



The National Treasury and Planning State Department for Planning



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SDGs Status Report

2019

THE NATIONAL TREASURY AND PLANNING
STATE DEPARTMENT FOR PLANNING

**IMPLEMENTATION OF THE AGENDA 2030
FOR SUSTAINABLE DEVELOPMENT IN KENYA**

2019



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ACRONYMS

ABET	Adult Basic Education and Training
APBET	Alternative Provision of Basic Education and Training
ASAL	Arid and Semi-arid Land
BE	Basic Education
BOG	Board of governors
BOM	Board of Management
CBE	Curriculum Based Establishment
CBO	Community Based Organizations
CDF	Constituency Development Fund
CEB	County Education Board
CEMASTE	Centre for Mathematics and Science Teaching Education in Africa
CEO	Chief Executive Officer
CHE	Commission for Higher Education
CPD	Continuous Professional Development
CPPMU	Central Planning and Project Monitoring Unit
CUE	Commission for University Education
DEO	District Education Officer
DITQA	Directorate of Technical Accreditation and Quality Assurance
DQAS	Directorate of Quality Assurance and Standards
DRMD	Directorate of Research Management and Development
DTE	Directorate of Technical Education
DYT	Directorate of Youth Training
EAC	East African Community
EARS	Early Assessment Research System
ECD	Early Childhood Education
ECDE	Early Childhood Development Education
EFA	Education for All
EMCA	Environmental Management Coordination Act
EMIS	Education Management Information System
ERC	Education Resource Centre
ERS	Economic Recovery Strategy
ESQAC	Education Sector Quality Assurance Commission
ET	Education and Training
FBO	Faith Based Organization
FDSE	Free Day Secondary Education
FPE	Free Primary Education
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
HELB	Higher Education Loans Board
ICDTA	Institute of Capacity Development of Teachers in Africa
ICT	Information, Communication Technology
ICT4E	ICT for Education
IEP	Inclusive Education Policy



IFMIS	Integrated Financial Management System
IGAD	Inter-Governmental Authority on Development
IMS	Information Management System
INSET	In-Service Education Training
JKF	Jomo Kenyatta Foundation
KAIST	Kenya Advanced Institute for Science and Technology
KBE	Knowledge-Based Economy
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KDHS	Kenya Demographic and Health Survey
KENIA	Kenya National Innovation Agency
KEPHIS	Kenya Plant Health Inspectorate Service
KES	Kenya Shillings
KICD	Kenya Institute for Curriculum Development
KIE	Kenya Institute of Education
KIPI	Kenya Industrial Property Institute
KISE	Kenya Education staff Institute
KMIS	Knowledge Management Information Service
KNATCOM	Kenya National Commission
KNBS	Kenya National Bureau of Statistics
KNEC	Kenya National Examination Council
KUCCPS	Kenya Universities and Colleges Central Placement Service
LATF	Local Authority Transfer Fund
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MEAs	Multilateral Environmental Agreements
MEO	Municipal Education Officer
MMEC	Ministerial Monitoring and Evaluation Committee
MOEST	Ministry of Education Science and Technology
MSMES	Micro Small and Medium Enterprises
MTEF	Medium Term Expenditure Framework
MTP	Medium Term Plan
NACECE	National Centre for Early Childhood Education
NACONEK	National Council for Nomadic Education in Kenya
NACOSTI	National Commission for Science Technology and Innovation
NEB	National Education Board
NEPAD	New Partnership for African Development
NER	Net Enrolment Rate
NESC	National Economic and Social Council
NESSP	National Education Sector Support Programme
NGOs	Non-Governmental Organizations
NQF	National Qualifications Framework
NRF	National Research Fund
NVCET	Nation Vocational Certificate Education and Training
OD	Open Distance

