2}$$ where:

n = sample size
z = z score value for a given level of confidence coefficient
p = estimated proportion of disability in the population,
in this case 0.5 is used because the actual value is unknown; it also leads to the largest possible sample size with this formulaα = level of statistical significance; 0.05
ε = margin of error; 0.05

In this survey, statistical inferences are made based on a confidence level of 95%, hence alpha $\alpha = 0.05$. The z-score value associated with this level of confidence is 1.96. In order to ensure a high

level of reliability of the study results, we chose to use a margin of error 'ε' of ± 5. Given these values, the sample size of households (HH) from each County for the study was:

$$n = \frac{1.96^2 * 0.5 * 0.5}{0.05^2} = 385$$

A response rate of 97% was hypothesized based on the response rate from a very similar national study on persons with disabilities contained in the KNSPWD[7] report (National Coordinating Agency for Population and Development, 2008). Taking this response rate into account in calculating the current study's sample size gave a total of 8,400 House Holds (HHs) (385/.97*21=8,335≈ 8,400 HHs). Because of variations in the total numbers of HHs[8] in the Counties, the sample size of HHs for each County was calculated as a proportion of the county population to the total population from all counties multiplied by 8,400 HHs. For instance, 264 HHs were surveyed in Nandi County after being randomly sampled from a total number of 154,073 HHs (154,073/4,895,424)*8,400) and 548 HHs in Meru County (out of 319,616 HHS), 161 HHs in West Pokot County which has 93,777 HHs, and so on. For a complete list of sample sizes by county, see Appendix 4.

3.6 Schools sample size determination

In the absence of a sampling frame for schools from the Ministry of Education, sampling of schools was accomplished systematically as follows. A total of 420 schools, (20 schools from each county) were chosen for the study. Besides regular schools, one special school was purposively selected from each ward. Thus, there were a total of 84 special schools selected. In the event that there was no special school in the chosen ward, a special school in the nearest ward but within the same county was chosen instead. When selecting the 84 special schools, it was ensured that all categories of disability were represented, as much as possible. Regular schools (three in each ward) were selected using a multi-stage stratified random sampling procedure. This procedure was used in order to ensure that the schools chosen were representative of the different categories of schools in the country including **level of education** offered (ECE, primary, secondary, tertiary and university), **type of funding** for the school (public/private), **gender composition** (boys only/girls only /mixed genders), and **type of residence**(boarding/day/mixed day and boarding).

3.7 Pilot testing

The research instruments were developed by the research team and pre-tested before the main data collection exercise commenced. Two Counties, one in Kajiado and another in Thika were used in the pilot test. In addition to administering instruments in two schools, a total of ten household questionnaires were administered in each County. Also a key informant from each County was interviewed. The purpose of pre-testing was to ensure that items in the questionnaires were stated

[7] Kenya National Survey on Persons with Disabilities

[8] The County population sizes used in this calculation are based on the 2009 Population and Housing Census in Kenya.

clearly and held the same meaning to all participants. Some issues of data recording were identified during this process and thus addressed and emphasized during training sessions for data enumerators.

3.8 Data Collection Instruments and Protocols

The data collection exercise commenced with pilot testing in the second week of January 2014. A total of five different data collection instruments were administered between January and April of 2014 in all the target areas. The instruments used were: household questionnaires, institutional questionnaires, institutional observation protocols, focus group discussion protocols, and key informant interview protocol. These are briefly discussed in turn.

The **household questionnaires** consisted of items on:

i. Socio-demographic characteristics of the members of the surveyed household particularly employment status, educational levels, and whether or not children had living parents; and
ii. The disability status of any children in the household. The disability categories used in the instrument (and therefore in the study) were obtained from the Ministry of Education's National Special Needs Education Policy Framework of 2009.

It was imperative to collect information on the number of children with any form of disability in the household and the nature of disability because that was the focus of the study. In the actual data collection exercise, enumerators took an average of half an hour to interview and complete each questionnaire.

Institutional questionnaires were completed by 20 heads of educational institutions in each county. The information collected included enrolment of students, number of teachers who were teaching children with disability, auxiliary staff in the field of special needs education, educational facilities, structures and resources supporting children with disabilities as well as the various types of disabilities in the institution.

Institutional observation protocols were used in all of the educational institutions visited to elicit information on the relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities in Kenya. These included: classroom learning environment (lighting, classroom size, ventilation), school environment (waste management, land terrain, evidence of safety/security), social amenities (sources of water, communication services), and recreational facilities such as sports' fields.

Focus group discussion (FGD) protocols were used to gather information from both children and community members. Each FGD composed of 6-10 members and was used to collect qualitative information on thematic areas such as awareness of disabilities, factors contributing to the school (in) attendance by children with disabilities and special needs, views and perspectives of the community and children affected with disability particularly on the access to education, and any policy gaps that exist in addressing the delivery of special needs education and the specific areas of improvements required.

Key Informant Interview Protocols were used to solicit in-depth information from key persons considered to be knowledgeable about policy issues and the implementation of special needs education, either in their respective counties or nationally. Such personnel included EARC officers, county and sub-county education officers.

3.9 Reliability and Validity of Data Collection Instruments

Reliability is the extent to which results are similar over time using the same instrument (McMillan & Schumacher, 2001). It is therefore an indication of the degree to which responses are free of measurement error (Feldt & Brennan, 2003) because it gives the degree to which an instrument consistently yields the same results on repeated measurements. Validity, on the other hand, needs to be viewed as an integrated evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy, appropriateness of inferences, and actions based on modes of measurement (Messick, 2003). It gives a measure of the degree to which an instrument measures what it claims to measure (Creswell, 2009). To establish these measures for an instrument, Mugenda and Mugenda (2003) recommend the use of professional expertise in that field. Adequate consultation amongst the expert research team members was done to check on content, construct, and face validity among other aspects of the instruments. They examined the items in the questionnaires, interview guides and FGD guides to ascertain adequacy and appropriateness of the items for the survey. This was to ensure that the items were meaningful, clear, and precise. The researchers also consulted with experts in order to eliminate any ambiguous items and ascertain adequate coverage of the content. There was testing and retesting of tools.

3.10 Credibility and Dependability

Credibility ascertains that the study reflects the experiences of those being studied and the results can be trusted. The researchers took time during the interviews to ensure that the participants had enough time to explain and say all that they wanted to say in relation to the study. During data recording and analysis, the researchers confirmed that the data recorded was correct by calling some of the participants at random for validation. Dependability refers to the consistency of findings. The researchers reviewed the raw data and the findings to check for any inconsistencies. However, it is important to acknowledge the inherent weakness in self-reported data, especially since disability is a culturally sensitive issue and often not talked openly about. This is likely to hold true for rural ASAL counties.

3.11 Data collection procedures

The research team consisted of the team consultants, research assistants (RAs) and data clerks. Research assistants were recruited and trained in a three-day workshop on the administration of the research instruments including administering household and institutional questionnaires, conducting interviews, focus group discussions and carrying out observations. Research assistants were mainly EARC officers and special education teachers from the local communities. At the county level, a supervisor coordinated the work of the RAs. One of the duties of the supervisor

was to check collected data and ensure correctness and completeness. This exercise ensured a high response rate of completed research instruments.

3.12 Data analysis

After the collection of raw data, quantitative data was entered, coded and organized for analysis. Analysis using the SPSS programme was then conducted to obtain descriptive and inferential statistics that were used to describe the characteristics of the participants and their views on the different aspects sought in the survey.

Qualitative data from the open-ended items in the interview guides, FGDs, observation guides and document analysis guides were analysed using the ATLAS program. Data were grouped into various categories such as children with disability, children without disability, key informants and community members. Using the content analysis technique, data were coded and thereafter summarized into theme categories as they occurred. Findings were then interpreted and presented in form of narratives, verbatim statements, explanations and discussions.

3.13 Ethical Considerations

The study was based on established ethical considerations that govern research. Stufflebeam & Shinkfield (2007) recommend that a researcher should strive to control bias, prejudice and conflict of interest when conducting a research. First, data was to be obtained from different sources to authenticate the information. This included heads of institutions, parents, learners, education officials and other key informants. Secondly, the researchers at all times acknowledged the source of information in order to avoid plagiarism especially as regards secondary data. This provided credibility to the study.

Thirdly care was taken throughout the study the necessary consent from the sampled population. This is in accordance to Creswell (2009) who noted that the researcher must obtain informed consent from all the respondents before undertaking the study. At household level, consent was sought from parents or primary care givers and at the institution level consent was sought from the heads of institutions and ascent from the children was obtained. Children were also interviewed in focus group discussions to avoid causing them discomfort and putting them under pressure. It was thus ensured that nobody was coerced to participate in the study. All the respondents were given the freedom to stop participating any time they felt uncomfortable or chose to. Fourthly, it also ensured that confidentiality and anonymity were upheld during the research process. Although respondents' names were used during the data collection stage, these were stripped during data entry and cleaning and identification numbers that could not be traced back to the individual respondents used. Non-discriminatory and or non-demeaning terms for specific types of disability were used in the entire process. Finally, proper channels were followed is obtaining authorization of the study whereby relevant permission and permits were obtained from the relevant authorities (See Appendix 6).

CHAPTER 4 : SURVEY FINDINGS

4.1 Introduction

This chapter presents the results of the survey. The data used in this study was collected using several methods; a household survey, a questionnaire administered to institutions, focus group discussions, and key informant interviews. In total, 8,679 households were interviewed, 376 institutional questionnaires administered, 489 focus group discussions held, and 69 key informant interviews conducted. It is worth noting that a total of 8,400 households were sampled. However, data was collected from 8,679 households. That is an extra of 279 households. This is because, while conducting the exercise of data collection, research assistants had been provided with (contingency) extra questionnaires to use if in case any of the questionnaires to be used for sampled households got spoilt or lost. This was done in order to pre-empt the possibility of not collecting enough data as a result of questionnaires once the enumerators were in the field. Many of the research assistants, however, used the extra questionnaires to collect additional data rather than (just) using them whenever they became needed. Once these data was obtained, they were entered and analysed. Of course, having more data does not negatively impact the findings of the study as it might if there were to be significantly less data. Appendix 4 provides a summary of the number of data collection instruments administered and respondents reached in each County. Overall, the total population of household members was 44, 726 while the size of the study's target population (children aged 0–21 years) was 25, 609.

The chapter is organized as follows. First, an overview of the sample population is provided; giving demographic characteristics for the overall population as well as for the target population. Second, prevalence of disability, disaggregated by age groups and sex of children is presented followed by a discussion of the factors affecting the access to education for children with disabilities (CWDs). Fourth, views that CWDs have on their access to education as well as those held by the communities at large are relayed. Last, policy gaps at the local, county and national levels with regard to SNE are outlined.

4.2 Demographic characteristics of the study population

Demographic characteristics of the survey respondents including sex, age, and marital status, and religion, level of education, employment and disability for the population was collected and analysed as presented in the subsequent sections.

Table 4.1 shows the demographic characteristics of the population under survey including location, sex, age, marital and status for the entire population and the children aged between 0-21 years. Marital status legally should be for the women/girls aged above 18 years however, the study found out that in some areas girls were married below this age. A total of 47 girls aged between 12 and 17 years were wives. Although not common, the practice of child marriages still exists among several communities in Kenya.

Table 4-1: Demographic Characteristics

Demographic characteristics for the sampled population by sex (all ages)						Demographic characteristics of children aged between 0 - 21 years			
	Sex		Total	Number		Sex		Total %	Number
	Male	Female				Male	Female		
Residence									
Rural	49.7	50.3	100	26308		51.5	48.5	100	15543
Urban	48.2	51.8	100	18418		50.3	49.7	100	10066
Total				44726					25609
County									
Nairobi	47.4	52.6	100	6427		49.4	50.6	100	3260
Kakamega	47	53	100	3553		47.5	52.5	100	2176
Bungoma	48.3	51.7	100	3284		49.4	50.6	100	2046
Mombasa	50.6	49.4	100	2423		51.8	48.2	100	1404
Kwale	51.6	48.4	100	1286		54.3	45.7	100	783
Siaya	48.3	51.7	100	1781		49.5	50.5	100	1153
Kisumu	49.3	50.7	100	1842		51.3	48.7	100	993
Kisii	53.8	46.2	100	2504		57.1	42.9	100	1599
Nakuru	47.2	52.8	100	3404		48.8	51.2	100	1753
UasinGishu	48.1	51.9	100	2021		48.8	51.2	100	1190
Nandi	49.2	50.8	100	1559		51.4	48.6	100	961
West Pokot	46.5	53.5	100	1108		45.2	54.8	100	705
Nyeri	46.8	53.2	100	1499		49.6	50.4	100	802
Muranga	49.5	50.5	100	2117		52.7	47.3	100	1114
Meru	48.2	51.8	100	2687		50.6	49.4	100	1448
Garissa	51.1	48.9	100	1433		53.1	46.9	100	821
Lamu	51.9	48.1	100	349		60.3	39.7	100	209
Turkana	53.6	46.4	100	1918		57.6	42.4	100	1123
Samburu	48.9	51.1	100	452		50.5	49.5	100	287
Wajir	53.8	46.2	100	970		56.4	43.6	100	635
Kitui	49.8	50.2	100	2109		52	48	100	1147
Total				44726					25609
Age									
0 - 5	51	49	100	6055		51	49	100	6055
6 - 10	51.5	48.5	100	7032		51.5	48.5	100	7032
11 - 15	51.6	48.4	100	6245		51.6	48.4	100	6245

Demographic characteristics for the sampled population by sex (all ages)						Demographic characteristics of children aged between 0 - 21 years			
16 - 21	50.1	49.9	100	6277		50.1	49.9	100	6277
22 - 26	38.9	61.1	100	3764					
27 - 31	43.5	56.5	100	3482					
32 - 36	45.1	54.9	100	2828					
37 - 41	45.8	54.2	100	2553					
42 - 46	50.5	49.5	100	1941					
47 - 51	53	47	100	1674					
52 +	54.9	45.1	100	2875					
Total				44726					25609
Marital Status									
Single	51.4	48.6	100	28304		51.7	48.3	100	24939
Married	49	51	100	14214		13.6	86.4	100	389
Divorced/ Separated	20.7	79.3	100	939		29.9	70.1	100	107
Widowed	13.4	86.6	100	1082		16.7	83.3	100	6
Other	39	61	100	59		43.2	56.8	100	44
missing	0	0	100	128		0	0	100	124
Total				44726					25609

The findings show that 61% of the population lived in rural settings while the rest was found in urban areas. This is consistent with the national values of 67% and 33%, respectively. The ratio of male to female living in rural and urban areas was 1:1 in reference to the study definition of rural and urban areas. The results in the age range of 0-21 years indicated that 51.1% of the population were male while 49.9% were female thus giving a male to female ratio of 1:1; corresponding to the Kenya National Population Census 2009. It was found that 25,609 (57%) of the population were aged between 0-21 years; almost 13 percentage points higher than the national value (Census, 2009). The survey classified the location of the respondents by county and by rural or urban residence.

Figure 4.1 shows that the population surveyed is youthful with 44% being below the age of 16 years. It is also evident that the target population for the survey (0-21 years) was 57% of the population covered.

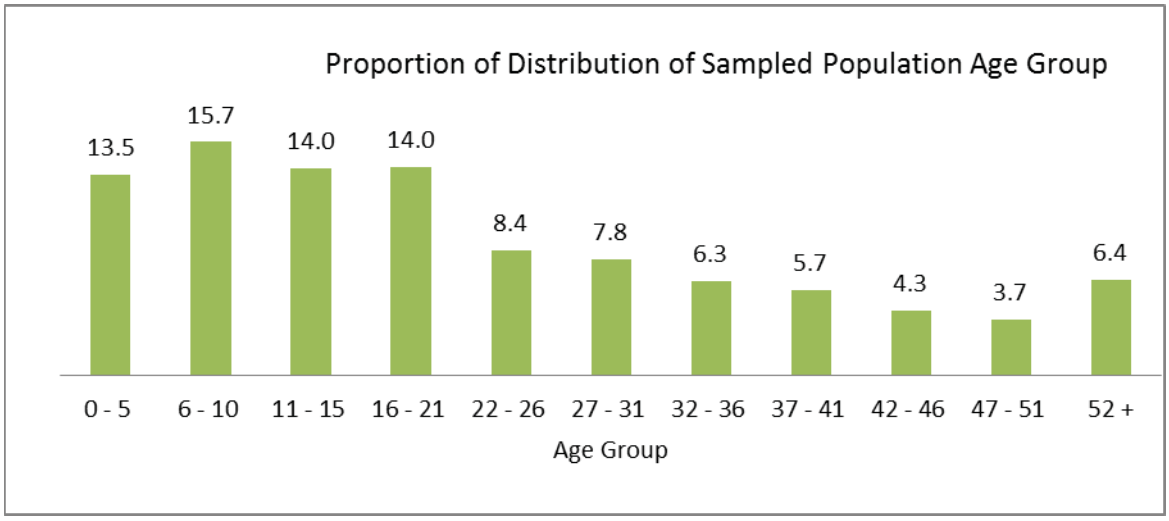


Figure 4-1: Proportion of distribution of sampled age group

However, the distribution of the 0-21 age category was as shown in **Figure 4.2** below, indicating that the majority (61%) of the population was of school-going age (6-17 years).

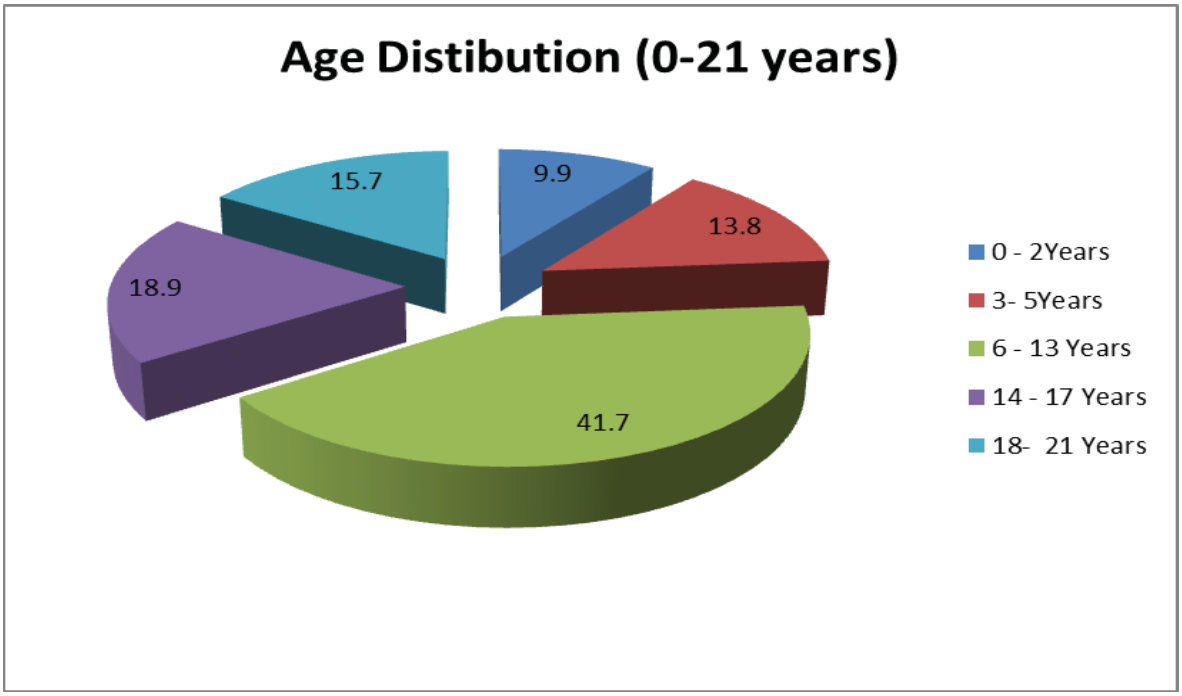


Figure 4-2: Age Distribution of respondents, (0-21 years)

4.2.1 Marital status

The study further sought information on the marital status distribution of the respondents and the data obtained in this regard were analyzed as presented in the chart on **Figure 4.3**- 64% of the population were single, 32% were married, 2% were widowed while 2% were divorced or

separated. It implies that demographically, the larger population surveyed were single and this was expected since the larger sample sub-grouping in this study were children aged between the age of 0-21.As stated earlier, however, there were a few underage girls who were married.

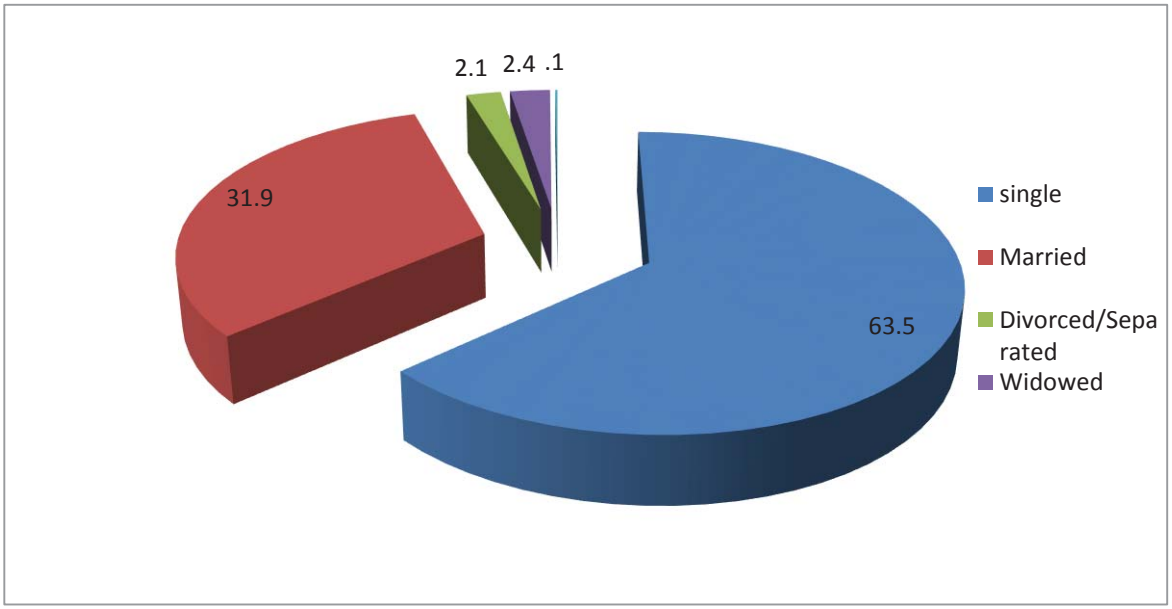


Figure 4-3: Percentage of the marital status of the population

Table 4.2 shows that 41.9% of parents and primary care givers of CWDs were married while 37.1% were not married and 14.5% were widowed. The Table further shows that 6.5% were divorced or separated.

Table 4-2: Marital Status of Parents and Primary Care Givers of CWDs

Marital status of parents of children with disability	Percentages
Unmarried	37.1%
Married	41.9%
Divorced/Separated	6.5%
Widowed	14.5%
Other	0.0%
	100.0%

4.2.2 Education

Participants had varied levels of education. As shown in **Figure 4-4**, less than 4% had no schooling. A majority had completed primary (48%) or secondary (25%) school. For the counties surveyed, census (2009) figures indicate an average of 66% of the population having at least primary school-level education (with a minimum of 50% and maximum of 75%), and 12% (ranging between 6% and 20%) secondary-level education. However, even though the sample

showed a lower percentage for primary school-level education, it had a higher percentage for secondary school-level education when compared to the national population education levels.

