REPUBLIC OF KENYA

SECTOR PLAN
FOR
EDUCATION AND TRAINING

KENYA VISION 2030

STATEMENT BY THE CABINET SECRETARY THE NATIONAL TREASURY AND PLANNING

Kenya's long term development blue-print, Kenya Vision 2030, is in its third implementation phase under the Third Medium Term Plan (MTP III) 2018-2022. A total of 28 MTP III Sector Plans have concurrently been prepared through 25 MTP Working Groups and three (3) Thematic Working Groups. The Plans provide in detail policies, programmes and projects to be implemented in each sector for the period 2018-2022. The Plans also incorporate policies, programmes and projects necessary for the effective implementation of the "Big Four" initiatives namely: manufacturing and agro-processing; food and nutrition security; universal health coverage and affordable housing. Ongoing flagship projects and other priority programmes and projects carried forward from the previous Medium Term Plans will also be implemented. The Sector Plans have also mainstreamed key priorities outlined in the Manifesto of the Jubilee Government.

The MTP III and the Sector Plans have been prepared through a participatory and inclusive process involving representatives from the government, development partners, private sector, Civil Society, NGOs, organizations representing vulnerable groups, faith-based organizations and professional associations, among others and in line with the constitutional requirements.

The Sector Plans detail specific programmes and projects for implementation during the plan period, 2018-2022.The programmes and projects outlined in these plans will be implemented in close consultation and collaboration with county governments and in line with the Fourth Schedule of the Constitution. The Public Private Partnerships (PPPs) framework will be the vehicle through which the private sector will contribute to the implementation of programmes and projects highlighted in the plans.

The County Integrated Development Plans, County Spatial Plans and Ministries, Departments and Agencies (MDAs) Strategic Plans (2018-2022) will be aligned to the MTP III and the National Spatial Plan. Implementation of these plans will also be linked to the Results-Based Management Framework through Performance Contracts and Staff Performance Appraisal System.

A robust monitoring and evaluation framework will be put in place. In this regard, National Integrated Monitoring and Evaluation System (NIMES), County Integrated Monitoring and Evaluation System (CIMES) and the electronic Project Monitoring Information System (e-ProMIS) will be fully integrated with other governmental financial systems. This will ensure effective tracking of implementation of programmes and projects and also boost Public Investment Management.

In conclusion, I would like to appreciate the respective Cabinet Secretaries, Chief Administrative Secretaries, Principal Secretaries, staff in the MDAs and all those involved in the preparation of the Sector Plans for their valuable inputs. In addition, I commend staff from State Department for Planning led by Principal Secretary, Planning for the effective coordination of the MTP III preparation process.
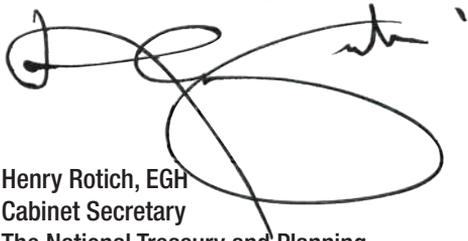
Henry Rotich, EGH
Cabinet Secretary
The National Treasury and Planning

FOREWORD

The Education and Training Sector Plan for the Third Medium Term Plan (MTP III) 2018-2022 is being implemented at a period when the standards of international skills and professionalism are becoming more and more competitive. At same time, the global economy is demanding the development of skilled human resource in an environment of innovation, values, integrity among other parameters. For the Kenyan labour force to remain relevant and competitive locally and worldwide, the education system must be transformed to catapult the country to a knowledge based-economy. To this end the Education and Training Sector is undertaking major reforms in the structure of the education system and curriculum.

The Sector Plan has incorpoated the Governments "Big Four" Agenda namely: Universal Health Care; Food and Nutrition Security; Affordable Housing; and Industrialization, Manufacturing and Agro-Processing. In achieving these priority goals, the Sector will play a very important role as an enabler through the provision of requisite skilled human resource and promoting research and development.

The Constitution guarantees all children in Kenya basic education hence, the Government will, within this plan period, provide education up to secondary school level. Although the education sector has achieved most of the goals towards improving access, there remain challenges in getting all eligible children and youth to school. This plan has; therefore, put strategies in place to ensure those out of school are enrolled.

The demands for quality, relevant education and training placed by the international skills standards on the Kenyan labour force require that the Kenyan education system be radically reformed from pre-primary to university levels. In the pursuit of achieving high quality education and training, the sector has rolled out a new Competency Based Education and Training (CBET) curriculum for basic education and for Technical and Vocational Education and Training. The Competence Based Curriculum (CBC) for basic education recognizes individual child endowments and infuses the aspects of lifelong learning, values, entrepreneurship and innovation. The curriculum also creates pathways in the education and training system with progression on student endowments. These quality and relevance reforms will be anchored in the integration of Information, Communication Technology in education, training management, and curriculum delivery. The ongoing Digital Literacy Programme will go a long way in improving efficiency and quality education with the attendant forward and backward linkages.

To improve governance and management, efficiency and integrity, the sector will implement a National Education Management Information System where all agencies and stakeholders will have a single source of education information, which is timely, accurate, relevant and acceptable to all.

I call upon all stakeholders in education and training to join me in the implementation of transformative programmes and projects in this Plan.

Amb. (Dr) Amina C. Mohamed, EGH
Cabinet Secretary
Ministry of Education

PREFACE

Education and training is fundamental to the social transformation as envisaged under the social pillar of the Kenya Vision 2030. Much has been achieved over the MTP II implementation period with some initiatives being carried forward to MTP III implementaion period. These initiatives are geared towards having enhanced access and equity in education and training. This will be achieved throgh having reformed curriculum at all levels; enhanced access to education and training for learners with special needs and disabilities; enhanced quality and relevance of education and training; improved governance and accountability in education and training; and rebranded Adult and Continuing Education.

Having successfully implemented the universal primary education programme, the Sector will now focus on achieving 100% transition to secondary school. In MTP III, the Sector will continue investmenting in the Digital Learning Programme at primary school level as well as integrating ICT in teaching and learning at all other levels of education and training. This sector plan, thus, provides a renewed commitment to social transformation and the improvement of quality education and training.

Informed by emerging issues, challenges and lessons learnt during the implementation of MTP II, the Sector will pursue initiatives to enhance Public Private Partnerships to address inadequate funding. The Sector will also link education and training with industry to ensure that education and training is of high quality and relevant to the market needs. In addition, there will be concerted effort to ensure harmonious inter-governmetal relationship between the national and county government for standardized service delivery to the citizens. Further, the Sector will improve infrastructure and equipment in education and training institutions to cater for increasing population, demand and technological advancement.

The Sector Plan has been made possible through the support and advice of various stakeholders from Public and Private Sector, Development Partners and Civil Society Organizations (CSOs). I call upon all stakeholders to support implementation of this Plan in delivery of quality education and training

Dr. Belio Kipsang, CBS
Principal Secretary
State Department for Early learning
and Basic Education

Mr. Alfred K. Cheruiyot
Principal Secretary
State Department for Post
Training and Skills Development

Prof. Colleta Suda, PhD., FKNAS, CBS
Chief Administrative Secretary and
Principal Secretary
State Department for University Education
and Research

Dr. Kevit Desai
Principal Secretary
State Department for Vocation and
Technical Training

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATION/ ACRONYM

ABE	-	Adult Basic Education
ACE	-	Adult and Continuing Education
AfDB	-	African Development Bank
APBET	-	Alternative Provision of Basic Education and Training
APHRC	-	African Population and Health Research Centre
ASAL	-	Arid and Semi-Arid Lands
AU	-	African Union
BEST	-	Basic Employability Skills Training
BOM	-	Board of Management
CBE	-	Curriculum Based Establishment
CBET	-	Competency Based Education and Training
CBETA	-	Competency Based Education and Training Assessment
CDACC	-	Curriculum Development Assessment and Certification
CDE	-	County Director of Education
CEB	-	County Education Boards
CECs	-	County Executive Committee Members
CIFF	-	Children's Investment Fund Foundation
CoG	-	Council of Governors
CSO	-	Civil Society Organization
CUE	-	Commission for University Education
CWD	-	Children with Disabilities
DAAD	-	Deutscher Akademischer Austausch Dienst
DACE	-	Department of Adult and Continuing Education
DD	-	Demographic Dividend
DEO	-	District Education Officer
DGIZ	-	Deutsche Gesellschaftfur Internationale Zusammenarbei
DLP	-	Digital Literacy Programme
DQAS	-	Director Quality Assurance and Standards
DSA	-	Drug and Substance Abuse
DTE	-	Diploma Teacher Education
DTTC	-	Diploma Teacher Training Colleges
E&T	-	Education and Training
E&TS	-	Education and Training Sector
EARC	-	Education Assessment and Resource Centre

ECDE	-	Early Childhood Development and Education
EDMS	-	Electronic Data Management System
EEOA	-	Equal Education Opportunity Act
EFA	-	Education for All
EGM	-	Early Grade Mathematics
EGMA	-	Early Grade Mathematics Assessment
EMIS	-	Education Management Information Systems
ESARO	-	Eastern and Southern Africa Regional Office
ESQAC	-	Education Standards and Quality Assurance Commission
FDSE	-	Free Day Secondary Education
FPE	-	Free Primary Education
GDP	-	Gross Domestic Product
GER	-	Gross Enrolment Rate
GIR	-	Gross Intake Rate
GIS	-	Geographic Information System
GIZ	-	Gesellschaft Für Internationale Zusammenarbeit
GOK	-	Government of Kenya
GPE	-	Global Partnership for Education
HELB	-	Higher Education Loans Board
HFF	-	Housing Finance Foundation
HGSMP	-	Home Grown School Meals Programme
HIV/AIDS	-	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
HRM&D	-	Human Resource Management and Development
IBQA	-	Institution Based Quality Assurance
ICQN	-	Inter-Country Quality Nodes
ICT	-	Information Communication Technology
IFMIS	-	Integrated Financial Management Information System
IPM	-	Institute of Pension Management
IPRS	-	Integrated Population Registration System
JAWS	-	Jobs Access With Speech
JKUAT	-	Jomo Kenyatta University of Agriculture and Technology
KAIST	-	Kenya Advanced Institute of Science and Technology
KALS	-	Kenya Adult Literacy Survey
KAPC	-	Kenya Association of Professional Counsellors
KATTI	-	Kenya Association of Technical Training Institutions
KCBF	-	Kenya Commercial Bank Foundation

KCPE	-	Kenya Certificate of Primary Education
KEMI	-	Kenya Education Management Institute
KENAPCO	-	Kenya National Association of Private Colleges
KICD	-	Kenya Institute of Curriculum Development
KICJ	-	Kenya Institute of Security and Criminal Justice
KIDDP	-	Kenya Italy Debt Development Programme
KIM	-	Kenya Institute Management
KIRDI	-	Kenya Industrial Research and Development Institute
KISE	-	Kenya Institute of Special Education
KLB	-	Kenya Literature Bureau
KNEC	-	Kenya National Examination Council
KNQA	-	Kenya National Qualification Authority
KNSDC	-	Kenya National Skills Development Council
KPC	-	Kenya Pipeline Company
KSG	-	Kenya school of Government
KSMST	-	Kenya School of Medical Science and Technology
KSRAT	-	Kenya Schools Readiness Assessment Tool
KTTC	-	Kenya Technical Training College
KUCCPS	-	Kenya Universities and Colleges Central Placement Service
LCB	-	Low Cost Boarding
LWSND	-	Learners with Special Needs and Disability
MDG	-	Millennium Development Goals
MoE	-	Ministry of Education
MoICT	-	Ministry of Information, Communication and Technology
MTP	-	Medium term plan
MVC	-	Marginalized and Vulnerable Children
NACONEK	-	National Council for Nomadic Education in Kenya
NCA	-	National Construction Authority
NG-CDF	-	National Government Constituency Development Fund
NCIC	-	National Cohesion and Integration Commission
NDMA	-	National Drought Management Authority
NEARC	-	National Education Assessment Resource Centre
NEB	-	National Education Board
NEMIS	-	National Education Management Information System
NER	-	Net Enrolment Rate
NESP	-	National Education Sector Plan

NOKET	-	Northern Kenya Education Trust
NPEC	-	National Peace Education Campaign
NVCET	-	National Vocational Certificate of Education and Training
NVDA	-	Non Visual Desktop Access
NYS	-	National Youth Service
PLAR	-	Prior Learning Assessment Recognition
PPP	-	Public Private Partnership
PRIEDE	-	Primary Education Development
PRIMR	-	Primary Math and Reading
PSCK	-	Public Service Commission of Kenya
PTR	-	Pupil Teacher Ratio
PTTC	-	Primary Teacher Training Colleges
RPL	-	Recognition of Prior Learning
RSMP	-	Regular School Meals Programme
SCAC	-	State Corporations Advisory Committee
SDEL&BE	-	State Department for Early Learning and Basic Education
SDGs	-	Sustainable Development Goals
SDVTT	-	State Department for Vocational and Technical Training
SEQIP	-	Secondary Education Quality Improvement Project
SMP	-	School Meals Programme
SN&D	-	Strategies for Northern Development
SNE	-	Special Needs Education
SRC	-	Salaries and Remuneration Committee
SSAC	-	Sector Skills Advisory Committees
STEM	-	Science, Technology, Engineering and Mathematics
SYPT	-	Subsidized Youth Polytechnic Tuition
TMIS	-	Teacher Management Information System
TOT	-	Training Of Trainers
TSC	-	Teachers Service Commission
TTC	-	Teacher Training Colleges
TVET	-	Technical Vocational Education and Training
TVETA	-	Technical Vocational Education and Training Authority
UBE	-	Universal Basic Education
UIC	-	Unique Institution Codes
ULN	-	Unique Learner Number
UNESCO	-	United Nations Educational, Scientific and Cultural Organization

UNICEF	-	United Nations International Children's Emergency Fund
USAID	-	United States Agency for International Development
UTN	-	Unique Teacher Number
VTC	-	Vocational Training Centres
WAN	-	Wide Area Network
WB	-	World Bank
WCARO	-	West and Central Africa Regional Office
WFP	-	World Food Programme
YP	-	Youth Polytechnic
YPMAS	-	Youth Polytechnic Management Application System

EXECUTIVE SUMMARY

The long-term development blue-print for Kenya, the Vision 2030, aims at transforming the country into a globally competitive economy providing a high quality of life to all its citizens. The Education and Training Sector (E&TS), a key component towards achieving the Vision, is anchored within the Social Pillar that aims at creating a comprehensive, equitable and just society based on democratic ideals.

The Constitution of Kenya guarantees the fundamental human rights, among them the right to education. To realize this, the constitution provides for the establishment of various institutions and enactment of appropriate legislations to govern the education and training sector. The broad objective of the sector is to provide lifelong education to all Kenyans and ensure access and affordable competencies and skills at all levels.

In the second MTP, the Sector committed to implement six (6) programmes including actualizing the right to free and compulsory basic education; enhancing quality and relevance of education and training; integration of information and communication technology into teaching and learning; enhancing education sector governance; improving post basic education; and education and training financing.

In actualizing free and compulsory basic education, the country has made significant strides in mainstreaming Early Childhood Development and Education (ECDE). The provision of ECDE services was devolved to county governments and operationalized in 2013.

In addition, the number of ECDE centres increased from 40,145 in 2013 to 41,779 in 2017 while Gross Enrolment Rate increased from 71.6% in 2013 to 77.1% in 2017. The NER increased from 68.7% in 2013 to 76.9% in 2017 owing to the targeted investment at this level of education. To harmonize ECDE service delivery across counties, the government formulated an ECDE policy. During the same period, the government enhanced the Free Primary Education capitation from Kshs. 1,020 to Kshs. 1,420 to cover the rising costs of instructional materials.

Key achievements in enhancing quality and relevance of education through curriculum reform included conceptualization of a Competence Based Curriculum (CBC) for basic education; establishment of a curriculum development framework and development of the curriculum for early years. The sector also established the TVET Curriculum Development Assessment and Certification Council (TVET CDACC) to oversee the development of Competence Based Education and Training (CBET) Curriculum in Technical Vocational Education and Training (TVET).

To integrate Information and Communication Technology in teaching and learning, the government conceptualized the Digital Literacy Programme (DLP). The DLP has seen 1.1 million standard one pupils in 23,000 public primary schools provided with tablets complete with digital curriculum content. In addition, over 91,000 teachers have been trained to improve their capacity to deliver curriculum in the new platform. The programme aims at providing learners with new experiences and flexibilities to stimulate their learning.

In order, to strengthen governance, the Sector completed the conceptualization and development of the National Education Management Information System (NEMIS) to collect data from education institutions. The NEMIS is expected to issue unique identifiers to all learners in all education institutions. In addition, the system will collect all relevant education information and consolidate them into a single source of truth, a central repository that the sector will rely on for critical decision making. The sector also established

the County Education Boards (CEB) to promote decentralization of education management. Some other achievements in governance included establishment of regulatory bodies in the Sector, including the Technical Vocational Education and Training Authority (TVETA), and the Kenya National Qualifications Authority (KNQA).

In spite of the achievements, the Sector faced some challenges in implementing MTP II including extreme poverty in informal settlements and ASALs, which led to regional disparity in attainment of most targets. Some retrogressive cultural practices continued to stand in the way of achieving gender parities at all levels of education. Others challenges experienced included: inadequate and dilapidated infrastructure coupled with limited number of institutions at some levels of education; high cost of delivery of education and training; weak governance and accountability structures/systems; weak quality assurance framework; overlaps in Acts of Parliament; mismatch between skills and labour market demands; lack of occupational standards; weak legal and policy framework; insecurity; low perception of TVET and Adult and Continuing Education (ACE); drug and substance abuse; and HIV and AIDS.