OVCs	Orphans and Vulnerable Children
PESTEL	Political, Economic, Social Cultural, Technological, Environmental and Legal
PPPs	Public Private Partnerships
PTA	Parent Teachers Association
PTR	Pupil Teacher Ratio
QSM	Quality Standards Management
R&D	Research and Development
SACMEQ	Southern African Consortium for Monitoring Education Quality
SAGA	Semi-Autonomous Government Agency
SE	Secondary Education
SET	Science Engineering and Technology
STMASE	Strengthening of Teaching in Mathematics and Science Education
SMCs	School Management Committees
ST&I	Science, Technology and Innovation
SWAP	Sector-Wide Approach to Planning
SWOT	Strengths, Weaknesses, Opportunities and Threats
TE	Technical Education
TIVET	Technical, Industrial, Vocational and Entrepreneurship Training
TVET	Technical, Vocational Education and Training
TPC	Teacher Proficiency Course
TSC	Teachers Service Commission
UN	United Nations
UNESCO	United Nations Education Scientific and Cultural Organization

FOREWORD

The United Nations 2030 Agenda for Sustainable Development with its 17 Sustainable Development Goals and 169 targets aspire to ensure prosperity and well-being of all people by 2030 while protecting the planet. The breadth of the 2030 Agenda and its level of ambition aim at addressing the challenges of the present day world that are of great concern to the countries and people everywhere.

The overriding objective of the Kenyan Government is to transform the country into an industrialized middle income country offering our entire citizen a high quality of life in a clean and secure environment. In pursuit of this objective, the government places great emphasis on achievement of the Sustainable Development Goals as panacea for attaining a balanced socio-economic development.

Since the adoption of the SDGs in 2016, there have been significant milestones towards the attainment of the SDGs in the country. Kenya has aligned the national development planning frameworks with the SDGs, created awareness among different stakeholders, forged partnerships to translate the commitments into actions, and put in place projects and programmes aimed at achieving the SDGs among others.

This report which succeeds the first one that was prepared in 2017 and which doubled as Kenya's first Voluntary National Review (VNR) insights into the progress made towards attainment of the SDGs during the four years of the SDGs implementation. It highlights the key achievements and challenges that threaten achievement of the SDGs targets. The report also enumerates ongoing intervention per goal that are being undertaken to accelerate implementation and achievement of SDGs progress.

A participatory process was applied to gather the information and data that was used to prepare this report. The report was prepared using the UN Secretary Generals common reporting guidelines and will greatly inform the preparation of the second VNR to be presented during the 2020 High Level Political Forum (HLPF).

The Government is committed to the achievement of the SDGs and will spare no effort to ensure that we fast track all the SDGs that are lagging behind. We recognize the collaboration, commitment and effective participation of all stakeholders who have greatly contributed to the progress made in the achievement of the SDGs. The government reaffirms its commitment to working with all stakeholders and will enhance its effort during the decade of action to ensure that no one is left behind.



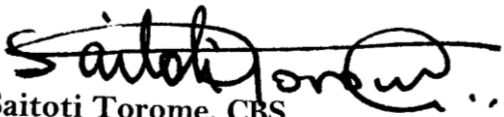
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CABINET SECRETARY
THE NATIONAL TREASURY AND PLANNING

ACKNOWLEDGEMENT

The preparation of this report is a culmination of a wide consultative effort involving various stakeholders both at the national and county levels. I wish to acknowledge the unreserved effort of the institutions that made special contribution to the preparation of the report by providing invaluable information and data that led into the development of the report. These include various national government MDAs, the County Government through the Council of Governors, the Civil Society through the SDGs Kenya Forum, the National Youth Council, Kenya Private Sector Alliance and the United Nations Country office.

I am grateful to the core team comprising of the Inter Agency Technical Working Group members who together contributed immensely to the preparation of this report. Accordingly, I acknowledge the staff of the Projects and Programmes Department and the United Nations Country team led by the staff of United Nations Development Programme for providing overall technical leadership during the preparation of this report.

I also do sincerely appreciate the role played by all those who may not have been acknowledged in this report.


Saitoti Torome, CBS
PRINCIPAL SECRETARY
STATE DEPARTMENT FOR PLANNING

1.0 INTRODUCTION AND BACKGROUND

The 2030 Agenda and its Sustainable Development Goals (SDGs) succeeded the MDGs in January 2016. Since then, the Government and other stakeholders committed to the domestication of the agenda to the local setting in addition to its implementation, monitoring, evaluation and reporting on the progress of implementation. Kenya development agenda is guided by Kenya Vision 2030, the long term development blueprint for accelerating transformation of the country into a rapidly industrializing middle-income nation by the year 2030.