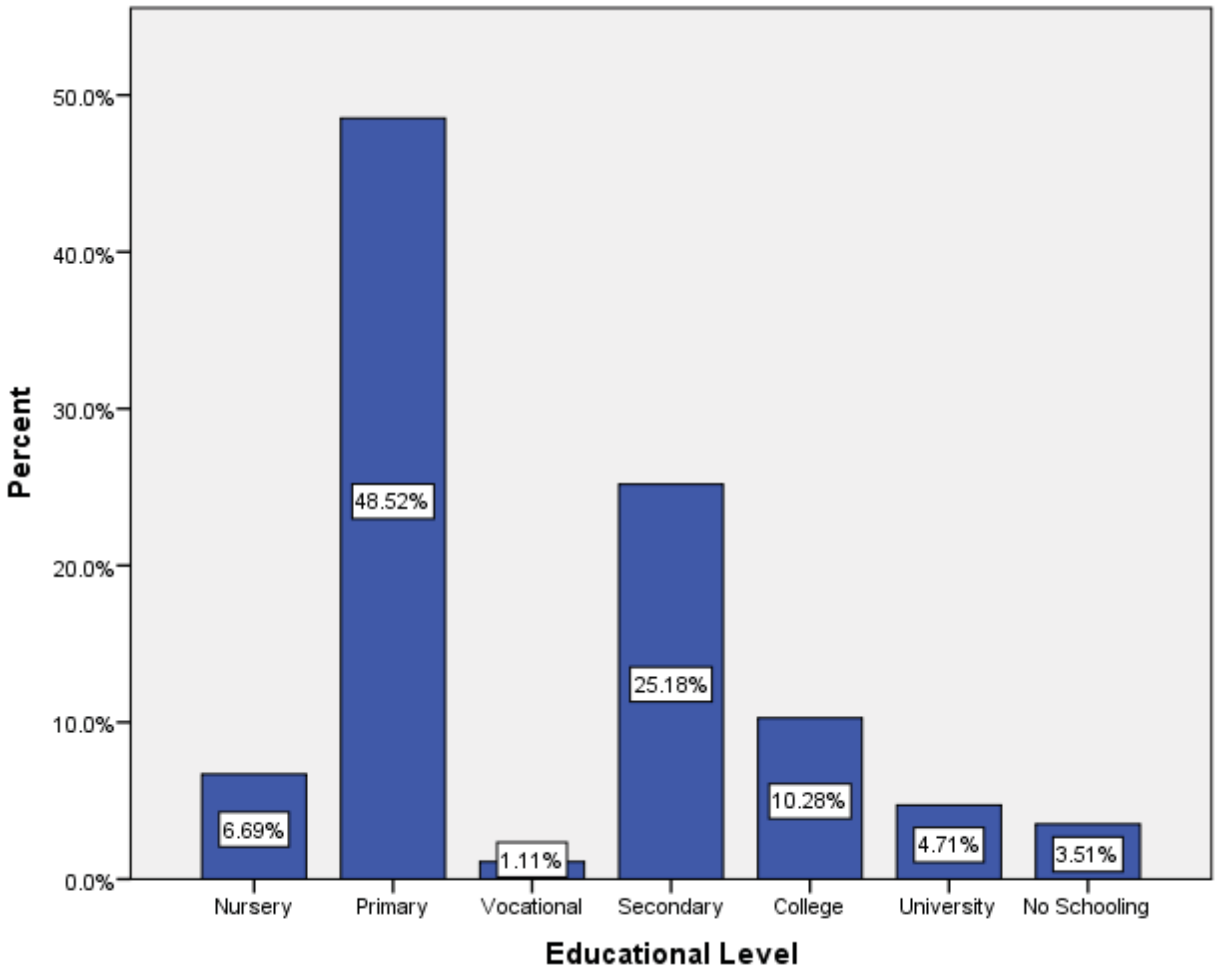


Figure 4-4: Education levels

4.2.3 Socio-economic characteristics of children (0-21 years)

This survey further sought information regarding the socio-economic characteristics of the participants in this survey. In this regard, issues such as education financing and the school attendance for children aged 0-21 years were examined. According to the data obtained in this respect, information on children in school and those who were not in school due to socio-economic reasons was obtained. The reasons for children not being in school were also obtained.

a) Education

The survey found that most of the children over 5 years had been ever enrolled in school level as depicted in **Figure 4-5**. The figure also indicates that the highest educational attainment of the surveyed children was 61% with primary school education followed by 21% with secondary education while 11% had preschool education level.

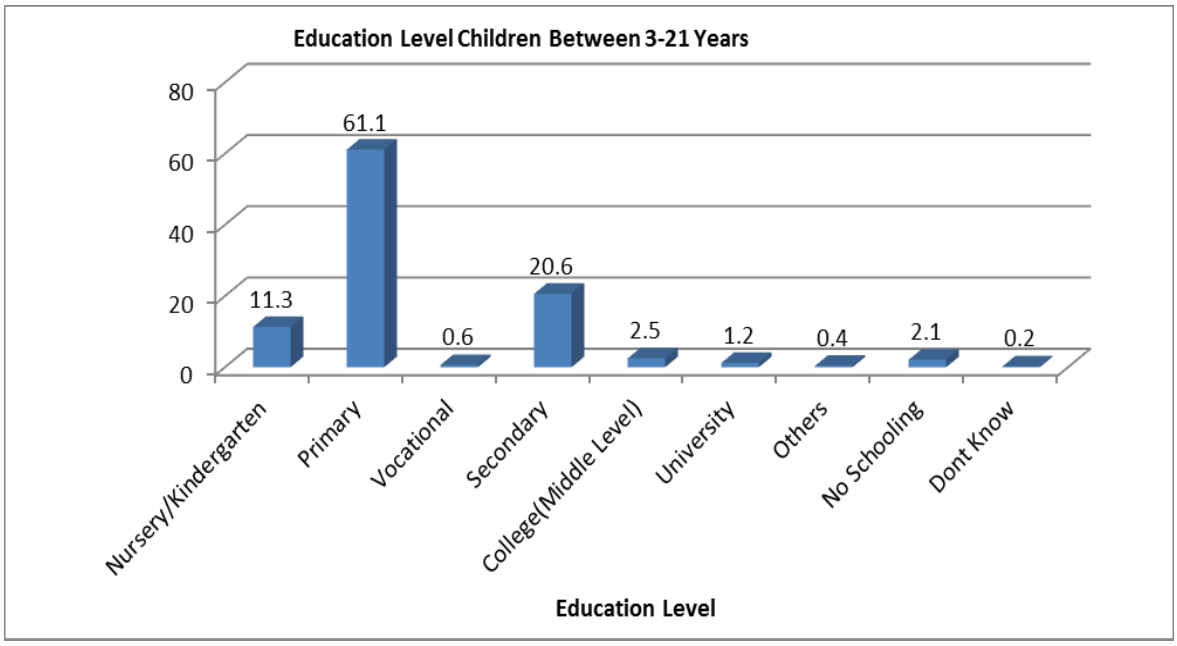


Figure 4-5: Highest education level attained by Children 3-21 Years

Overall, 84% of the children were in school while 16% were out of school. The results further indicate that 28% of the pre-school age children had not been enrolled. Among the primary school going age cohort (6-13 years), 3% were out of school (See **Table 4-3**).

Table 4-3: Proportion of Children in and Out Schools by Age Category

Age Category	In -school	Out of School	Total
3-5Years	72.00%	27.80%	100.00%
6-13 Years	96.50%	3.40%	100.00%
14-17 Years	97.60%	2.40%	100.00%
18- 21 Years	96.60%	3.40%	100.00%
Total	**83.80%**	**16.10%**	**100.00%**

b) Reasons for not being in school for children 3-21 years

When asked about the reasons for not being in school, the respondents provided the reasons in **Figure 4-6** below. The findings indicate that the leading causes of not being in school were lack of money (23%), disability (8%) and lack of interest (7%). Half of the counties have poverty ratios of over 50% (KIPPRA, 2013) with the highest being Turkana (93%) followed by Wajir and Samburu at 84% and 78%, respectively. Nairobi has the lowest poverty ratio at 22%. It is therefore feasible that lack of money is a high ranking reason for children not attending school. It is noteworthy that inaccessibility of schools was also a factor inhibiting school attendance. In addition to schools being far, the state of the roads is also to blame. Many schools are inaccessible especially during the rainy season. Although strides have been made in improving road infrastructure networks countrywide, the number of roads classified as good or fair is still small.

Twelve of the counties had less than half of their roads in good condition. For example, Meru county had only 27% followed by Nakuru county at 31% (KIPPRA, 2013) and then the other counties.

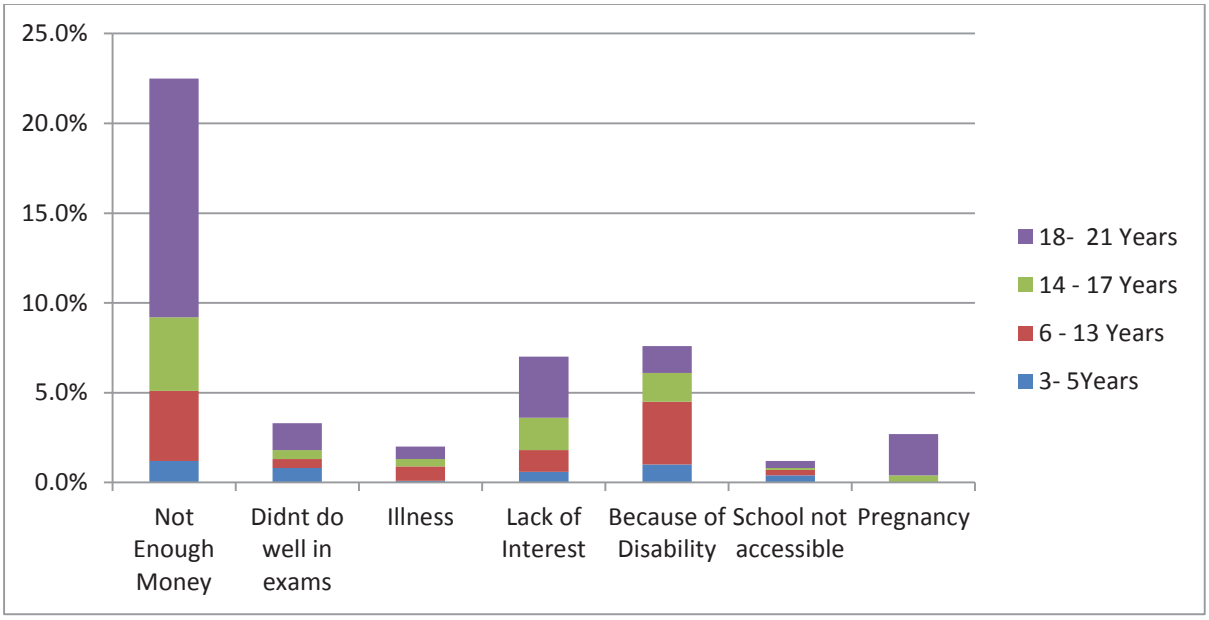


Figure 4-6: Reasons for children not being in school

Table 4.4 indicates that 53.4% of CWDs who attended school were male while 46.6% were female. It can also be seen that 58.1% male CWDS did not attend school and 41.9% were female and 66.7% female were not placed on whether they were attending school or not.

Table 4-4: School Attendance and Sex

	Male	Female	Total
Yes	53.4%	46.6%	100%
No	58.1%	41.9%	100%
Don't Know	33.3%	66.7%	100%
TOTAL	54%	46%	100%

c) Orphan hood of Children

Another socio-economic characteristic sought in this survey was that of orphan hood. Overall, 85% of the children in the study had both parents alive. The remaining 15% had either father or mother dead (12.4%) or both parents dead (2.6%), as indicated in **Table 4.5**. breaking these statistics by county, it is evident that the area affected most was Siaya (35%), followed by Kisumu (22%) and West Pokot (19%). The least affected county was Nakuru with less than 10% of children

having lost either one or both parents. The reasons for these differences in orphan hood rates were not investigated in this survey but it would important to do so in subsequent or follow up studies.

Table 4-5: State of Orphan hood for Children of 21 Years and below

County	Total number of Children	Percent with both parents living	Percent with both parents dead	Percent with at least one parent dead	Total Percent of orphan hood
Nairobi	3260	87.3	2.6	10.1	12.7
Kakamega	2176	84.0	2.5	13.5	16.0
Bungoma	2046	87.4	3.4	9.2	12.6
Mombasa	1404	83.2	3.6	13.2	16.8
Kwale	783	89.4	0.1	10.5	10.6
Siaya	1153	64.6	8.7	26.7	35.4
Kisumu	993	77.6	5.7	16.6	22.3
Kisii	1599	90.0	0.6	9.4	10.0
Nakuru	1753	91.3	2.1	6.6	8.7
UasinGishu	1190	87.3	2.8	9.9	12.7
Nandi	961	88.3	0.5	11.1	11.6
West Pokot	705	81.0	3.0	16.0	19.0
Nyeri	802	81.9	2.6	15.5	18.1
Muranga	1114	87.8	2.5	9.7	12.2
Meru	1448	87.2	1.9	10.9	12.8
Garissa	821	86.2	1.7	12.1	13.8
Lamu	209	85.2	2.4	12.4	14.8
Turkana	1123	86.7	3.2	10.1	13.3
Samburu	287	88.5	0.7	10.8	11.5
Wajir	635	83.5	1.4	15.1	16.5
Kitui	1147	86.8	2.2	11.0	13.2
Total	**25606**	**85.0**	**2.6**	**12.4**	**15.0**

However, as indicated in the **Table 4.6** below, 19.4% of the children with disability were orphans. The prevalence of orphan hood among children with disabilities was therefore higher that of all children (those with and without disabilities).

Table 4-6: Prevalence of Orphan hood among Children with Disabilities

Orphan hood status	Frequency	Percent
Both Parents alive	2819	81.6
Both Parents Dead	148	4.3
Mother dead, Father alive	121	3.5
Father dead, Mother Alive	366	10.6
Total	**3454**	**100**

4.2.4 Institutional Profiles

A) Institutions Visited by Level

In terms of institutional assessment, **Figure 4-7** indicates that, 50% of the surveyed institutions were primary schools, 23% were early Child-hood education centers (pre-schools), and 17% secondary schools while 5% and 4% were TVET institutions and colleges/universities respectively.

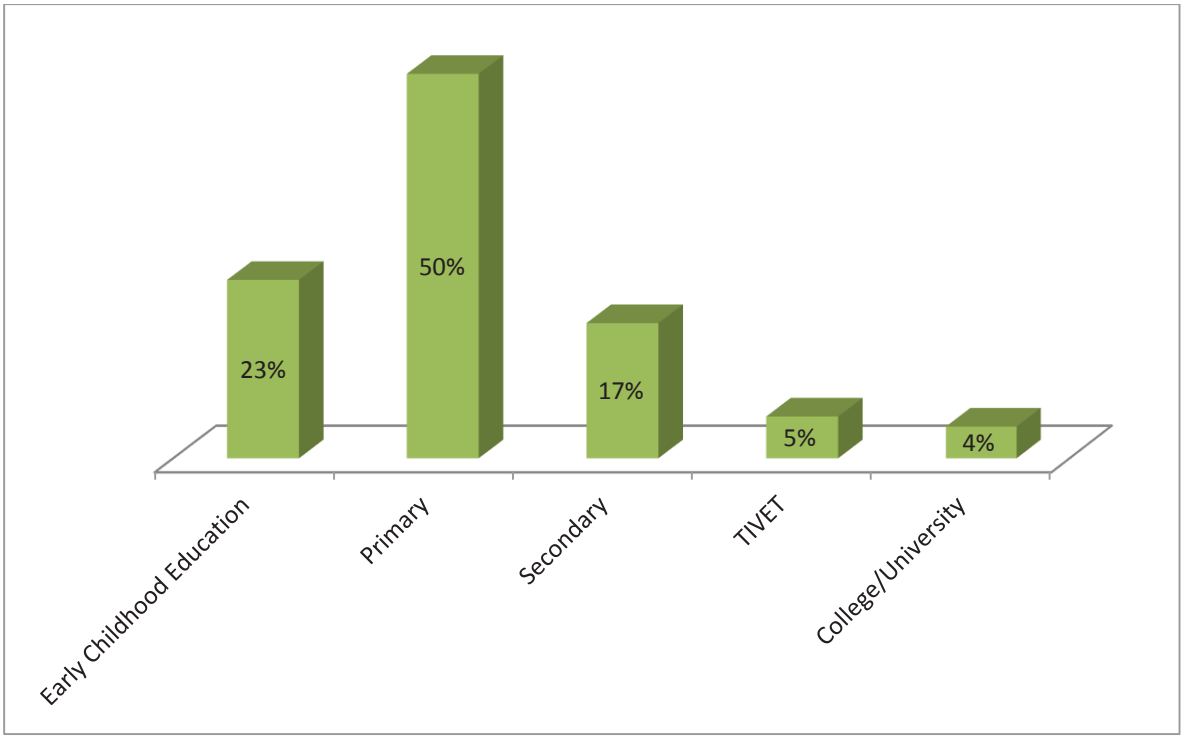


Figure 4-7: Percentage of institutions visited by level

f) **Institutions visited by Type**

The survey covered 65% regular primary schools, 15% special schools, 15% integrated schools and 12% special unit schools. Out of the schools covered by the survey, 54% were day schools, 28% boarding and 19% day. Most of the institutions surveyed (88%) were co-educational.

Table 4-7: Distribution of Special Schools per County

	Count	% of Total
Nairobi	2	3.5%
Kakamega	5	8.8%
Bungoma	3	5.3%
Mombasa	5	8.8%
Kwale	2	3.5%
Siaya	3	5.3%
Kisumu	2	3.5%
Kisii	4	7.0%
Nakuru	3	5.3%
UasinGishu	2	3.5%
Nandi	1	1.8%
Nyeri	3	5.3%
Muranga	5	8.8%
Meru	4	7.0%
Garissa	4	7.0%
Lamu	2	3.5%
Turkana	1	1.8%
Wajir	2	3.5%
Kitui	4	7.0%
Total	57	100.0%

In terms of distribution of special schools per county, Kakamega, Mombasa and Muranga had the highest representation of 8.8% followed by Kisii, Meru, Garissa and Kitui at 7.0% while Bungoma, Siaya, Nakuru and Nyeri had 5.3% and Nairobi, Kwale, Kisumu, Uasin Gishu, Lamu and Wajir had 3.5%. A few, Nandi and Turkana had 1.8%.

4.3 Prevalence of disability amongst children 0-21 years old

The first objective of the survey was to assess the prevalence of disabilities and special needs among school and out of school children aged between 0-21 years. The survey examined 15 categories of disability and the special needs of gifted and talented amongst children 21 years old and below.

A total of 3,454 children had one form or another of disability, giving an overall prevalence of 13.5%. The current global estimate of disability is 15% while that of children aged 0-14 years is estimated at 5.1% (WHO, 2011). The global estimate is significantly higher than the previous one

of 10%. The WHO argues that this increase is probably in part due to global increase in chronic health conditions associated with disability. Even so, they acknowledge that different countries have different patterns of disability as a result of varying trends in health conditions and environmental and other factors – such as road traffic crashes, natural disasters, conflict, diet, and substance abuse.

The data were analyzed to determine disability rates by county. These results are reported in **Table 4.8** and the map below. As can be observed from these results, disability is found in all counties.

Table 4-8: Incidence of Disability by County

County	Total No. of Children	CWDs	Disability Rate
Nairobi	3260	531	16.3%
Kakamega	2176	320	14.7%
Bungoma	2046	399	19.5%
Mombasa	1404	142	10.1%
Kwale	783	54	6.9%
Siaya	1153	335	29.1%
Kisumu	993	212	21.3%
Kisii	1599	151	9.4%
Nakuru	1753	121	6.9%
Uasin Gishu	1190	107	9.0%
Nandi	961	112	11.7%
West Pokot	705	44	6.2%
Nyeri	802	81	10.1%
Muranga	1114	173	15.5%
Meru	1448	148	10.2%
Garissa	821	85	10.4%
Lamu	209	26	12.4%
Turkana	1123	137	12.2%
Samburu	287	26	9.1%
Wajir	635	72	11.3%
Kitui	1147	178	15.5%
Total	**25,609**	**3,454**	**13.5%**

The data collected was analyzed and disaggregated by disability and age group as shown in **Table 4-9.**

Table 4-9: Disability disaggregated by age group

Type of Disability	Age Group				Total
	0 - 5	6 - 10	11 - 15	16 - 21	
Hearing Impairment	53	124	104	78	359
	14.8%	34.5%	29.0%	21.7%	100.0%
Visual Impairment	85	148	174	267	674
	12.6%	22.0%	25.8%	39.6%	100.0%
Physical Impairment	65	80	77	93	315
	20.6%	25.4%	24.4%	29.5%	100.0%
Cerebral Palsy	8	16	16	7	47
	17.0%	34.0%	34.0%	14.9%	100.0%
Epilepsy	24	31	40	37	132
	18.2%	23.5%	30.3%	28.0%	100.0%
Down Syndrome	14	17	17	10	58
	24.1%	29.3%	29.3%	17.2%	100.0%
Autistic Spectrum Disorder	13	23	11	10	57
	22.8%	40.4%	19.3%	17.5%	100.0%
Intellectual & Cognitive Handicap	10	34	47	34	125
	8.0%	27.2%	37.6%	27.2%	100.0%
Emotional & Behavioral Disorders	22	49	31	26	128
	17.2%	38.3%	24.2%	20.3%	100.0%
Learning Disabilities	14	63	106	53	236
	5.9%	26.7%	44.9%	22.5%	100.0%
Speech & Language Disorder	42	65	45	32	184
	22.8%	35.3%	24.5%	17.4%	100.0%
Dwarfism	5	3	7	3	18
	27.8%	16.7%	38.9%	16.7%	100.0%
Albinism	13	5	4	7	29
	44.8%	17.2%	13.8%	24.1%	100.0%
Deaf Blind	4	6	7	6	23
	17.4%	26.1%	30.4%	26.1%	100.0%
Multiple Disability	138	302	324	305	1069
	12.9%	28.3%	30.3%	28.5%	100.0%
Total	510	966	1010	968	3454
	14.8%	28.0%	29.2%	28.0%	100.0%
Gifted & Talented	16	47	51	52	166
	9.6%	28.3%	30.7%	31.3%	100.0%

Analysis of this data revealed that the youngest age group (0 – 5 years old) had the lowest disability rates at 15%. The other age groups had approximately equal rates, 28% apiece, with age group 11 – 15 years old having the highest rate of 29%. Further, this age group (11 – 15 years old) also had the highest rate in six out of the fifteen types of disabilities with the highest one being 45% in the learning disability category followed by intellectual and cognitive handicap category at 38%. Age

group 0-5 years had the lowest rates in almost all categories except for albinism where it had the highest at 45%. As for the gifted and talented category, all the age groups above 5 years had approximately the same rates between 28% (6 -10 year olds) to 31% for the 11 – 15 year olds.

Disability rates for specific categories (Table 4-10) indicate that the multiple disabilities other than deafblind (31%) was the most common followed by visual impairment (20%) and hearing impairment (10%).

Table 4-10: Disability among Children of 21 years and below

Type of Disability	Number	Percent
1. Hearing Impairment	359	10.4
2. Visual Impairment	674	19.5
3. Physical Impairment	315	9.1
4. Cerebral Palsy	47	1.4
5. Epilepsy	132	3.8
6. Down Syndrome	58	1.7
7. Autistic Spectrum Disorder	57	1.7
8. Intellectual & Cognitive Handicap	125	3.6
9. Emotional & Behavioral Disorders	128	3.7
10. Learning Disabilities	236	6.8
11. Speech & Language Disorder	184	5.3
12. Multiple Disabilities other than Deafblind	1069	30.9
13. Deafblind	23	0.7
14. Dwarfism	18	0.5
15. Albinism	29	0.8
Total	**3454**	**100**

The least common were deafblind, dwarfism and albinism, all at less than 1%. The total number of children classified as gifted and talented was 545, that is, 2% of the entire children population. Of the gifted and talented children, 166 (30%) were also identified as having a disability.

Disability rate were assessed based on whether children lived in rural as opposed to urban areas as shown in Table 4-1.