The Sector Plan presents consolidated strategies and programmes that will be implemented between 2018 and 2022. These are expected to leverage on the investments made in ICT especially the Digital Literacy Programme (DLP) implemented towards actualizing the desired knowledge economy. Some of the emerging issues that the sector will be dealing include: implementing Sustainable Development Goals; harnessing Demographic Dividend; and implementing education and training curriculum reforms. Others include: ICT Integration in Education Management, Teaching and Learning; strengthening Special Needs Education; and addressing radicalisation and violent extremism in learning institutions.

To address challenges and emerging issues facing the sector and taking into account the aspirations of the Vision 2030, seven (7) key programmes will be implemented. These include: Curriculum Review and Reform; Access and Equity in Education and Training; Special Needs Intervention for Education and Training; Quality and Relevance of Education and Training; Integrating ICT into Teaching, Learning and Training; Revitalization of Adult and Continuing Education; and Governance and Accountability in Education and Training. The sector will also develop critical policies and legal reforms aimed at improving education and learning.

The Plan is organized in five (5) Chapters. Chapter one gives the introduction to the country's planning context; the background of MTP III; organization of MTP III sectors; and the composition of the sector as well as the mandate of associated agencies. Chapter two presents a review of Education and Training MTP II including the achievements realized between 2013 and 2017 with respect to the flagship projects/and other projects/programmes which were set to be implemented during the MTP II period. Chapter three reviews the emerging issues that may have changed the orientation of the programmes and projects; challenges faced in implementing the programmes and projects designed under MTP II; and the lessons learnt. Chapter Four presents the transformative programmes and projects identified as necessary catalysts to education development between 2018 and 2022. Finally, Chapter Five discusses the policy, legal and institutional reforms that need to be undertaken to ensure the identified programmes and projects are implemented in a seamless manner.

1.0   INTRODUCTION

The Education and Training (E&T) Sector is key towards achieving social transformation agenda of the Vision 2030. It is considered a primary vehicle of upward social mobility, national cohesion and socio-economic development through preparing skilled work force, imparting entrepreneurial skills and competencies and instilling national values. The Sector aims at providing *Globally Competitive Quality Education, Training and Research for Sustainable Development.*

In addition, the Constitution of Kenya guarantees the right to education and the right to free and compulsory basic education. It also provides for the establishment of requisite institutions and enactment of appropriate legislations to govern the education and training sector. In line with these provisions, the sector will provide lifelong education and training to all Kenyans and ensure access and affordable competencies and skills at all levels.

The Sector is further committed to achieving the international development committements such as the Sustainable Development Goal 4 *on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all* and the Africa's Agenda 2063.

During MTP III, the Government will lay emphasis on the "Big Four" Agenda namely: Universal Health Care; Food and Nutrition Security; Affordable Housing; and Industrialization, Manufacturing and Agro-Processing. The Sector will play an important role as an enabler through the provision of requisite skilled human resource, promoting research and development and educating the society on health and nutritional issues. The sector's priorities during the Plan period include: actualizing the right to free and compulsory basic education; improving post basic education; enhancing quality and relevance of education; integrating ICT into teaching and learning; financing education and training; and governance of the sector. The Sector will also also continue with implementation of Competence Based Curriculum (CBC), which is a combination of knowledge, skills, values and attitudes aimed at enabling learners to successfully perform a function.

2.0   SITUATION ANALYSIS

During MTP II, the Sector implemented various programmes and projects.

2.1   Progress in Implementing Flagship Projects

2.1.1   Mainstreaming of Early Childhood Development Education (ECDE)

In 2012/13 FY, the government disbursed a total of Kshs.1.6 billion as capitation grants to ECDE centres. Out of this Kshs. 1.32 billion benefitted 1.34 million children, each receiving Kshs. 978 for instructional materials. The compliment of Kshs. 0.288 million was spent on salary top-up for ECDE teachers. Under, the devolved system introduced in 2013 county governments continued allocating resources for ECDE services based on each county regulations.

During the 2014/15 FY, Kshs. 13 million was allocated to ECDE at the national level to develop a pre-primary policy. The Ministry in collaboration with stakeholders also developed the Kenya School Readiness Assessment Tool (KSRAT) to guide the transition of ECDE children to primary education and to ensure quality learning.

In addtion, the number of ECDE centres increased from 40,145 in 2013 to 41,779 in 2017 while enrolment increased from 71.6% in 2013 to 77.1% in 2017. The Net Enrollment Rate (NER) increased from 68.7% in 2013, to 76.9% in 2017.

2.1.2   Curriculum Review and Reform

The Sector undertook major reforms to national education curriculum in line with relevant provisions of the Constitution, aspirations of Kenya Vision 2030 and East African Community protocol. The review is as a result of shifitng the education and training system from objective to competence based curriculum, which is a combination of knowledge, skills, values and attitudes aimed at enabling learners to successfully perform a function. Key achievements included: preparation of need assessment report; development of a curriculum assessment framework for teacher education; and engagement of stakeholders.

Further, the Kenya Iinstitute for Curriculum Development (KICD) held subject panels for writing pertinent and contemporary issues which informed the curriculum designs for grade pre-primary and grade 1, 2 and 3 in lower primary. A total of 170 curriculum support materials for piloting were developed and 6,500 teachers and other field officers were inducted on Competency Based Curriculum; and commenced the roll-out of the early year's curriculum across the country.

To implement the Competency Based Curriculum (CBC) for education and training across the entire country,the Kenya National Qualification Authority (KNQA) was operationalized under the Kenya National Qualifications Framework Act No. 22 of 2014. The TVET Curriculum Development Assessment and Certification Council (TVET CDACC) prepared guidelines for the development of Competency Based Curriculum and established Competence Assessment and Certification processes. The review of university curriculum was also initiated.

2.1.3   Integrating ICT into Teaching and Learning

The government prioritized provision of ICT equipment to all public primary schools. Under this Programme,

a total of 882,765 Learners Digital Devices (LDDs), 43,777 Teacher Digital Devices (TDDs), 21,133 Content Access Point (CAP) and 19,409 projectors were supplied to primary schools.

A total of Kshs. 60,000 was disbursed to each public primary school including Special Needs Education (SNE) to improve ICT infrastructure (storage facilities, wiring of standard one classrooms and procurement of desks). The sector also integrated ICT and assistive technology to learners with special needs,with a focus to building capacity of teachers, digitization of content and supply of SNE accessible devices and technologies.

During MTP II, over 22,000 primary schools were connected to electricity across the country and strong rooms/stores built for storing the ICT equipment. In addition, Mathematics and English e-content materials were developed for classes 4-7 and for 12 subjects targeting forms 1-4 also Materials for classes 1-2 in five (5) subjects were developed, with those for class 3 awaiting roll out. The Public Cloud was acquired for dissemination of on-line content to host Kenya Educational Cloud (KEC). Further adaptation of Digital Learning Programme (DLP) materials for class1-2 for the Visually Impaired (VI) and Hearing Impaired (HI) learners was initiated and an online distribution of books and online content developed and tested for implementation.

Under the DLP, a total of 91,526 education professionals were trained to support the full implementation of the Programme out of which, 63,484 were teachers, accounting for 69% of the total number of those trained, 31% of trainees were members of the sector and will provide technical support during the implementation of the programme.

Significant progress was made under TVET. This included connecting TVET institutions to the fiber optic cable and introducing flexible and blended learning in partnership with the Common Wealth of Learning (COL). A total of eight (8) technical institutions offer Cisco Networking Academy Programme meant to provide trainees with industry-valued certification skills to repair and maintain computers. In addition, a total of 40 TVET institutions were connected to the fiber optic cable; smart classrooms established in 10 TVET institutions; and sensitization workshops and training of teachers conducted on the application of ICT to teaching, learning and management.

2.1.4   Establishing National Education Management Information System (NEMIS) Centres

During the review period , the Sector committed to create data hubs by equipping county offices with selected ICT equipment. In 2015/16, a total of 16 county offices were each provided with 2 desktop computers, a printer and a hard disk at a cost of Kshs. 3 million while in 2016/17, a total of 31 county offices were supplied with a desktop computer, a printer and a hard disk at a cost of Kshs. 10 million. In addition, County Education Management Information System (EMIS) centres were equipped for the development of a robust NEMIS. The system was developed and initial data collection initiated to enable all learners and staff in all basic education institutions to be issued with a unique identification. The system is a critical pillar for effective monitoring and evaluation; quality assurance; budgeting and allocation of resources; and policy and planning.

2.1.5   Basic Education Infrastructure

Infrastructural development was undertaken to address the challenges of increased enrolment across all levels of basic education.

i. Early Childhood Development and Education (ECDE)

The number of ECDE centres increased progressively from 39,758 in 2012 to 41,248 in 2016 as shown in table 2-1.

Table 2-1: Number of ECDE Centres

Category	2012	2013	2014	2015	2016
Public	24,654	24,702	24,768	24,862	25,175
Private	15,104	15,443	15,451	15,913	16,073
Total	39,758	40,145	40,219	40,775	41,248

Source: *Ministry of Education*

ii. Primary School Education

The number of primary schools grew from 28,026 (public 21,205, private 6,821) in 2013 to 35,442 (public 23,584, private 11,858 in 2017. As a result, enrollment in both public and private primary schools increased from 9,857,600 pupils (boys 5,019,700, girls 4,837,900) in 2013 to 10,403,700 pupils (boys 5,293,900, girls 5,109,800) in 2017.

In the review period, 781 primary schools received Kshs. 511,110,000 for construction and renovation of classrooms while 622 schools were allocated Kshs. 415,050,000 for construction of classrooms between 2012/2013 and 2016/2017; 119 primary schools were allocated Kshs. 69,260,000 for renovation of classrooms; 34 special needs primary schools were allocated Kshs. 23,100,000 for construction of classrooms and 6 Special Needs Education (SNE) schools were allocated Kshs. 3,700,000 for renovation of classrooms.

iii. Secondary School Education

The number of public secondary schools increased from 7,834 (public 6,807, private 1,027) in 2013 to 10, 655 (public 9,111, private 1,5444) in 2017. As a result, enrolment increased from 2, 104,262 (boys 1, 127,697, girls 976,565) in 2013 to 2, 830,800 (boys 1,450,800, girls 1,380,000) in 2017. Between 2013/14 and 2016/17 a total of 6,532 public secondary schools benefitted from infrastructure improvement and related initiatives. As shown in table 2-2, 40% of the benefitting schools were considered for infrastructure upgrade/expansion in readiness for the 100% transition to secondary while One (1) in four (4) of the beneficiary schools were strictly from ASAL and pockets of poverty where the Government undertook infrastructure improvement, equipment as well as repair and maintenance.

Table 2-2: Beneficiaries On Secondary School Infrastructure 2013 – 2017

Item of expenditure	2013/14	2014/15	2015/16	2016/17	Total
No. of Schools benefitting from infrastructure improvement grants	-	361	238		599
No. of schools benefiting from universal secondary education infrastructure grants towards 100% transition from primary to secondary	-	-	-	2,575	2,575

No. of schools benefiting from Laboratory Equipment in secondary schools	1,324	381	-	-	1705
No. of schools benefiting from Infrastructure improvement, equipment, repair and maintenance in ASAL areas	210	85	128	779	1202
No. of schools benefiting from infrastructure improvement, equipment, repair and maintenance in areas with pockets of poverty	323	128	-	-	451

In the period 2013/14 to 2016/17 Kshs. 8.9 billion was spent on infrastructure improvement in the 6,532 schools. A total of Kshs. 2,657 billion representing 30% of the resources spent over the period supported infrastructure improvement in 599 schools including the expansion of 85 extra county schools into national schools. During 2016/17 Kshs. 5,471 billion representing 61% of the total resources spent over the period, was disbursed to 2,575 schools for the expansion of infrastructure to facilitate 100% transition.

Table 2-3: Expenditure On Secondary School Infrastructure 2013 – 2017 (Kshs. Million)

Item of expenditure	2013/14	2014/15	2015/16	2016/17	Total
School infrastructure improvement grants	-	2,097	560	-	2,657
Universal secondary education: towards 100% transition from primary to secondary	-	-	-	5,471	5,471
Laboratory Equipment in secondary schools	252	178	-	-	430
Infrastructure improvement, equipment, repair and maintenance in ASAL areas	40	10	21	155	226
Infrastructure improvement, equipment, repair and maintenance in areas with pockets of poverty	44	52	25	-	121

iv. Adult and Continuing Education (ACE)

Centres for ACE increased from 5,870 in 2013 to 6,173 in 2017. In addition, the sector renovated and furnished five (5) Multi-purpose Development Training Institutes (MDTI); created 202 ACE secondary centres with an enrolment of 7,701 learners; and established a boarding centre for adult learners, with a capacity of 40 boarding learners and 60 day scholars.

v . Teacher Training Colleges (TTCs)

The total number of public primary teacher training colleges increased from 22 in 2013 to 27 in 2017 while public diploma teacher training colleges increased from two (2) in 2013 to three (3) in 2017. In addition, the number of primary private teacher training colleges increased from 22 in 2013 to 27 in 2017. The total enrolment at public primary TTCs increased from 21,008 (10,216 male, 10,792 female) in 2013 to 21,931 (9,849 male, 12,082 female) in 2017..

Further, 10 new primary teachers' training colleges were constructed with an enrolment capacity of 6,120. These include: Bondo, Kenyenya, Kitui, Garissa, Narok, Chesta, Ugenya, Aberdares, Kaimosi and Mosoriot.

vi. Special Needs Education

According to the National Disability Survey (2017), there were 2,489,252 special needs children in Kenya, of which 5.6% had visual impairment, 2.2% hearing impairment, 4.6% mental disability and 6.7% with physical disability. A total of 34 classrooms were constructed and others renovated in six (6) special needs' schools to address accessibility of education services to children with special needs.
The sector initiated the construction of the National Psycho-Educational Assessment Centre, which is expected to enhance assessment and placement of trainees with special needs and disabilities. The sector also integrated ICT and assistive technology to learners with special needs with a focus on capacity building of teachers, digitization of content and supply of SNE accessible devices and technologies.

2.1.6 Human Resource in Support of University Education

To strengthen teaching and learning in public institutions of higher learning, lecturers and tutors from technical colleges and officers from public institutions were enrolled for Masters and Doctorate studies in Engineering and Applied Sciences. The first batch of 82 students undertaking Geothermal and Manufacturing Engineering is ongoing at Dedan Kimathi University of Technology. Egerton University and University of Eldoret are training 16 and 10 teaching staff in Agricultural and Engineering, respectively while 54 members of staff are in Kenyatta University pursuing Masters and Doctorate degrees in Applied Physics and Chemistry. A consortium of Jomo Kenyatta University of Agriculture and Technology, Masinde Muliro University of Science and Technology and Taita Taveta University College in collaboration with Curtin University, is training 10 members of the teaching staff in coal technology.

2.1.7 Education in Arid and Semi Arid Lands

The National Council for Nomadic Education in Kenya (NACONEK) was established in 2015 to address the educational needs and aspirations of the marginalized communities. Since inception of NACONEK, 426 Low Cost Boarding (LCB) schools and 117 mobile schools received support grants while a total of 22 LCB primary schools in ASALs areas were rehabilitated.

A number of projects were implemented through county governments, National Government Constituencies Development Fund (NG-CDF) and other agencies. Through the NG-CDF, 12 LCBs in nine (9) arid nomadic counties were constructed. In addition, 224 feeder schools were established and 180 LCBs equipped courtesy of UNICEF. The national government also recruited teachers annually to improve the level of staffing in both primary and secondary schools.

There was significant expansion of middle level colleges across ASAL regions. The national government established 60 new technical training colleges across the country including in 14 ASAL counties, where there were none previously. In addition, a minimum of three (3) vocational training centres were established by county governments in each of the arid counties of Turkana, Wajir, Mandera, Garissa, Lamu, Isiolo, Marsabit and Tana River. Budgetary allocation also increased significantly for ASAL through the NG-CDF and county government bursaries. Further, 286 mobile school teachers and School Management Committees (SMCs) were trained on financial management while 57 mobile school teachers received training on multi-grade pedagogy.

2.2 Other Programmes and Projects

2.2.1 School Health and Nutrition

The program operates under two modes namely, Regular School Meals Program (RSMP) and the Home Grown School Meals Program (HGSMP). Under the RSMP, the World Food Program (WFP) has been supporting the government in providing mid-day meals to over 600,000 learners in pre-primary and primary schools. The schools are drawn from 45 ASAL sub-counties and vulnerable informal settlements of Nairobi and other urban areas.

The HGSMP is a government supported program that started in 2009 to cater for the students offloaded from the RSMP. Under the programme, funds are disbursed directly to school accounts for purchase of food from local markets. This has benefited communities around the schools engage in food production. The program, therefore, not only addresses children's nutritional and education needs, but also creates a consistent and predictable market to small scale farmers, thereby promoting local growth. The HGSMP operates in primary schools drawn from 60 ASAL sub-counties, areas with pockets of poverty and marginalized areas. The unit cost per day per child was originally Kshs. 10 but was revised in the period under review to Kshs. 13 to improve the nutritional value by adding fruit and vegetable once a week in the menu.