The Kenya Vision 2030 comprising of three key pillars; Economic, Social and Political provides the frameworks for the integration of the three dimensions of sustainable development. Economic Pillar aims at achieving and sustaining an average economic growth rate of 10 percent per annum until 2030; The Social Pillar seeks to build a just and cohesive society with social equity in a clean and secure environment; and the Political Pillar aims at realizing a democratic political system founded on issue-based politics that respects the rule of law, and protects the rights and freedoms of every individual in Kenyan society. The Pillars are anchored on enablers and macro or the foundations. The enablers consist of Infrastructure; Information and Communications Technology (ICT); Science, Technology and Innovation (STI); Land Reforms; Public Sector Reforms; Labour and Employment; National Values and Ethics; Ending Drought Emergencies (EDE); Security; Peace Building and Conflict Resolution.

The actualization and implemented of the Vision 2030 is done through five years Medium Term Plans (MTPs) at the national level. The First MTP covered the period 2008 to 2012. The Second MTP covered the period starting 2013 to 2017 while the current MTP covers the period 2018 to 2022. The third MTP amplifies the government's Big 4 Agenda whose main focus is food security, manufacturing, universal Healthcare and affordable housing. Food and Nutrition Security is expected to address the targets under goals 2, 3 and 15. Universal Health will champion the course of goals 3 and 11 while Manufacturing is focused to deliver targets under goals 8, 9 and 14. Finally affordable housing will be seeking to address the challenges of goals 4, 8 and 11.

Under the devolved system of government, functions are shared between the national and county governments. The county governments are required to develop five year County Integrated Development Plans (CIDPs), which mirror the national government Medium Term Plans (MTPs). The 2nd generation CIDP and the MTP III form the basis for planning and budgeting for the next five years to 2022. Both plans ensure that the SDGs are localized and mainstreamed into the development processes at national and in the 47 counties.

The implementation of the SDGs in Kenya, started with an analysis of SDGs convergence with Kenya's own development objectives as set out in the Kenya Vision 2030. The 17 goals were mapped with Vision 2030 within the second Medium Term Plan. The time-frame of the Vision coincides with the timeframe for the SDGs and the two development framework are well aligned providing an opportunity for Kenya to match the progress towards the two development frameworks. Thereafter Kenya undertook a SDGs policy gaps analysis study that aimed at assessing the extent to which the existing policies and strategies are contributing to the achievement of the SDGs while at the same time identifying where interventions that are needed to facilitate achievement of the SDGs. The study further identified the potential goals conflicts and synergies. The study found that, overall, the Kenya Vision 2030 and its third MTP, addresses, directly or indirectly,



substantially all the targets of the Global 2030 Agenda at 97 percent or 132 out of the relevant 138 SDG targets.

Besides implementation, another key component of the 2030 Agenda is the tracking and reporting of the SDGs goals and targets. The outcome document of the United Nations Summit for the Sustainable development (paragraph 79) encourages member states to “conduct regular and inclusive reviews of progress at the national and sub-national levels which are country-led and country-driven. Kenya prepared its first SDGs progress report in 2017 which doubled as the country’s first Voluntary National Report (VNR) presented at the 2017 High Level Political Forum.

The report provided an assessment of the progress made in the implementation of the Sustainable Development Goals one and a half years after adoption of the SDGs for purpose of continued policy planning and implementation. It also identified best practices, lessons learnt, emerging issues and areas that needed support in the implementation of the SDGs; identified challenges and actions being undertaken to address the gaps and challenges.

The report further highlighted the major milestones achieved which included; producing the MDGs End Term Report which provided the baseline and lessons; the SDGs Road Map; Cab Memo directing public agencies to mainstream the SDGs into policies, plans and budgets; identification of 128 out 230 indicators the country is capable of reporting with the available data by establishing the SDGs Liaison office within the secretariat of the Council of Governors; setting up the Inter-Agency Technical Committee which draws membership from Ministries, Departments and Agencies., Development Partners, the CSOs and the Private sector. The SDGs Kenya (CSOs) Forum was also in place.