Table 4-11: Disability disaggregated by residence

Type of Disability	Residence				Total
	Rural		Urban		
	Number	Percent	Number	Percent	
Hearing Impairment	226	63.0	133	37.0	359
Visual Impairment	309	45.8	365	54.2	674
Physical Impairment	186	59.0	129	41.0	315
Cerebral Palsy	23	48.9	24	51.1	47
Epilepsy	80	60.6	52	39.4	132
Down Syndrome	38	65.5	20	34.5	58
Autistic Spectrum Disorder	27	47.4	30	52.6	57
Intellectual & Cognitive Handicap	89	71.2	36	28.8	125
Emotional & Behavioral Disorders	85	66.4	43	33.6	128
Learning Disabilities	151	64.0	85	36.0	236
Speech & Language Disorder	122	66.3	62	33.7	184
Dwarfism	8	44.4	10	55.6	18
Albinism	12	41.4	17	58.6	29
Deaf Blind	6	26.1	17	73.9	23
Multiple Disability	707	66.1	362	33.9	1069
Total	**2069**	**59.9**	**1385**	**40.1**	**3454**
Gifted & Talented	104	62.7	62	37.3	166

The results showed that overwhelmingly, children in rural areas had much higher disability rates (60%) than children in urban areas (40%). What is more notable about these results is that in eight of the categories, children in rural areas had disability prevalence of about 60% or over. In fact in four of these categories, disability rates were as high as 66% (Down syndrome, emotional and behavioral disorders, speech and language disorder, and multiple disabilities). Rates were even higher, at 71%, in intellectual and cognitive handicaps.

Disability was further modeled as a function of the child's age, orphan hood (whether a child had lost one or both parents) and the number of years of schooling the head of household has. The results were tabulated in Table 4-12.

Table 4-12: Disability as a function of orphan hood, age and education of head of household

		Beta	S.E.	Wald	P-value	Exp(B)
Step 1[a]	Age of child	.018	.004	18.771	.000	1.018
	Orphan hood(1)	.196	.068	8.427	.004	1.217
	Education (yrs) of head of household	-.011	.003	9.269	.002	.989
	Constant	-2.014	.056	1293.219	.000	.133

Logistic regression results (Table 4-12) indicate that as children grew older, disability rates increased. This would be because as they grow, they are more easily diagnosed and assessed for disabilities. Similarly, children that were orphaned were more likely than those with both parents to be disabled. This could be explained by the myriad of challenges these children face. These include illness/injuries that go unattended due to lack of watchfulness of guardians and/or lack of money to seek medical attention. Increased schooling of the head of the household had a negative relationship with disability in the sense that the more one was educated, the lesser the likelihood of finding a child with a disability in the home. This is possibly because such individuals, being more informed, would likely intervene in their children's situation to mitigate the occurrence of disabilities. In the event of injury or illness, such parents are likely to seek medical attention for their children in time before their situations progress to debilitating states. While this study did not explicitly investigate the impact of poverty on disability, one can hypothesize that the more education the household head has, the less likely that household is to be poor compared with households head by less educated heads. Because this study cannot provide empirical evidence to support such a supposition, a study to dig deeper into this relationship would be encouraged. It is worth noting, however, that the sex of the child and whether or not that child attended school or not were investigated and found not to have any significant relationship in the model.

The reasons for variations in the incidence of disability across counties are not easy to clearly pinpoint. It is plausible to expect self-reported data to underestimate the number of persons with disability because of the stigma usually associated with this group of people. It was evident from interviews and FGDs that many families were ashamed to be associated with disability, to the extent that they hid their family members, with disabilities, away from the public eye. Therefore, one of the recommendations coming out of this baseline survey is the need for a more in-depth research, or a national census for an accurate estimate of the incidence of disability among children 0-21 years old.

4.4 Relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities

The second objective of the survey was to determine the relevance and adequacy of educational structures, learning facilities and resources supporting children with disabilities in Kenya. To address this objective the study (1) visited institutions where institutional questionnaires and observational protocols were administered; (2) held FGDs with children and community members and (3) conducted interviews with key informants at the county and national levels.

A total of 463 institutional questionnaires were administered of which 23% were in early childhood educational institutions, 50% in primary schools, 17% secondary schools, 5% technical or vocational institutes, and 4% in colleges and universities. Of these institutions, 57 (14%) were special schools, similar to integrated schools, 46 (11%) were schools with special units and the majority241 (60%), were regular schools. Children's FGDs numbered 395 while those of the community were 82. Additionally, 69 county and 23 national key informants participated in interviews for the study.

4.4.1 Special Needs Teachers

To assess the relevance and adequacy of the education offered to children with disabilities, information was sought from heads of these institutions and especially on the type of training and qualifications that special needs teachers possessed. **Table 4.13** shows the total number of teachers with special needs training as well as their areas of specialization. It also shows the disaggregated data by sex of the teachers.

Table 4-13: Areas of Specializations for Special Needs Teachers

Type of Disability	**Special Needs Teachers**					
	Total		**Male**		**Female**	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Hearing Impairment	262	23.1	95	8.4	167	14.7
Visual Impairments	97	8.5	45	4.0	52	4.6
Physical Impairments	107	9.4	51	4.5	56	4.9
Cerebral Palsy	15	1.3	10	0.9	5	0.4
Epilepsy	12	1.1	7	0.6	5	0.4
Intellectual & Cognitive Handicaps	190	16.7	85	7.5	105	9.3
Down Syndrome	10	0.9	4	0.4	6	0.5
Autistic Spectrum Disorder	52	4.6	29	2.6	23	2.0
Emotional & Behavioral Disorders	24	2.1	10	0.9	14	1.2
Learning Disabilities	21	1.9	10	0.9	11	1.0
Speech & Language Disorders	12	1.1	5	0.4	7	0.6
Multiple Disabilities other than deaf blind	14	1.2	7	0.6	7	0.6
Deaf blind	13	1.1	5	0.4	8	0.7
Gifted and Talented	23	2.0	17	1.5	6	0.5
Inclusive Education	283	24.9	95	8.4	188	16.6
Totals	**1135**	**100**	**475**	**41.9**	**660**	**58.1**

Overall, a total of 1,135 teachers had special needs training in at least one of the fifteen categories of disabilities. Of these, 58% were female teachers while 42% were male. The category with the highest percentage of trained teachers was inclusive education with 24.9% followed by hearing impairment 23.1 % and intellectual and cognitive handicaps at 16.7 %. The rest of the categories had lower than 10% of trained teachers with the lowest percentage being 0.9% for Down Syndrome. Even though there is great variability in the number of teachers specialized in the different areas of disability, these results (probably) imply that children with disabilities are able to get some kind of relevant education because trained teachers in all the fifteen categories are available, albeit only a few for some types of disabilities.

Furthermore, as shown in **Table 4.14** below, majority of the teachers had at least a diploma (47%) or a degree (35%) level of education with some having masters degrees (7%).

Table 4-14: Qualifications of special needs teachers

Qualification	Number of Schools	Number of Teachers	Percent
Masters Degree	37	65	6.7
Bachelors Degree	106	340	35.0
Diploma	137	453	46.7
Certificate	52	113	11.6
TOTAL	332	971	100

These statistics bear witness to the fact that special needs teachers are qualified and therefore equipped to provide relevant education to children with disabilities. Furthermore, these teachers are well spread out across majority of the institutions surveyed because 88% of them have at least one teacher with special needs training (**Table 4-15 below)**. However, community members lamented the lack of enough specialized/trained teachers in the schools, while those that were, rarely updated their skills. This is consistent with one of the study findings i.e. that in 22% of the institutions there were teachers without special needs training, who were teaching children with special needs.

Table 4-15: Distribution of teacher respondents by area of disability specialization by County

County	Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive Handicaps	Downs Syndrome	Autistic Spectrum Disorder	Emotional & Behavioral Disorders	Learning Disabilities	Speech & Language Disorders	Multiple Disabilities other Than DeafBlind	Deafblind	Gifted and Talented	Inclusive Education	Total	SNE Teachers %
Bungoma	30	2	4	2		11			2	4	1				11	67	5.9
Garissa	3	6	1	2				1	1			2			15	31	2.7
Kakamega	48	1	19	6		4			5						6	89	7.8
Kisii	22	3				8		4							8	45	4.0
Kisumu	7		23			1	1			1			1	1	1	36	3.2
Kitui	18	59		1		44		25	4	1			5	3	11	171	15.1
Kwale	9	1	1					2	1	7	3	3	7		7	41	3.6
Lamu	3	1	1			6		2							18	31	2.7
Meru	3	5	1	2		7			1					1	51	71	6.3
Mombasa	15	2	32		11	91	5	9	2	1	5	1			13	187	16.5
Muranga	13	1			1	6		2	3	3		2			13	44	3.9
Nairobi	5		4			4	4	2		2				2	18	41	3.6
Nakuru	9	5				1			1						20	36	3.2
Nandi	8	1	8			1		2	1	1				2	16	40	3.5
Nyeri	8	1		2		1						6			8	26	2.3
Samburu	4	1	1			1									9	16	1.4
Siaya	18	1	2					3	1	1					14	40	3.5
Turkana	9	2	1			1			1		1			14	8	37	3.3
UasinGishu	17	1	8			2					2				22	52	4.6
Wajir	13	4	1			1			1						14	34	3.0

County	Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive Handicaps	Downs Syndrome	Autistic Spectrum Disorder	Emotional & Behavioral Disorders	Learning Disabilities	Speech & Language Disorders	Multiple Disabilities other Than DeafBlind	Deafblind	Gifted and Talented	Inclusive Education	Total	SNE Teachers %
Grand Total	262	97	107	15	12	190	10	52	24	21	12	14	13	23	283	1135	
% per specialization	23.1	8.5	9.4	1.3	1.1	16.7	0.9	4.6	2.1	1.9	1.1	1.2	1.1	2.0	24.9		100

In all the studied regions, there were a total of 13,389 children with disabilities enrolled in the schools i.e. regular, regular with special units and special schools. Given this number, and the number of special needs educators in those institutions, the overall teacher - pupil ratio was calculated as shown in **Table 4.16**. The disability with the highest ratio is learning disability (1:105) followed by speech and language disorders (1:48). The lowest ratios were for autistic spectrum disorder (1:5), intellectual and cognitive handicap (1:8) and deaf-blind (1:9) categories.

Table 4-16: Special Needs Education Teacher-Pupil Ratio

Type of Disability	Number of children	Number of special needs teachers	Teacher : Pupil ratio
Hearing Impairment (HI)	3314	262	1:13
Visual Impairment (VI)	1919	97	1:20
Physical Impairment (PI)	1525	107	1:14
Cerebral Palsy	161	15	1:11
Epilepsy	317	12	1:26
Intellectual and Cognitive Handicap	1557	190	1:8
Downs Syndrome	149	10	1:15
Autistic Spectrum Disorder	248	52	1:5
Emotional & Behavioral Disorders	780	24	1:33
Learning Disabilities	2201	21	1:105
Speech & Language Disorders(SLD)	579	12	1:48
Multiple Disabilities (MD)	518	14	1:37
Deafblind	121	13	1:9
Inclusive Education		283	
Total	**13389**	**829**	**1:16**

Note: the total number of teachers and the TPR excludes inclusive education teachers.

In terms of SNE teachers' specializations **Table 4.16** shows that 24.9% were specialized in inclusive education while 23.1% of the teachers were specialized in hearing impairment. This was followed by 16.7% who were in the area of intellectual cognitive impairment, 9.4% were in physical impairment, 8.5% were in the area of visual impairment and 4.6% were in autistic spectrum disorder. The other 9 disability categories had less than 2.0% specialized teachers.

The special needs education teacher to pupil ratios in the regular schools, special schools, integrated schools and the regular schools with special units are shown in **Table 4.17**. Overall, this ratio was highest in the regular schools, with an average of 1 teacher to 56 students, followed by special-unit schools at 1:29. Special schools had the lowest average ratio of 1:10. It's remarkable to note there were instances where there are children with a disability and no teachers specialized in that category. For instance, there were 29 children with Downs Syndrome and 47 children with cerebral palsy in special unit schools without teachers in those categories.

Table 4-17: Special Needs Education Teacher-Pupil Ratio in Regular, Special, Integrated and Special-Unit Schools

Type of Disability	Regular Schools			Special Schools			Special-Unit Schools			Integrated Schools		
	Number of children	**Number of SN teachers**	**Teacher : Pupil ratio**	**Number of children**	**Number of SN teachers**	**Teacher : Pupil ratio**	**Number of children**	**Number of SN teachers**	**Teacher : Pupil ratio**	**Number of children**	**Number of SN teachers**	**Teacher : Pupil ratio**
Hearing Impairment (HI)	547	12	**1:46**	2497	231	**1:11**	135	10	**1:14**	247	11	**1:22**
Visual Impairment (VI)	970	17	**1:57**	622	15	**1:41**	176	2	**1:88**	334	67	**1:5**
Physical Impairment (PI)	509	20	**1:25**	558	66	**1:8**	142	11	**1:13**	453	18	**1:25**
Cerebral Palsy	46	3	**1:15**	56	10	**1:6**	47	0	**-**	41	8	**1:5**
Epilepsy	144	0	**-**	87	10	**1:9**	95	1	**1:95**	67	1	**1:67**
Intellectual and Cognitive Handicaps	439	4	**1:110**	673	159	**1:4**	442	22	**1:20**	259	7	**1:37**
Downs Syndrome	59	1	**1:59**	54	8	**1:7**	29	0	**-**	25	1	**1:25**
Autistic Spectrum Disorder	76	8	**1:10**	94	42	**1:2**	72	4	**1:18**	53	1	**1:53**
Emotional & Behavioral Disorders	436	13	**1:34**	172	3	**1:57**	144	6	**1:24**	119	8	**1:15**
Learning Disabilities	1350	6	**1:225**	368	6	**1:61**	610	7	**1:87**	322	9	**1:36**
Speech & Language Disorders(SLD)	295	4	**1:74**	208	6	**1:35**	94	3	**1:31**	59	2	**1:30**
Multiple Disabilities (MD)	79	0	-	394	8	**1:49**	35	4	**1:9**	43	2	**1:22**
Deaf blind	1	0	-	119	13	**1:9**	1	0	-	0	0	-
Inclusive Education		102		-	132	-	19	1	**1:19**	-	46	-

Data regarding the agencies of employment of auxiliary staff (**Table 4.18**) shows that 38.2% were employed by the government while 35.5% were employed by the Board of Governors and 20.0% were volunteers with a few (7.3%) employed by the NGOs.

Table 4-18: Agencies of employment of auxiliary staff

Agency	Percentages
Government	38.2
NGO	7.3
Board of Governors	34.5
Volunteers	20.0
Don't Know	0.0
Total	100

4.4.2 Adequacy of education structures and learning facilities for CWDs

The survey assessed the adequacy, relevance, learning environment and level of adaptation of school compound/land terrain which is presented in this section.

a) Adequacy and Relevance of Learning Facilities of CWDs

As seen from previous studies, a lack of proper physical structures in schools is one of the impediments to school attendance by CWDs. These often include ramps, rails, and disability-friendly toilets. **Table 4.19** reveals that surveyed regular schools had more learning facilities than institutions serving CWDs (special units, special and integrated institutions).

Table 4-19: Percentage distribution of education learning facilities for CWDs

Facility Type	Category of School			
	regular	special	special unit	integrated
Classrooms	66	13.1	13.4	16.7
Workshops	63.6	20.8	9.1	11.7
Library	71.7	7.2	10.9	15.9
Science laboratories	88.9	7.4	3.7	0
Therapy rooms	48.5	20.2	17.2	22.2
Guidance & counseling rooms	73	7	10	17
Home science rooms	57.4	36.2	4.3	8.5
Computer laboratories	73.9	13.5	5.4	10.8
Dormitories (boys)	57.5	29.1	6.3	12.6
Dormitories (girls)	63.6	25.7	7.1	11.4
Kitchen	66.7	16.7	9.6	14.9
Dining halls	64.3	24.6	5.6	10.3
Bathrooms(boys)	60	26.9	6.9	14.6

Facility Type	Category of School			
	regular	special	special unit	integrated
Bathrooms (girls)	62.4	25.5	8.5	9.9
Pit latrines (girls)	64.3	12.8	15.3	19.1
Flush toilets(girls)	63.9	25.8	7.2	8.2
Pit latrines (boys)	62.2	13.3	15	20.2
Flush toilets(boys)	66.3	26.7	5.8	7
Pit latrines (teachers)	64.9	12.5	15.9	18.8
Flush toilets (teachers)	69.7	18	6.6	11.5
Pit latrines(non-teaching staff)	71.1	16.7	9.6	13.2
Flush toilets(non-teaching staff)	74.6	14.9	7.5	10.4
Stores	66.2	12.6	12.6	17.4
Teachers' houses	61.3	17.6	10.1	15.1
Administration/ office block	62.9	13.8	13.8	18.1
Rails	56.3	18.8	12.5	25
Walk path	48.5	20.2	17.2	22.2

However the FGDs for CWDs revealed that even though the schools had physical facilities, some the facilities were in inaccessible, for example the children from all the counties revealed that, some classes did not have ramps, adapted corridors and doors. The institutions also had congested classrooms, lacked flash and adapted toilets. They noted that:

> *"They are not able to access washrooms and toilets like other children because we have pit latrines which are not hygienic for the CWDs because some use their hands to move around*" (FGD, West Pokot County).

> *"The CWDs cannot access the toilets because the handles are too high or the classrooms doors, the seats are not specially designed for them". (FGD, Mombasa* County).

b) Status of classroom learning environment of CWDs

The survey examined the existing conditions of the classroom-learning environment of the CWDs including classroom ventilation, lighting, and classroom size, availability of furniture, floor and wall finishing materials. The findings are presented in **Table 4-20**.

Table 4-20: Classroom learning environment

Classroom environment	Status	Type of school			
		Regular	Special	Special Unit	Integrated
Ventilation	Poor	1.6%	0.0%	2.2%	3.2%
	Fair	19.6%	15.5%	35.6%	19.0%
	Good	78.8%	84.5%	62.2%	77.8%

Classroom environment	Status	Type of school			
		Regular	Special	Special Unit	Integrated
Lighting	Poor	7.2%	3.4%	6.7%	11.1%
	Fair	16.9%	13.8%	24.4%	25.4%
	Good	75.9%	82.8%	68.9%	63.5%
Classroom Size	Small	5.2%	5.3%	11.1%	6.3%
	Standard	72.7%	73.7%	75.6%	74.6%
	Large	22.1%	21.1%	13.3%	19.0%
Furniture	Not Adequate	32.7%	34.5%	47.7%	35.5%
	Adequate	67.3%	65.5%	52.3%	64.5%
Floor	Rough and Tidy	22.2%	15.8%	35.6%	23.8%
	Rough and Untidy	4.8%	1.8%	2.2%	1.6%
	Smooth and Tidy	67.3%	82.5%	55.6%	68.3%
	Smooth and Untidy	5.6%	0.0%	6.7%	6.3%
Wall Finishing	Mud/Clay	0.8%	1.7%	0.0%	0.0%
	Wood	1.6%	0.0%	0.0%	0.0%
	Cement	91.6%	93.1%	95.5%	96.7%
	Iron Sheets	6.0%	5.2%	4.5%	3.3%
Learning Center	Not Available	53.4%	38.2%	52.3%	58.3%
	Available	46.6%	61.8%	47.7%	41.7%

i. Size of classrooms

The survey established that most education institutions visited (95%) had classrooms of which had the required standard of classrooms and only 5% were small in size.

ii. Classroom Ventilation and Lighting

The ventilation and lighting of classrooms in regular, and SNE institutions were found to be satisfactory (**Figure 4-8)**. In terms of ventilation, special schools were better (85%) than regular schools (79%), integrated schools (78%) and special units (62%). Eighty three percent (83%) of special schools were rated to have good classroom lighting followed by regular schools (76%), special units (79%) and integrated (64%).

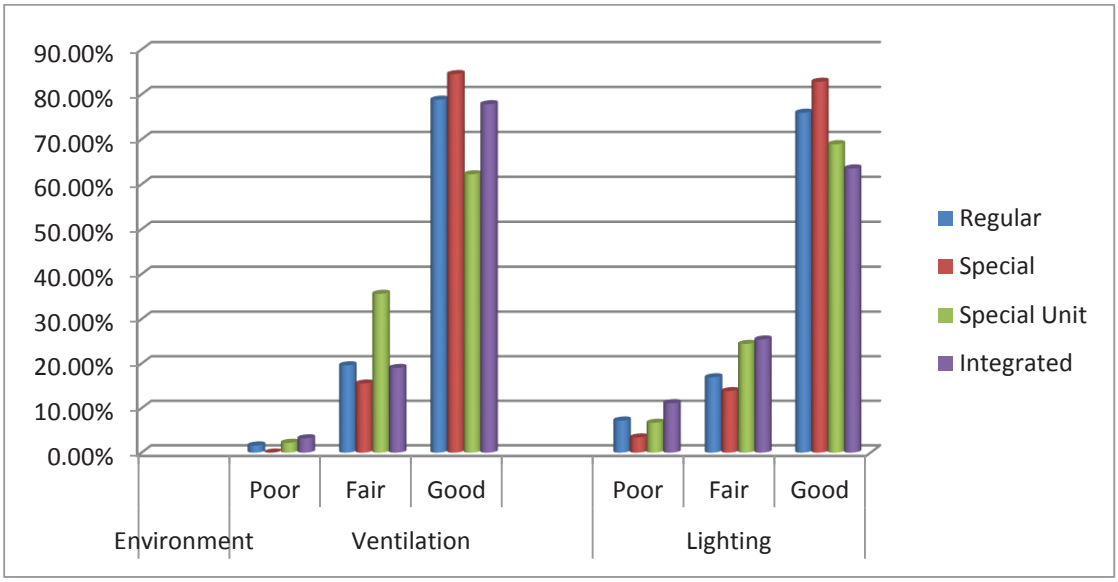


Figure 4-8: Status of classroom ventilation and lighting

iii. Classroom furniture and floor

The study findings also revealed that the adequacy of classroom furniture was moderate ranging between 52% and 67% (see **Figure 4.9)**. However the FGDs held with children with disabilities and those without disabilities indicated that most of the furniture available was not disability friendly. The children further stated that, there were no adapted chairs and tables for CWDs. Observation findings further showed that special schools (83%) had smooth and tidy classroom floors compared to regular schools (67%), integrated schools 68% and special units 56%.

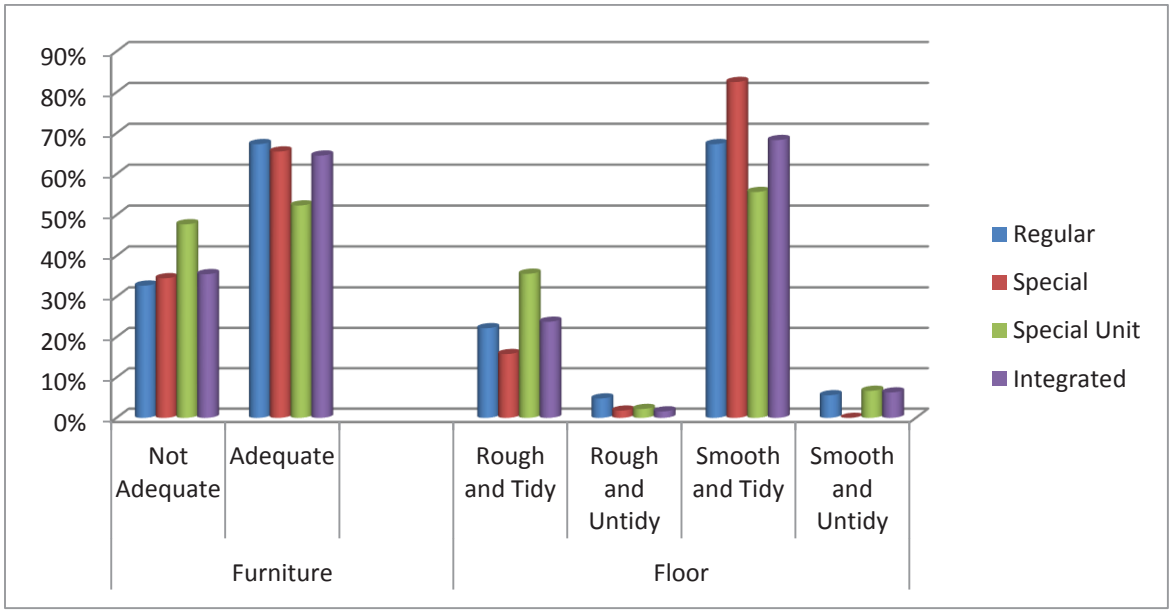


Figure 4-9: Adequacy of classroom furniture and condition of classroom floor

iv. State of classroom wall finishing

An overwhelming number of educational institutions surveyed had cement walls finishing an indication of existence of quality learning structures

v. Learning centres

The availability of learning centres in the classrooms observed during this survey was low with the exception of special schools which was available in 68% of classrooms observed.

c) Adaptation of School Environment

The survey sought to assess the external environment of schools covering waste management, adaptation of environment, security and safety (see **Table 4.21** below).