2.2.2 Affirmative Action Programmes

i. Provision of Sanitary Towels

To enhance retention of girls in school, the Sanitary Towels Programme (STP) was scaled up. The programme targets girls entering their puberty who are at risk of being excluded from participating in learning. The programme was initiated with an overall objective of the provision of sanitary towels to girls in public primary schools to mitigate against existing regional gender disparities in access, equity, retention, transition and achievements in education.

The programme has benefitted more than 3.5 million girls and has been effective in addressing cases of girls' absenteeism. The target schools are identified using a criterion which took into account marginalization, areas with pockets of poverty, ASAL characteristics and the National Poverty Index. Table 2-4 indicates funding and number of girls who have benefitted between 2011/12 and 2016/17.

Table 2-4: Progress in the Provision of Sanitary Towels

Year	Amount (Kshs. Million)	Regular Primary Schools	Girls in Regular Primary	Special Secondary Schools	Girls in Special Secondary
2011/2012	240		443,858		
2012/2013	300	6,974	557,261	167	11,664
2013/2014	201	8,993	653,256	167	11,995
2014/2015	300	16,758	1,131,235	244	12,313
2015/2016	220	14,072	687,433	244	12,567
2016/2017	400	20,000	1,388,453	244	15,000

Source: *Ministry of Education*

ii. National Survey on Special Needs and Disabilities

The Sector conducted the survey in 2016/2017,focusing on prevalence of children with disability and special needs countrywide. The survey covered children between 3 and 21years of age who have physical, sensory, intellectual or psychosocial disabilities. The survey report indicates that, there are 2,489,252 special needs children in Kenya as shown in Table 2-5.

Table 2-5: Prevalence of Disabilities in Kenya for Population Aged 3-21

Disability Domain	(%)	Male	Female	Total
Visual Impairment	5.6	574,858	661,410	1,236,267
Hearing Impairment	2.2	243,209	249,384	492,593
Self-care	1.1	154,769	86,742	241,512
Mental Disability	4.6	563,803	444,554	1,008,357
Communication	1.6	187,934	162,642	350,576
Deaf Blind	0.3	31,333	29,085	60,418
Physical Disability	6.7	752,251	722,751	1,475,002
Kenya (all disabilities)	11.4	1,261,877	1,227,375	2,489,252

Source: *KISE National Survey on Disability 2017*

iii. Identify and Nurture Talents

The Sector developed the Sessional Paper on "Reforming Education and Training in Kenya" that recommended development of the individual learner's potential in a holistic and integrated manner and early identification and nurturing of talents.

iv. Most Vulnerable Children Support Grant Programme

The sector provided support to most vulnerable children through cash transfer programmes. In addition, partners in education have also supported these programmes which have enhanced school attendance and retention.

v. Alternative Provision of Basic Education and Training

Alternative Provision of Basic Education and Training Institutions (APBET) formerly known as non-formal education had a total of 146,002 learners enrolled in 479 registered APBET institutions. The National Government disbursed grants worth Kshs. 400 million to the institutions.

vi. Laboratory Equipment Grant

Laboratory Equipment Grant was disbursed to identified needy secondary schools for improved teaching and learning of science subjects as follows: in 2012/13, Kshs. 165 million was disbursed to 1,179 schools, each receiving Kshs. 139,949; in 2013/14, Kshs. 251 million was disbursed to 1,324 schools, each receiving Kshs. 190,000; in 2014/15, Kshs. 178 million was disbursed to 954 schools each receiving Kshs. 186,851.

vii. Bursaries and Scholarships

In 2013/14 Kshs 1.17 billion was disbursed to constituency bursary committees across the country to assist needy orphans and children from poor families. Further, support was extended through the allocation of funds under scholarships and other educational benefits in secondary education in the same year. The Fund has since been transformed to the National Government Constituencies Development Fund.

2.2.3 Enhancing Quality and Relevance of Education

i. Quality Assurance

During the review period, quality assurance assessments were conducted in all the 47 counties. A total of 27,672 schools were assessed and 80,559 teachers were observed in various subjects. Further, Quality Assurance Officers were sensitized on curriculum reforms to support implementation of the new curriculum, while the Quality Assurance Directorate assessed quality in teacher education through external assessments of pre-service trainee teachers.

ii. Teacher Education, Recruitment and Management

Recruitment of Teachers: To bridge the staffing gaps, the sector has continued to employ additional teachers. The government recruited 22,000 additional teachers during the review period. However, there exists a distributional imbalance aggravated by insecurity in most parts of the ASAL areas in the country. The insecurity coupled with increase in the number of schools and student enrolment increased the shortage from 81,479 in 2013 to 100, 182 in 2017 to stand at a level of 5.7 % on average.

Automation of Teacher Management: Teacher Management Information System (TMIS) was developed to enhance efficiency in capturing and management of teachers' data and provision of online services.

Expansion of Teacher Training Facilities: Teacher training was strengthened through establishment of additional Teacher Training Colleges (TTCs) and replacement of colleges initially taken over by universities. The enrollment in the colleges increased from 37,113 in 2013 to 42,131 in 2017 as shown in table 2-6.

Table 2-6: Teacher Training Colleges

Category	Number of Institutions					
	2012	**2013**	**2014**	**2015**	**2016**	**2017**
Public	21	22	24	24	27	27
Private	97	101	101	101	105	108
Total	118	123	125	125	132	135
Enrolment (Public and Private)	30,696	37,113	39,853	41,402	41,707	42,131

Source: *Economic Survey 2018*

To improve professionalism and maintain teaching standards, the sector sensitized over 7,000 Education Administrators, School Boards' of Management and other key stakeholders on various topical issues. Implementation of Performance Contract and Performance Appraisal System in all public education institutions was also introcuded to make the sector accountable.

2.2.4 Education Sector Governance

i. Establishment of the Education Governing Bodies

The National Education Board (NEB) was established and operationalized,County Education Boards (CEBs) were also established in all the 47 counties and Boards of Management/Governors and Councils appointed to manage institutions where applicable. In addition, 13,439 members of Boards of Management in nine (9) counties were trained on Mwongozo Code of Governance and on other relevant skills with support from development partners such as SCAC, AHADI-USAID.

ii. Development and Review of Education Policies

The Constitution of Kenya mandates the national Government to develop educational policies, curriculum, maintain standards and examinations. During the review period, the Education Sector Policy for Peace Education (2015) and the Education for Sustainable Development Sector Policy (2016) were developed. In addition, the following policies, guidelines and regulations were reviewed and disseminated to stakeholders for implementation: Education Sector Policy on HIV and AIDS; Gender Policy in Education and Training; Alternative Provision of Basic Education and Training guidelines; Code of Regulations for Teachers; and Policy Framework for Nomadic Education in Kenya. Further, National Special Needs Education Policy Framework; ECDE Policy; Instructional Materials Policy for Education and Training Institutions; and Gender Based Violence Policy were developed and a cconcept note on review of Governance and Accountability Plan developed to align it with the Constitution and the Public Financial Management Act, 2012.

iii. Training and Capacity Building for Education Sector Leadership and Management

During the review period, the focus was on competency based training and capacity building for improved service delivery, development of infrastructural facilities and curriculum of both national and county government officials. The sector through its key players strengthened the managerial capacity of various cadres of educational personnel. However, institutional managers still possess limited capacity to effectively and efficiently manage institutional resources. This requires further capacity building on governance.

iv. Establishment of a Quality Management Sytem (QMS) in line with ISO 9001 International Standard

As part of enhancing service delivery in the sector, most of the institutions were able to attain ISO certification while a few others initiated the process. During the review period, the Sector trained staff in QMS implementation and compliance to procedures and policies.

v. Establisment of a Ministerial Monitoring and Evaluation System

Education Management Information System (EMIS) has increasingly become the pillar of monitoring and evaluation because of the huge amount of data it provides. During MTP II, the sector prepared and published two statistical booklets (2014 Basic Education Statistical Booklet for 2014/15 and 2015 Basic Education Statistical Booklet for 2015/16), drafted the 2016 Basic Education Statistical Booklet for 2016/17 and published the universities statistical booklet.

2.2.5 Technical and Vocational Education and Training (TVET)

i. Increase Access and Equity to TVET

Enrolment in TVET increased due to centralization of Government-sponsored TVET students' placement. In addition, Higher Education Loans Board (HELB) in collaboration with National Youth Service(NYS) and Equity Bank supported payment of tuition fees for trainees among other rebranding measures. The student enrollment in TVET institutions increased from 148,009 in 2013 to 275,139 in 2017 as shown in table 2-7

Table 2-7: Student Enrolment in Technical Institutions by Sex, 2013 – 2015

Institution	2013		2014		2015		2016		2017	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Technical University of Kenya	4,814	2,607	4,432	2,769	3,911	2,517	2,425	1,249	3,226	1,432
Technical University of Mombasa	3,048	1,506	3,250	1,708	2,835	1,633	1,789	1,236	1,859	1,257
Kenya Technical Trainers College	-	-	858	597	913	1,119	2,806	2,114	1,750	1,219
National Polytechnics	5,304	3,216	6,120	3,528	4,804	2,809	15,734	9,563	22,455	15,294
Sub – total	**13,166**	**7,329**	**14,660**	**8,602**	**12,463**	**8,078**	**22,754**	**14,161**	**29,290**	**19,202**
Technical and vocational colleges	31,956	23,989	29,632	21,232	32,221	23,087	17,589	9,569	29,584	17,982
Youth Polytechnics	42,942	28,627	45,473	28,222	47,625	29,840	46,340	34,565	59,756	44,685
Sub – total	74,898	52,616	75,105	49,454	79,846	52,927	91,209	74,432	125,291	101,356
Institution	2013		2014		2015		2016		2017	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	148,009		147,821		153,314		202,556		275,139	

Source: *Economic Survey 2018*

Through partnership with Kenya Italy Debt Development Programme (KIDDP), scholarships amounting to Kshs. 9 million (including enhanced funding for female trainees as well as trainees with special needs and disabilities) were disbursed to support 450 trainees. In 2014/15, a total of 63,800 trainees received Subsidized Youth Polytechnic Tuition (SYPT) funds while, a total of 37 Vocational Training Centres (VTCs) countrywide benefited with twin workshops and hostel constructions under GoK/AfDB support.

ii. TVET Special Needs Institutions

Karen Institute for the Deaf; Machakos Institute for the Blind; Nyang'oma Institute for Deaf; and Sikri Institute for the Deaf and Blind were fully integrated in TVET as a means of enhancing equity. Other

affirmative action measures undertaken included enhancing budget of the Special Needs Institutions in addition to training the management of the institutions on Strategic Management, Financial Management, Public Procurement, and Performance Contracting.

iii. Infrastructure Improvement and Equipment for TVET Institutions

Construction of Phase I of 60 new Technical Training Institutes (TTI) in constituencies (those without a TTI) was 90% complete; 24 out of the 60 TTIs under Phase I were fully completed. Of these, 12 TTIs were assessed and Principals posted by TSC bringing the total number of operational TVET institutions to 65. In addition, the Sector commenced construction of phase II of 70 TTIs in constituencies without a TTI which had 40% completion rate.

During the review period, 10 GoK/AfDB funded TTIs were registered by TVETA and are operational. In addition, five (5) new technical training institutes in underserved regions were supplied with equipment and several others upgraded. The upgrading led to the elevation of eight (8) TTIs to national polytechnic status. Furthermore, 48 workshops and laboratories under the Economic Stimulus Programme (ESP) developed in existing TTIs were completed. Significant progress has been made in provision of modern equipment including smart classrooms and workshops through collaboration with development partners.

iv. Accreditation and Registration of TVET Institutions

The sector carried out assessment of 960 TVET institutions of which 850 were accredited while 168 were recommended for improvement. It also conducted quality audits in 50 TVET institutions leading to the closure of 19 institutions that were operating illegally. In addition, it developed: standards and regulations to operationalize the TVET Act 2013; criteria for Competency Based Education and Training and Assessment (CBETA) training Programmes; and Prior Learning Assessment and Recognition (PLAR) standard while development of a Trainers Qualification Framework was initiated. Capacity building of staff, monitors and evaluators was done in partnership with AfDB.

v. Industry-Training Linkage

In line with the need to provide practical attachment to trainees, Numerical Machining Complex engaged a total of 214 TVET students (156 Males and 58 Females) on industrial attachment for a period of three months.

2.2.6 University Education

i. Expanding Access and Equity

During the review period: the number of private universities increased from 33 in 2013 to 37 in 2017; public universities, increased from seven (7) fully-fledged universities to 31; while public university cconstituent colleges decreased from nine (9) to five (5) during similar period, bringing the total number of universities in Kenya to 73.

Student enrolment grew rapidly from 361,379 (male 213,967, female 147,412) in 2013/2014 to 564,507 (male 330,347, female 234,129) students in 2016/2017. This was 85% (479,312) enrolment in public universities compared to 15% (85,195) enrolment in Private Universities. The number of government-

sponsored students admitted to universities grew from 56,938 in 2014/2015 to 88,541 in 2017/2018. This enrolment was further boosted by the placement of government-sponsored students in Private Universities. The first cohort of 12,096 students was placed in 29 private universities in 2016 while the second, comprising 17,000 students were placed to various programmes in Private Universities in 2017.

The Kenya Universities and Colleges Central Placement Service was established and has managed to place close to 300,000 students in public and private universities as shown in Table 2-8.

Table 2-8: Placement of Students to Universities

	Male	Female	Total
2014/15	34,103	22,836	56,938
2015/16	40,014	27,776	67,790
2016/17	49,249	36,893	86,142
2017/18	50,139	38,402	88,541
Totals	**173,505**	**125,907**	**299,411**

Source: *Ministry of Education*

ii. Improve Quality and Relevance

The Universities Regulations (2014) and Standards and Guidelines were developed and published to give effect to the Universities Act No. 42 of 2012. In addtion, the harmonized criteria and guidelines for appointment and promotion of academic staff in universities in Kenya were adopted and are being implemented.

Between 2013/14 and 2014/15, 10 universities were evaluated and inspected out of which, six (6) were recommended for award of charter and three (3) granted Letter of Interim Authority. In addition, two (2) institutions were inspected and recommended for constituent college status; 24 University campuses in Nairobi County were inspected for compliance with the minimum standards and eight (8) recommended for closure while one (1) foreign student recruitment agency was licensed and one (1) institution offering university education illegally closed.

In 2015/2016 , four (4) universities were assessed for establishment, six (6) technical inspections undertaken to verify available physical and academic resources for proposed institutions, and one University was recommended for the award of charter. A total of 80 self-Assessment Reports for Universities Campuses were evaluated and 80 Technical inspections to verify physical and academic resources conducted for University campuses while20 University Campuses were accredited.

Further, 205 and 70 quality assurance peer reviewers were trained while 134 academic programmes were evaluated and eight (8) programme re-evaluated. Institutional quality audit for four (4) Universities and academic programme in eight (8) universities were conducted in 2015/2016. In addition, two (2) policy advisories relating to university education were prepared in 2015/16.

iii. Revamping of Research

Design for a National Science Technology and Innovation (ST&I) Statistics Observatory was developed for capturing, developing, sharing and storing National ST&I information. The National Research and

Development Survey and African Science Technology and Innovation Indicators Survey (ASTII) were also undertaken. In addition, Innovative Technology Transfer System was allocated Kshs. 312 million for development of a 10-year master plan for science and technology parks. Researchers were also able to access funding of 12.3 Million Euros through participation of the Sector as the Kenya Horizon 2020 National Contact Point. Upon establishment of the National Physical Science Research Laboratory for Engineering and New Production Technologies, a strategy was developed and 5 acres land provided at the Konza Technopolis anda centre for Nuclear Research for Peaceful Applications established.

iv. Education and Training Financing

During the review period, a differentiated unit cost funding for universities was developed to guide funding of respective faculties while the government created mechanisms through the National Treasury for partner funding and collaboration.The number of students receiving university loans, bursaries and scholarships increased from 191,594 in 2013/2014 to 219,004 in 2015/2016 as indicated in Table 2-9.

Table 2-9: HELB Funding to University Students

	2012/2013	2013/2014	2014/2015	2015/2016
Undergraduate loans	5,674.3	6,833.5	7,314.6	7,589.7
Bursary	92.0	92.0	92.0	92.0
Postgraduate loan	401.0	372.0	230.1	254.6
Scholarship	20.0	20.0	21.3	24.1
Total (Kshs. Millions)	**6,187.3**	**7,317.5**	**7,658.0**	**7,960.4**
Beneficiaries (000)	**164,683**	**191,594**	**216,896**	**219,004**

Source: *Higher Education Loans Board*

The Higher Education Loans Board (HELB) disbursed loans and bursaries to TVET trainees as indicated in table 2-10. The sector also piloted trainee scholarship Programme where 450 trainees were funded at a total cost of Kshs. 9 million facilitated by Kenya Italy Debt Development Programme (KIDDP).

Table 2-10: HELB Funding to TVET Students

	2014/2015	2015/2016	2016/17
TVET students Loan funded	10,148 (T) 6,559 (M) 3,589 (F)	16,822 (T) 10,926 (M) 5,896 (F)	6,047 (T) 3,879 (M) 2,168 (F)
TVET Students Bursary award	7,015 (T) 5,047 (M) 1,968 (F)	12,519 (T) 8,913 (M) 3,606 (F)	3,959 (T) 2,762 (M) 1,197 (F)

Source: *Higher Education Loans Board*

2.3 Other Achievements

2.3.1 HIV and AIDS Programme

Great progress was recorded in combating HIV and AIDS with the prevalence rates declining from 11% in the mid-90s to 7.4% in 2007 and further to 5.6% in 2014. HIV and AIDS programmes in the education sector focused on sensitization against new infections, discrimination and stigmatization and providing support care for infected and affected learners, teachers and guardians. A HIV & AIDS policy for the education sector was reviewed and disseminated to stakeholders for implementation.