Table 4-21: Level of Adaptation of School Environment

Facility	Status	Type of school			
Dustbins		Regular	Special	Special Unit	Integrated
	Not Available	30.1%	36.2%	42.2%	38.1%
	Available and not in use	4.0%	1.7%	4.4%	1.6%
	Available and in use	65.9%	62.1%	53.3%	60.3%
Refuse Disposal Pits	Not Available	13.9%	25.9%	11.1%	14.3%
	Available and not in use	4.1%	1.7%	2.2%	6.3%
	Available and in use	82.0%	72.4%	86.7%	79.4%
Drainage	Not Available	40.5%	34.5%	60.0%	45.9%
	Available and with no functional manholes	15.4%	13.8%	8.9%	8.2%
	Available and with functional manholes	44.1%	51.7%	31.1%	45.9%
Land Terrain	Hilly	12.1%	12.1%	17.8%	6.5%
	Hilly but Flattened	21.9%	25.9%	11.1%	40.3%
	Flat	66.0%	62.1%	71.1%	53.2%
Paths in School	Paths without pavements	60.2%	48.3%	75.0%	57.1%
	Narrow Pavements	11.6%	20.7%	13.6%	11.1%
	Wide pavements	28.1%	31.0%	11.4%	31.7%
Ramps	Not Available	74.2%	41.4%	62.2%	74.2%
	Available	25.8%	58.6%	37.8%	25.8%

Facility	Status	Type of school			
Gate	Yes	83.5%	89.7%	80.0%	82.5%
	No	16.5%	10.3%	20.0%	17.5%
Fence	Yes	88.3%	82.5%	80.0%	90.5%
	No	11.7%	17.5%	20.0%	9.5%
Fire Extinguishers	Yes	38.7%	35.1%	17.8%	33.3%
	No	61.3%	64.9%	82.2%	66.7%
Security Personnel	Yes	83.5%	80.7%	80.0%	81.0%
	No	16.5%	19.3%	20.0%	19.0%

i. Waste management

The survey found that in a number of schools visited, dustbins were not available. Availability of dustbins was lowest in special units. However refuse disposal pits were more available in most schools than dustbins. Special Units were rated highest in terms of availability of refuse disposal pits. The drainage system in most schools was rated below average. It was lowest in special units (31%) followed by regular schools (44%) and integrated schools (46%).

ii. Adaptation of environment

Overall, the school external environment was not adapted to the needs of learners with disability and special needs. Most paths in the institutions were without pavements or were narrow. In most schools visited, the proportion of schools with wide pavements was less than 32%. Less than 38% of the special units, integrated and regular schools had ramps. However, ramps were available in 59% of the special schools surveyed. The survey also found that land terrain in most schools had been adapted shown in the **Table 4.21** above and **Figure 4.10**below.

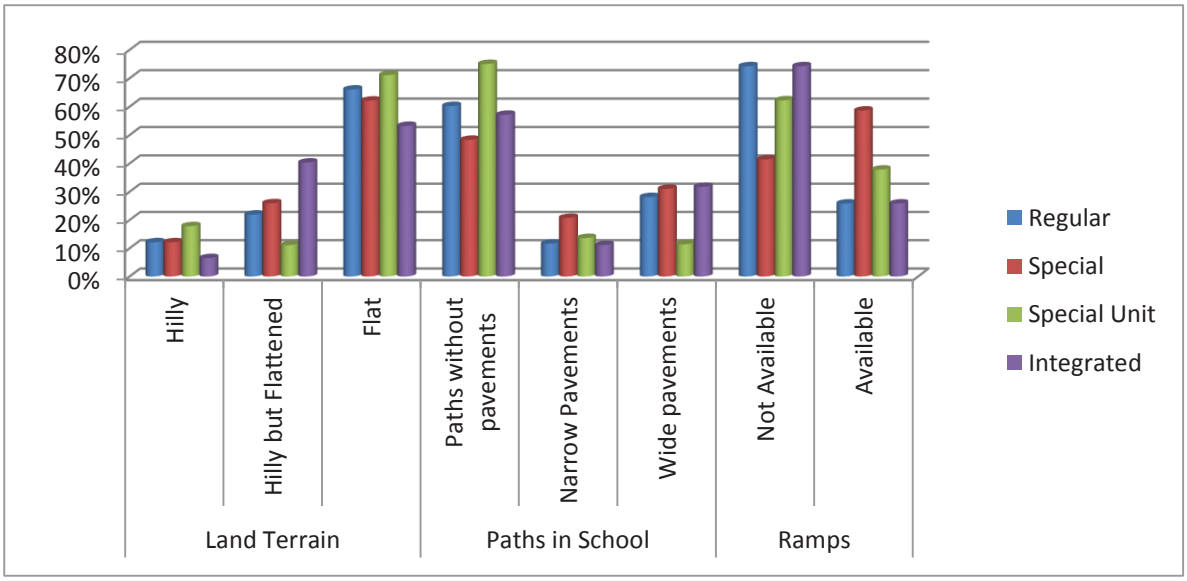


Figure 4-10: Level of adaptation of school compounds

iii. Security and safety

The survey established that the prevailing security status was adequate- schools had been fenced and gates and security personnel were available. A number of schools lacked fire extinguishers and indication of low safety situation in the institutions in the event of fire.

d) Availability of social amenities

The survey assessed the availability of social amenities in the institutions which included source of water and lighting, means of transport used by CWDs to school, availability of health facilities and communication (see **Table 4-22**).

Table 4-22: Availability of social amenities in the institutions

Social amenities	Type of schools				
	Variables	**Regular**	**Special**	**Special unit**	**Integrated**
Water	Piped	71.4%	70.2%	54.8%	70.0%
	Rain	29.0%	35.1%	38.1%	26.7%
	Borehole	25.7%	43.9%	28.6%	33.3%
	Well	11.0%	12.3%	4.8%	18.3%
	River	14.7%	8.8%	16.7%	15.0%
	Spring	2.4%	1.8%	2.4%	0.0%
	Dam	1.2%	1.8%	0.0%	1.7%
Lighting	Electricity(Mains)	83.4%	94.6%	84.6%	81.8%
	Electricity(Generator)	20.9%	12.5%	0.0%	10.9%
	Electricity(Solar Power)	12.3%	5.4%	7.7%	9.1%
	Pressure Lamps	7.1%	8.9%	12.8%	10.9%
	Lanterns	8.5%	25.0%	15.4%	12.7%
Transport	Bicycles	23.8%	22.6%	31.8%	26.7%
	Motorbikes	25.9%	43.4%	22.7%	23.3%
	Matatu/bus/train	39.7%	73.6%	13.6%	28.3%
	Private Car	11.7%	24.5%	2.3%	15.0%
	On foot	77.8%	69.8%	97.7%	86.7%
Health	Dispensary	46.5%	40.0%	43.6%	29.4%
	Mobile Clinic	2.0%	2.0%	0.0%	5.9%
	Health Centre	37.5%	46.0%	46.2%	27.5%
	Hospital	38.0%	54.0%	43.6%	52.9%
Communication	Landline	19.0%	15.1%	2.6%	12.7%
	Mobile phone	93.1%	92.5%	97.4%	96.4%
	Card Phone	0.5%	0.0%	0.0%	1.8%

Social amenities	Type of schools				
	Variables	**Regular**	**Special**	**Special unit**	**Integrated**
	Public Booth	0.5%	0.0%	2.6%	0.0%
	Internet	25.9%	28.3%	15.8%	14.5%
	Website	13.4%	11.3%	7.9%	9.1%

i). Source of water and lighting

The main sources of water for the institutions were piped water, rain water and borehole water. The survey findings indicate special units were the least served by piped water (55%) compared to regular 71%, special and integrated each 70%. In terms of lighting, most schools were connected to electricity grid. However it is noteworthy that a number of institutions serving CWDs were using pressure lamps and lanterns for lighting.

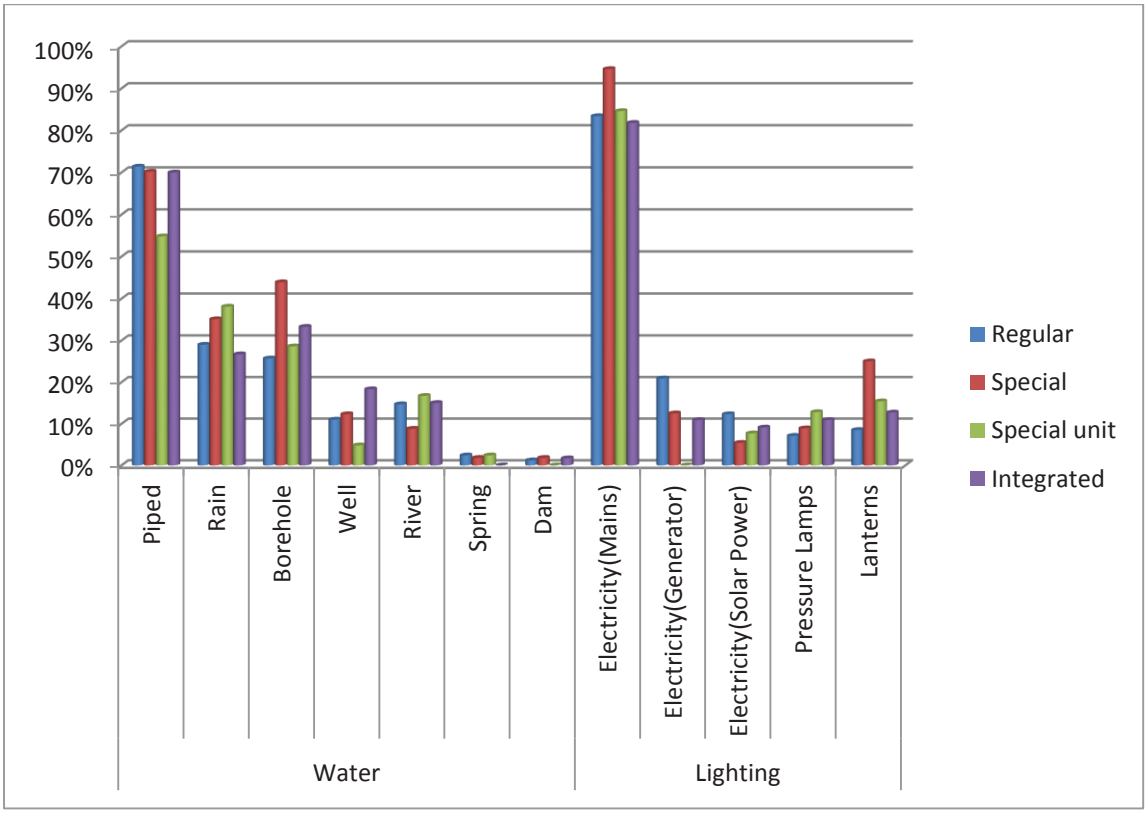


Figure 4-11: Source of water and lighting for the institutions

ii). Means of transport used by CWDs to school

Over 70% of the children walked to school. More children attending special units (98%) walked to school compared to those in regular schools (78%), special schools (70%) and integrated schools (87%).

iii). Availability of health facilities

With regard to nearest health facility accessed by children, the survey established that many institutions were served by health centres and dispensaries. However, most special schools were served by hospitals. Mobile clinics services were minimal.

iv). Communication

Institutions had higher access to cell phone (93% or more) followed by Internet and website services.

e) Availability and adaptation of play grounds in institutions

The survey also assessed the availability and adaptation of playground in the institutions, which included soccer, volleyball and netball pitch and athletic track. The survey (see **Table 4.23** below) found that less than 40% of the soccer, volleyball, and netball pitches in the institutions surveyed were adapted.

Table 4-23: Availability and adaptation of playgrounds in institutions

Play grounds	Status	Regular	Special	Special Unit	Integrated
Soccer Pitch	Not Available	21.2%	41.4%	22.2%	14.3%
	Available and Adapted	38.4%	32.8%	37.8%	38.1%
	Available and not adapted	40.4%	25.9%	40.0%	47.6%
Volleyball pitch	Not Available	27.3%	39.7%	28.9%	19.0%
	Available and Adapted	37.3%	29.3%	40.0%	38.1%
	Available and not adapted	35.3%	31.0%	31.1%	42.9%
Netball Pitch	Not Available	35.2%	50.0%	26.7%	27.0%
	Available and Adapted	32.0%	25.9%	35.6%	30.2%
	Available and not adapted	32.8%	24.1%	37.8%	42.9%
Athletics Track	Not Available	39.6%	50.0%	34.1%	27.4%
	Available and Adapted	27.8%	25.9%	31.8%	32.3%
	Available and not adapted	32.7%	24.1%	34.1%	40.3%

These results are in line with the children's FGDs, which also revealed that, the playing grounds were rough and not possible to use as one child said:

> *"There are too much stones around, the physically handicapped hit them and fall, and our field is very irregular with holes and stones." (FGD, Kakamega County).*

f) Teaching - Learning Resources supporting children with disabilities

This survey sought to establish availability and appropriateness of resources supporting children with disabilities and the teaching learning materials.

i). Availability of prevocational and vocational equipment

The results (**Table 4.24**) revealed that schools had adapted the curriculum and there was prevocational and vocational learning offered. All the prevocational and vocational teaching-learning equipment in the surveyed institutions were non-functional and included sewing machines (89 %), tables (88 %), chisels (86 %), planners (86 %), knitting machines (81 %), clamps (79 %), thimbles (71 %), and scissors (59 %). However some equipment were rated as functional and comprised cutlery (91 %), jikos (charcoal cooking stoves) (89 %), utensils (89 %), pangas (machetes) (89 %), cooking pans (87 %), benches (84%), hammers (83 %), saws (82 %), slashers (81 %), rakes (76 %), hoes (74%), and needles (63 %).

Table 4-24: Availability of prevocational and vocational equipment

Equipment	Total number in the school		Functionality of Equipment	
	Number of schools	Sum of equipment	Number functional	% of functional
Sewing machine	70	764	85	11.1
Scissors	72	1257	510	40.6
Tapes	64	1389	510	36.7
Needles	62	2004	500	25.0
Thimbles	42	626	180	28.8
Tables	68	696	87	12.5
Knitting machines	24	106	20	18.9
Needles	28	1592	999	62.8
Beads	20	380	100	26.3
Planners	29	139	20	14.4
Clamps	34	183	39	21.3
Tape	35	155	20	12.9
Chisels	38	265	37	14.0
Hammers	53	249	206	82.7
Saws	52	383	315	82.2
Benches	49	592	496	83.8
Jikos	55	241	216	89.6
Utensils	43	2129	1905	89.5
Cooking pans	55	364	317	87.1
Cutlery	48	2173	1986	91.4
Tables	56	317	289	91.2
Hoes	78	571	421	73.7
Slashes	76	622	506	81.4

Equipment	Total number in the school		Functionality of Equipment	
	Number of schools	Sum of equipment	Number functional	% of functional
Pangas	91	581	519	89.3
Rakes	62	237	181	76.4

ii). Availability of assistive devices

The survey also assessed the availability of assistive devices in the institutions across the country. The survey found that overall; children with disabilities had functional assistive devices to support the teaching learning process. These included page turners, crutches, adapted cups and tables, head pointer, physiotherapy aids, spoons, braces, callipers, adapted shoes, Braille machines, slates and stylus, thermophom copier, adapted computers, magnifiers, white canes, telescopes audiometer, embosser and screen readers syringe for ear impression. Non-functional assistive devices were found to be hearing aids, reading stands, wheelchairs, mouth sticks, and corner seats (See **Table 4.25** below).

Table 4-25: Availability and functionality of devices in the institutions

	Schools		Assistive devices		
	Total	**With functional devices**	**Total**	**Functional**	**Percent of functional devices**
Wheel chair	37	33	655	266	40.6
Walkers	21	17	132	80	60.6
Page turners	2	2	10	10	100.0
Crutches	30	25	359	303	84.4
Corner seats	5	3	5	2	40.0
Adapted tables	18	12	171	144	84.2
Head pointer	3	3	16	15	93.8
Mouth sticks	2	1	1	0	0.0
Physiotherapy aids	7	5	21	18	85.7
Adapted cups, spoons	3	3	12	12	100.0
Braces	4	4	54	54	100.0
Callipers	6	6	40	39	97.5
Adapted shoes	8	5	30	26	86.7
Braille machines	12	10	115	103	89.6
Slate and stylus	11	9	185	167	90.3
Thermophom copier	2	2	2	2	100.0
Adapted Computers	8	8	168	164	97.6
Magnifier	12	10	64	49	76.6
Reading stands	7	5	96	40	41.7

Embosser	2	2	12	12	100.0
Screen readers	4	4	101	101	100.0
White canes	13	11	327	280	85.6
Telescopes	7	6	158	155	98.1
Hearing aids	18	15	966	571	59.1
Audiometer	11	10	26	20	76.9
Syringe for ear impression taking	6	6	9	9	100.0

The results from the children's FGDs from all sampled counties revealed that, even though some schools had assistive devices most of the CWDs did not have access to them.

iii). Existence of rehabilitation measures for CWDs in the institutions

The survey established that only 27% of the institutions had rehabilitation measures for any of the disabilities.

4.5 Enabling and disabling factors to school attendance by children with disabilities and special needs

The third objective of the study was to provide an assessment of enabling and disabling factors to school attendance by children with disabilities and special needs. These invariably range from the nature of the disability that a child has to attitudes towards disabilities in general and to children with disabilities in particular. Such attitudes can be within the children's families, communities as well school environments (perceived or real).

4.5.1 Enabling factors to school attendance by children with disabilities and special needs

Interviews and FGDs conducted during the survey established the following factors as being supportive for CWDs and special needs access to education.

a) **Government policy**: The government has put in place mechanisms that help protect the rights of children and puts emphasis on education. This has led to the creation of special units in the regular schools, as well as special schools, which has made education for CWDs more accessible. Most of the respondents indicated that the policy that all children should go to school and the implementation of the Free Primary Education initiative has enabled children with disabilities to attend school. Some respondents viewed this initiative to be cheap and affordable.

b) **NGOs and CBOs support:** In some communities, CBOs and NGOs have at times assisted in the payment of school fees, provided assistive devices and general care of CWDs, thus enabling school attendance.

c) **Availability of assistive devices and material support**: Provision of assistive devices such as wheel chairs, hearing moulds and crutches to CWDs has supported their access to education. In some cases, churches have provided financial support to families through the provision of food and by paying for or buying the children's requirements for school.

d) **Availability of educational institutions catering for the needs of CWDs and special needs:** A number of respondents indicated that the presence of special schools in the community has made access to education for CWDs possible. For example, one community member shared:

> *"… the church has built special schools within the community, and this has made it affordable for the whole public…".*

A parent form the community said,

> *".....some public schools in the community have special unit classes making it possible for children with disabilities and special needs to get better education with the help of SNE teachers...".*

e) **Care and protection provided for CWDs:** the survey established that a variety of organisations support children with disabilities and protect them from being hidden. At the family level, survey findings indicate existence of care and adherence to child protection practices. Some parents suggested,

> *"…When such children are well taken care of they develop a self-belief that they can make it and can also do well because they are loved and protected. When children with disabilities are protected, taken care of and provided with their needs, they have the spirit to go to school and can make achievements like other children…."*.

f) Parental education levels: Most parents of CWDs had some formal education and demonstrated an appreciation for taking their children to school. It was stated that parents believe that with no education, CWDs cannot fit in the society. It was further noted that parents believe that education makes CWDs to be more functional in the society, thus reducing the magnitude of their disabilities.

g) **Positive parental attitudes towards CWDs:** Some parents were determined to educate the children regardless of their disability condition. This was especially true for parents who had accepted their children's disability, did not discriminate against them, and took them to school to increase chances of them realizing their full potential in the society.

h) **Advocacy**: Awareness and sensitization in the community was an enabling factor for these children to attend school. Key informants said:

> *"Parents are now able to bring up such (CWDs) children and enrol them in school. Previously, these children were abandoned by parents or even killed*."

"*Awareness by parents that education is a right in the constitution enables these children to be taken to school."*

"Awareness to all stakeholders will go a long way in making it possible for children with disabilities and special needs to attend educational institutions."

"*The church for example, tells members not to hide the children and has promoted knowledge about the availability of services."*

i) **Availability of trained SNE teachers:** Trained teachers in special education schools have also enabled CWDs to be in school and access education. In addition to providing the professional expertise in schools, the survey established that the teachers were key in mobilising CWDs to enrol in school. Some of the key informants interviewed said,

"….Teachers for example, move around homes once in a while looking for the children. The Teachers also go to communities on-the-ground encouraging parents to bring their children to school…."

"…Availability of special education teachers is a big boost for the children to access education. Teachers have particularly accepted them and are dedicated to promoting their learning process…"

j) **Accessibility to SNE institutions**: Close proximity and good road networks to the schools enabled learners to access the schools. It was stated that accessibility to schools was enabled by the existence roads and means of transport such as bicycles and motorcycles among others.

k) **Positive Attitude from the children themselves*:*** Willingness and the ability of the parents to provide education to their children is an encouragement to them, which has promoted a positive attitude in the CWDs themselves. Moreover the love and affection toward their children promoted their attitude towards learning. It was said that they want to be like other children. These children have developed strong attitudes and belief that, disability is not inability. Parents have accepted the nature/condition of their children.

4.5.2 Disabling factors to school attendance by children with disabilities and special needs.

From the FGDs conducted, it was evident that there were many CWDs in communities that did not attend school. This state can be attributed to family/home-based as well as systemic reasons. For the former, amongst the most common reasons given was the fact that parents generally kept such children away from school. This was due to factors such as either parents' fear of exposing their children to the outside world, high levels of poverty (and therefore the little money available gets spent on paying school fees for the children without disability), lack of assistive devices such as wheelchairs, and lack of aides for some children. Some of the assistive equipment are quite costly. For example, while a regular ball pen costs Kes. 20, a Braille machine is Kes. 75,000.

Also, while some of the parents are afraid that their children, especially girls, would be sexually molested in school, others use them as a source of income by "making them beggars on the streets". Some parents also fear for the safety of their children, especially those with epilepsy. Without the help of aides, these children are prone to getting hurt due to the likelihood of an epileptic attack. In addition, high levels of orphan hood have also contributed to this problem. A number of CWDs have no guardians and this steers them towards becoming street children.

Systemic issues also play a big role in CWDs not going to school. These include:

i. Lack of proper transportation to schools, especially in the rural areas where roads are sometimes impassable during the rainy seasons;

ii. Lack of special schools and regular schools with special units in the community, and when available, most are too far from the children's homes. As one expert observed:

> *"There are only 9 schools in the whole country for the deaf blind; 4 in Western, 1 in Eastern, 1 in Coast, 1 in Nairobi, 1 in Rift Valley. Only one of these schools is a day school thus it's very expensive for the parents to put their children in boarding school."*

iii. Inappropriate and insufficient resources in the schools for example trained teachers, support staff, and assistive devices. Some school environments are disability-unfriendly meaning that they have no ramps, inappropriately built washrooms (too narrow), floors that are either too smooth or too rough etc. In some cases, schools that don't have SNE teachers refuse to admit CWDs

iv. Lack of appropriate assessment, identification, diagnosis and placement of CWDs. Some children's disabilities are mis-identified, leading to the children being placed in the wrong categories. This leads to interventions (if any) that are improper and not beneficial to the child. Also, the number of qualified personnel for diagnosis and assessment is small, and the cost often prohibitive to parents, meaning that many children go through life without the needed help required. There were limited EARCS making it difficult to identify correctly cases of disability and ensure corrective referrals. Besides there were said to be no screening targeted at late cases of disabilities in regular schools.

Discussions from the focus groups further established the following as inhibitive factors for CWDs attendance in schools:

a) **Stigma and negative attitudes:** Participants indicated persistence of negativity in some communities regarding the education of CWDs:

> *"It is only through the help of the well- wishers who come and convince their parents and take them (CWDs) to school upon reaching a consensus. Some parents prefer paying school fees for children without disabilities. Stigmatization by parents, siblings and other children make the children with disability have low self-esteem. Due to such stigma most parents hide their children back at home denying them their right to education."*

Rejection and Discrimination for the CWDs was said to be a big obstacle as participants said;

> *"Some (CWDs) lack confidence since they are being isolated and rejected at the same time mistreated. They are rejected and harassed and this makes them feel uncomfortable in school. Children with disabilities also see themselves different from others hence making them uncomfortable."*
>
> *"Due to use of some derogatory nicknames they (CWDs) feel rejected and being left alone hence loneliness which is a serious disabling factor."*
>
> *"Segregation, for instance, having different break times at school for children with disabilities because some children (not disabled) in schools don't want to play with them is a big setback for integrating CWDs in regular schools."*

b) **Inadequate support for children with disabilities and special needs from the Government:** Current level of support for CWD per year was said to be "inadequate and unrealistic." The survey established that in one of the autism special units, fees per child was Kes 27,000 per term. It was also established that parents employed teacher aides costing about Kes 5,000 per parent per month. In some cases, parents employed aides individually and met the full cost for the multiple disability children. The cost of specialized equipment was also found exorbitant and not supported by the government.

c) **Lack of alternative care:** There was limited home based care for CWDs causing the children to take care of themselves yet some require support and assistance in carrying out activities of daily living. Also most families were not able to afford paying private teachers CWDs from home. Furthermore there were very few boarding special unit schools. A key respondent shared,

> *"The special unit schools are mainly day schools and therefore not very friendly to physically challenged. It becomes very difficult especially during rainy seasons for these children to avoid being rained on as they walk home from school. Struggling to get home during the rains make the children to fear going to school during the rains just in case it rains before they get home and this is a factor that affect the children with disability to get to school for education."*

d) **Transition:** Lack of transition from one level to the other due to financial constraints. This was said to be discouragement to those CWDs who wish to enrol in school.

4.6 The views and perspectives of the community and persons with disability particularly on the access to education

This section describes the survey findings of the fourth objective of the survey, which was to establish the views and perspectives of the community and persons with disabilities particularly on access to education.

4.6.1 Introduction

For a long time disability has been viewed as a form of oppression and the fundamental issue is not one of an individual's inabilities or limitations, but rather, a hostile and un-adaptive society. However, throughout the world, the language, views and perceptions of disability is changing due to increased international awareness of disability issues. For this reason, this survey sought to establish the views and perspectives of the community regarding the persons with disability in Kenya. The views and perceptions found in this survey were general, positive and negative views regarding CWDs in reference to education. The views and perspectives are presented in the section below:

4.6.2 General Views Regarding Children with Disability

Disability as a bad omen and a curse: The CWDs are viewed as a bad omen in the community or family and when a child is realised to be to be having a disability, some families perform rituals or visit witchdoctors for help. It was stated by some key informant that:

> *"Such bad omen came because of refusing to name children after a close departed relative. This earned the family of the CWD the wrath of the dead souls and spirits. This is particularly practiced among some communities of Western Kenya."*

> *"It is a curse to parents of families especially where their union was not approved. While to others, it is a curse due to incest. Others stated that it is a curse from the ancestors for bad behaviours while some said that it is curse from the gods for immorality. Albinism for example is regarded as a curse of a mistake committed by a member of the family."*

Among some communities in Western Kenya, disability is a cultural issue.

> *"In this community disability it is viewed as **bad luck** to the extent that such children, like those with epilepsy, should not share facilities with normal children because they believe that it is contagious. In some communities rituals like the slaughter of a he-goat was carried out in order to cleanse them."*

Some coastal communities believed that a child with disability brings **good luck**. CWDs are kept in the house to attract wealth. Such a child is referred to as "kiti" Swahili word meaning "chair" which is kept in the house with a belief that it will attract wealth for the household.

The survey also established that some communities believed that disability was caused by witchcraft.

> *"It happens because, they (CWDs) have been bewitched and that it is through evil spirit or something involving witchcraft and sorcery. Some parents sacrifice people and animals to appease the angered spirits."*

Disability seen as God's creation: Some community members believed that it was God's creation to be born disabled and said that, *"If you assist the child with disability, God blesses you*

abundantly so disability has a relationship with God's creation." Conversely, other key informants were of the view that disability was a "punishment from God."

Disability is as a result of medical condition: Some disabilities were said to be as a result of a medical condition which was not diagnosed and treated in good time. Community members noted that:

> *"Negligence or ignorance by some parents may result into disability. When parents do not take their children for treatment in good time, yet some medical conditions can be prevented if addressed early enough. Other parents, due to their religious beliefs, have low opinion towards conventional medical treatment and so do not seek medical attention for their children in good time which has sometimes, let to disability."*
>
> *"Some community members think that family planning (use of contraceptives) can cause disabilities."*

Disability seen as inherited: Other community members said that disability was hereditary.

4.6.3 Community perception about educating CWDs

Survey data revealed that there were positive and negative perceptions regarding the education of CWDs.

a) Positive perceptions about educating CWDs

The survey established that the community held positive perceptions towards enrolment of children with disabilities in school. These included the right of CWDs to education, positive change in community attitudes, the recognition of the empowering role of education, and the inherent capacity in CWDs.

.

CWDs education as a fundamental human right: Community participants said that it is good for them to be educated for the good of their future. They noted that:

> *"Children with disability should be taken to special schools to enable them acquire life skills. These children should be educated because it is a fundamental right to education. Despite their disability, all children are equal and have the same rights. If you don't educate a disabled child you expose him or her to different types of dangers. Those children should be able to get access to the proper education just as the other children without disability."*

Positive Change in community attitudes towards CWDs: Community key informants stated that children with special needs should be educated and can be as any other person in the society. They said:

> *"Disability is not inability and nowadays the disabled people have a share in the government as far as electoral seats are concerned and therefore should be educated. Currently the communities' perception in educating a child with disability or special needs is a positive act, unlike in the past."*

Education is a means of empowerment for CWDs: Some of the key informants viewed educating children with disability as a way of empowerment. They stated that:

> *"If a child with disability is educated the magnitude of the disability reduces and when a child with disability is educated, he or she won't be a burden to their family. If children with disabilities are educated, instilling different skills in them is not a problem. Through education they might acquire jobs that can enable them to support their families. Through education the public will not be seeing the disability but a role model."*

Increased Awareness of the capabilities of CWDs: Public awareness has increased resulting in the realization of the need to offer opportunity to CWDs to realise their full potential through enrolling them to the available special schools and vocational institutions. Key informants at the community level stated:

> *"It's generally accepted that educating a child with disability leads to self-reliance and can improve on their potential. Children with disabilities can be trained to become experts in different fields like shoe-making, knitting, artists, tailoring and even training to become teachers in these special schools. This can reduce the burden they may have been perceived to be causing in their families."*

> *"Currently, we have seen the blind who have become well known musicians and some have become top athletes. Some have even become teachers while others have become politicians like the members of parliament and others are political party delegates and thus through their talents they have become important people in the society."*

b) Negative perceptions about educating CWDs

The survey established the existence of stereotypes, labelling, misconceptions and misplacement of CWDs within the community.

Stereotypes and labelling: Many children with disability were stereotyped and considered unworthy to be educated as captured in the following voices:

> *"Children with disabilities are useless to educate. They should only be trained to repair shoes."*

> *"Some parents view it as a waste of time and resources to educate a child who won't be of any help to them."*

> *"Children with disabilities are difficult to train and some are unable to work so they should not be taken to school. Many kids with disabilities are neglected and left out of school because they are purported to be of no use to the society."*

Misconceptions on academic potential of CWDs: There was a misconception by the community that CWDs were academically incapable and should not be taken to school.

"*Children with disability especially those with physical impairments are hard to educate and for this reason, the community does not advocate for education for CWDs. They (the community) do not bother to question when a child with disability does not attend school as they think it is a waste of money."*

"Some of their physical challenges make it difficult to educate. The community doesn't value the education of such children. Education of such children is viewed as to be more expensive because special schools are not easily accessible."

"Some (communities) believe they (CWDs) can't succeed in life so there is no need for their education and some dump and leave them to die."

In one instance, a community member stated, *"There was a woman who delivered a big headed child who had small limps. The mother prayed to God to let the child die and it happened."*

Misconception on specials schools as rehabilitation centres: According to some community key informants, schools were considered as rehabilitation centres. They stated that:

"Schools are rehabilitation centres for such children and it is one place where the children go or are taken to while time away, otherwise it is a waste of money and they cannot add up to much. Some parents do not educate them but those who do, do it just to get rid of them from home because they dump them in these schools and never even pay them a visit for close to two months."

Educating CWDs not a viable investment: Some community members thought that it was not profitable to educate children with disabilities. Community regarded educating CWDs as of no real economic value:

"It's a waste of resources to educate them (CWDs). They cannot become useful people in the society and thus majority of the community members discourage the idea of educating them."

4.7 Policy gaps in addressing delivery of Special Needs Education and specific improvements required

4.7.1 Introduction

The fifth research objective is to provide an analysis of policy gaps in addressing Special Needs Education (SNE) and specific improvements that are required. This objective has been addressed through (i) Literature review and analysis of laws, regulations and policies to ascertain the achievements, gaps and challenges in the provision of education to children with disabilities, and (ii) Presentation of the findings in a validation workshop by various stakeholders in which feedback was sought and incorporated in the report. The review covers policy initiatives between

August 2010 and August 2014, and other transient policies, which have been enacted earlier, but critical towards ensuring the right to education for all children.

4.7.2 The Constitution of Kenya, 2010

The Constitution of Kenya, 2010 provides for the right to education comprehensively; first as a generic economic and social right and second for specified groups such as children, youth, persons with disabilities, minorities and the marginalized. Disability is a cross cutting issue, and therefore all the group-specific Articles that provide for the right to education are relevant. Article 43(1) of the Constitution states that every person has the right to education. Article 53(1) b states that every child has the right to free and compulsory basic education while Article 54(1) b stipulates that a person with any disability is entitled to access educational institutions and facilities for persons with disabilities that are integrated into society to the extent compatible with the interests of the person. Article 55 on youth states that the state shall take measures, including affirmative action programmes, to ensure that the youth access relevant education and training. Article 56 on minorities and marginalized groups requires the state to put in place affirmative action programmes designed to ensure that minorities and marginalized groups are provided special opportunities in educational and economic fields. Article 7(3) b of the Constitution also recognizes the important roles which language and communication play for persons with disabilities; it provides that the state shall promote the development and use of indigenous languages, Kenyan Sign Language, Braille and other communication formats and technologies accessible to persons with disabilities. Article 2(6) of the Constitution domesticates treaties or conventions ratified by Kenya as part of the laws of Kenya. Accordingly, a number of conventions relating to education which Kenya has ratified, form part of the education legal framework of the country.

Kenya ratified the UN Convention on the Rights of Persons with Disabilities in May 2008. Article 24 of the Convention requires that States Parties recognize the right of persons with disabilities to education. To ensure this right without discrimination and on the basis of equal opportunity, States Parties are required to provide an inclusive education system at all levels, and lifelong learning. Kenya has ratified two key regional conventions, which make provision for education. These are; the African Charter on the Human and Peoples' Rights, Article 17, which provides that every individual shall have a right to education; and the African Charter on the Rights and Welfare of the Child, Article 11, which provides detailed provisions on the right to free and compulsory basic education for the child and, State's obligation towards that right. Kenya has ratified the International Convention on Social and Economic Rights, Article 13, which declares the recognition of the right of all to education and the objectives thereof, and the Convention on the Rights of the Child, Articles 28, 29 and 30, which secure the rights of a child to free and compulsory basic education.

Achievements
Free and compulsory quality basic education is a constitutional human right for all children

Gap
Lack of full implementation of the right to free and compulsory quality basic education for all children anchored on it.

Challenge

Full implementation of the constitutional provisions in international conventions that enshrine and guarantee the right to free and compulsory quality basic education for all children.

4.7.3 The Kenya Vision 2030 – Second Medium Term Plan 2013-2017

The Vision 2030 – Second Medium Term Plan 2013-2017 states that there are 3,464 special needs institutions in the country with 2,713 integrated institutions and 751 special schools. Eastern region has the highest number of units at 734, while North Eastern has 56. Among these, there are 10 public secondary schools for learners with hearing impairments, three for learners with physical handicaps and four for learners with visual impairments. These figures show that access and participation of children with special needs is relatively low across the country. Generally, access and participation of pupils with special needs is low and their needs are not being specifically addressed, especially children with behavioural difficulties and those with various forms of learning difficulties and attention deficit, and the gifted and talented. The emphasis on academic performance and examinations creates an unfavourable learning environment for children with special needs and disability, whatever the severity.

Consequently, this poses a challenge to the integration and inclusion of children with disabilities in regular schools. The absence of reliable data on children with special needs across all levels of education and inadequate funding constraints affect special education service delivery and planning.

The Second Medium Term Plan (2013 – 2017) provides for the government policy direction on learners with special needs and disabilities. The government has identified key priority areas that need urgent action. Among the areas identified include actualizing the right to free and compulsory basic education and enhancing quality and relevance of education. The Plan sets out clear programmes and projects for all education sub-sectors, including SNE. The government plans to construct 60 new classrooms in special needs' schools, and 20 special secondary schools. This should be done in accordance to Section 28(2) (d) of the Basic Education Act. This Plan underscores the government's commitment to ensuring that learners with special needs and disability have more access to education[9] than is currently the case.

Achievement
Comprehensive blue print for the realization of free and compulsory quality basic education for all children.

Gap
Lack of full implementation of the envisaged goals on the provision of basic quality education for all children.

Challenge
Implementation of the vision goals on inclusive education by the year 2030.

4.7.4 Basic Education Act, 2013

[9] Republic of Kenya (2013): Kenya Vision 2030 - Second Medium Term Plan 2013-2017, Nairobi.

The Basic Education Act, 2013 was enacted to give effect to Article 53 of the Constitution, which endeavours to promote and regulate free and compulsory basic education. The Act is guided by the following values and principles- the right of every child to free and compulsory basic education; equitable access for the youth to basic education and equal access to education or institutions; and promotion of quality and relevance among others.

The Act provides for the right of every child to free and compulsory basic education; provides for the establishment of special and integrated schools for learners with disabilities; prohibits tuition fees, and stipulates the duty of parents and guardians, and the responsibility of the government. It prohibits physical punishment and mental harassment to the child; holiday tuition; and employment of a child of compulsory school-going age.

Section 44 provides for the establishment and maintenance of public special schools. The Act categorises children with special needs to include those - intellectually, mentally, physically, visually, emotionally challenged or hearing impaired learners; pupils with multiple disabilities; and specially gifted and talented pupils. Section 44 (4) further tasks the Cabinet Secretary to ensure that - every special school or educational institution with learners with special needs is provided with appropriately trained teachers, non-teaching staff, infrastructure, learning materials and equipment suitable for such learners.

Section 45 highlights the regulations in special needs education (SNE). The section authorizes the Cabinet Secretary to make regulations on the following – the duration of primary and secondary education suitable to the needs of a pupil pursuing special needs education; the learning and progression of children with special needs through the education system; standards and requirements relating to the conduct of schools making provision for special needs education for pupils with special needs; the curriculum to be used; the categories of pupils requiring special needs education and methods appropriate for the education of pupils in each category of special school or educational institutions under section 42; provision of appropriate personnel, infrastructure, learning materials and equipment; and establishment of a mechanism for monitoring and evaluation to advise the government on the quality of infrastructure and learning facilities in regard to special needs education.

Section 46 provides the County Education Boards with the duty to provide for education assessment and resource centres, including a special needs service in identified clinics in the county. Section 47 contains provisions on the duty of the County Education Boards to report on children with special needs. Section 48 provides for future provisions. It elaborates that the County Education Boards shall in consultation with the Cabinet Secretary make such arrangements as they deem fit to enable a pupil with special needs attend an establishment, whether or not a school in or outside Kenya, if that establishment makes provision wholly or mainly for gifted or talented learners for advantage of the pupil, and that one or both of his or her parents, or some other person, to be present with him or her at the establishment during the period of the attendance.

Special Needs Education requires appropriate adaptations to curricula, pedagogy, educational resources, medium of communication and the learning environment in order to cater to individual differences in learning. For many children with disabilities, it is not easy to follow the regular primary school curriculum. Efforts have been made to ensure adaptation of the overall curriculum for special needs learners. However, at classroom level, subjects have to be adapted to suit learning

needs at individual levels of learners, and quite often the SNE teachers lack the relevant skills. The educational needs of children who are highly visual learners such as learners with autism and deaf learners need a lot of support to access full curriculum content which is not highlighted in this legislation.

Inappropriate infrastructure, inadequate facilities, lack of assistive devices and equipment for learners with special needs and disability included in regular institutions is a major challenge as it has a direct bearing on quality of education, as they determine how effectively the curriculum is implemented. There is also inadequate supervision and monitoring of special needs education programmes. The Education Standards and Quality Assurance Council needs to monitor and evaluate standards and quality in SNE.

Financing of special education and inclusive education still remains a challenge to the Government. The Government spends 0.2% of the total education budget on special education, which is inadequate.[10]The amount is not enough due to the unique needs of SNE learners. In that light, the task force on special needs education appraisal exercise of 2003 recommended that the government take its rightful and leading role in the provision of education for children with special needs. It also recommended that the unit cost of educating a child with special needs to be Kes.17,000 for a child in a day school and Kes.32, 000 for one in a boarding school.[11]

The gender policy in education, 2007, singles out education for learners with special needs and disability as an area of specific focus. This policy states in part that to increase participation, retention and completion for learners with special needs and disability, the government should provide an enabling (legal and policy) environment.

Achievement
Legislative framework for the provision of free and compulsory quality basic education reforms inculcating access, relevance, quality and equity for all children in Kenya.

Gap
Lack of its full operationalization through the passage of regulations and standard measures to guide this process.

Challenge
Full operationalization of the Act, through the enactment of regulations and standard measures to guide the realization of quality, access, relevance and equity within the sector reforms for all children.

4.7.5 The Teachers Service Commission Act, 2012

The guiding principles in the Teachers Service Commission Act, 2012, according to Section 4 states that in the performance of its functions and the exercise of its powers, the Commission shall:

[10] The Policy framework on Education and training in Kenya, 2012

[11] A report of the task force on Special needs education appraisal exercise, 2003

(a) Be guided by the national values and principles of governance under Article 10 and the values and principles of public service under Article 232 of the Constitution, taking into account the best interests of the child under Article 53 of the Constitution. Some of the national values and principles of governance include human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalised;
(b) Subject to Article 249(2) of the Constitution, consult with State and non-State actors in the education sector.

The Commission is responsible for the registration of trained teachers in the teaching service, thus ensuring that there are sufficient qualified teachers in the special needs schools.

Achievement
The Act provides for a legislative framework to reform and professionalize the teaching service, guided by the best interests of the child as one of the key pillars of reforms.

Gap
The Act is not fully operationalized, therefore hindering the realization of its desired objects.

Challenge
Full implementation of the Act, through appointment and enactment of the regulations to guide its operationalization.

4.7.6 The Kenya Institute of Curriculum Development Act, 2013

Section 4 (c) of the Kenya Institute of Curriculum Development Act, 2013, mandates the Kenya Institute of Curriculum Development to perform the following functions in all matters of education and training including special needs education:

- Implement the policies relating to curriculum development in basic and tertiary education and training;
- Develop, review and approve programmes, curricula and curriculum support materials that meet international standards for special needs education;
- Initiate and conduct research to inform curriculum policies, review and development;
- Collect, document and catalogue information on curricula, curriculum support materials and innovations to create a data bank and disseminate the information to educational institutions, learners and other relevant organisations;
- Print, publish and disseminate information relating to curricula for basic and tertiary education and training;
- Collaborate with other individuals and institutions in organizing and conducting professional development programmes for teachers, teacher trainers, quality assurance and standards officers and other officers involved in education and training on curriculum programmes and materials;
- Develop, disseminate and transmit programmes and curriculum support materials through mass media, electronic learning, distance learning and any other mode of delivering education and training programmes and materials;
- Promote equity and access to quality curricula and curriculum support materials;

- Promote appropriate utilisation of technology to enhance innovations and achievement of a knowledge based economy;
- Offer consultancy services in basic and tertiary education and training;
- Incorporate national values, talent development and leadership values in curriculum development; and,
- Receive, consider, develop and review curriculum proposals.

Section 17 (1) provides that there shall be The Council of the Institute. The Council shall have an Academic Committee, course panels, subject panels and a research, monitoring and evaluation panel to perform such functions and discharge such responsibilities as the Council may determine. Section 18 (3) further highlights that the members of the Academic Committee shall include representatives from an institution mandated by law to train teachers for special needs education. According to Section 18(4) the functions of the Academic Committee shall be to keep under constant review the curricula and curriculum support materials at different levels of education and training as provided for in section 4(c); ensure the quality of educational programmes developed by the Institute and review broad issues relating to curriculum and education policy.

Achievement
Provides a broad framework for reforming the curriculum to suit the needs of all learners.

Gap
The envisaged reforms in curriculum development have not been fully undertaken.

Challenge
Lack of comprehensive curriculum reforms to ensure responsiveness to the needs of all learners.

4.7.7 The Kenya National Examinations Council Act, 2012

The Kenya National Examination Council (KNEC) has powers to regulate the conduct of national examinations and for all purpose incidental thereto. It has the mandate to set and maintain examination standards, and conduct public academic, technical and other national examinations within Kenya at basic and tertiary levels. However, it does not provide special measures or mechanisms for the needs of children in special needs schools. The academic performance and examinations create an unfavourable learning environment for children with special needs. Many of the children in special needs schools do not perform very well in national examinations thus do not proceed to the next level due to poor grades. For instance, according to the instructions for conducting the KCSE provided by KNEC, the instructions do not provide for any allocation of extra time to candidates with special needs sitting for any examination paper.

Achievement
Provides a comprehensive legislative framework for the management and administration of examinations in Kenya.

Gap
The Act does not provide special measures and mechanisms for the needs of children with disability/special needs in assessments and examinations.

4.7.8 The Children Act, 2001

Kenya has domesticated the United Nations Convention on the Rights of the Child through the Children Act, 2001 that promotes the well-being of children in Kenya. According to the Act, a child is any human being under the age of 18 years. Part II of the Act safeguards the Rights and Welfare of the Child**.** The Act addresses the rights of the child and the responsibilities of the government and family in ensuring that these rights are protected. Section 7 states that every child shall be entitled to education, the provision of which shall be the responsibility of the Government and the parents. Every child shall be entitled to free basic education, which shall be compulsory in accordance with Article 28 of the United Nations Convention on the Rights of the Child. Section 3 provides that the Government shall take steps to the maximum of its available resources with a view to achieving progressively the full realization of the rights of the child. These include quality basic education for all children.

Section 4(1) stipulates that every child shall have an inherent right to life and it shall be the responsibility of the Government and the family to ensure the survival and development of the child.

On the issue of discrimination, Section 5 states that no child shall be subjected to discrimination on the ground of origin, sex, religion, creed, custom, language, opinion, conscience, colour, birth, social, political, economic or other status, race, disability, tribe, residence or local connection. According to Section 12 of the Act, a disabled child shall have the right to be treated with dignity, and to be accorded appropriate medical treatment, special care, education and training free of charge or at a reduced cost whenever possible.

Achievement
The Act provides the legislative framework for the promotion and protection of the rights of all children including to education.

Gap
The Act has not been harmonized and re-aligned to the Constitution and Kenya Vision 2030.