The sector is implementing the MAISHA I and II guidelines on prevention and management of HIV and AIDS. The sector also implements the wellness programme whose key interventions include: sensitizing employees on HIV, stigma reduction and primary health care; establishing and strengthening psycho-social support groups through training in leadership; disseminating the workplace policies on HIV and AIDS and establishing partnerships to provide Voluntary Counseling and Testing services at designated centres.

2.3.2 Management of National Examinations and Assessments

During the review period, the sector continued to implement online registration system for candidates. It conducted Monitoring of Learner studies at Class 2, 3, 6 and form 2 to assess achievement levels in numeracy and literacy. The sector also undertook school specific analyses of KCPE results and an online platform was developed to upload the results. The KCPE examination candidature increased from 839,759 (426,369 male, 413,390 female) pupils in 2013 to 993,718 (498,775 male, 494,943 female) pupils in 2017 while KCSE candidature increased from 445,520 (242,981 male, 202,539 female) students in 2013 to 610,501 (314,878 male, 295,623 female) in 2017.

2.3.3 TVET Master Plan and Strategy

TVET Master Plan (2016-2031) was developed to provide a roadmap for future development and renovation for the TVET system in Kenya for the next 15 years. TVET is provided by various Ministries, Department and Agencies (MDAs) as well as the private sector, this master plan therefore, provides a suitable roadmap to develop TVET in the various sectors including AgriTVET, Touristic TVET, Medical TVET, EcoTVET among others. The plan also provides the framework and justification for budget requests relating to appropriation decisions and capital expenditures at the national state level.

The sector also developed the TVET strategy 2016-2020 to implement phase I of the Master plan. It is designed to guide and assist TVET practitioners, investors, development partners, implementers and all beneficiaries in the TVET sub-sector. The strategy will ensure TVET sub-sector initiatives are implemented with due regard to sustainability, cost-effectiveness, local ownership and high value addition - to services.

2.3.4 National Literacy Programme (Tusome)

This project was established to improve early grade reading in all public primary schools and it covers all public primary schools in Kenya. The project distributed approximately 20 million books to schools at a pupil book ratio of 1:1, trained 1420 Curriculum Support Officers (CSOs) and instructional coaches, and trained approximately 100,000 Head teachers and Class 1, 2 & 3 teachers on Tusome approach. Those sensitized on Tusome approach include all County Director of Education (CDEs), CD/Teacher management,

SCD/Teacher Management, SCDEs, QASOs, Primary Teacher Training Colleges (PTTCs) principals, deans of curriculum and language lecturers. In addition, learning materials for learners with special needs (Hearing Impairment (HI) and Visual impairment (VI)) were adapted. SNE (HI & VI) teachers were trained on adapted Tusome learning materials. In addition, a framework on levelled readers was developed and Kenya Publishers Association (KPA) authors trained on how to develop leveled supplementary readers. A mid-term evaluation study was undertaken in October, 2017 and the findings indicated improvement in reading fluency rates and a high drop in none readers in class 1 and 2.

2.3.5 Primary Education Development Project

The project addresses key priorities on improving the quality of primary education. Key milestones include: development of National Education Sector Plan (NESP) 2013-2018; establishment of structures for Kenya Primary Education Development (PRIEDE) implementation, development of training manual for School Improvement Plan (SIP); and tendering process for printing and distribution of Early Grade Mathematics Assessment (EGMA) finalized, 26 Counties supplied with EGMA textbooks, and Education stakeholders sensitized across the country.

2.3.6 School Readiness Project (Tayari)

Tayari Early Childhood Development (ECD) Programme is modeled after the Primary Mathematics and Reading (PRIMR) initiative (2011-2014) and the Tusome Early Grade Reading Activity (2014-2018) which is being implemented by the Ministry of Education (MoE) in collaboration with RTI international. The programme targeted 108,000 pre-primary children in 1,700 ECDE centres in four (4) counties namely: Laikipia, Nairobi, Siaya and Uasin-Gishu. The Programme is implemented in a partnership approach whereby the Government of Kenya provides strategic policy and scale-up whereas Children Investment Fund Foundation (CIFF) provides funding for technical design, implementation and external independent evaluation.

2.3.7 Peace, Integration and Cohesion

i. Greatness United

Greatness United Programme (GUP) was established under the Office of the Presidency in 2014 and implemented by the Ministry of Education with technical support from Evidence Action Group and other stakeholders. The programme recruits volunteers graduates,trains and post them to primary schools in counties other than their home county with the aim of promoting national cohesion and by improving primary education outcomes by providing remedial support to struggling leaners in literacy skill in class two and three. During the review period the programme was implemented in 20 counties by the 3rd cohort and is expected to cover 47 counties with 30,000 Volunteer Graduate Assistance in all counties.

ii. Peace Education

The Peace Education Programme (PEP) unit carried out a successful National Peace Education Campaign (NPEC) with peace torch to the run up of 2013 General Elections in the 47 counties. In 2015, the Peace Education Programme in collaboration with UNICEF trained 94 County Peace Education Focal Persons (2 from each county) from the 47 counties on peace and emergency education, and psycho-social interventions. This Programme was cascaded and 80 public primary school teachers drawn from Lamu, Mandera, Wajir and Marsabit counties trained on peace and emergency education, and Psycho-social

Interventions . In 2015 a successful pilot was conducted on the 'Learning to Live Together'programme in 13 public primary schools in Tana Delta sub-county in collaboration with Arigatou International, Geneva and UNESCOand guidelines for establishing AMANI clubs in learning institutions developed by the peace education unit in collaboration with NCIC and UNICEF.

2.3.8 Education in Emergency

Reconstruction and repairs of affected schools was done through emergency infrastructure funding and provision of other amenities. The Emergency Preparedness and Response Plan was developed and training of 94 focal points persons in the 47 counties undertaken. The Disaster Management Policy was also finalized in the review period.

2.3.9 Science Technology Engineering and Mathematics (STEM)

STEM camps were successfully conducted in five (5) regions of Nyanza, Coast, Eastern, Upper Eastern and Rift-Valley where:girls' secondary schools from 35 counties were engaged in the camps; 350 girls from 245 schools were mentored on embracing sciences; and STEM women achievers successfully mentored selected secondary school girls on the values of STEM. As a result, there was substantial increase of female students applying for university admission in STEM.

3.0 EMERGING ISSUES, CHALLENGES AND LESSONS LEARNT

This chapter reflects on unprecedented issues that arose during implementation of MTP II; the challenges that may have slowed down expected results in the MTP II period; and the lessons learnt that will be considered by the Sector during implementation of this Plan.

3.1 Emerging Issues

i)   Radicalization and violent extremism which has led to learning disruptions and destruction of training institutions' property;

ii)   Emergence of priority sectors in the economy such as oil, gas and minerals and the Blue Economy which require specialized skills for exploitation and management;

iii) Increase in illiteracy levels amongst adult population;

iv) Inadequate capacity in TVET institutions to cope with high transition rate from secondary schools;

v)   Implementation of unrealised MDG goals under Universal Primary Education within the framework of SDGs;

vi) Need to build high quality education and training at all levels to equip young people with requisite skills to effectively and fully participate in the labour market to support realisation of demographic dividend;

vii) Integration of ECDE and Vocational Education and Training (VET) policy with implementation to allow harmonious operations between the two levels of government;

viii) Need to develop a policy on teacher utilization and deployment to realign it to Competence Based Curriculum (CBC) to allow review of the staffing norm and make it responsive to CBC;

ix) Reduction of development partners support to the sector as a result of perceived improved economic status arising from rebasing of the economy;

x)   Need to mainstream special needs programmes in all levels of education and training, including TVET and universities to allow absorption of special needs learners who may have dropped out of the basic education due to age limits;

xi) The engagement of untrained teachers in vulnerable regions resulting from fleeing of trained teachers from some regions due to insecurity; and

xii) Need to expand capacity of TVET institutions to match the demand for more trainers; and increased agitation leading to litigation requiring development of a policy on recruitment, remuneration and management of non-teaching and administrative staff.

3.2 Challenges

i)   Regional and gender disparities in access, completion and transition;

ii)   Extreme poverty in informal settlements and ASAL areas;

iii) Weak governance and accountability structures/systems;

iv) Inadequate funding;

v)   Low ICT integration due to high cost of ICT equipment and infrastructure

vi) Inadequate and dilapidated infrastructure;

vii) Weak data management;

viii) Drug and Substance Abuse (DSA);

ix) Adverse effects/ impacts of HIV and AIDS;

x)   Poor perception and recognition of TVET & SNE;

xi) Mismatch between skills and labour market demands;

xii) Industrial labour actions;

xiii) Insecurity;

xiv) Understaffing across the sector.

xv) Stakeholder Coordination and Participation in Education and Training to reduce overlaps and conflict of interest;

xvi) Lack of proper modalities in engaging private partners Public Private Partnerships in Education;

xvii) Uncoordinated and fragmented training, capacity building and research by various capacity development agencies;

xviii) Un-coordinated Skills Training due to multiplicity of testing and certification standards in TVETs

xix) Outdated Language Policy

xx) Overlaps in Acts of Parliament in Education and Training

xxi) Skill and Competency Manpower Gap in TVET Trainers Management

3.3 Lessons Learnt

i) Collaboration between the two levels of government is necessary in the provision of education resources in an effective and efficient manner;

ii) Capacity Building of institutions managers on governance and accountability of public resources is necessary for internal evaluation and establishment of new systems for audit of performance across the sector;

iii) Sensitization and dissemination of policy documents is necessary for internalization by key actors and institutions;

iv) Development of PPP policy specific to education and training is key in implementing sector's priority projects;

v) Mechanisms to ensure sustainability of the projects need to be put in place for the sector to consolidate the realised gains;

vi) An audit of existing legislations and policy frameworks can help address the overlaps in mandates of agencies resulting from the laws and Acts governing the sector;

vii) Development of appropriate infrastructure can help improve quality of learning at adult education centres and Vocational Training Centres (VTCs);

viii) Aggressive rebranding of TVET and enhanced awareness creation in learning institutions will help in reposition TVET as an option for training;

ix) A survey on gender disparity in TVET should be undertaken in order to identify the issues and formulate interventions necessary to improve enrolment;

x) Close and productive interaction between academia, private sector and public institutions in all fields is vital in harnessing the existing potential and facilitating smooth roll out of curriculum reforms;

xi) A framework of institutional arrangements should be established to coordinate the relevant stakeholders and create an enabling environment for them to participate effectively;

xii) Enhanced funding is required to cater for the increased number of education and training institutions, Special Needs Institutions, Universities as well as increasing enrolment and in-service training.

xiii) There is need for Sensitization, awareness and Training on HIV and AIDS including stigma and discrimination, SGBV prevention and human rights

4.0   PROGRAMMES AND PROJECTS FOR 2018-2022

This Chapter outlines the programmes and projects that will be implemented during the MTP III (2018-2022) to address interventions and recommendations made under the sector priority areas for the achievement of the education and training goals outlined in the Vision 2030. The identification and prioritization of the programmes and projects is informed by the situation analysis, emerging issues, challenges and lessons learnt from the implementation of MTP II. The Sector has identified seven (7) programmes to be implemented over MTP III period. These include Enhancing Access and Equity in Education and Training; Curriculum Review and Reform; Special Needs Intervention for Education and Training; Enhancing Quality and Relevance of Education and Training; ICT Integration into Teaching, Learning and Training; Governance and Accountability in education and training; and Rebranding Adult and Continuing Education. Under the seven (7) programmes, fifty seven (57) projects have been identified for implementation. These projects have been categorized as flagship projects and other programmes and projects.

4.1   Flagship Projects

4.1.1   Unversal Secondary Education

The project aims at ensuring 100% transition from primary to secondary education. In this context, the sector will ensure that all candidates who sit Kenya Certificate of Primary Education are guaranteed admission in secondary school. The project will entail:

  i.   Provision of infrastructure (classrooms, laboratories and sanitation facilities) in all public schools;
  ii.   Provision of capitation to the additional students in secondary schools beyond the current provision under Free Day Secondary Education (FDSE); and
  iii. Recruitment of 125,480 additional teachers (25,096 teachers per year) to address the immediate need arising from increased enrolment in public secondary schools.

4.1.2   TVET Infrastructure and Equipment

The objective is to raise the profile and acceptance of TVET. The project entails:

  i.   Complete construction of the 70 Technical Vocational Centres (TVCs) that were initiated during TP II;
  ii.   Construct 88 TVCs in constituencies that have none;
  iii. Expand and equip the 217 new TVCs with state of the art equipment in at least five disciplines;
  iv.   Upgrade, rehabilitate and equip the existing 10 national polytechnics;
  v.   Establish 37 national polytechnics to ensure that each county has at least one;
  vi.   Establish four (4) new Technical Trainer Colleges;
  vii. Develop a framework for standards on infrastructure, tools and equipment necessary for quality training in Vocational Training Centres (VTCs);
  viii. Revitalization of VTCs/Youth Polytechnics through provision of modern tools and equipment, infrastructure development, instructor recruitment and development as well as capacity building of management;
  ix.   Construct a VTC in county wards without one.

4.1.3   Roll out of the Basic Education Competency Based Curriculum

The objective of the project is to ensure that education nurtures the potential of every learner and provides different pathways to enable them have an opportunity to pursue different careers of their interest. The national curriculum framework has organized Basic Education into three tiers of learning namely: early years' education, middle school education and senior school, tertiary and university. These will be implemented progressively as the current curriculum is phased out. The project will entail:

i.   Review of pre-primary teacher training curriculum and other levels of teacher education curriculum;
ii.   Preparation of Competency Based Curriculum (CBC) designs and syllabuses;
iii.   Development and vetting of curriculum support materials;
iv.   Adoption of curriculum support materials to the nomadic context;
v.   Mapping the envisaged education system into the international standard classification of education;
vi.   Actualization of education pathways;
vii.   Capacity building of teachers, curriculum support officers, quality assurance officers; curriculum experts, education managers and other key stakeholders;
viii. Digitization of CBC content, and reforms of education resource centres;
ix.   Review of the language policy, implementation of indigenous languages and introduction of sign language; and
x.   Introduction of formal education in the *madrasa/duksi* system.

4.1.4   Roll-Out of Competency Based Education and Training (CBET) for TVET

The objective of the project is to ensure that TVET courses are competency based and aligned to the labour market demands. The project will entail:

i.   Development of competency based curriculum;
ii.   Internal and external competence assessment of trainees and certification;
iii.   Establishment and operationalization of 50 TVET competence assessment centres;
iv.   Capacity building for trainers/instructors/lecturers/assessors/verifiers and other TVET stakeholders on CBET;
v.   Development of occupational standards in collaboration with the industry;
vi.   Repackaging the curriculum by the experts and development of curriculum support materials in consultation with the Sector Skills Advisory Committees (SSACs)
vii.   Conduct assessment in collaboration with industry;
viii. Monitoring and evaluation of CBET implementation; and
ix.   Recruitment of staff for TVET Curriculum Development Assessment and Certification Council (TVET CDACC).

4.1.5   Implementation of the Kenya National Qualifications Framework (KNQF)

The project aims at promoting life-long learning opportunities by recognition of acquired skills and knowledge. The KNQF is based on the premise of the need to standardize and harmonize the country's qualification by putting in place a system for setting standards, and defining expected knowledge. It will also standardize and harmonize skills and understanding needed for labour market employment, self-employment or further education within Kenya's education, and training system beyond the country

borders. To fully operationalize KNQA, the following activities will be undertaken.

i. Development and implementation of Kenya National Qualifications Framework;
ii. Development and implementation of national qualifications system standards and guidelines;
iii. Establishment and implementation of KNQF data base;
iv. Capacity building of education and training providers, Professional, quality assurance and qualifications awarding bodies;
v. Creating awareness of KNQA;
vi. Recruitment of KNQA staff; and
vii. Strengthening of the capacity of qualifications awarding bodies to comprehend the need for standardization of qualifications. This will help create linkages between the qualifications awarding bodies.

4.1.6   Operationalize National Education Management Information System (NEMIS)

The objective of the project is to establish a system for the collection, integration, processing, maintenance and dissemination of data and information to support decision making, policy-analysis and formulation, planning, monitoring, and management at all levels of the education and training system. To operationalize NEMIS, the sector will undertake the following:

i. Infrastructure development at the Ministry headquarters, counties and learning institutions;
ii. Carry out capacity building and change management for officers and stakeholders at Ministry headquarters, County, Sub-County, agencies and learning institutions;
iii. Carry out capacity assessment of county offices and learning institutions;
iv. Establish an agency to manage NEMIS to ensure it dispenses its overarching role effectively;
v. Issuing Unique Institution Codes (UIC) to each learning institution;
vi. Issuing Unique Learner Number (ULN) to all learners, trainees and students in all education and training institutions;
vii. Map all learning institutions in the country using their GPS locations;
viii. Development of TVET Management Information System and linking it to NEMIS;
ix. Development of University Education Management Information System (UEMIS) and linking to NEMIS; and
x. Development of an Integrated National Leaner Records Database by KNQA and integrate it to NEMIS.