Challenge
Harmonization and re-alignment to the Constitution and Kenya Vision 2030 to enable its implementation.

4.7.9 Persons with Disability Act, 2003

Section 18 provides the following provisions:

- That no person or learning institution shall deny admission to a person with a disability to any course of study by reason only of such disability, if the person has the ability to acquire substantial learning in that course.
- Learning institutions shall take into account the special needs of persons with disability with respect to the entry requirements, pass marks, curriculum, examinations, auxiliary services, use of school facilities, class schedules, physical education requirements and other similar considerations.

- Special schools and institutions, especially for the deaf, the blind and the mentally retarded, shall be established to cater for formal education, skills development and self-reliance.[12]

Achievement
Provides comprehensive legislative framework for the promotion and protection of the rights of persons with disability, including children.

Gap
The Act has not been harmonized and re-aligned to the Constitution and Kenya Vision 2030

Challenge
Harmonization and re-alignment of the Act to the Constitution and Kenya Vision 2030 to enable its full implementation

4.7.10 National Children Policy Kenya, 2010

The National Children Policy Kenya, 2010, states that, all children deserve quality, relevant, accessible, affordable, child friendly education in a secure and safe environment. The policy spells out the role of the state, non-state actors and the parents in the provision of free and compulsory basic education. The policy proposes measures for the realization of this right notably equitable access, quality and adequate facilities.

Achievement
Provides policy guidelines on the realization of the rights of children i.e. survival & development, promotion, protection and participation.

Gap
Lack of harmonization and re-alignment to the Constitution and Kenya Vision 2030.

Challenge
Harmonization and re-alignment to the Constitution and Kenya Vision 2030 for its implementation.

4.7.11 Special Needs Education Policy, 2009

The National Special Needs Education (SNE) Policy, 2009, was developed to address critical issues related to education for learners with special needs. The policy states that the overall goal of the Ministry of Education is to provide equal access to education to all learners irrespective of their physical or mental state in line with national and global commitments to achieving Education for All (EFA) by 2015. The mission of the Special Needs Education Policy is to create a conducive environment for learners with special needs and disabilities in order for them to have equal access to quality and relevant education and training. According to the policy, special needs education

[12]Republic of Kenya (2003), The Persons with Disabilities Act (2003), Nairobi

has continued to expand and currently includes children with handicaps, albinism, and other health impairments. It also includes children who are gifted and talented, deaf, blind, orphaned, abused, living in the streets, heading households, living in nomadic / pastoral communities and who are internally displaced. The policy aims to provide free education for all children with disability in an inclusive setting and to create an enabling environment so that their disability does not hinder them from getting education. The policy addresses critical issues which determine access and delivery of quality and relevant education to learners with special needs.

The SNE policy framework has fifteen objectives that target: 1) Assessment and intervention, 2) Access to quality and relevant education, 3) Conducive environment, health and safety (adaptation of facilities), 4) Specialized facilities and technology, 5) Inclusive education, 6) Curriculum development, 7) Capacity building and development, 8) Participation and involvement, 9) Advocacy and awareness creation, 10) Partnerships and collaboration, 11) Gender mainstreaming in SNE, 12) Research and documentation, 13) Disaster preparedness, 14) Resource mobilization – finance, human and material resources, and, 15) Guidance and counselling. Each objective has three sections: background, policy statements and strategies that the Ministry of Education Science and Technology (MOEST) shall assume in order to achieve the objective.

The Policy states that MOEST shall:

- Enforce equal access and inclusion of persons with special needs and disability in education and training programmes at all levels;
- Intensify monitoring, supervision and quality control in all schools to ensure children with special needs and disability are provided for without discrimination; and,
- Ensure timely provision of learning and teaching materials in accessible formats.

The policy provides the following interventions to ensure that children with special needs access quality and relevant education:

- Sensitize administrative personnel and others working with learners with special needs and disability on their roles in education;
- Educate parents, other learners and the communities on the needs of the learners with special needs and disability;
- Intensify monitoring, supervision and quality assurance and standards in all schools to ensure quality education;
- Ensure KICD produces learning/teaching materials in tandem with the change of curriculum and textbooks;
- Expand educational services to cater for other categories of youth/children with special needs and disability not currently catered for in regular learning institutions; and,
- Maintain and increase necessary support for special institutions to cater for children and youth who cannot benefit from inclusive education.

To increase access and participation, the Government has placed emphasis on inclusive education for learners with special needs through regular schools as opposed to just the practice of using special schools and special units attached to regular schools. However, special schools and units are essential for learners with severe special needs and disability in the areas of hearing, visual, mental and serious physical challenges. Inclusive education approach will increase access to education for children with special needs. The fact that the strategies provided to support inclusive

education have not been effectively implemented poses a major challenge to learners with special needs and disability.

Achievement
Provides policy guidelines for the implementation of special needs education

Gaps

- The policy has not been fully operationalized and lacks action plan/ guidelines for implementation.
- Lack of legislation or formal regulations on assessment and intervention procedures. For instance, the SNE policy acknowledges that Kenya applies 'a multidisciplinary approach which is only conducted informally since it has not been formalized'.
- There are inadequate tools and skills for assessing and identifying learners with special needs as well as inadequate funding for the Education Assessment Resource Centres, EARCs.
- There is inadequate data on children with special needs and disability in and out of school.
- Insufficient resourcing for the SNE subsector which results to inadequate learning facilities, and inadequate skilled teaching and auxiliary staff.

Challenges
Harmonization and re-alignment of the policy to the constitution, vision 2030, The Basic education Act, and other relevant laws and policies on the provision of free and compulsory quality basic education for all children in Kenya.

4.7.12 Sessional Paper no. 14 - The proposed policy framework on Education and training in Kenya, 2012

The paper focuses on increasing access to education for children with special needs / disability; enhancing retention; improving quality and relevance of education; strengthening early identification, intervention, assessment, referral placement and follow up services; and ensuring equal opportunities and gender parity in the provision of education to children with special needs and disability.

To achieve access, equity, quality and relevance in basic education the proposed sessional paper recommends that the Government employs the following strategies:

- Implement affirmative action to enable gifted and talented learners, and learners with special needs and disability in basic education;
- Restructure Kenya Institute of Special Education (KISE) and enhance its capacity to play a more effective role in the training of teachers and other personnel working for and with learners with special needs and disability;
- Review the SNE curriculum at KISE to offer degree courses for teachers and introduce tailored courses for head teachers and educational managers to support inclusive education;
- Mobilise funding for SNE and other support for research in the field of SNE;
- Develop and standardize diagnostic assessment tools to facilitate early identification, assessment and placement of learners with special needs;

- Implement inclusive education programmes in pre-service and in-service teacher training;
- Strengthen and enhance funding for Education Assessment Resource Centres at county level;
- Mobilise funds to ensure that all schools adapt ICT facilities to support the learning of learners with special needs and disability;
- Adopt a multi-sector approach to support health services;
- Enhance capacity building for EARCs staff;
- Strengthen the multi-disciplinary approach in assessment of learners with special needs and disability;
- Enforce Article 53 of the constitution to ensure free and compulsory basic education for all children;
- Establish pilot special needs schools, integrated programmes and inclusive schools as centres of excellence at county level;
- Establish a national centre to coordinate acquisition, production and repair of specialized and assistive devices;
- Integrate special needs education programmes in all learning and training institutions and ensure that the institutions are responsive to the education of learners with special needs and disability;
- Revise the curriculum to make it competency based and integrate ICT in the education system; and,
- Enhance development of specialised curriculum for learners with special needs.

To improve the quality and relevance of education, special needs teacher education is essential. Teacher Education and Development has evolved over the years with specific institutions offering teacher education programs at certificate, diploma and degree levels. There are 22 Public Primary Teacher Training Colleges and 97 private primary Teachers Training Colleges producing an average of 11,500 P1 teachers yearly within a two year program. The public Diploma Teacher Training Colleges train 1,340 teachers per year within a three year Teacher Education program. Early Childhood Development and Education (ECDE) teachers are trained mainly through an in service program at certificate and diploma levels. Most training is conducted in educational institutions during school holidays. On an annual basis, 10,000 teachers are trained at certificate level while 12,000 are trained at diploma level; both courses take two years with the only difference being entry qualifications of the trainees. There exist pathways for vertical progression. Kenya Institute of Special Education (KISE) trains 240 certificate and 1,800 diploma teachers in SNE annually.

Similarly universities offer teacher training at ECDE and SNE levels at various levels. Universities, both public and private offer education degree programs in various disciplines through various modes such as distance education, school based and regular programmes producing graduate teachers in Science and Art. Despite the fact that the services of these teachers are required, the specialized teacher management agency, TSC is not able to absorb all trained teachers due to budgetary constraints and mismatch of skills.[13]

[13] Republic of Kenya (2012): A Policy Framework for Education and Training on Reforming

Education and Training Sectors in Kenya, MOE

Achievement
Provides broad policy guidelines in education for the realization of access, relevance, quality and equity for all children in Kenya.

Gap
The policy guidelines on access, relevance, quality and equity have not been approved by Parliament and fully implemented.

Challenges
- Full approval and implementation of the policy guidelines.
- Monitoring and evaluation of the implementation of the policy guidelines.

4.8 Conclusion

It's evident from the above findings that despite the promulgation of the new constitution on August 27th August 2010, which ushered in the processes of education sector reforms through the enactment of various legislative and policy frameworks, anchored on the Constitution that enshrined and guaranteed basic education as a constitutional human right for all children in Kenya, children with special needs and disability have not been able to realise the right to free and compulsory quality basic education due to the following factors:

a) Lack of effective mechanisms for the implementation and enforcement of policies, laws and standard measures for the realization of access, relevance, quality and equity in provision of inclusive education.
b) Delay in the establishment of the governance and management structures and systems for the promotion of good governance, integrity, transparency, accountability and stakeholders' engagement has hindered the implementation and enforcement of inclusive education as stipulated in the constitution and relevant subsidiary legislations. These include The Basic Education Act, 2013, Kenya Vision 2030, Policy framework on Education and Training in Kenya, 2012.
c) Curriculum and assessments have not been reformed to be responsive to the needs of learners with disability.
d) Lack of reliable data on children with disability remains a major constraint to planning and budgeting for the provision of inclusive education.
e) Inadequate qualified public teachers for the provision of inclusive education, and integration of special needs training in teachers training programmes.
f) Cultural beliefs and stigma have contributed to the lack of access to formal education by children with disability in the Republic.
g) Inadequate tools and skills for assessing and identifying learners with special needs.
h) Insufficient funding for EARCs at county levels.
i) Inclusive education in general is insufficiently funded, which results in inadequate facilities/ infrastructure.

4.9 Proposed Recommendations

Based on the analyses and findings of the study, the Ministry of Education, Science and Technology in the Republic of Kenya should undertake the following:

4.9.1 Key Recommendations for the Government of Kenya

Access & Relevance:
The government of Kenya should:

- Enact and fully implement all laws, policies and regulations on the provision of free and compulsory quality basic education for all children in Kenya.
- Harmonize and realign the Children Act 2001, Persons with Disability Act, 2003; Special Needs Education policy, 2009, with the Constitution of Kenya 2010 and Kenya Vision 2030.
- Conduct a survey to ascertain the population of children with disability/special needs across the country to enable it plan and budget appropriately for the provision of inclusive education.
- Equip the Education Assessment and Resource Centres (EARCs), and the county Education Boards with qualified personnel, modern facilities and resources for prevention, assessments and referral.

Quality and Equity:
The Government of Kenya should:

- Prepare the school environment for disability inclusion with appropriate infrastructure, assistive devices and competent teachers and staff.
- Reform the curriculum to make it responsive to the needs of learners with disability and special needs.

4.9.2 Key Recommendations for Non- state Actors

Access and Relevance
These stakeholders should:

- Lobby and advocate for the implementation and enforcement of laws, policies and regulations by the government on the provision of the right to free and compulsory quality basic education for all children in Kenya.
- Create awareness in the society to eliminate stigma and discrimination against children with disability to realise their right to free and compulsory quality basic education.
- Undertake public interest litigation on behalf of children with disability to ensure the government's compliance to the letter and spirit of the constitution regarding their right to free and compulsory quality basic education.

Equity and Equality
These stakeholders should:

- Monitor and evaluate the implementation processes of the right to free and compulsory quality basic education for all children in Kenya.

- Carry out research and document the best practices in the implementation of the right to free and compulsory quality basic education.

CHAPTER 5 : CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions and recommendations for the study. The chapter provides a summarized presentation of the findings based on the analysis of the results. It also presents conclusions and recommendations based on the five objectives for the study

5.2 Conclusions

One of the objectives of this survey was to establish the prevalence of the disabilities and special needs among school and out of school children between the ages of 0 to 21 years in Kenya and from the analysis it can be concluded that there is a high prevalence of disabilities among children aged 0-21 years. Geographical and gender disparities also prevail. It can be concluded that the prevalence level based on the survey is 13.4%, which is comparable to the global prevalence levels estimated at 15%.

The other key objective of the study was to determine the relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities in Kenya. In conclusion and based on the analysis of objective two of the study, the current resources and structure in many schools is not adequate and relevant. Many resources and structures are not adaptive to the needs of children with disability. For example, comparison of the number of special needs pupils and the number of qualified teachers indicates acute inadequacy of special teachers particularly in the regular schools.

In terms of the assessment and establishing the factors contributing to the school attendance by children with disabilities and special needs in the country, it can be concluded that the number of children currently out of school (16%) was above the national average. More CWDs were out of school than those without disabilities.

The study also aimed to establish the views and perspectives of the community and persons affected with disability particularly on the access to education in Kenya. In conclusion, there were mixed perceptions towards children with disability. Whereas there were positive perceptions, the survey established the persistence of stereotypes, misconceptions, stigma and discrimination towards CWDs in the school and community.

Finally the study sought to identify and analyse the policy gaps that exist in addressing the delivery of special needs education and the specific areas of improvements required in the country. On this objective it can be concluded that gaps exist in the area of special needs education and in the education of children with disability. Gaps exist in lack of a specific inclusive education policy, funding policy, and medical policy whereby there no medical support policy for these children because some of their disabilities require regular medical attention. There is no examinations policy to allow the setting of different exams from those of regular students. Policies also lack in counselling, facilities and on issues of discrimination. Again, most of the existing policies lack an implementation framework.

5.3 Recommendations

Based on the conclusions for this study, a number of recommendations are proposed for based on each objective of the study and they include:

a) Recommendations related to prevalence of disability

i. From the results, some children with disabilities were identified to be gifted and talented. Therefore is important to investigate the gifts and talents that these children have and help develop them to their full potential.

ii. Children in rural areas had much higher disability rates than children in urban areas. More boys than girls were identified as CWDs. A targeted intervention is therefore necessary to reach rural areas, and address other disparities within the CWDs.

iii. A substantial number of all CWDs were ten years old or less. There is an opportunity to develop interventions to reach these children early enough, to offer them appropriate intervention services in order to minimize the chances of their specific disabilities getting severe. Similarly, for those children for whom intervention is too late, it is important that they have access to appropriate rehabilitative measures. The need for targeted screening in regular schools to help identify cases of late disabilities is equally high.

iv. There were geographic disparities in disability prevalence, For instance, Nairobi County had the highest percentage of disability followed by Bungoma County and Siaya County. It would be important for more services targeting CWDs to be deployed in these counties.

b) Recommendations related to staffing, structures and facilities for CWDs

i. There is great and urgent need to improve the relevance and adequacy of education structures, learning facilities and resources supporting children with disabilities in Kenya. The current state of the resources and structure in many schools is not adequate and relevant. Many resources and structures are not adaptive to the needs of children with disability.

ii. Increasing the number of special needs qualified teachers where there is acute shortage of special teachers, particularly in the regular schools, requires improvements. The distribution of teachers across Counties was also skewed. There is need for Government to increase incentives for attracting more trainees to choose the area of special needs education.

iii. The survey established that there is need to not only ensure adaptation of facilities to the needs of CWDs but also to increase the supply of the equipment and facilities for the children with disabilities.

iv. Increase capitation for CWDs under the FPE grants to reflect the cost of teaching-learning materials, assistive devices, adaptation of classroom and school compounds, and care and support. A unit cost analysis should be computed to reflect the needs of the various categories of CWDs.

Children themselves made specific recommendations regarding staffing, structures and facilities for CWDs as follows:

i. Schools should ensure all play grounds and fields are well levelled and should not have stones and the playgrounds and facilities should be adapted for all children to use.
ii. The teachers to review their teaching methods so that they can accommodate all learners and specifically those CWDs.
iii. The teachers should have patience when teaching learners with speech disorders especially those with stammering problems.
iv. The teachers should accept all learners regardless of their abilities.
v. The teachers should be trained in physical education so that they know what to with CWDs during physical education (PE) lessons, sports and games times so that they don't remain in class when other children are playing
vi. The government to provide them with free services in schools from professionals as physiotherapists, occupational therapists, speech therapist and guidance and counselling teachers.
vii. Schools should have separate specially adapted toilets for CWDs.

c) Recommendation related to the views and perspectives of the community on persons affected with disability

i. **Increase awareness of disability issues and promote positivity for family and community:** One of the strategies that has been found to work is that of promoting family adjustment to childhood disability (Benzies, Worthington, Reddon and Moore, 2010), by strengthening psychological coping to care givers especially mothers and family as well as immediate community members. This can be done by, promoting their ability to perceive positive family consequences of childhood disability and to maintain higher proportions of positive emotion in their daily activities. There is need to provide support for the families of children with disability in terms of counselling services.

   This can be done through the health care sector through the devolved Ministry of Health by employing a counsellor in each Sub-County to provide counselling services for such families. It can also be done through the Ministry of Youth and Social Services whereby the social worker in each Sub-County and County can work out a plan to provide positive family counselling regarding children with disability. Workshops and seminars for family and the community to explain the role of positivity in care givers and mothers' coping and adjustment to childhood disability can help improve and change the negativity regarding CWDs.

   Secondly, efforts to empower and include children with disabilities in school, family, and community activities and working on ways to develop more peer support for children with disabilities seem to be practical avenues of action that could make a positive difference in the lives of children with disabilities.

ii. **Develop an adaptive society towards these children:** Mitigating measures to eliminate or reduce the impact of impairment should be adopted. There are many non-exhaustive list of examples of mitigating measures. They include medication, medical equipment and

devices, artificial limbs, low vision devices (e.g., devices that magnify a visual image), hearing aids, mobility devices, oxygen therapy equipment, use of assistive technology, reasonable accommodations, and learned behavioural or adaptive neurological modifications. In addition, psychotherapy, behavioural therapy, and physical therapy can be added to the list of examples.

iii. **Strengthen and sustain the positive gains made so far regarding disability issues.** Prohibition measures on discrimination against CWDs should be put in place. It is important to ensure and determine whether an individual or family meet all the basic conditions adaptive to CWDs including the need for reasonable accommodation and reasonable school adapted facilities. Compliance to the positive mitigation measures must be ensured both in school and at home. Like in many other countries, penalties on non-compliance should be enforced. While some standards to mitigate the negative perceptions are set too high especially for students and schools, it is important to believe and understand that we must maintain high expectations for all students, particularly students with disabilities.

iv. **Capacity Building**. In order to help school leaders and education practitioners provide the support to help every child succeed to higher expectations, they need assistance in learning strategies that are effective. Public investments should be carefully directed to professional and leadership development efforts that are tightly linked to the specific needs of each school or district and that address capacity issues related to teaching and learning and helping all students, particularly students with disabilities, reach high standards. County education boards need specific targeting to carry out their constitutional mandate including support for EARCs

v. **Highly Qualified Teachers**. Standards for highly qualified teachers should not be relaxed, although limited flexibility in reaching those standards, especially for rural schools, is appropriate. The Ministry of Education should conduct research and analysis on effective methods of teacher preparation, including alternative routes to certification, with a particular focus on special education. The higher education system also needs to find ways to prepare highly qualified teachers in routes unlike those we know of today. Particular interest should be directed towards teachers training needs regarding special needs education.

vi. **Better Assessment Tools**. A host of needs calls for a new generation of assessments that are designed to serve a broader range of students with diverse needs are useful to inform instruction, and that measure a broader range of skills. For example, the Ministry of Education can play an important role in supporting research and development efforts to create a new generation of assessments that are appropriate for a large number of diverse students; measure more than academic skills; can be used as instructional management tools; and result in an increased number of students taking alternative assessments.

vii. **Support and Disseminate of Evidence-Based Research and Practice**. There is need for more rigorous research on effective strategies for students with disabilities. All stakeholders should support an enhanced research agenda and the Ministry of Education should bridge research efforts through the Special Education Unit; Kenya Institute of

Special Education (KISE) and Kenya Institute of Curriculum Development (KICD). Research is particularly needed to understand how to teach more academic rigor to students with disabilities and to understand optimal assessment tools.

viii. **Support for Students**. While research for students with disabilities is limited, a range of other research on high school reform points to strategies that are successful in improving student outcomes. The Ministry of Education should provide technical assistance on strategies to help students increase transition to in secondary education, reduce dropout rates, and increase preparation for postsecondary education and careers by: setting higher expectations, greater instructional personalization, self-advocacy, on-going counselling and mentoring, parental involvement, and connections to the community and postsecondary learning options.

ix. **Accountability:** The shift towards accountability, outcomes, and higher expectations in our schools can lead us in the right direction, although it is recognized that schools face legitimate difficulties during this change process. But the response to these challenges should not be to back down on expectations for students with disabilities and those who have been perceived as unable to meet the standards. Policymakers and practitioners must remain committed to the goal of closing the achievement gap for all students. To lessen this commitment would be to return to the days and the mind-set that only some students could reach, and deserved to be taught to, high standards. We now know that by setting high expectations, and helping students, teachers, administrators, and family members reach those high standards, we can close the achievement gap for all students.

d) Policy related recommendations

It is worth recognizing that children with disabilities must attend school and be provided with the best possible educational services according to their specific needs. Inclusive education is seen as a major process, which facilitates successful education. This will only be possible if given proper means to support the programme.

Learning needs of the child with disability requires special attention. Therefore, steps need to be taken to ensure provision of equal access to education to every category of children with disabilities as an essential part of the education system.

i). Access to education

Access to education and recognition of children with special educational needs as having equal rights to enjoy equal educational opportunities. This means that other than access to school for children with disabilities either in mainstream classes, units or special education schools, education should be relevant and of high quality by setting programmes of learning specific to each special need. This means that other than modifying the general curriculum, curriculum should be developed based on the individual child's need. Also, school environment should be friendly to learners with special needs. This will ensure that children who do not secure vacancies in the few residential special needs schools are accommodated in schools within their home areas thus reducing the number of children with disabilities not in any school setting.

ii). Relevance of curriculum

KICD to review curriculum both at primary and secondary levels to focus on formulation of needs and development of competence-based curricula for CWD based on their different capabilities and disabilities. To add on to this, teachers handling learners with disabilities should be represented in the Academic Committee of the KICD. This is because the classroom teacher is in direct contact with the learner hence he or she knows what is relevant for the learners.

iii). Mode of assessment

There is need to review the mode of assessment of students performance according to their learning needs, abilities and potentials. For example, students who may never hold a pen to write the examinations should be subjected to other modes of assessment such as oral examinations where an audio tape recorder is used to record the exam responses which later would be transcribed for easier making. Also learners who may never cope with academic programmes should be assessed based on their functional ability. This calls for recognition of continuous assessment for such learners and awarding of certificates by the Kenya National Examination Council.

This implies that achievement in terms of special educational needs to aim at improving the attainment of each child, ranging from best possible performance in general education curriculum to basic competencies and life skills. Issuing a national examinations council certificate should recognize these achievements.

iv). Early intervention

Education Assessment and Resource Centres (EARCs) ensure early identification, assessment, intervention and placement of learners with special needs and disabilities. Other than the early screening, identification and school placement, there is need for follow-up of school-aged children at regular intervals so as to allow re-assessment and re-placement. This will ensure that children with disabilities access quality education based on their abilities.

v). Duration of basic education

Learners with disabilities may due to their nature of disabilities fail to attend classes regularly. This is because most often, some types of disabilities may require a learner to be hospitalized for various medical procedures such as surgeries. This implies that such a learner will have to be out of class for the duration he or she will be hospitalized leading to lack of coverage of the content set for a particular class. There is need to allow such a learner to complete his time in school. It is therefore recommended that duration of any level of education for learners with disabilities not to be based on the calendar year but on whether the learner has covered the content required for each level of education. Another implication is that the education system has to be flexible for these learners so as to ensure that they enjoy the education opportunities like their peers without disabilities.

References

Agresti, A., & Finlay, B. (2009). *Statistical methods for the social sciences* (4 ed.). Upper Saddle River, New Jersey: Pearson Prentice Hall.

Aseka, W. (2013). Education for all, even for children with disabilities in Kenya. *AfricLaw*.

Benzies KM, Worthington C, Reddon JR, Moore M (2010) *Accentuate the positive to mitigate the negative: mother psychological coping resources and family adjustment in childhood disability.*

Creswell, J. W. (2009). *Research design: Qualitative & quantitative approaches*. Thousand Oaks, CA: SAGE Publications.

Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research* (2 ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Feldt, L. S., & Brennan, R. L. (2003). Reliability. In R. Lin (Ed.), *Educational Measurement* (Vol. 3). Phoenix, AZ: Oryx Press.

Filmer, D (2008). Disability, poverty, and schooling in developing countries: Results from 14 household surveys (English). The World Bank economic review. -- Vol. 22, no. 1 (January 2008), pp. 33-61. Retrieved from http://documents.worldbank.org/curated/en/2008/01/17760166/disability-poverty-schooling-developing-countries-results-14-household-surveys on 13th February 2014 at 3.12pm.

Free Secondary Schools for Kenya. BBC News. (Feb 11, 2008). *BBC News*. from http://news.bbc.co.uk/2/hi/africa/7239577.stm

Hogg, R. V., & Tanis, E. A. (1997). *Probability and statistical inference*. Upper Saddle River, NJ: Prentice Hall.

IDEA (2012) Category of disability under IDEA. Retrieved May 8, 2014, from http://nichcy.org

Kenya National Bureau of Statistics (KNBS) (2014). *Kenya Facts and Figures 2014*. Nairobi. Government Printers

Loeb & Eide (2004). Living Conditions among People with Activity Limitations in Malawi. A National Representative Study.

Macha, E. (2007). *State of disabled peoples rights in Kenya*: African Union of the Blind.

McMillan, J. H., & Schumacher, S. (2001). *Research in education: a conceptual introduction* New York: Longman.

Messick, S. (2003). Validity. In R. Lin (Ed.), *Educational Measurement* (Vol. 3). Phoenix, AZ: Oryx Press.

Mittler, P. (2000). Working Towards Inclusive Education: Social Contexts. New York. David Fulton Publishers

MoE (2009). *The National Special Needs Education Policy Framework*: Republic of Kenya.

MoEST (2004). Development of education in Kenya Retrieved May 10, 2014, from http://www.ibe.unesco.org/International/ICE47/English/Natreps/reports/kenya.pdf

MoEST (2012). *A policy framework for education.* Republic of Kenya

Mont, D. (2007). *Measuring disability prevalence*: World Bank.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches*: African Centre for Technology Studies.

Muliru S.(2012). *Pealing the Mask; Facts on Secondary Education Sector in Kenya*. London. Oxford University Press.

National Coordinating Agency for Population & Development (2008). *Kenya National Survey for Persons with Disabilities*.

Ominde, S. (1964). Commission on Education Review in Kenya. Nairobi. Government printer.

Shevlin, M., Kenny, M., & McNeela, E. (2004). *Participation in higher education for students with disabilities: An Irish perspective.* Disability and Society, 19, 15-30

Stufflebeam & Shinkfield (2007). Evaluation Ethics for Best Practice: Cases and Commentaries. New York. Guilford Press.

Topping & Maloney (2005). Education Policy and Equal Education Opportunities. New York. Open Society Foundations

UNESCO (2006). *Literacy for life: Education for All Global Monitoring Report*: UNESCO.

UNESCO (2009). Education of children with disabilities in India: Reaching the marginalized; Background paper prepared for the Education for All Global Monitoring Report 2010

UNESCO (2010a). *Reaching the marginalized: Education for All Global Monitoring Report*: UNESCO.

UNESCO (2010b). *UNESCO National Education Support Strategy (UNESS) for the Republic of Kenya*. Nairobi: University of Nairobi.

UNESCO (2012). Education for All Global Monitoring Report. Retrieved from http://en.unesco.org/gem-report/sites/gem-report/files/GAW2014-Facts-Figures-gmr_0.pdf on 12th February 2014 at 9.38am.

UNICEF (2013). *The state of the world's children: children with disabilities*: United Nations Children's Fund.

Warnock, M. (1978). *Special educational needs: Report of the committee of enquiry into the education of handicapped children and young people*. London.

World Bank (2006). *Disability and Development: Data and Statistics on Disability*. Retrieved from http://go.worldbank.org/UA734UP0G0 on Tuesday 28th February 2014 at 9.28am.

World Health Organisation (2002). *Towards a common language for functioning, disability and health*- Geneva

World Health Organisation (2011). World Report on Disability. Geneva, WHO Press.

5.4 Appendix 1: Activity Limitations and Participation Restriction Shortlist

Activities and Participation Shortlist	
LEARNING AND APPLYING KNOWLEDGE Watching Listening Learning to read Learning to write Learning to calculate *(arithmetic)* Solving problems	**SELF CARE** Washing oneself *(bathing, drying, washing hands, etc)* Caring for body parts *(brushing teeth, shaving, grooming, etc.)* Toileting Dressing Eating Drinking Looking after one`s health
GENERAL TASKS AND DEMANDS Undertaking a single task Undertaking multiple tasks	**DOMESTIC LIFE** Acquisition of goods and services *(shopping, etc.)* Preparation of meals *(cooking etc.)* Doing housework *(cleaning house, washing dishes laundry, ironing, etc.)* Assisting others
COMMUNICATION Communicating with -- receiving -- spoken messages Communicating with -- receiving -- non-verbal messages Speaking Producing non-verbal messages Conversation	**INTERPERSONAL INTERACTIONS AND RELATIONSHIPS** Basic interpersonal interactions Complex interpersonal interactions Relating with strangers Formal relationships Informal social relationships Family relationships Intimate relationships

Source: WHO ICF Checklist

5.5 Appendix 2: Descriptions of Categories of disabilities and special needs in the study

1. ***Hearing impairment***: an impairment in hearing, whether permanent or fluctuating that adversely affects a child's educational performance but is not included under the definition of "deafness.''

2. ***Visual Impairment including Blindness***: an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

3. ***Physical impairment***: Physical impairment is a disability that limits a person's physical capacity to move, coordinate actions, or perform physical activities. It is also accompanied by difficulties in one or more of the following areas: physical and motor tasks, independent movement; performing daily living functions.

4. ***Cerebral palsy***: a condition marked by impaired muscle coordination (spastic paralysis) and/or other disabilities, typically caused by damage to the brain before or at birth.

5. ***Epilepsy*** - a neurological disorder marked by sudden recurrent episodes of sensory disturbance, loss of consciousness, or convulsions, associated with abnormal electrical activity in the brain.

6. ***Down Syndrome***is congenital or genetic disorder caused when abnormal cell division results in extra genetic material from chromosome 21. This genetic disorder, which varies in severity, causes lifelong intellectual disability and developmental delays, and in some people it causes health problems

7. ***Autistic spectrum disorder***: a developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age three that adversely affects a child's educational performance. Other characteristics often associated with autism are engaging in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined below. A child who shows the characteristics of autism after the age of 3 years could be diagnosed as having autism if the criteria above are satisfied.

8. ***Intellectual and Cognitive Handicaps***: means significantly sub average general intellectual functioning, existing concurrently [at the same time] with deficits in adaptive behaviour and manifested during the developmental period, that adversely affects a child educational performance.

9. ***Deaf-blind***: a hearing impairment so severe that a child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.

10. ***Emotional and Behavioural Disorders***: a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:
    (a) an inability to learn that cannot be explained by intellectual sensory, or health factors.
    (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
    (c) inappropriate types of behaviour or feelings under normal circumstances.
    (d) a general pervasive mood of unhappiness or depression.
    (e) a tendency to develop physical symptoms or fears associated with personal or school problems.

    The term includes *schizophrenia*. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance.

11. ***Learning Disabilities***: a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfection ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain, dysfunction, dyslexia, and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities; of emotional disturbance; or of environmental, cultural, or economic disadvantage.

12. ***Speech and language Disorders***: a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance.

13. ***Multiple Disabilities other than Deaf-blind***: concomitant [simultaneous] impairments (such as intellectual disability-blindness, intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.
14. ***Dwarfism***: is short stature that results from a genetic or medical condition. Dwarfism is generally defined as an adult height of 4 feet 10 inches (147 centimeters) or less. The average adult height among people with dwarfism is 4 feet (122 cm)
15. ***Albinism:***is an inherited condition present at birth, characterized by a lack of pigment that normally gives color to the skin, hair, and eyes
16. ***Gifted and talented:*** These are children and youth students with outstanding abilities, identified at preschool, elementary and secondary levels and are capable of higher performance when compared to others of similar age, experience and environment

Appendix 3: Constituencies, Wards, and Number of Households per County

County		Rural	Urban
Murang'a	Constituency	Gatanga	Kiharu
	Ward	Gatanga	Township
		Kihumbu-Ini	Mugoiri
Nyeri	Constituency	Othaya	Nyeri Town
	Ward	Karima	Gatitu/Muruguru
		Iria-Ini	Ruring'u
Nandi	Constituency	Tinderet	Emgwen
	Ward	Kapsimwoto	Kapsabet
		Songhor/Soba	Kapkangani
Uasin Gishu	Constituency	Turbo	Ainabkoi
	Ward	Kiplombe	Kaptagat
		Huruma	Kapsoya
Kwale	Constituency	Kinago	Msambweni
	Ward	Mackinon Road	Ukunda
		Chengoni/Samburu	Gombato Bongwe
Lamu	Constituency	Lamu East	Lamu West
	Ward	Faza	Mukomani
		Basuba	Bahari
Kitui	Constituency	Mwingi North	Kitui Central
	Ward	Kyuso	Township
		Mumoni	Mulango
Garissa	Constituency	Ijara	Garissa Township
	Ward	Ijara	Township
		Masalani	Iftni
West Pokot	Constituency	Kacheliba	Kapenguria
	Ward	Suam	Kapenguria
		Kodich	Endugh

Turkana	Constituency		Loima	Turkana Central
	Ward		Kotaruki/Lobel	Lodwar Township
			Turkwel	Kanamkemer
Wajir	Constituency		Wajir West	Wajir East
	Ward		Wagalla	Township
			Arbajahan	Barwaqo
Kisii	Constituency		Bonchari	Nyaribari Chache
	Ward		Bomorenda	Kisii Central
			Riana	Keumbu
Siaya	Constituency		Rarieda	Bondo
	Ward		South Uyoma	South Sakwa
			North Uyoma	North Sakwa
Samburu	Constituency		Samburu North	Samburu West
	Ward		Nyiro	Maralal
			Baragoi	poror
Meru	Constituency		South Imenti	Igembe South
	Ward		Mitunguu	Maua
			Egoji East	Kiegoi/Antubochiu
Bungoma	Constituency		Kimilili	Kanduyi
	Ward		Kimilili Township	Township
			Kibingei	Musikoma
Kakamega	Constituency		Mumias East	Lurambi
	Ward		East Wanga	Sheywe
			Lusheya/Lubimu	Shirere
County		**Rural Constituency**	**Formal Constituency**	**Informal Constituency**
Kisumu	Constituency	Muhoroni	Kisumu Central	Kisumu Central
	Ward	Chemelil	Shauri Moyo Kaloleni	Nyalenda B
		Muhoroni /Koru		
Mombasa	Constituency	Likoni	Kisauni	Kisauni
	Ward	Likoni	Shanzu	Mwakirunge

		Mutongwe		
Nakuru	Constituency	Njoro	Nakuru Town West	Nakuru Town West
	Ward	Nesuit	Shaabab	Kaptembwo
		Njoro		
Nairobi	Constituency		Makadara	Kibra
	Ward		Harambee	Makina
	Constituency		Roysambu	Mathare
	Ward		Zimmerman	Huruma

5.7 Appendix 4: Number of households per County

	County	Households	# Sampled HH
1	Bungoma	270,824	465
2	Garissa	98,590	169
3	Kakamega	355,679	610
4	Kisii	245,029	420
5	Kisumu	226,719	389
6	Kitui	205,491	353
7	Kwale	122,047	209
8	Lamu	22,184	38
9	Meru	319,616	548
10	Mombasa	268,700	461
11	Murang'a	255,696	439
12	Nairobi	985,016	1690
13	Nakuru	409,836	703
14	Nandi	154,073	264
15	Nyeri	201,703	346
16	Samburu	47,354	81
17	Siaya	199,034	342
18	Turkana	123,191	211
19	Uasin Gishu	202,291	347
20	Wajir	88,574	152
21	West Pokot	93,777	161
	Total	4,895,424	**8400**

5.8 Appendix 5: Number of returned/completed data collection instruments per county

COUNTY	Household Questionnaires	Institutional interviews	Institutional observation	Special Schools	Special Units CWD	Special Units CWOD	Integrated Schools	Regular Schools	FGDs for children	Community FGDs	County informant
Nairobi	1565	14	17	6	2	2	1	7	18	4	2
Kakamega	629	19	18	4	4	4	1	9	22	5	3
Bungoma	561	22	23	5	3	3	1	10	22	4	3
Mombasa	446	31	29	7	5	5	2	12	31	4	5
Kwale	209	16	17	4	4	3	3	16	30	3	6
Siaya	330	18	20	3	4	1	0	10	18	4	
Kisumu	378	16	16	2	0	0	0	13	15	4	2
Kisii	444	17	17	5	2	3	0	14	24	4	4
Nakuru	723	20	20	2	2	1	1	6	12	5	2
UasinGishu	360	21	21	5	3	5	0	3	16	4	5
Nandi	287	19	18	2	4	3	2	7	18	4	3
West Pokot	173	19	20	1	3	3	3	16	26	4	2
Nyeri	350	20	21	3	3	2	0	4	12	4	2
Muranga	441	22	25	4	4	3	0	9	20	4	2
Meru	549	23	23	6	3	2	1	20	32	4	3
Garissa	262	10	10	3	0	0	0	11	14	3	2
Lamu	60	10	10	2	2	2	0	3	10	2	3
Turkana	325	12	12	2	2	0	1	14	18	4	2
Samburu	82	15	16	0	2	0	1	12	15	4	2
Wajir	152	20	20	2	0	0	1	14	17	4	3
Kitui	353	22	23	4	2	2	0	8	18	4	11
Total	8679	**386**	**396**	**59**	**54**	**44**	**18**	**220**	**395**	**82**	**69**

5.9 Appendix 6: Data collection instruments

5.9.1 Household Questionnaire

VSO JITOLEE
IN COLLABORATION WITH THE MINISTRY OF
EDUCATION SCIENCE AND TECHNOLOGY

SPECIAL NEEDS EDUCATION NATIONAL SURVEY

HOUSEHOLD QUESTIONNAIRE

INFORMED CONSENT

You have been selected to participate in this focus group discussion, because of your knowledge and expertise in education and / or special needs education. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service organisations, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education.

All the information you give to will remain strictly confidential. Your participation in this study is completely voluntary. As an indication of your voluntary agreement to participate in this study, please sign below:

Signature …….Date…….

Supervisor……. Sign:…… Mobile:……..

County: _____ Constituency _____

Ward: _____ Household number: _____

Date of interview_____ interviewer: _____

Name of Interviewee _____ Relationship to Head of Household _____

Respondent's Residence:

□ Rural □ Urban

Language used in interview: _____

Respondent's local language: _____

Translator used:

□ No □ Sometimes □ All the time

HOUSE HOLD CHARACTERISTICS AND COMPOSITION

	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	AGE	MARITAL STATUS	RELIGION	EMPLOYMENT STATUS (FOR 15 YRS AND ABOVE)	PARENT-MOTHER	IF ALIVE	PARENT- FATHER	IF ALIVE	SCHOOL ATTENDANCE	SCHOOL ATTENDANCE	REASONS FOR LEAVING/DROPPING OUT OF SCHOOL OR COLLEGE	EDUCATIONAL ATTAINMENT	
	Please give me the names of the persons who usually live in your household and guests of the household who slept here last night starting with the head of the household. SEE DEFINITION	What is the relationship of (NAME) to the head of the household? SEE CODES	Is (NAME) male or female? 1= Male 2=Female	How old was(NAME) during his/her last birthday AGE IN YEARS. RECORD 00 FOR THOSE LESS THAN 1	What is (NAME)'s marital status? SEE CODES	What is(NAME) religion? SEE CODES	What is(NAME) employment status? SEE CODES	Is (NAME)'s natural mother alive? 1=Yes 2=No 8=DK IF "2" OR "8" GO TO COL 10	Does (NAME)'s natural mother live in this household? 1=Yes 2=No 8=DK	Is (NAME)'s natural father alive? 1=Yes 2=No 8=DK IF "2" OR "8" GO TO COL 12	Does (NAME)'s natural father live in this household? 1=Yes 2=No 8=DK	Has(NAME) ever gone to school? 1=Yes 2=No 8=Don't know IF "2" OR "8" SKIP TO COL. 14	Is (NAME) currently in school/college? 1=Yes 2=No 8=DK IF "1" OR "2" PROCEED TO COL. 15	Why did (NAME) leave school? SEE CODES	What is the highest level (NAME) has attended? SEE CODES	What is the highest grade (NAME) completed?
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Educational level 15	Grade 16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

An individual in the family who provides actual support and maintenance to one or more individuals who are related to him or her through adoptio n, blood, or

1=Head
2=Spouse
3=Son or Daughter
4=Son/Daughter in-Law
5=Grandchild
6=Parent
7=Parent in-Law
8=Brother/Sister

3-Divorced/Separated 4-
cify).....

-Hindu 4-Others

lf-employed 3=Unemployed

cation 1-Not enough money
3-Illness
use of disability
7-Pregnancy
.....

Middle Level) 5-University
.....
Know

0-Less Than 1 Year Completed
1-Class 1 2-Class 2 3-Class 3
4-Class 4 5-Class 5 6-Class 6
7-Class 7 8-Class 8
9-Pre-vocational 10-Vocational

			TYPE OF DISABILITY														
	Hearing Impairment	**Visual Impairments**	**Physical Impairments**	**Cerebral Palsy**	**Epilepsy**	**Down Syndrome**	**Autistic Spectrum Disorder**	**Intellectual & Cognitive Handicaps**	**Emotional & Behavioral Disorders**	**Learning Disabilities**	**Speech & Language Disorders**	**Multiple Disabilities other than Deafblind**	**Deafblind**	**Dwarfism**	**Albinism**	**Gifted & Talented**	**Unidentified**
Compared to children of the same age....	Does (NAME) have difficulty in responding to sound?	Does (NAME) have difficulty seeing?	Does(NAME) have difficulty in (Walking,climbing stairs, using hands, sitting upright,, standing, decreased mobility)?	Does(NAME) have a problem in movement (of physical body parts, coordination of body parts)?	Does (NAME) take medicine or tablets for a condition such as fits	Does (NAME) have slower physical, social, mental development; affectionate, bonds easily with others	Does the (NAME) have difficulties in communication, social interactions, engage in repetitive activities, stereotyped movements, unusual response to sensory experiences	Does (NAME)take too long to perform basic daily activities; have difficulties in learning basic skills	Does (NAME) have difficulties interacting with persons in authority, making friends	Does(NAME) the have difficulties in learning, reading, writing, counting, calculating, and acquiring skills	Does (NAME) have difficulty in speaking?	Does (NAME) have more than one disability(vision, mental, hearing, physical, etc)?	Does (NAME) have difficulties in seeing hearing and speaking	Is (NAME) of very short stature; delayed development in weight and height	Does (NAME) have pigment problem in (skin colour, eyes sensitive to light, skin sensitive to sun rays, skin irritation)?	Does (NAME) demonstrate abilities of high performance in intellectual, creative, specific academic, that require activity not ordinarily provided by the school	any disability that may be noticed though not identified i.e.parent/ caregiver does not know what the problem is
	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA	1=YES 2=NO 3=NA
	17	18	19	20	21	23	24	22	25	26	27	28	29	30	31	32	33
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

5.9.2 Institutional Questionnaire

VSO JITOLEEIN COLLABORATION WITH THE MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

NATIONAL SPECIAL NEEDS EDUCATION SURVEY

INFORMED CONSENT

You have been selected to participate in a survey on special needs education. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service organisations, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education. All the information you give will remain strictly confidential. Your participation in this study is completely voluntary. As an indication of your voluntary agreement to participate in this study, please sign below:

Signature …….Date……..

Research Assistant ……. Sign: Mobile:

Supervisor……. Sign: Mobile:

INSTRUCTIONS

For the statements below, kindly tick (√) or write as appropriate.

1. INSTITUTIONAL IDENTIFICATION

County: _____ Ward: _____

Constituency: _____ Institution's Name: _____

2. CLASSIFICATION OF EDUCATIONAL INSTITUTION

Education level	Type	Residence	Gender
☐ Early Childhood Education	☐ Regular	☐ Boarding	☐ Boys only
☐ Primary	☐ Special	☐ Day	☐ Girls only
☐ Secondary	☐ Special Unit	☐ Boarding & Day	☐ Mixed
☐ TIVET	☐ Integrated		

☐ College/University

☐ Other (Please specify)……

3. SPECIAL NEEDS TEACHERS

Area of Specialization	**No. of special education <u>teachers</u>** *(if a teacher has specialized in <u>more than one</u> area, count him/her in his/her <u>primary</u> area)*	
	Male	**Female**
Hearing Impairment		
Visual Impairments		
Physical Impairments		
Cerebral Palsy		
Epilepsy		
Intellectual & Cognitive Handicaps		
Downs Syndrome		
Autistic Spectrum Disorder		
Emotional &Behavioural Disorders		
Learning Disabilities		
Speech & Language Disorders		
Multiple Disabilities other than Deaf-blind		
Deaf blind		
Gifted and Talented		
Inclusive Education		

a) For the special education teachers above, indicate the number with the qualifications listed below.

Qualification	**Frequency**
Masters	
Bachelors	
Diploma	

Qualification	**Frequency**
Certificate	
Don't know	

b) Are there teachers in your school teaching special needs children without training in this area?
Yes No

4. SPECIAL NEEDS THERAPISTS AND GUIDES

Area of Specialization	**No. of <u>therapists/guides/teachers' aides</u>** *(if one has specialized in <u>more than one</u> area, count him/her in his/her <u>primary</u> area)*			
Gender	**Male**		**Female**	
Nature of employment	**Fulltime**	**Part-time**	**Fulltime**	**Part-time**
Hearing Impairment				
Visual Impairments				
Physical Impairments				
Cerebral Palsy				
Epilepsy				
Intellectual & Cognitive Handicaps				
Downs Syndrome				
Autistic Spectrum Disorder				
Emotional &Behavioural Disorders				
Learning Disabilities				
Speech & Language Disorders				
Multiple Disabilities other than Deaf-blind				
Deaf blind				
Gifted and Talented				
Inclusive Education				

a) For the therapists/guides above, how many are employed by the agencies/bodies below?