4.1.7   Institutionalize Kenya National Skills Development (KNSD)

The project will enhance coordination of education and training among industries, government and academia. It involves:

i. Development and implementation of Kenya National Skills Development Framework;
ii. Development and implementation of system standards and guidelines;
iii. Establishment and operationalization of Kenya National Skills Development Council (KNSDC);
iv. Recruitment of staff for KNSDC;
v. Establishment and implementation KNSDC data base;
vi. Capacity building of education and training providers,and professional regulators in the provision of teaching service;
vii. Conducting a national skills inventory; and

viii.   Development and implementation of a National Skills Development plan.

4.1.8   Establish a National Psycho-Education Assessment and Placement Centre

The objective of this project is to enhance assessment and placement of special needs learners. The project entails:

i.   Construction of a psycho education and placement centre at the Kenya Institute of Special Education (KISE);
ii.   Equipping the psycho-education assessment and placement centre with special equipment;
iii.   Staffing of psycho-education assessment and placement centre; and
iv.   Capacity building of regular institutions with the capabilities to test handle and refer the severe cases of the PLWD to SNE institutions.

4.1.9   Enterprise Development Incubators

The project will support creativity and innovation, research and development. It will focus on:

i.   Establishing and strengthening 94 enterprise development incubators in TVCs and VTCs;
ii.   Establishing knowledge transfer centres to support commercialization of research, output and innovations in VTCs and universities; and
iii.   Promoting research and patenting of innovations in TVET.

4.1.10   Teacher Provision, Competence and Professional Development

The objective of this project is to improve the provision and competencies of teachers at the basic education level. It also aims at enabling the teachers acquire requisite skills, competence, attitudes and encouraging lifelong learning in order to meet the 21st Century learning outcomes. In addition, the new curriculum proposes new learning areas that are currently non-existent in the basic education sub-sector. This implies that there will be a need to develop a policy on teacher utilization and deployment to realign it to Competence Based Curriculum (CBC). The staffing norm should therefore, be reviewed to make it responsive to the CBC. This means that the teacher pupil ratio should be adjusted gradually from 1:45 to 1:30 in both primary and post primary institutions. The increased demand for teachers to teach the new learning areas is estimated at 10% of the current teaching workforce. The project entails:

i)   Recruitment of 25,096 additional teachers annually to improve the teacher-pupil ratios in disadvantaged schools and to meet the requirements of the new curriculum;
ii)   Conducting a baseline competence and skills assessment for teachers at both primary and post primary school levels;
iii)   Development and implemention of a policy framework for Teacher Professional Development;
iv)   Development of Teacher Professional Development modules;
v)   Provision of Teacher Professional Development training for career progression and recertification;
vi)   Enhancing Performance Management and Accountability in basic educational institutions;
vii)   Capacity building of Curriculum Support Officers to equip them with pre-requisite skills and competencies for effective curriculum implementation;
viii)   Building capacity of Instructional Leaders and Boards of Management on collaborative approach to managing the institutions; and

ix) Establishment of a specialized institute for implementation of modules for continuous Teacher Professional Development.

4.1.11 Laptops and Assistive Technology for Learners with Special Needs

The aim of the project is to cater for digital learning needs of Special Needs Learners. It entails:

i. Provision of assistive technology and specialized laptops to assist in teaching/learning for the visually impaired and physically disabled with serious motor challenges not adequately addressed under the Digital Literacy Programme;
ii. Provision of laptops for visually impaired learners in secondary, TVET institutions and Universities; and
iii. Adaptation of digital content materials for learners with special needs.

4.1.12 Student Financing

The project aims at ensuring that learners are adequately funded to fully participate and complete their education and training as scheduled in respective curriculums. The components of this project will include:

i. Alignment of the Mean Testing Instrument (MTI) to the prevailing economic conditions in the country for effective identification of deserving cases;
ii. Establishment of the National Higher Education Financing revolving fund;
iii. Progressive implementation of the Differentiated Unit Cost (DUC);
iv. Centralization of management of post-basic education loans funds;
v. Development of a policy framework for student financing for TVET trainees;
vi. Enhancement of loans and bursaries for TVET trainees;
vii. Establishment of a targeted scholarship programme for TVET trainees in STEM; and
viii. Creation of a Fund for financing TVET trainees and university student laptops.

The project will focus on doubling available funding under HELB to provide loans and bursaries for TVET and university students. The project will also focus on establishment of formal linkages between private sector, academia and government to solve real life issues through research especially in support of the industrialization agenda.

4.2 Other Programmes and Projects

4.2.1 Curriculum Review and Reform Program

This Programme will ensure the curriculum is competency based at all levels of education and training. The programme has four (4) projects namely: Mainstreaming Tusome Model in the early grade learning process; reviewing and implementating Vocational Certificate of Education and Training (NVCET) curriculum; reforming learner assessment; and Review of University Curriculum.

a. Mainstreaming Tusome Model in Early Grade Leaning Processes

The objective of the project is to ensure that the lessons and gains realized from implementation of the National Literacy Program *(Tusome)* are sustained as part of the early grade learning processes. The

project entails:

i. Continuous teacher training and coaching by curriculum support officers;
ii. Provision of common course and work books to learners in early grades;
iii. Provision of teacher guides to all teachers in early grades;
iv. Support to classroom observation and random assessment of learners; and
v. Policy dialogues based on results from classroom observations and learners' assessment.

b. Reforming Learner Assessment

The project aims at ensuring a shift from the largely summative evaluation system to an assessment system that cumulatively assesses learners' acquisition of competencies in different learning areas as they progress in the education cycle. The project will address the following:

i. Development and implementation of Competency Based Assessment (CBA) Framework;
ii. Establishment of a National System for Monitoring Learning Progress(MLP);
iii. Development of assessment and survey instruments for the Grade 6 assessment, and adapting of the current Grade 3 National assessment tools to the Competency Based Curriculum;
iv. Development of assessment tools to ensure continuous formative assessment at school level;
v. Training of teachers on implementation of Competency Based Formative Assessment;
vi. Introduction of individualized national assessment or national examinations at Grade 9 (lower secondary);
vii. Establishment of a National Examinations Item Bank, including its architectural design, and related technical support;
viii. Training assessment board's staff, teachers, examiners and item developers to enhance their capacity in implementing the Monitoring of Learning Progress (MLP) at Grade 6;
ix. Designing and establishment of a web-based portal to facilitate access to test/assessment items, dissemination of MLP, as well as other National Examination results; and
x. Acquisition of ICT equipment and software related to the portal and item banking system, and statistical packages related to the usability of the items; item reliability and validity, and item authoring.

c. Review and Implement NVCET Curriculum

The project will align NVCET to CBET to meet labour market demands. It will involve:
i. Development of competency based NVCET curricullum;
ii. Operationalization of NVCET Internship Programme;
iii. Operationalization of Competence Assessment Centres;
iv. Capacity building of officers/instructors/assessors and other stakeholders; and
v. Monitoring and evaluation of review and implementation.

d. Review of University Curriculum

The objective of the project is to have a reformed curriculum to be in tandem with the competence based curriculum for education and training in order to prepare learners with knowledge and requisite skills matching the labour market. The reviewed university curriculum will provide seamless transition of learners from basic and TVET institutions to universities. The project will entail:

i.   Development of a policy to guide curriculum review at university level;
ii.   Review of University Curriculum in line with the Competence Based Curriculum;
iii. Review the standards and guidelines for accrediting and auditing university curriculum;
iv.   Centralization of curriculum development for the universities;
v.   Capacity building for the senate and lecturers for effective implementation of the university curriculum; and
vi.   Development of modules for internal quality assurance, which shall be offered to directors of quality assurance, academic and administration staff.

4.2.2   Access and Equity in Education and Training Program

The goal of the programme is to have enhanced access and equity in education and training. The Programme has six (6) projects.

a. Universal Early Childhood Development Education

This project will ensure that all girls and boys have access to quality day care and pre-primary education in all parts of the country to be ready for primary education. The components of this project include:

i.   Establishment of Early Childhood Development Education (ECDE) centre in every primary school. This is to ensure every public primary school has an ECDE centre to facilitate a seamless transition of children from pre-primary to primary level. This will be implemented in collaboration with county governments;
ii.   Provision of capitation grant to cater for learning and instructional materials as well as integration of health and nutritional services;
iii. Construction, upgrading and equipping of ECDE facilities in every ward. This will ensure addition ECDE facilities and a friendly environment for learning;
iv.   Implementation of ECDE policy, service standard guidelines and Kenya School Readiness Assessment Training;
v.   Recruitment of adequate skilled ECDE teachers to ensure quality and balanced services for learners;
vi.   Development and implementation of a scheme of service for ECDE teachers. This will ensure harmonization in the engagement of the teachers across the country;
vii. Recruitment of an ECDE Quality Assurance Officer for every sub-county. This will strengthen monitoring and evaluation activities; and
viii. Recruitment of care givers in ECDE centres for children below four (4) years.

b. Education and Training in Marginalized Areas

The project aims at ensuring increased equitable access for learners in ASAL regions, areas with pockets of poverty, urban slums and hard to reach areas. The project will entail:

i.   Rehabilitation, construction and equipping of classrooms in each of the 224 feeder schools in each of the nomadic counties;
ii.   Re-designation of 100 existing mobile schools and attaching them to the regular school system in marginalised areas;
iii. Recruiting five (5) more teachers for each of 6,576 primary and 1,319 secondary schools in marginalised areas;

   iv.   Provision of grants for infrastructure improvements to secondary schools in marginalised areas;

   v.   Upgrading three (3) TTCs as centres for nomadic education and developing the existing 10 TTCs;

   vi.   Rehabilitation and equipping of at least one (1) TVC in each of the marginalised counties;

   vii.   Review and harmonization of adult education policy with alternative provision of basic education and training, policy framework guidelines;

   viii.   Establishment of 174 additional Low Cost Boarding schools in marginalised areas to increase from the current 426 to 600 by end of Plan period.

c. Universal Basic Education

The objective of this programme is to have increased access, equity and enhanced retention in basic education institutions through strategic interventions. The project will include:

   i.   Construction of 3,000 classrooms in schools with dilapidated infrastructure across the country;

   ii.   Construction of library facilities with capacity for safety storage of laptops, books, and other instructional materials in public primary schools;

   iii.   Increase funding for instructional materials in Alternative Provision of Basic Education and Training (APBET) and Non Formal Schools;

   iv.   Provision of funds for construction of two dormitories under Low Cost Boarding (LCB) in primary schools in each sub-county in the country;

   v.   Improving school feeding programme capitation from Kshs. 13 to Kshs. 50 under home grown solution;

   vi.   Increase recruitment of volunteer assistants to 100,000 in next five years under G-United;

   vii.   Increase provision of Free Primary Education (FPE) and FDSE capitation;

   viii.   Provision of sanitary towels to adolescent girls; and

   ix.   Development and implemenationt of a social support package and a scholarship programme to benefit class seven and eight learners in targeted areas.

d. Enhance Retention in TVET

The objective of this project is to have enhanced access, equity and retention in TVET. The project entails:

   i.   Provision of capitation grants to trainees in VTCs;

   ii.   Increasing capitation for TVET trainees in national polytechnics and TVCs;

   iii.   Operationalization of the TVET funding board; and

   iv.   Establishment of TVET board.

e. Infrastructural Development for ACE

The project aims at improved access, retention and completion in Adult and Continuing Education (ACE) programmes. The will involve establishment and equipment of: 700 Community Learning Resource Centres (CLRCs); 1,620 ACE centres; 700 adult secondary education classrooms; one adult education instructors training college; and renovation of five Multipurpose Development Training Institutes (MDTIs) across the country.

f. Increasing Access to University Education

The objective of this project is to have an improved access to quality university education. It will entail:

i. Establishment of an Open University;
ii. Expansion of facilities in 35 existing public universities in readiness for students graduating under the new curriculum in basic education;
iii. Upgrading of five existing university colleges to full universities;
iv. Establishment of five (5) more university colleges in counties without any to address the disparity in access to higher education; and
v. Review of admission criteria to allow admission from alternative pathways, especially TVET.

4.2.3   Special Needs Intervention for Education and Training Program

The goal of this programme is to enhance access to education and training for learners with special needs and disabilities. Special needs education and training is provided at all levels of learning.

The government will adopt an inclusive approach to providing education services to all learners with special needs and disabilities. This will entail adaptations covering physical facilities, pedagogies, instructional/ learning materials among others in regular schools as well as other learning institutions so that they cater for the learning needs of learners with different disabilities. In addition, the government will embark on extensive capacity building for all personnel in the education and training sector for them to appreciate inclusion and provision of all education services. The programme has 12 projects as follows:

a. Rehabilitation and Equipment of TVET SNE Institutions

The objective of this project is to improve existing infrastructure facilities in the four special TVET institutions (Karen, Machakos, Nyangoma and Sikri) to make them more disability-friendly and conducive to learning. The components of the project will include:

i. Increasing the number of workshops to a minimum of five (5) in each institution;
ii. Construction and rehabilitation of accommodation facilities;
iii. Provision of specialized equipment for training;
iv. Expansion of classrooms; and
v. Establishment of a disability friendly facility for physiotherapy and gym services in each of the four (4) institutions.

b. Rehabilitation and Equipping of County and Sub-county EARCs

The project will enhance assessment in Education Assessment and Resource Centres (EARCs). The project will entail:

i. Rehabilitation of existing infrastructure in the 380 EARCs;
ii. Equipping of centres for assessment and placement of learners; and
iii. Review of assessment tools to incorporate modern trends of assessment and to make them suitable to identify different forms of special needs and disabilities, gifts and talents among learners of diverse backgrounds.

c. Capacity Building for Special Needs Education Stakeholders

This project aims at building the capacity of teachers, trainers, assessment officers, education officers, education managers and parents in Special Needs Education to inculcate skills that will help them deal with various types of disability. The project will cover:

    i.   Training of 10,000 teachers and certifying them up to diploma level;
    ii.   Sensitization of all practising teachers on inclusive education;
    iii.   Training of 9,000 teachers on adapted digital content and assistive technology;
    iv.   Training of 171 teachers in model inclusive schools in Kenya Sign Language;
    v.   Training of 500 special needs trainers and 140 special needs lecturers;
    vi.   Capacity building of assessment staff for psycho-educational assessment centres as well as institutions of education and training at all levels;
    vii.   Capacity building of County Education Boards in the 47 Counties, Boards of Management in Special Needs Education Learning Institutions and Parents of Learners with Disability and Special Needs Students institutions.

d. Production of Assistive Devices, Technologies and Learning Materials

The project will enhance the production of assistive technology devices, equipment and braille materials. The project entails:

    i.   Construction and equipment of a workshop at the Kenya Institute for the Blind to produce assistive devices and braille material; and
    ii.   Rehabilitation and equipping of a workshop at the Kenya Institute for Special Education (KISE) to produce assistive devices, technologies and materials.

e. Rehabilitation and Special Equipment for Special Needs Schools

The objective is to enhance access and facilitate best practices in provision of inclusive education and training .This will involve upgrading of infrastructure and equipping of: 290 special primary schools; 470 special units; 47 integrated programmes in primary schools; 32 special secondary; and 78 integrated secondary schools. It will also involve establishing 10 model secondary schools across the country to serve as centres of excellence on inclusive education

f. Establishment of a National Academy for Gifted and Talented Learners

The project aims at enhancing access to education and training for the gifted and talented. The project entails:

    i.   Development of guidelines to identify gifted and talented learners;
    ii.   Construction, equipping and staffing of a National Academy for gifted and talented; and
    iii.   Provision of support to the identified talent.

g. Provision of Specialised Equipment to Trainees with Special Needs in VTCs

The objective of the project is to enhance the quality and relevance of special need trainees in VTCs. The project involves:

i.   Provision of assistive technology devices for various fields of specialization for trainees in
               VTCs with Special Needs or disability; and
        ii.   Rehabilitation of infrastructure in VTCs to make them disability friendly.

h. Mentorship and Talent Development for All Levels of Education and Training

The objective of this project is to nurture learners with special needs through:
        i.   Mentorship, guidance and counselling;
        ii.   Development of a framework for identification of talent;
        iii.   Supporting the identified talent, mentor identification and mapping to mentee, mentor
               training; and
        iv.   Institutionalisation of Individualised Educational Programmes (IEP) at all levels of education
               and training.

i. Establish TVET- SNE Institutions in Each County

The project aims at alleviating the lack of skills experienced by the PWDs due to lack of TVET SNE
institutions within reach. The project entails construction, equipping and staffing of 43 TVET –SNE
institutions

j. Provision of Specialised Equipment to SNE Students in Universities

The objective of the project is to enhance the quality and relevance of special need students in Universities.
The project entails:

        i.   Provision of assistive technology devices for various fields of specialization for trainees in
               universities with special needs or disability; and
        ii.   Rehabilitation of infrastructure in Universities to make them disability friendly.

k. Training of Examiners of Special Needs Education Candidates

The objective of this project is to ensure that there is adequate pool of examiners/assessors with
requisite skills to examine/ assess candidates with special needs and disabilities registered for KCPE,
KCSE, Business and Technical (B&T), and Teacher Education examinations. This will ensure equity, validity
and reliability of the marking/ assessment process. This will involve training 50 KCPE and 70 KCSE
examiners; 50 examiners for Business and Technical (B&T) and Teacher Education courses in marking/
assessing scripts for candidates with special needs and disabilities.

l. Special Needs Education Inclusivity in TVET

The objective of this project is to ensure inclusivity for TVET trainees with special needs. The project will
entail:

        i.   Establishment and operationalization of a TVET Special Needs Assessment Centre;
        ii.   Development and implementation of an incentives programme for trainees in SNE TVET;
        iii.   Establishment of an open centre for Special Needs in TVET;
        iv.   Rehabilitation/upgrading/expansion of infrastructure in TVET institutions to make
               them disability friendly. This will include equipping libraries, workshops and laboratories

with facilities and equipment that can facilitate training, learning and research for trainees with special need;

  v. Development and implementation of unit based funding model capitation guidelines to cater for SNE trainees; and

  vi. Promotion of nutritional and health programmes in collaboration with line Ministries of Health, Agriculture and Irrigation and other stakeholders by providing meals, boarding facilities and sanitary towels for SNE trainees.