Employer	**Frequency**
Government	
NGO	
Board of governors	

Employer	**Frequency**
Volunteers	
Don't know	

SCHOOLS / COLLEGES / UNIVERSITIES ENROLMENT IN 2013

5. **OVERALL ENROLMENT IN THIS INSTITUTION** *(For this section, fill out for the relevant level of education i.e. early childhood OR primary OR secondary OR tertiary, the total enrolment of students, irrespective of their disability status).*

i. Early Childhood Education

	Baby class		**Kindergarten**		**Nursery**	
AGE RANGE (indicate)						
Gender	**M**	**F**	**M**	**F**	**M**	**F**
Number of children						

ii. Primary Schools

	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Class 8		Special Unit		TOTAL	
Below 21 yrs	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
No. pupils																				

iii. Secondary Schools

Form	**Form 1**		**Form 2**		**Form 3**		**Form 4**		**Form 5**		**Form 6**		**Special Unit**	
Below 21 yrs	M	F	M	F	M	F	M	F	M	F	M	F	M	F
No. students														

iv. Tertiary/ Colleges/ Universities

Year of Study	**Year 1**		**Year 2**		**Year 3**		**Year 4**		**Year 5**		**Year 6**	
Below 21 yrs	M	F	M	F	M	F	M	F	M	F	M	F
No. students												

v. Other

Year of Study (please fill out)	**Year …**		**Year …**		**Year …**		**Year …**		**Year …**		**Year …**	
Below 21 yrs	M	F	M	F	M	F	M	F	M	F	M	F
No. students												

6. **ENROLMENT OF CHILDREN WITH DISABILITIES AND SPECIAL NEEDS IN THIS INSTITUTION** ***(****For this section, fill out for the relevant level of education i.e. early childhood OR primary OR secondary OR tertiary, <u>ONLY</u> the number of children with disabilities).*

i. Early Childhood Education

Class	**Gender**	**FORMS OF DISABILITY AND SPECIAL NEEDS**															
		Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive Handicaps	Downs Syndrome	Autistic Spectrum Disorder	Emotional &Behavioural Disorders	Learning Disabilities	Speech & Language Disorders	Multiple Disabilities other than Deaf blind	Deaf blind	Albinism	Dwarfism	Gifted & Talented
Baby class	**M**																
	F																
Kindergarten	**M**																
	F																
Nursery	**M**																
	F																

ii. Primary Schools

Class	Gender	FORMS OF DISABILITY AND SPECIAL NEEDS															
		Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive	Downs Syndrome	Autistic Spectrum	Emotional &Behavioural	Learning Disabilities	Speech & Language	Multiple Disabilities	Deaf blind	Albinism	Dwarfism	Gifted & Talented
1	**M**																
	F																
2	**M**																
	F																
3	**M**																
	F																
4	**M**																
	F																
5	**M**																
	F																
6	**M**																
	F																
7	**M**																
	F																
8	**M**																
	F																
Spec. Unit	**M**																
	F																

iii. Secondary Schools

Form	Gender	FORMS OF DISABILITY AND SPECIAL NEEDS															
		Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive	Downs Syndrome	Autistic Spectrum	Emotional &Behavioural	Learning Disabilities	Speech & Language	Multiple Disabilities	Deaf blind	Albinism	Dwarfism	Gifted & Talented
1	**M**																
	F																
2	**M**																
	F																
3	**M**																
	F																
4	**M**																
	F																
5	**M**																
	F																
6	**M**																
	F																
Spec. Unit	**M**																
	F																

iv. Tertiary/ Colleges/ Universities

Year of Study	Gender	FORMS OF DISABILITY AND SPECIAL NEEDS															
		Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive	Downs Syndrome	Autistic Spectrum	Emotional &Behavioural	Learning Disabilities	Speech & Language	Multiple Disabilities	Deaf blind	Albinism	Dwarfism	Gifted & Talented
1	**M**																
	F																
2	**M**																
	F																
3	**M**																
	F																
4	**M**																
	F																
5	**M**																
	F																
6	**M**																
	F																

v. Other

Year of Study (Please)	Gender	FORMS OF DISABILITY AND SPECIAL NEEDS															
		Hearing Impairment	Visual Impairments	Physical Impairments	Cerebral Palsy	Epilepsy	Intellectual & Cognitive	Downs Syndrome	Autistic Spectrum	Emotional &Behavioural	Learning Disabilities	Speech & Language	Multiple Disabilities	Deaf blind	Albinism	Dwarfism	Gifted & Talented
…	**M**																
	F																
…	**M**																
	F																
…	**M**																
	F																

7. SCHOOL FACILITIES

Facility	Total number in the school
Classrooms	
Workshops	
Library	
Science laboratories	
Therapy rooms	
Guidance &counselling rooms	
Home science rooms	
Computer laboratories	
Dormitories (boys)	
Dormitories (girls)	
Kitchen	
Dining halls	
Bathrooms(boys)	

Facility	Total number in the school
Bathrooms (girls)	
Pit latrines (girls)	
Flush toilets(girls)	
Pit latrines (boys)	
Flush toilets(boys)	
Pit latrines (teachers)	
Flush toilets (teachers)	
Pit latrines(non-teaching staff)	
Flush toilets(non-teaching staff)	
Stores	
Teachers' houses	
Administration/ office block	

8. PRE-VOCATIONAL AND VOCATIONAL EQUIPMENT

Skills	Equipment	Total number in the school	How many are usable/ functional?
1. Tailoring	Sewing machine		
	Scissors		
	Tapes		
	Needles		
	Thimbles		
	Tables		
2. Knitting & embroidering	Knitting machines		
	Needles		
	Beads		
3. Carpentry	Planners		

Skills	Equipment	Total number in the school	How many are usable/ functional?
	Clamps		
	Tape		
	Chisels		
	Hammers		
	Saws		
	Benches		
4. Home science	Jikos		
	Utensils		
	Cooking pans		
	Cutlery		
	Tables		

Skills	Equipment	Total number in the school	How many are usable/ functional?
5. Farm tools	Hoes		
	Slashes		
	Pangas		
	Rakes		

Skills	Equipment	Total number in the school	How many are usable/ functional?
6. Other	1		
	2		
	3		

9. ASSISTIVE DEVICES

Assistive devices	Total number in the school	How many are usable/ functional?
Wheel chair		
Walkers		
Page turners		
Crutches		
Corner seats		
Adapted tables		
Head pointer		
Mouth sticks		
Physiotherapy aids		
Adapted cups, spoons		
Braces		
Callipers		
Adapted shoes		
Braille machines		
Slate and stylus		
Thermophom copier		
Adapted Computers		
Magnifier		
Reading stands		
Embosser		
Screen readers		

Assistive devices	Total number in the school	How many are usable/ functional?
White canes		
Telescopes		
Hearing aids		
Audiometer		
Syringe for ear impression taking		
Free field audiometer		
Ortoscope		
Ear impression materials		
Speech kit		
Speech training kit		
Video		
Speech synthesizers		
Speech trainer		
Projectors		
Ear moulders		
Magnification &colour contrast software		
Others(specify)below)		

10. Are there any early interventions (i.e. services that prevent children with disabilities from developing inappropriate compensatory strategies while performing activities) for any of the disabilities in the school?

☐ Yes ☐ No

11. If so, which ones? [Kindly specify]

……

12. Are there any rehabilitation measures (i.e. services required to foster social participation of the children) for any of the disabilities in the school?

☐ Yes ☐ No

13. If so, which ones? [Kindly specify]

……

5.9.3 Institutional Observation Tool

VSO JITOLEE
IN COLLABORATION WITH THE MINISTRY OF
EDUCATION SCIENCE AND TECHNOLOGY

NATIONAL SPECIAL NEEDS EDUCATION SURVEY

INSTITUTIONAL OBSERVATION TOOL

INFORMED CONSENT

You have been selected to participate in a special needs education study. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service organisations, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education. All the information collected will remain strictly confidential. Your participation in this study is completely voluntary. As an indication of your voluntary agreement to participate in this study, please sign below:

Signature …….Date……..

County: _____ Constituency _____

Ward: _____ School Name: _____

Research Assistant ……. Sign: Mobile:

Supervisor……. Sign: Mobile:

---

1. CLASSIFICATION OF EDUCATIONAL INSTITUTION

Education level	Type of school	Residence	Gender
☐ Early Childhood Education	☐ Regular	☐ Boarding	☐ Boys only
☐ Primary	☐ Special school	☐ Day	☐ Girls only
☐ Secondary	☐ Special Unit	☐ Boarding & Day	☐ Mixed
☐ TIVET	☐ Integrated		
☐ College/University			
☐ Other			

A. CLASSROOM LEARNING ENVIRONMENT

Category for observation	Observation scale				
1. Ventilation	1= Poor	2=Fair	3=Good		
2. Lighting	1=Poor	2=Fair	3=Good		
3. Classroom size	1=Small	2=Standard	3=Large		
4. Furniture	1=not adequate	2=adequate			
5. Floor	1=Rough and tidy	2=Rough and untidy	3=Smooth and tidy	4= Smooth and untidy	
6. Wall finishing	1=Mud/Clay	2=Wood	3=Cement	4=Iron sheets	5=Other
7. Learning centre (shop corner, garden corner, curiosity centre etc.)	1= not available	2 = available			

B. SCHOOL ENVIRONMENT

Category	Observation scale		
1. Waste management			
a. Dustbins	1=Not Available	2=Available and not in use	3=Available and in use
b. Incinerators	1=Not Available	2=Available and not in use	3=Available and in use
c. Refuse disposal pits	1=Not Available	2=Available and not in use	3=Available and in use
d. Drainage	1=Not Available	2= Available and with no functional manholes	3= Available and with functional manholes
2. Land terrain	1=Hilly	2=Hilly but flattened	3=Flat
3. Paths in School	1= Paths without pavements	2=Narrow pavements	3=Wide pavements
4. Ramps	1=Not Available	2=Available	

Category	Observation scale		
5. Evidence of security/safety	Gate	1=yes	2=No
	Fence	1=yes	2=No
	Fire extinguishers	1=yes	2=No
	Security personnel	1=yes	2=No

C. SOCIAL AMENITIES

i. What are the sources of water in the school?

	Source	Tick √
1	Piped	
2	Rain	
3	Borehole	
4	Well	

	Source	Tick √
5	River	
6	Spring	
7	Dam	
8	Others (specify)	

ii. What are the sources of lighting for the school?

	Source	Tick √
1	Electricity (Mains)	
2	Electricity (Generator)	
3	Electricity (Solar power)	

	Source	Tick √
4	Pressure lamps	
5	Lanterns	
6	Others (specify)	

iii. What are the means of travel for pupils to school?

		Tick √
1	Bicycles	
2	Motor bikes	
3	Matatu/bus/train	

		Tick √
4	Private car	
5	On foot	
6	Other (specify)	

iv. Does the school have access to the following communication services?

		Tick √
1	Landline	
2	Cell phone	
3	Card phone	

		Tick √
4	Public booth	
5	Internet	
6	Website	

v. Which are the nearest *(not more than 5 km away)* health facilities accessed by the institution?

		Public	Private
1	Dispensary		
2	Mobile clinic		

		Public	Private
3	Health centre		
4	Hospital		

D. RECREATIONAL FACILITIES

Recreational facilities available (tick as appropriate)

		Not available	Available and adapted	Available and not adapted
1	Soccer pitch			
2	Volley ball pitch			
3	Net ball pitch			
4	Athletics track			
5	Others (specify)_____			

5.9.4 Children's Focus Group Discussion

VSO JITOLEE
IN COLLABORATION WITH THE MINISTRY OF
EDUCATION SCIENCE AND TECHNOLOGY

NATIONAL SPECIAL NEEDS EDUCATION SURVEY

CHILDREN'S FOCUS GROUP DISCUSSION
WITH DISABILITY ☐
WITHOUT DISABILITY ☐

INFORMED CONSENT

You have been selected to participate in this focus group discussion in a special needs education study. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service organisations, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education. All the information you give will remain strictly confidential. Your participation in this study is completely voluntary.

I have read the information letter concerning this National Special Needs Education Survey and I understand what it is about. I have also read the focus group discussion guides for the children and the children's consent form. I know that

1) Children's participation in this study is entirely voluntary
2) I am free to withdraw any child(ren) from the study at any time
3) I understand that the research data on the children (audio tapes and transcripts) will be retained by VSO and that personal information names and consent forms will be handed to VSO at the end of the study.
4) I understand that children will be part of a focus group discussion and there will be no individual interviews for and with child(ren)
5) I understand that all the focus group discussions will be undertaken within the school compound within the given time.
6) I understand that the results of this study will be published but my anonymity and that of the children will be preserved. I give consent for my children to take part in this study.

Signature of the Principal / Head teacher: _____ Date: _____

County: _____ Constituency _____

Ward: _____ School Name: _____

Research Assistant ……. Sign: Mobile:

Supervisor…… Sign: Mobile:

Participants: about 6 -10 children between the ages of 12 and 21 years

 Boys **Girls**

1. ……..... 5. ……..... 9. ……
2. …… 6. …… 10. ……
3. …… 7. ……
4. …… 8. ……

A. Awareness and Attitude

1. What forms of disabilities do you have in this school?
2. What do people think about children with disabilities?
3. How are the *children with disabilities* treated in school by
    a. The teachers?
    b. Other children?
4. How are the *children with disabilities* treated at home
    a. Their parents?
    b. Their siblings?
    c. Neighbours?
5. How do other children treat *children with disabilities*? [**probe: why do you think they treat them that way? What do you feel when you observe that kind of treatment?]**
6. How should *children with disabilities* be treated? [**probe: should they be treated differently from other children? Why/ why not?]**
7. What challenges do you think *children with disabilities* face at school? [**probe: in relation to accessing buildings, sports facilities, interactions with their peers – making friends, classroom participation]**
8. What challenges do you think *children with disabilities* face at home? [**probe: in relation to interactions with family members, accomplishing responsibilities]**

B. Access to Education

9. Do you know of any *children with disabilities* that don't come to school? Why do you think they don't come school? **[probe: specific difficulties from home, from school, community perceptions etc]**
10. Do you think *children with disabilities* and special needs should be taken to school?
    a. Why [**probe: purpose of education, rights of children, human rights, what kinds of schools – special schools, regular schools]**
    b. Why not? **[probe: purpose of education, rights of children, human rights]**
    c. Should they be in the same school with children without disabilities?
11. What facilities does your school have to support children with disabilities and special needs? [**probe: proper buildings –ramps, wide corridors etc.-, what else would the school have to support these children?**

5.9.5 Community Focus Group Discussion

VSO JITOLEE
IN COLLABORATION WITH THE MINISTRY OF
EDUCATION SCIENCE AND TECHNOLOGY

NATIONAL SPECIAL NEEDS EDUCATION SURVEY

COMMUNITY FOCUS GROUP DISCUSSION

INFORMED CONSENT

You have been selected to participate in this focus group discussion in a special needs education study. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service organisations, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education.

All the information you give will remain strictly confidential. Your participation in this study is completely voluntary. As an indication of your voluntary agreement to participate in this study, please sign below:

Signature …….Date……..

County: _____ Constituency _____

Ward: _____

Research Assistant …….. Sign:…… Mobile:……

Supervisor…… Sign:…… Mobile:…….

Participants: about 6 -10 adults

Men	**Women**	
1. ……	5. ……	
2. ……	6. ……	9. ……
3. ……	7. ……	10. ……
4. ……	8. ……	

A. Awareness and Attitude

1. What forms of disabilities and special needs amongst children do you have in this community? [**probe: Where are they – school, at home, care centres –]**
2. How do parents react when they learn that their children have disabilities? [**probe: how do spouses react to each other?]**
3. How does the community react to families with children with disabilities?
4. How are children with disabilities and special needs treated in this community?
5. How are they treated by their families?
6. How are they treated in the schools?
7. What are the cultural beliefs and practices, in this community, regarding children with disabilities and special needs?
8. What is the community's perception in educating a child with disability and/ or special needs? [**probe: What is the current practice as regards the education of children with disabilities and special needs?]**

B. Support Services

1. What support services do special needs' children and their families get in this community? [**who provides the services? How affordable are they? How adequate are the services? How accessible are they?]**
2. In your view, what other services should be offered to children with disabilities and special needs, and their families? [**probe: find out what is not in the community especially in relation to the disabilities identified in the community]**
3. What do you think makes it possible for children with disabilities and special needs access education in this community? [**probe: at home, in school]**
4. What challenges do children with disabilities and special needs face in accessing education in this community? [**probe: at home, in school]**
5. What do you think needs to be done to address the challenges identified above?

5.9.6 County Level Key Informants Interview Guide

VSO JITOLEE
IN COLLABORATION WITH THE MINISTRY OF
EDUCATION SCIENCE AND TECHNOLOGY

NATIONAL SPECIAL NEEDS EDUCATION SURVEY

COUNTY LEVEL KEY INFORMANTS INTERVIEW GUIDE

INFORMED CONSENT

You have been selected to participate in this interview because of your knowledge and expertise in education and / or special needs education. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service organisations, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education.

All the information you give will remain strictly confidential. Your participation in this study is completely voluntary. As an indication of your voluntary agreement to participate in this study, please sign below:

Signature ……Date……..

County: _____ Constituency _____

Ward: _____

Research Assistant……. Sign:……Mobile:……

Supervisor…… Sign:…… Mobile:…….

Participants: [**indicate the sex of the participants]**

□ Principal	□ Sub-county EOs	□ Speech therapists
□ EARC Coordinator	□ Social worker	□ Special needs' teacher
□ Chief	□ Occupational therapist	□ Guidance & counselling teacher
□ Sub-chief	□ Physiotherapist	□ MOE H/Quarters

1. What types of disabilities among children, are in this community?
2. Do you think the schools in this community are well equipped to handle children with disabilities and special needs? **[probes: in terms of qualified teachers, support staff, learning facilities, education structures e.g. ramps etc.]**
3. What type of schools do children with disabilities and special needs in this community attend? **[probe: Regular, special]**
4. What do you think are the factors that make it possible for children with disabilities and special needs to attend school?
5. What factors, do you think, hinder children with disabilities and special needs from attending school?
6. How does this community treat children with disabilities and special needs?
7. What government policies, national and county, are in place to support children with disabilities and special needs and their families?

a. Of the policies mentioned, which ones have been implemented in your county?

8. Which other policies should be introduced to support children with disabilities and special needs?
9. To what extent are the policies for children with disability implemented?
10. To what extent have children with disabilities and special needs, and their families, been involved in the planning and implementation of programs and projects that affect them?
11. What improvements would you recommend towards special needs education?
12. What identification and early intervention measures are in place in the community?
13. What corrective surgeries are in the community? Are they accessible?
14. What rehabilitation mechanisms are in place? Are they accessible?

5.9.7 National Level Key Informants Interview Guide

VSO JITOLEE
IN COLLABORATION WITH THE MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

NATIONAL SPECIAL NEEDS EDUCATION SURVEY

NATIONAL LEVEL KEY INFORMANTS INTERVIEW GUIDE

INFORMED CONSENT

You have been selected to participate in this interview, because of your knowledge and expertise in education and / or special needs education. The purpose of this study is to establish the prevalence of disabilities and special needs education among children in Kenya. The information from this study aims to inform the practice of special needs education; especially the advocacy by civil service institution/departments, and build the capacity of county and national education stakeholders towards evidence-based planning and appropriate resource allocation for special needs education.

All the information you give will remain strictly confidential. Your participation in this study is completely voluntary. As an indication of your voluntary agreement to participate in this study, please sign below:

Signature …….Date……..

Research Assistant……. Sign: Mobile:

Supervisor…… Sign: Mobile:

Participant's sex: M / F
Institution/Department …….

Position that participant holds in the institution ……

1. In relation to issues of disabilities, what exactly does your institution/department focus on? [**probes: geographic and demographic scope – children/adults etc.; level of severity]**

2. How do you think educational institutions in this country are equipped to handle children with disabilities and special needs? **[probes: in terms of funding, qualified teachers, support staff, learning facilities, education structures e.g. ramps etc.]**

3. What type of educational institutions do children with disabilities and special needs need attend? **[probe: why? Regular, special]**

4. What do you think are the factors that make it possible for children with disabilities and special needs to attend educational institution?

5. What factors, do you think, hinder children with disabilities and special needsfrom attending educational institution?

6. What national government policies are in place to support children with disabilities and special needs and their families? [**with regard to the disability that the institution/department is focused on; which ones have been implemented; any challenges in implementation; why haven't all been implemented]**

7. Which other policies should be introduced to support children with disabilities and special needs?

8. To what extent have children with disabilities and special needs, and their families, been involved in the planning and implementation of programs and projects that affect them? [**how are there voices heard at the national level? What processes are involved in soliciting their opinions?]**

9. To what extent have Disabled Persons' Organisations (DPOs) been involved in the planning and implementation of programs and projects that affect children with disabilities and special needs?

10. What improvements would you recommend towards special needs education? [**overall; in particular to what your institution/department focuses on]**

Appendix 7: List of National Level Key Informant Organisations

1. APDK – Association of People with Disability of Kenya -
2. NCPWD – National Council of Persons with Disability
3. Down syndrome society
4. Dwarfism Society of Kenya
5. StadizaMaisha
6. Teachers Service Commission
7. Albinism Society of Kenya
8. AMREF Health Africa
9. Africa Braille Centre
10. Cerebral Palsy Society of Kenya
11. Kenya Association of the People with Epilepsy
12. Kenya Society for the Blind Children
13. Kenya Society for the Deaf Children
14. Sense International
15. Autism Society of Kenya
16. SEP – Special Education Professionals
17. Kenya Association of Intellectually Handicapped
18. United Disabled Persons of Kenya
19. Kenya Institute of Curriculum Development
20. KISE – Kenya Institute of Special Education
21. KNEC – Kenya National Examinations Council
22. Ministry of Education Science and Technology
23. Ministry of Labour, Social Development Disability Division.

Appendix 8: Research Permits

VSO Jitolee

3rd December, 2013

Chairman – NCST Research Committee
National Council for Science and Technology Research Committee
P.O Box 30623 - 00100
Nairobi

Dear Sir,

RE: RECOMMENDATION ON RESEARCH APPLICATION PERMIT TO SMECT CONSULTANTS

VSO Jitolee is an international NGO with the core mandate of promoting volunteerism to address global poverty and enhance participation of disadvantaged members of the society in socio-economic and political development.

VSO Jitolee has commissioned SMECT consultants to conduct a **national special needs education survey** whose main objective is **to establish the prevalence of disabilities and special needs education among children in Kenya.** The survey will specifically focus on children with disabilities and special needs between the age of 0-21 years who are within the basic education institutions and out-of-school. The study results will inform policy advocacy and build the capacity of county and national education stakeholders towards evidence-based planning for special needs education.

We kindly request your institution to facilitate the lead consultant – Mr. Charles Nathan Oranga, with a research permit to enable him deliver the assignment.

In case you require further information, please contact John Collins through email: john.collins@vsoint.org or office phone: 0720890184.

Thank you in advance for supporting us on this important initiative.

Yours sincerely,

George Awalla
Head of Programmes

Timau Plaza, 5th Floor
Argwings Kodhek Rd.
P.O. Box 49843 00100
Nairobi, Kenya

t +254 (20) 3871700, 5016000
f +254 (20) 3876013
www.vsojitolee.org

KCB

KCB KIPANDE HOUSE
CHEQUE DEPOSIT

Print Date: 29/11/2013

NAME NAT COMM FOR SCI ,TECH AND INNOV
A/C: 1104162547
BENEFICIARY BRANCH: KIPANDE HOUSE
REF: 11290052973
PAID IN BY: STANLEY MUTHII

Drawer	Chq No.	TT No.	Bank		Amount
8097436900	009394	TTN13333NEWC	STANDARD CHARTERED YAYA CENTRE BRANCH	KES	20,000.00
		TOTAL	**1**		**20,000.00**

IMPORTANT:
CHEQUES WILL BE GIVEN VALUE WHEN PAID.
KINDLY CONFIRM THAT ALL THE CHEQUES HAVE BEEN CAPTURED CORRECTLY.

Teller Sign. : ..... **Customer Sign. :** .....

Transaction number. : 011129011011923642 **at** 15:55:55 **on** idx6

Thank you for banking with us. You have been served by Brian Barasa Wanyama

*** * * Advice not valid unless Transaction Number shown * * ***

KENYA COMMERCIAL BANK LTD
TELLER No. 78
29 NOV 2013
KIPANDE HOUSE, NAIROBI

PAP 1064 Beam Version 11 (Revised Sep 2010)

REPUBLIC OF KENYA

Ministry of Education, Science and Technology

Harambee Avenue, Jogoo House B

P.O. Box 30040 00100 Nairobi

Tel: +254-20-318581

Email: ps@education.go.ke