4.2.4   Quality and Relevance of Education and Training Program

The objective of this programme is to enhance quality and relevance in education and training. Quality education and training is a product of sound management, infrastructure, instruction materials, curriculum and staff as assessed against relevant standards. This is actualized through supervision of curriculum implementation, enforcement of policies and guidelines, subject mastery, pedagogical and andragogic skills upgrading, and monitoring of curriculum implementation. The dynamics of socio-economic and technological development may render aspects of education and training irrelevant over time. The programme has 10 projects as discussed below.

a. Institution Based Quality Assurance (IBQA)

The project will strengthen quality assurance at the institution level and establish a culture of continuous proactive quality assurance in institutions. Institutions will enforce compliance to the education sector polices. A well-established IBQA will help the sector in overcoming the resource inadequacies that hamper quality assurance. The project entails:

  i. Development of a quality assurance framework;
  ii. Development of a portal for quality assurance;
  iii. Capacity building for quality assurance staff and heads of institutions;
  iv. Capacity building for teachers/ trainers to facilitate interaction with online assessment tools;
  v. Capacity building for directors of quality assurance as well as academic and administrative staff in universities;
  vi. Development and review of education and training standards;
  vii. Capacity building for teachers/trainers/lecturers in subject mastery and pedagogical skills upgrading;
  viii. Capacity building of teachers and education managers in STEM model schools;
  ix. Capacity building of teachers and managers in Education for Sustainable Development (ESD); and
  x. Capacity building of teachers, care givers and managers of ECDE institutions.

b. The Secondary Education Quality Improvement Project

The objective of the project is to improve student learning in secondary education and transition from primary to secondary education, in 110 targeted Sub-counties. The objective will be measured through (i) average student test score in science subjects at form 2 at public schools in targeted Sub-counties; (ii) average student test score in mathematics at form 2 at public schools in targeted Sub Counties; and (iii) transition rate from primary to secondary education in targeted sub-counties.The project will benefit approximately 600,000 students in upper primary grades 7 and 8; 600,000 students in the four (4) grades of secondary level, form 1–4; and about 17,000 primary and 8,500 secondary Science,

Mathematics and English (SME) teachers in 7,852 primary and 2,147 secondary schools.

The project focuses on support of the following in Basic Education institutions:

i) Mainstreaming interventions on gender-based and student violence;
ii) Introduction of school level gender-sensitization programmes with school level gender champion enabling school to act as the first level preventive and punitive institution;
iii) Orientation of School Boards of Management;
iv) Provision of Teacher Professional Development (TPD) to teachers in 110 sub counties
v) Provision of a School Based Teacher Support System (SBTSS) to teachers of Science, Mathematics and English; and
vi) Development of relevant support materials for use in the schools.

c. Research in Education and Training

The project aims to provide accurate information for improvement of quality and relevance in education and training. The project will entail:

i. Developing a policy framework to co-ordinate research in education and training;
ii. Strengthening the capacity of institutions in education and training to carry out research to inform policy;
iii. Enhancing the capacity of researchers and trainers at all levels within education and training;
iv. Undertaking research to identify gaps relating to access, equity and quality and disseminate findings;
v. Interdisciplinary research in learning and cognition to enhance STEM integration, instructor development, and assessment of STEM teaching and training from early childhood through graduate education; and
vi. Carrying out TVET and university tracer studies.

d. Reengineering Teacher Training for Basic Education

The quality of education a key focus of Kenya Vision 2030 and SDG 4 is hinged on proper preparation of teachers. The objective of this project will be to review the model of teacher training with regard to financing as well as infrastructure improvement. The project will involve:

i. Developing/reviewing of teacher training/development policy;
ii. Providing capitation to teacher trainees to cover cost of training; and
iii. Upgrading infrastructure in existing teacher training colleges.

e. Reform TVET Trainer Management

The objective of the project is to ensure a reformed TVET trainer management. This will enable the sector to meet the demand of industry in terms of skills and technological requirements by providing qualified human resource trained within the collaboration of government, industry and the academia. The project will entail:

i. Development and implementation of a policy framework for the transition of technical trainers from Teachers Service Commission to the Ministry of Education;
ii. Development of a standard for the national TVET trainer qualification;

iii. Development of TVET trainer competence in the operation and maintenance of current industry practices;
iv. Development and implementation of scheme of service for trainers in TVET institutions;
v. Recruitment of 4,774 additional trainers for VTCs; and
vi. Strengthening the capacity of the sector to support TVET trainer management.

f. Establishment of Centres of Excellence and Resource Centres

The objective of this project is to advance and standardize the learning experience of learners and educators at all levels. The sector will establish a model secondary school, VTC, TVC and ECDE centre in each county; and establish a regional ECDE resource centres in each of the eight (8) regions.

g. Establish and Develop Centres of Specialization in Universities

The project will enable universities provide leadership, best practices, research and training in specialized disciplines. The project will entail:

i. Development and implementation of a policy framework for establishment of centres of specializations; and
ii. Establishment of model centres of specialization in at least five (5) Universities.

h. Rebrand and Reposition TVET

The objective of this project is to reposition TVET as the premier education pathway to train skilled workers for the labour market. The project will entail:

i. Advocacy programmes to change the perception of TVET by the students and the public;
ii. Putting in place incentives and reward to attract and retain gifted and talented in TVET;
iii. Development of new products and engagement of TVET graduates on programmes and projects of national importance;
iv. Promotion of the use of TVET research output in national development;
v. Implementation of a national programme of career counselling to assure employability of TVET graduates; and
vi. Involvement of TVET graduates in government internship programmes.

i. Monitoring Learning Achievements in Education

This project will ensure regular and timely monitoring of learner outcomes to ensure that issues of access, quality, equity and inclusion are reported for timely interventions. This will involve:
Monitoring learning achievement at various classes through NASMLA;
i. Monitoring learning achievement at various classes through NASMLA;
ii. Undertaking Early Grade Mathematics Assessment (EGMA) midline study;
iii. Undertaking school specific analysis and dissemination of KCPE and KCSE results annually; and
iv. Capacity building for 4,000 teachers from the PRIEDE Project experimental schools on the use of the KCPE school-specific reports in the improvement of pedagogy and learning outcomes.

j. Teacher Performance Appraisal and Development

The aim of the project is to ensure that all teachers comply with set teaching standards. The project involves:

i.   Review of teacher performance appraisal and development tools to address emerging issues;
ii.   Training teachers on the use of online system to enable them upload teacher performance appraisal and development information;
iii.   Capacity building of field staff-county and sub-county directors; and curriculum support officers - on teacher performance appraisal and development; and
iv.   Carrying out monitoring to identify gaps in adherence to teaching standards and recommending ways to address them.

4.2.5   Integrating ICT into Teaching, Learning and Training Program

The goal of this programme is to enhance quality of delivery by integrating ICT in teaching and learning programmes. The programme has seven (7) projects, whose details are:

a. Digital Learning Programme in Primary Schools

The objective of this project is provision of quality education that prepares learners to competitively function within a highly integrated, technologically-oriented and information-based global economy. The project entails:

i.   Procurement of devices;
ii.   Capacity building of teachers;
iii.   Capacity building of education managers;
iv.   Operationalization of the Kenya Education Cloud;
v.   Development of digital content for all the classes; and
vi.   Improvement of ICT infrastructure in schools.

b. ICT Integration in Secondary Education

This project aims at enhancing the usage of ICT for education management services and delivery of curriculum at secondary school level. The components of this project are:
Purchasing of ICT equipment for schools;

i.   Purchasing of ICT equipment for schools;
ii.   Establishing of Local Area Networks;
iii.   Building capacity of the secondary education managers and teaching staff to effectively use ICT for education management services and delivery of curriculum; and
iv.   Establishing ICT infrastructure in identified secondary schools.

c. ICT Integration in TVET

This project aims at enhancing the usage of ICT for education management services and delivery of curriculum in TVET. The components of this project are:

     i.   Provision of ICT equipment for TVET institutions;
     ii.   Establishment of Local Area Networks for TVET institutions;
    iii.   Building capacity of TVET managers and trainers for skills in using ICT;
    iv.   Setting up smart classrooms in 280 TVCs; and
     v.   Establishment of ICT infrastructure for TVET institutions.

d. Integration of ICT in Adult and Continuing Education (ACE)

The project aims at preparing techno savvy human resource with requisite ICT skills. This project has the following components:

     i.   Provision of ICT equipment for adult education institutions;
     ii.   Establishment of Local Area Networks in ACE institutions;
    iii.   Building capacity of ACE managers and instructors in ICT for ACE management services and delivery of curriculum; and
    iv.   Establishment of ICT infrastructure for adult education institutions.

e. Transition from Print to E-Books

The project aims at enabling one teacher to teach more than one class or school concurrently hence improving the utilization of the teachers. The components of this project entail:

     i.   Development and provision of e-books;
     ii.   Provision of necessary ICT infrastructure for development, sharing and access of e-books; and
    iii.   Capacity building of teachers on e-learning.

f. ICT integration in University Education

This project aims at enhancing the usage of ICT for education management services and delivery of curriculum at university level. The components of this project are:
Enhanced use of blended, online and distant learning in curriculum delivery;
     i.   Enhanced use of blended, online and distant learning in curriculum delivery;
     ii.   Automation of operations in the universities;
    iii.   Capacity building of lecturers on e-learning;
    iv.   Provision of necessary ICT infrastructure;
     v.   Enhancement of access to e-library;
    vi.   Development of e-repositories; and
    vii.   Establishment of biometric student identification in all universities.

g. ICT Integration in Examinations Management

The objective of this project is to leverage on technology to safeguard credibility of examinations processes. The project entails:
     i.   Installation of ICT equipment for examinations management;
     ii.   Development and operationalization of a system for biometric registration of private candidates and contracted professionals;
    iii.   Development and operationalization of results confirmation system; and
    iv.   Development of new and review of existing ICT business solutions to enhance and secure

examinations management.

4.2.6 Revitalization of Adult and Continuing Education Program

The goal of this programme is to improve adult literacy and productivity of the youth and adults population in the country. The programme has three (3) projects.

a. Kenya Adult Literacy Survey

The objective of this project is to generate data on current adult literacy rates. The first adult literacy survey was conducted in 2006, which revealed that about 7.8 million adults were illiterate. This data is long obsolete to be used for planning purposes. The Kenya Adult Literacy Survey (KALS) will produce the most recent data and information for planning for the promotion of literacy and life-skills competencies needed to implement the Kenya Vision 2030. The survey will: determine the levels of adult literacy, numeracy and functional skills of the adult population (15years+); determine trends in literacy and numeracy skills; assess the participation of the adult population lifelong learning; find out the conditions of teaching and learning resources in ACE Centres; determine the characteristic of learners in ACE Centres; and evaluate the implementation of Adult Literacy policies and programmes.

b. Development of Curriculum Support Materials

The project aims at improving quality of learning for adult learners. The sector in collaboration with partners will develop learning materials (Primers) for adult learners. Primers will be developed for the different levels of grades in adult learning. Books providing general knowledge in the community will be acquired to stock community learning and resource centres. The project will also acquire and develop curriculum materials to support adult learning in projects within the learning centres.

c. Advocacy and Community Empowerment for ACE

This will increase visibility of ACE and reduce stigma associated with adult illiteracy. It will involve the process of engaging and motivating a wide range of partners, stakeholders and the community to raise awareness on the importance of participating in ACE. The project entails:

i. Development and implementation of an Information, Education and Communication Strategy;
ii. Mounting advocacy and community empowerment programmes;
iii. Development and implementation of income generating units and enterprise development courses in ACE centres; and
iv. Mounting national advocacy, community sensitization, and awareness campaigns on ACE.

4.2.7 Governance and Accountability in Education and Training Sector Program

The goal of the programme is to build capacity of education managers and stakeholders on governance and financial management skills. The programme has five (5) projects as discussed below:

a. Establish the Kenya School of Education and Training

The objective of the project is to consolidate all capacity building and in-servicing institutions into the Kenya School of Education and Training. The project will entail:

i. Legislative process of establishing the school;
ii. Establishment of school and associated infrastructure;
iii. Recruitment and management of required trainers and administrators; and
iv. Development of a comprehensive training and capacity building Programme for education managers, teachers, trainers and stakeholders.

b. Capacity Building for Education and Training Sector

The objective of this project is to revamp capacity building of education managers to attain prudent resource management for improved service delivery. The project entails:

i. Capacity building of education managers and other stakeholders in governance and integrity; and
ii. Establishing 47 Education for Sustainable Development (ESD) model institutions as demonstration centres for best management practices.

c. Electronic Data Management System (EDMS)

The aim of the project is to convert manual records to electronic form for ease of storage and retrieval. Currently, 95% of teachers' records are still in manual form. Modernization of records management at the TSC requires a significant resource outlay. The Commission will digitize teachers' records for more efficient service delivery. The project entails:

i. Procurement of an electronic programme (Software);
ii. Scanning of the records;
iii. Procurement of the ICT equipment; and
iv. Capacity building on the online use of the system.

d. Teacher Support and Professional Development Resource Centres (TSPDRCs)

The objective of this project is to ensure effective teacher supervision, appraisal and support, as well as facilitating their continuous in-service mentoring, counselling and induction to ensure quality teaching and education. This project will entail:

i. Establishing multi-purpose resource centres in the 47 counties and 333 sub-counties. These centres will contain office blocks, meeting rooms, training rooms, demonstration rooms and a library;
ii. Equipping of the resource centres with suitable office furniture/equipment, modern equipment for skills/pedagogy upgrading, and relevant reference books for the library;
iii. Purchase of vehicles to facilitate mobility of the supervisors, mentors, counsellors and support   staff to the schools;
iv. Selection and induction of mentors and counsellors; and
v. Selection and induction of resource centre managers and teacher trainers/resource persons.

e. Efficiency of TVET

The objective of this project is to gain an understanding of the level of efficiency of institutions providing TVET and identify how to improve on efficiency. Measuring of efficiency in TVET will target seven (7) facets

namely (i) trainees; (ii) staff utilization; (iii) training courses (iv) training facilities and utilization (v) financial performance (vi) performance management and (vii) service facilities. The components of this project include:

    i)   Identifying the performance indicators that are used to determine efficiency in each facet;
    ii)   Developing and testing the model for measuring efficiency based on the indicators;
    iii)   Carrying out a survey to obtain necessary data; and
    iv)   Determination of efficiency for TVET institutions.

4.3   Contribution of Education and Training to the "Big Four" Initiatives

The government has identified four initiatives namely: universal health care, food and nutrition security, manufacturing and affordable housing that will catalyze the transformation of the country during the MTP lll period.

The Sector as a major enabler, will avail skilled human resources in Mechanical Technology; Electrical and Electronic Technology; Automotive Maintenance Technology; Welding technology & Electrodes; Agricultural Machinery Operation and Maintenance Technology; Agricultural Value Addition Technology; Civil construction technology; Hospitality Management; Refrigeration and Air Conditioning Technology; and Mechatronics Technology through the ongoing equipment program of TVET institutions.

In addition, TVET will increase its enrolment in three fold, from 49,222 in 2017 to 195,827 in 2022 as indicated in Table 4-1. To ensure required support is spread in equal measure, the sector commits to increase the capacity in all the four initiatives by 32% annually.

Table 4-1: Expected Annual Enrolment in TVET for the Four initiatives

Sector	2017	2018	2019	2020	2021	2022
Affordable Housing	13,805	18,194	23,980	31,607	41,657	54,905
Food and Nutrition Security	13,409	17,676	23,291	30,700	40,462	53,330
Industrialization, Manufacturing and Agro-processing	17,868	23,547	31,038	40,909	53,920	71,126
Universal Health Care	4,140	5,783	7,193	9,479	12,491	16,466
Grand Total	**49,222**	**65,200**	**85,502**	**112,695**	**148,530**	**195,827**

The number of graduates is expected to increase from 17,835 in 2017 to 84,458 in 2022. Industrialization, Manufacturing and Agro-processing will be the biggest beneficiary, drawing 38.5% of the graduates as shown in Table 4-2

Table 4-2: Expected Annual Graduates in TVET for the Four Pillars of Change

Sector	2017	2018	2019	2020	2021	2022
Affordable Housing	5,703	7,522	9,922	13,088	17,208	22,680
Food and Nutrition Security	4,786	6,312	8,325	10,978	17,900	23,592
Industrialization, Manufacturing and Agro-processing	5,930	8,113	10,703	14,115	24,698	32,553
Universal Health Care	1,416	1,868	2,462	3,246	4,274	5,633
Grand Total	**17,835**	**23,815**	**31,412**	**41,427**	**64,080**	**84,458**

4.3.1   Contribution to Universal Health Care (UHC)

Increased skills in medical field and equipment maintenance:The government has increased investment in automated equipment in health facilities across the country to ensure all citizens from across the country have access to health care. This in turn calls for increased skilled personnel to operate and maintain the equipment. The sector will increase the number of TVET institutions offering medical equipment maintenance courses to address this demand. The sector will specifically, increase intake to the medical fields summarized in Table 4-3.

Table 4-3: Expected TVET Enrolment in Courses Supporting Universal Health Care

Courses	2017	2018	2019	2020	2021	2022
Applied Biology	1,373	1,868	2,385	3,144	4,143	5,461
Community Health	23	21	40	53	69	91
Community Health Nutrition	16	29	28	37	48	64
Environment Science	270	30	469	618	815	1,074
Health Records and IT	55	1,224	96	126	166	219
Medical Engineering	519	684	902	1,188	1,566	2,064
Medical Laboratory Technology	933	1,744	1,621	2,136	2,815	3,711
Ophthalmic Technology	22	13	38	50	66	87
Pharmaceutical Technology	929	170	1,614	2,127	2,803	3,695
Grand Total	**4,140**	**5,783**	**7,193**	**9,479**	**12,491**	**16,466**

Other initiatives where the sector will support universal health care include:

National School Based De-worming: The sector acknowledges that education and training is effective in an environment where the health of learners and trainees is guaranteed. Healthy learners have an increased likelihood of maximum participation in school compared to unhealthy children. The sector will continue to support/enhance the national school-based deworming program in counties declared hotspots by the Ministry of Health by targeting 6 million pre school and primary school-age children annually.

Payment of Health Insurance for Students: The sector will sustain the contribution of Kshs. 2,000 per student enrolled in public secondary school under the Free Day Secondary Education Programme to ensure that the students can access medicare whenever they fall ill.

Provision of Sanitary Towels: The provision of sanitary towels targets girls who are entering their puberty and are at risk of being excluded from participating in learning. This will address absenteeism cases while also ensuring that focus on reproductive health is initiated at an early age.

4.3.2   Contribution to Food and Nutrition Security

During the Plan period, the sector will identify and equip eight (8) Technical Vocational Colleges where four (4) institutions will get value addition equipment and the other four (4) will receive agricultural engineering equipment. The sector will increase enrolment in food security-related courses in the targeted institutions as summarized in Table 4-4.

Table 4-4: Expected TVET Enrolment in Food and Nutrition Security

Courses	2017	2018	2019	2020	2021	2022
Agriculture Engineering	307	405	533	703	927	1,221
Entrepreneurship Agriculture	225	297	391	515	679	895
Fisheries Technology	25	33	43	57	75	99
Food and Beverage Production	6,724	8,863	11,680	15,395	20,290	26,742
Food Technology	767	1,011	1,332	1,756	2,314	3,051
General Agriculture	5,185	6,835	9,006	11,871	15,646	20,622
Water Technology	176	232	306	403	531	700
Grand Total	**13,409**	**17,676**	**23,291**	**30,700**	**40,462**	**53,330**

Other initiatives where the sector will support food security and nutrition include:

School Feeding Program: The Sector supports the Home Grown School Feeding Program (HGSFP) where funds are disbursed directly to schools for purchase of food from local farmers. This initiative creates local markets around schools, an incentive that ensures farmers sustain food production. The sector will sustain the program and possibly enhance the coverage. This will ensure that farmers not only produce for school supply, but also to sustain the local food demand.

4.3.3   Contribution to Affordable Housing

During the Plan period, the sector will increase intake to courses that will support affordable housing program as summarized in Table 4-5. The sector will also review the CBET curriculum for construction in partnership with the National Construction Authority (NCA) and the Skills Development Councils.

Table 4-5: Expected TVET Enrolment in Courses Supporting Affordable Housing

Courses Offered	2017	2018	2019	2020	2021	2022
Architecture	834	1,099	1,449	1,909	2,517	3,317
Building Technology	7,530	9,924	13,080	17,240	22,722	29,948
Civil Engineering	3,765	4,962	6,540	8,620	11,361	14,974
Land Surveying	1,042	1,373	1,810	2,386	3,144	4,144
Quantity Surveying	634	836	1,101	1,452	1,913	2,522
Grand Total	**13,805**	**18,194**	**23,980**	**31,607**	**41,657**	**54,905**

4.3.4 Contribution to Industrialization, Manufacturing and Agro-Processing

The sector will increase enrolment to courses that support Industrialization, Manufacturing and Agro-Processing as summarized in Table 4-6. The sector will also encourage apprenticeship policy/incentive for manufacturers recruiting trainees; develop Memoranda of Understanding (MoUs) with manufacturers on upskilling staff on emerging technology; and develop CBET curriculum on Mechatronics courses to support automation.

Table 4-6: Expected TVET Enrolment in Courses Supporting Manufacturing

Courses	2017	2018	2019	2020	2021	2022
Analytical Chemistry	726	957	1,261	1,662	2,191	2,887
Chemical Engineering	149	196	259	341	450	593
Electrical Engineering	13,106	17,274	22,767	30,007	39,549	52,125
Fashion Design and Clothing Technology	1,124	1,481	1,952	2,574	3,392	4,471
Marine Engineering	21	27	36	48	63	84
Mechanical Engineering	2,231	2,940	3,876	5,107	6,733	8,933
Petroleum Geosciences	311	409	540	712	939	1,237
Tanning and Leather Work	10	13	17	23	30	40
Welding and Fabrication	190	250	330	435	573	756
Grand Total	**17,868**	**23,547**	**31,038**	**40,909**	**53,920**	**71,126**

5.0 POLICY, LEGAL AND INSTITUTIONAL REFORMS

The Sector is governed by policies contained in the sessional paper governing education and training sector in Kenya. The MTP II envisaged policies, programmes and projects geared towards access, equity and provision of relevant quality education and training in the country. The sector continues to undergo reforms aimed at ensuring that the country has adequately skilled and relevant human resource for rapidly changing market needs.

The curriculum reforms, requirements of Kenya Constitution 2010, Basic Education Act 2013, TVET Act 2013, University Act 2012, TSC Act 2012, KNQF Act 2014 and their regulations including international conventions and obligation will guide implementation of MTP lll.

Table 5-1: Policy and Legal Framework

Area of focus	Policy, Legal and Institutional Reform	Issues to be Addressed
Curriculum Reform	• Review Basic Education Act 2013 and its regulations; • Review National Curriculum Reforms Policy Framework for Education and Training; • Review career guides to schools; • Review the Universities Act 2012: Universities Regulation 2014 and TVET Act 2013;TSC Act 2012; KNEC Act 2012 and KICD Act 2012; • Develop Policy on learner transition across new curriculum pathways; and • Develop Policy on Infrastructure and development across the sector	• Develop capacity for teachers, trainers and education managers to conform to Competence Based Curriculum, and Digital Literacy programmes. • For continuing compatibility with market trends and societal needs of the country mentoring, moulding and nurturing of national values. • Streamline career guidance in basic, TVET and Universities sub-sectors. • To align TVET and University Curriculum to CBC and KNQF • Enable common approach to curriculum reform and review in disciplines/courses in all universities. • Strengthen collaborations among TVET, Universities, other MDAs and County governments. • To promote community and parental Involvement in Learner education. • Collaboration with County Governments in implementation of ECDE and Vocational Training. • Enable recognition of individual leaners abilities and potentials. • Enhance enrolment in ASAL, Nomadic areas and APBET institutions. • 100% transition across Basic, TVET and Universities sub sectors. • Ensure compliance with infrastructure standards by both National and county governments. • Provide adequate classrooms and related infrastructure to cater for all learners across the transition levels in Basic, TVET and Universities

Area of focus	Policy, Legal and Institutional Reform	Issues to be Addressed
	Review the National ICT Strategy for Education and Training	• Facilitate development and use of digital content by learners, teachers, trainers, lecturers and education managers in the use aspect. • Provide appropriate ICT and assistive technology infrastructure and facilities to basic, TVET and Universities institutions. • Install renewable energy systems in schools, TVET and universities for sustainable power supply.
Security and Safety	Develop/Review Security Safety Policy for Education and Training Sector	• Enhance security and safety in the sector institutions and their management during emergencies; • Address radicalism, extremism and terrorism in E&TS

Area of focus	Policy, Legal and Institutional Reform	Issues to be Addressed
Sector Governance and Accountability	Develop/ Review Capitation framework for basic, TVET and University sub-sectors to achieve access and equity in the sector	• Develop and implement a Unit Cost Approach in providing affordable education and training to address capitations verses inflation rates. • Adapt criterion to needs and Programmes for respective learners and trainees. • Fund research, innovation and documentation at all education and training levels. • Review fee guidelines to minimize levies in education and training institutions
	• Review Governance and Accountability Action Plan governing education and training. • Develop a National Policy for Accreditation of Quality Assurance and Qualification Awarding Bodies. • Develop National Qualifications Framework and Regulations. • Develop NEMIS Policy for Education and training. • Develop and adapt Public Private Partnerships (PPP) Framework in ETS. • Develop a Risk Management Policy framework in Education and training sector. • Review ACE and Alternative Provision of Basic Education and Training Policies	• Enhance governance and accountability across educational institutions. • Align management structures at various levels of schools and institutions in line with current reforms. • Recognition of harmonized qualifications across all levels of education and training • Implement the Unique Learner Identification System(ULIS) • Strengthen the means of implementation and revitalize global partnerships in basic, TVET and University sub-sectors • To consider strategic stakeholders input.eg KESSP • Regulate education and training service providers; reduce overlaps and duplication of efforts. • Procurement and financial procedures and Implement risk mitigation measures. • Educate on risk management.

Area of focus	Policy, Legal and Institutional Reform	Issues to be Addressed
	• Develop policies on public school‰s financial management • Develop guideline on chaplaincy in the sector • Review Textbook policy across the education and learning institutions. • Develop National TVET Training Policy • Develop a National Policy framework on capacity building on the sector.	• To address education in emergencies aspects. • Harmonize ACE and Alternative Provision of Basic Education and Training Policies • Improvement on prudent use of funds and other public resources at the school level. • Management of E&TS institutional spiritual, moral, welfare and life skills needs. • Enhancing relevance and quality education in schools. • To streamline the TVET training sector • Regulate and harmonize capacity building programmes
Special Needs Education	• Review SNE Policy for ETS • Develop a policy on leaners that are gifted and talented within the SNE context.	• Mainstream psycho-educational assessment and placement services. • Facilitate implementation of inclusive education and disability friendly education and training institutions and centres of excellence • Strengthen institutions that offer specialized SNE trainings • Develop capacity of trainers in SNE across all levels of education and training. • Enhance advocacy and awareness creation on SNE to education Managers and Boards/councils , parents and communities reduce child labour abuse and neglect • Promote transition of learners with SN&D at all levels of education and training • Provide relevant teacher/trainers learning materials and assistive devices • Develop framework for inclusion of teacher aides for CWD • Enhance accessibility of SNE services in education and training • Provide framework for quality education and training for most vulnerable and learners living under difficult circumstances especially displacement camps, and borstal and corrective institutions ™To actualize the achievement of the gifted and talented academies in ETS."
Assessment and Evaluation	• Review National Assessment System for Monitoring Leaner Achievement (NASMILA) framework. • Develop a Competency Based Assessment (CBA) framework. • Review KICD, TVET, University	• Develop guidelines for standardization of formative assessment for all levels of education • To align assessment and examinations regulations in line with CBA. • Enhance guidelines for the conduct of monitoring leaner achievement studies.

Area of focus	Policy, Legal and Institutional Reform	Issues to be Addressed
	Legal frameworks. • Develop Recognition of Prior Learning (RPL) policy. • Develop a National Education and training Quality Assurance and Standards Framework • Develop a policy framework of transition of the Technical trainers from Teachers Service commission to the Ministry of Education and training.	• Design and implement digital platforms for management of data on learners‰ assessment and evaluation. • Develop a system of self-assessment, Adapt evaluation for learners with SN&D, enhance access and progression of learners, youth and adults with prior learning • Address overlaps and duplication of functions within agencies • Strengthen Quality Assurance and Standards across all education and training levels • The Education and training sector to meet the demand of industry in terms of skills and technological requirements by providing qualified Human resource trained within the collaboration of Government, Industry and the Academia.
Human Resource Capacity	• Review TSC Act 2012. • Review Teacher Staffing Norm and Teacher Deployment • Review Teacher Professional Development framework • Review policy on recruitment and deployment of TVET education managers	• Professionalize the teaching profession to harmonize pedagogical skills. • Enhance teacher- learner ratio in schools, accommodate CBE demands and promote distribution and utilization of teachers/ trainers. • To improve teacher competences; professional development and career progression; and quality of curriculum delivery. • To evaluate remuneration for ECDE and SNE teachers and review terms of employment for Technical Trainers • Enhance staffing levels to support delivery of TVET mandate • Succession management to ensure progressive provision of quality education in TVET
	Review the harmonized criteria for appointment and promotion of University lecturers	To standardize and/or harmonize appointments and promotions in the universities in the sector
Equity and Access	Develop/ review of Policy on Refugees/ foreign education (Non-Citizens) in the sector.	Taking care of refugees and foreigners Educational concerns in the sector.
	• Develop a policy framework on Student Financing in ETS(TVET) • Review the HELB Act and regulations. • Develop a framework to fund TVET student with loans and bursaries	• To streamline student financing and bursaries in the sector. • To take into account the emerging issues • To guide in the management of TVET loans and bursaries. • To ensure sustainability by creation of a national revolving higher education fund.

Area of focus	Policy, Legal and Institutional Reform	Issues to be Addressed
	• Develop a policy framework on centralization of all Higher Education Student Financing. • Develop a policy on financing ICT devices for students in institutions of higher learning.	• To guide in provision of ICT devices loans to students in institutions of higher learning.
	Review National School Health policy.	Enhance learners‰ nutritional health, retention and entrench collaboration with Ministry of Health and other stakeholders.
	Develop an admission criteria to institutions of higher learning in ETS	To harmonize admission criteria to all institutions of higher learning.

ANNEX I: IMPLEMENTATION MATRIX

P1: Curriculum review and reform

Goal: Review and reform curriculum in education and training

Strategic Objective: To ensure the curriculum is competency based at all levels of education and training

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Total	Indicative Budget (Kshs. Millions)				
								2018/19	2019/20	2020/21	2021/22	2022/23
Kenya National Qualification Framework	To promote life-long learning through recognition of acquired skills and knowledge	KNQF implemented	% level of implementation	KNQA	2018 – 2022	GoK, Devt Partners, PPP	1800	100	300	400	500	500
Basic education Competency Based Curriculum	To ensure that education nurtures the potential of every learner and provide different pathways	Operationalized CBC	% level of rollout	KICD	2018-2022	GoK, Devt Partners, PPP	3600	220	580	800	1000	1000
Reforming Learner Assessment	To ensure shift from summative to formative mode of assessment	Formative mode of assessment operationalized	% level of formative assessment rollout	KNEC	2018-2022	GoK, Devt Partners, PPP	880	80	200	200	200	200
Mainstreaming Tusome in early grade learning processes	To improve reading as a foundation of summative learning	Sustainability of Tusome model of early grade learning	% of concept of Tusome mainstreamed in schools	MOE	2018-2022	GoK, Devt Partners, PPP	2,437	447	396	594	500	500
Competency Based Education and training (CBET) for TVET	To ensure that TVET courses are competency-based and aligned to the labour market demands	CBET rolled out	% level of CBET roll out	TVET-CDACC	2018-2022	GoK, Devt Partners, PPP	1600	100	250	350	450	450
NVCET curriculum	To ensure VET courses are aligned to the labour market demands	NVCET rolled out	% level of roll out	TVET-CDACC	2018-2022	GoK, Devt Partners, PPP	1250	100	250	250	300	350
University curriculum	To ensure that the curriculum is in tandem with the labour market	Reviewed universities curriculum	Reviewed curriculum	CUE Universities	2018-2022	GoK, Devt Partners, PPP	765	115	200	200	200	50

P2: Access and Equity in Education and Training

Goal: To Enhance Access and Equity in Education and Training

Strategic Objective: To ensure inclusivity in education and training for all

Programme	Strategic Objective	Expected Outcome	Key Performance Indicator	Implementing Agency	Time Frame	Source of Funds						
Universal Early Childhood Development Education	To ensure that all Children aged between 4 to 5years have access to quality pre-primary education	Increased Pre-school attendance	% increase in the number of children in pre-school	MoE and County Govn.	2018–2023	GoK,County Govts. Dev Partners, PPP	5,220	522	1,305	1,305	1,305	783
Education and Training in Marginalized Areas	To increase equitable access for learners in marginalized areas	Increased number of learners in marginalized areas	% increase in the number of learners accessing education in marginalized areas	MoE	2018–2023	GoK, Dev Partners, PPP	234	23.4	58.5	58.5	58.5	35.1
Universal Basic Education	To increase access, equity and enhance retention in basic education	Increased enrolment and reduced dropouts	Net enrolment rate, Gross Enrolment rate and Dropout rate	MoE	2018-2023	GoK, Dev Partners, PPP	151,030	13,730	34,325	34,325	34,325	34,325
Enhance Retention in TVET Institutions	To enhance access, equity and retention in TVET	Enrollment and reduced dropout	Completion rate of learners in TVET	MoE	2018–2023	GoK, Dev Partners, PPP	23,000	4,616	4,616	4,616	4,616	4,616
Universal Secondary Education	To ensure that all candidates who sit KCPE are guaranteed a place in secondary school	All learners transiting from primary to secondary (100% transition)	Transition rate and completion rate	MOE	2018-23	GOK						
TVET Infrastructure and Equipping	To raise the profile and acceptance of TVET	Increased infrastructure capacity in TVET	Number institutions constructed/ rehabilitated/equipped	MOE	2018-22	GoK Dev't Partners, PPP	10,230	2,046	2,046	2,046	2,046	2,046
Infrastructural development for ACE	To improve access, retention and completion in ACE	Increased infrastructure capacity in ACE	Number of classrooms constructed/rehabilitated/equipped; learning resource centre	MoE	2018-22	GoK/CoG National Dev't Partners	1,150	100	150	200	300	400
Increasing access to university	To improve access to quality university education	Increased enrollment	Percentage increase in enrolment	MoE	2018-22	GoK./ PPP	12,500	1,250	3,750	3,750	2,500	1,250
Student Financing	To ensure learners are adequately funded to complete their training	Increased number of beneficiaries	Amount of loans and bursaries (in Kshs. Mn)	HELB and MOE	2018-22	GoK and HELB	155,017	19,054	23,922	30,443	37,598	44,000

P2: Access and Equity in Education and Training

Goal: To Enhance Access and Equity in Education and Training

Strategic Objective: To ensure inclusivity in education and training for all

Project	Objective	Output	Indicator	Implementing Agency	Timeframe	Source	Budget					
Rehabilitation and Equipping of the TVET SNE Institutions	To enhance access for trainees with SN&D	Infrastructure improved and equipment provided to the 4 special TVCs	Number of TVET SNE equipped, rehabilitated	MOE	2018-2022	GOK/Partners	1,400	200	200	300	300	400
Rehabilitate and Equip county and sub-county EARCs	To improve assessment and placement services	47 County and 324 sub-county EARCs rehabilitated and equipped	No of EARCs rehabilitated and equipped	MOE	2018-2022	GOK/Partners	3,066	146	600	740	760	830
Capacity Building for education stakeholders on SNE	To build the capacity of Stakeholders in Special Needs Education and training	SNE stakeholders capacity built	Number of SNE stakeholders capacity built	MoE KISE	2018-2022	GOK/Partners	390	40	50	100	100	100
Laptops and assistive technology for learners with special needs and disabilities	To improve the quality of learning for the VI & PH learners	Adapted laptops and assistive technologies	Number of learners provided with adapted laptops	MOE	2018-2022	GOK/Partners	1,980	220	340	440	540	440
Assistive devices, technologies and learning materials	To enhance the production capacity of assistive devices, technology and materials	Devices produced and workshops constructed	Number of devices; % level of completion	MOE KIB KISE	2018-2022	GOK/Partners	300	50	100	50	50	50
National Psycho-education assessment and placement centre at KISE	To enhance assessment and placement of special needs learners	A National Psycho-Educational Assessment Centre established	% level of completion	KISE/ MOE	2018-2020	GOK/Partners	550	150	200	200	0	0

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Infrastructure and provision of special equipment for Special Needs Institutions	To facilitate best practices in provision of inclusive education and training	Equipment provided/upgraded	Number of institutions equipped	MoE	2018-2022	GoK/ Partners	1,200	100	200	250	300	350
National Academy for Gifted and Talented learners	To enhance education and training for the Gifted and talented	A National Academy for the GT established	% completion	MoE	2018-2022	GoK/ Partners	550	50	150	150	100	100
Specialized Equipment to Trainees with Special Needs and Disabilities in VTCs	To enhance the quality and relevance of special need training in VTCs	Specialized Equipment provided	No of trainees provided with Specialized Equipment	MoE	2018-2022	GoK/ Partners	3,200	500	550	600	750	800
Specialized Equipment to students with Special Needs and Disabilities in Universities	To enhance the quality and relevance of special need training in Universities	Specialized Equipment provided	No of students provided with Specialized Equipment	MoE	2018-2022	GoK/ Partners	200	20	50	50	50	30
TVET- SNE institutions in counties	To increase access to TVET with PWDs	43 TVET SNE Institutions established	Number of TVET Institutions established	MoE	2018-2022	GoK/ Partners	1,800	100	300	500	500	400
Special Needs Education Inclusivity in TVET	To ensure inclusivity in TVET Institutions	Admission of PWDs; Special needs assessment centre developed	Number of SNE trainees enrolled; % leve lfo completion	MoE	2018-2022	GoK/ Partners	500	100	100	100	100	100

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Examiners of Special Needs Education Candidates	To ensure that there is an adequate pool of examiners/ assessors	Examiners trained on SNE	Number of SNE Examiners	MoE KNEC	2018-2022	GoK/ Partners	100	20	20	20	20	20
Mentorship and talent development for all level of education and training	To mentor and nurture talents and learners with special needs	Individualized Education Plans (IEPs) implemented	Number of Learners with IEPs	MoE KISE	2018-2022	GoK/ Partners	500	100	100	100	100	100
P4: Quality and Relevance of Education and Training												
Goal: Enhance quality and relevance in education and training for sustainable development and global competitiveness												
Strategic Objective: To improve standards in Education and Training												
National Skills Development	To enhance coordination of education and training	KNSDC established and operationalized	% level of operationalization of the KNSDC	MoE	2018 - 2022	GoK, Dev Partners,	399	24	75	100	100	100
Institution Based Quality Assurance (IBQA)	To strengthen quality assurance at the institution level	Institution Based Quality Assurance (IBQA) established	No. of institutions implementing IBQA	MoE	2018 - 2022	GoK, Dev Partners,	1,000	50	300	300	300	50
Secondary Education Quality Improvement Project (SEQIP)	To improve student learning in secondary education and transition from primary to secondary in 110 targeted sub-counties	Improved transition, enhanced retention	Transition rate, Retention rate	MOE	2018 - 2022	GoK	20,000	2,300	4,900	5,300	4,400	3,100
Research in Education and Training	To provide accurate information for improvement of quality and relevance in ETS	Evidence based research	Number of evidence-based researches conducted	MoE	2018 - 2022	GoK, Dev Partners,	2,000	100	300	600	600	400

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Examiners of Special Needs Education Candidates	To ensure that there is an adequate pool of examiners/ assessors	Examiners trained on SNE	Number of SNE Examiners	MoE KNEC	2018-2022	GoK/Partners	100	20	20	20	20	20
Mentorship and talent development for all level of education and training	To mentor and nurture talents and learners with special needs	Individualized Education Plans (IEPs) implemented	Number of Learners with IEPs	MoE KISE	2018-2022	GoK/ Partners	500	100	100	100	100	100
P4: Quality and Relevance of Education and Training												
Goal: Enhance quality and relevance in education and training for sustainable development and global competitiveness												
Strategic Objective: To improve standards in Education and Training												
National Skills Development	To enhance coordination of education and training	KNSDC established and operationalized	% level of operationalization of the KNSDC	MoE	2018-2022	GoK, Dev Partners,	399	24	75	100	100	100
Institution Based Quality Assurance (IBQA)	To strengthen quality assurance at the institution level	Institution Based Quality Assurance (IBQA) established	No. of institutions implementing IBQA	MoE	2018-2022	GoK, Dev Partners,	1,000	50	300	300	300	50
Secondary Education Quality Improvement Project (SEQIP)	To improve student learning in secondary education and transition from primary to secondary in 110 targeted sub-counties	Improved transition, enhanced retention	Transition rate, Retention rate	MOE	2018-2022	GoK	20,000	2,300	4,900	5,300	4,400	3,100
Research in Education and Training	To provide accurate information for improvement of quality and relevance in ETS	Evidence based research	Number of evidence-based research es conducted	MoE	2018-2022	GoK, Dev Partners,	2,000	100	300	600	600	400

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
TVET Trainer Management Reforms	To ensure a reformed TVET trainer management	TVET trainer management reformed	% of reforms in TVET trainer management undertaken; number of trainers for TVCs recruited	MoE	2018–2022	GoK	8,000	500	1,500	1,500	2,000	2,500
Enterprise development incubators in TVET	To support creativity and innovation, research and development in TVET	Incubators established	No. of enterprise development incubators established	MoE	2018–2022	GoK, Dev. partners	1,650	100	200	200	400	650
Centres of Excellence and Resource Centres	To advance and standardize the learning experience of learners and educators at all levels	Centres of Excellence and Resource Centres established	No. of Centres of Excellence and Resource Centres established	MoE	2018–2022	GoK, Dev. partners	44,800	5000	8,000	11,000	12,000	8,800
Centres of specialization in Universities	To provide leadership, best practices, research and training in specialized disciplines	Centres of specialization in universities Established	No. of centres of specialization in universities established	MoE	2018–2023	GoK, Dev. partners	11,700	1,800	1,900	2,000	3,000	3,000
TVET Rebranding	To make TVET a responsive to labour market and attract more leaners	TVET Rebranded and attractive to learners	% increase in enrolment	MoE	2018–2022	GoK, Dev. partners	500	50	100	100	150	100
Monitoring of Learner Achievement in Education	To have enhanced education standards	Learner achievement monitoring studies carried out	No of Learner achievement monitoring studies. Number of teachers capacity built under PRIEDE Project	MoE	2018–2022	GoK, Dev. partners	2,000	400	400	400	400	400
Teacher performance appraisal and development project	To have enhanced compliance with set teaching standards	To have 100% online appraisal for teachers	% of teachers appraised	TSC	2018–2022	GoK, Dev. partners	2,250	400	450	500	600	400

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Teacher provision, Competence and Professional Development	To improve the provision and competencies of teachers at the basic education level	Teacher provision and competencies improved	Pupil: Teacher Ratio (PTR) at basic education level. % of teachers of who have undergone competency Programme; no. of teachers recruited	TSC	2018-2022	Gok, Dev Partners	75,000	15,000	15,000	15,000	15,000	15,000
P5: Integrating ICT into Teaching , Learning and Training												
Goal: Enhance the utilization of ICT in governance, management and curriculum delivery of education and training												
Strategic Objective: To Enhance quality of delivery by integration of ICT in teaching and learning.												
Digital Literacy Programme (DLP)	To provide quality education that prepares learners to competitively function within a highly integrated, technologically-oriented and information based global economy	Digital devices provided; teachers trained in digital literacy	No. of std 1 children supplied with digital devices No of teachers trained on digital literacy	MoICT, MoE, TSC	2018-2022	GoK, PPP	19,050	3,200	3,550	3,900	4,100	4,200
ICT Integration in Secondary Education, TVET, ACE, University and in exam management	To enhance the usage of ICT for education management services and delivery of curriculum at all levels of education	ICT Infrastructure and equipment provided	Number of schoolc benefitting from ICT infrastructure and equipment	MoE, MoICT	2018-2022	GoK, Partners, PPP	3550	450	600	750	850	900
ICT Integration TVET	To enhance the usage of ICT for education management services and delivery of curriculum in TVET	ICT Infrastructure and equipment provided	Number of TVET institutions with ICT infrastructure	MoE	2018-2022	GoK, County Government, Partners, PPP	6,300	1,000	1,500	2,000	1,000	800

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
ICT Integration in ACE	To prepare techno-savvy human resource with requisite ICT skills	ACE institutions supplied with ICT Infrastructure	Number of ACE Institutions supplied with ICT equipment	MoE	2018-2022	GoK, Partners	250		64	76	55	55
Transition from Print to e-books	To enable one teacher to teach more than one class or school concurrently hence improve the utilization of the teachers	All content in the Orange Book transformed to e-books	Percentage of content translated and printed in e-books/ Number of teachers trained	KICD, MoE	2018-2022	GoK, Partners	1,700	300	400	450	350	200
ICT integration in University education	To enhance the usage of ICT for education management services and delivery of curriculum at university level	ICT Infrastructure and equipment provided	% of Universities with ICT infrastructure and equipment	MoE	2018-2022	GoK, Partners	3430	455	595	840	910	630
ICT integration in Examination management	To leverage on technology to safeguard credibility of examinations	Examination management system in place	Examination management system	MoE	2018-2022	GoK	0	0	0	0	0	0
P6: Revitalization of Adult and Continuing Education												
Goal: To improve adult literacy and productivity of the youth and adults population in the country												
Strategic Objective: To Eradicate illiteracy and promote life-long learning among out of school youth and adults												
Kenya Adult literacy survey	To generate data on current adult literacy rates	Data on adult literacy generated	Survey report	MOE	2018-2020	GoK, Development Partners	350	50	150	150	-	-
Development of Curriculum Support Materials	To improve quality of learning for out of school youth and adult learners	Curriculum Support Materials developed	Number of curriculum materials	MOE	2018-2022	GoK, Development Partners	700	50	150	200	200	100

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Advocacy and community empowerment for ACE	To increase visibility of ACE and reduce stigma associated with adult illiteracy	Advocacy forums	Number of forums	MOE	2018-2022	GoK, Development Partners	300	20	50	80	100	50

P7: Governance and Accountability in Education and Training Sector

Goal: To enhance the capacity of education managers and stakeholders on governance and financial management

Strategic Objective: To strengthen the governance and accountability in institutions of education and training

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Total	2018/19	2019/20	2020/21	2021/22	2022/23
Establish the Kenya School of Education and Training	Establish a premier capacity building institution for the education and training sector	Kenya School of Education established	An operational Kenya School of Education	MOE	2018-2021	GoK, Development Partners	2,000	200	600	600	400	200
Operationalize the NEMIS	To establish a data system for use in E&TS	NEMIS Established	Operational NEMIS; number of education managers and teachers trained; % coverage of schools	MOE	2018-2020	GoK, Development Partners	1,000	100	300	300	200	100
Capacity building for education and training sector	To revamp capacity building of education managers in prudent resource management	Capacity of education managers built; ESD model institutions established	No. of education managers capacity built in 47 Counties; ESD model institutions established	KEMI	2018-2022	GoK, Development Partners	600	50	150	150	150	100
Electronic Data Management System (EDMS)	To digitize teachers records	Records digitized	% of teachers whose records have been digitized	TSC	2018-2022	GoK, Partners	850	400	350	100	-	-
Efficiency of TVET	To develop a Kenyan framework for measuring the efficiency of TVET	TVET efficiency framework established	Operational TVET framework	MOE	2018-2020	GoK, Development Partners	40	10	10	10	5	5

Sub-Programmes/ Projects	Objectives	Expected Outputs	Performance Indicator	Lead Implementing Agency	Time Frame	Funding Source	Indicative Budget (Kshs. Millions)					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Establishment and equipment of teacher support and professional Resource Centres	To ensure effective Teacher Supervision and continuous in service mentoring counseling and Induction for a quality Teaching	47 counties and 330 sub counties TSPDRCs established and Equipped	Number of County and sub-county TSPDRCs established and Equipped	TSC	2018-2022	GOK/ Partners	3500	500	600	800	800	800
Total							576,368	76,808	117,502	130,543	137,638	136,865

ANNEX II: MONITORING AND EVALUATION MATRIX

SN	Programmes/ Projects	Outcome	Performance Indicator	Baseline	Yearly Target				
					2018/19	2019/20	2020/21	2021/22	2022/23
1.	Kenya National Qualification Framework	To promote life-long learning through recognition of acquired skills and knowledge	% level of implementation	30	40	70	100	-	-
2.	Basic Education Competency Based Curriculum	To ensure that education nurtures the potential of every learner and provide different pathways	% level of CBC rollout	0	40	53	67	80	93
3.	Competency Based Education and training (CBET) for TVET	To ensure that TVET courses are competency based and aligned to the labour market demands	% level of CBET roll out	5	20	35	50	65	80
4.	Mainstream tusome concept in early grade learning	To improve reading as a foundation of summative learning	% of tusome concept mainstreamed in schools	0	100	100	100	100	100
5.	Universal Secondary Education	To ensure that all candidates who sit KCPE are guaranteed a place in secondary school	Primary to Secondary School Transition Rate	83.5	100	100	100	100	100
6.	TVET Infrastructure and Equipping	To raise the profile and acceptance of TVET	New TVET Institutions constructed	87	125	155	175	195	235
			Number of TVET institutions with rehabilitated infrastructure	87	125	155	175	195	235
			Number of TVET institutions equipped	70	100	135	155	175	195
7.	Student Financing	To ensure learners are adequately funded to complete their training	Amount of TVET Loans (Kshs. M)	651	990	1,089	1,197	1,318	1,318
			Amount of TVET Bursary (Kshs. M)	0	10,890	11,979	13,177	14,495	15,944
8.	Provide Laptops and assistive technology for learners with special needs and disabilities	To improve the quality of learning for the VI & PH learners	Number of learners provided with adapted laptops (TVET)	4	8	16	24	32	51
9.	Establish a National Psycho-education assessment and placement centre at KISE	To enhance assessment and placement of special needs learners	% level of completion (construction and equipment)	44	60	70	80	100	-

SN	Programmes/ Projects	Outcome	Performance Indicator	Baseline	Yearly Target				
					2018/19	2019/20	2020/21	2021/22	2022/23
10.	National Skills Development	To enhance coordination of education and training	% level of operationalization of the KNSDC	0	10	30	50	80	100
11.	Establish Enterprise development incubators in TVET	To support creativity and innovation, research and development in TVET	No. of enterprise development incubators	0		20	50	75	94
12.	Teacher provision, Competence and Professional Development	To improve the provision and competencies of teachers at the basic education level	Teacher-pupil Ratio (PTR) at basic education level.	1:41	1:40	1:40	1:40	1:40	1:40
13.	Operationalize the NEMIS	To establish a data system for use in E&TS	% completion of policy and legal framework for NEMIS	40	100	-	-	-	-
			Number of education managers and teachers trained	100	10,000	30,000	40,000	-	-
			% coverage of schools in all data collection series	0.1	100	100	100	100	100