Kenya will be preparing the SDGs progress report biennially and therefore has prepared this 2nd Progress Report covering the period 2017-2019. This report follows the main components of the Secretary-General’s voluntary common reporting guidelines while at the same time adapting them according to Kenya’s national preferences. It is organized into the following sections. Section II present the methodology that was used to prepare the report while section III discusses the enabling environment covering the actions that the government is continuously undertaking to ensure ownership of the SDGs, incorporation of the SDGs into our planning frameworks, and the institutional framework for domestication of the SDGs. The initiatives in place targeting the poor and vulnerable are covered in section IV. The progress in the implementation of the SDGs is covered in section V while section VI highlights the monitoring and evaluation mechanisms. Section VII highlights key challenges and finally the next steps are covered in section VIII.

2.0 METHODOLOGY AND PROCESS FOR PREPARATION OF THE REVIEW

The Executive Order No. 1 of 2018 (Revised) mandates the State Department for Planning to coordinate the implementation and monitoring of the SDGs in Kenya. The SDGs Coordination Department within the State Department for Planning is the focal point that coordinates the SDGs activities in the country. It is supported by the Inter-Agency Technical Committee (IATC), comprising of officers from key government Ministries, Kenya National Bureau of Statistics (KNBS), National Council for Population and Development (NCPD), Civil Society Organizations and the private sector.

The principles outlined in the Outcome Document states that “follow up and review” processes must be built “on existing platforms and processes, where these exist, avoid duplication and respond to national circumstances, capacities, needs and priorities” and that “data and information from existing reporting mechanisms should be used where possible. Therefore this review tries to use the existing structures and information from the existing national reporting mechanisms.

The SDGs review is expected to follow an open, inclusive, participatory and transparent process for all people and supports the reporting by all relevant stakeholders. Recognizing the critical role played by the stakeholders in the SDGs in this country, this review was highly consultative involving all the key stakeholders. These included the government Ministries, Members of Parliament, sub national governments; development partners; Civil Society Organizations (CSOs); National Youth Council and the private sector in order to increase ownership in the process.

Due to the large number of stakeholders to be involved and for ease of ownership and follow-up, the entry point except for the national government was the umbrella bodies for the various stakeholders. These included; the Kenya Private Sector Alliance (KEPSA), SDGs Kenya Forum, the Council of Governors (CoG) and the National Youth Council. The umbrella bodies held consultations with their members, and prepared reports that formed the basis for this report.

The review process was spearheaded by the government through the SDGs Coordinating Department. The preparation of the report drew heavily from the United Nation’s Secretary General Voluntary Common Reporting Guidelines issued in 2015 and revised in 2017. The guidelines were issued to the stakeholders to start preparing the report and submit to the State Department for Planning. The submissions were compiled to form the zero draft which was reviewed by the SDGs Coordinating Department. The comments were shared with the drafters. A working session was organized for the drafters to address the missing gaps and a first draft prepared. This draft was reviewed and a final working session was held for the drafters to update, edit and validate the report.

The report mainly covers actions being undertaken to continuously domesticate the SDGs in the country; progress that has made in the implementation of all the 17 SDGs, challenges strategies to address the gaps and the next steps.

3.0 POLICY AND ENABLING ENVIRONMENT

3.1 Creating Ownership of the Sustainable Development Goals

Kenya led the Open Working Group (OWG) that delivered the SDGs to the United Nations General Assembly. At the local scene, the country continues to create both policy and legal environment for implementation of the Sustainable Development Goals. As part of the implementation process of the post 2015 development agenda, the State Department for Planning in collaboration with other stakeholders developed a roadmap, which is the transition strategy from the MDGs to SDGs. It was developed through a consultative process in government, both the national and county, Private Sector, Civil Society Organization, development partners including the United Nations, among others. The strategy is meant to position the country on the fastest and most reliable development trajectory possible to achieve the SDGs.

An Inter-Agency Technical Working Group (IATWG) was established in 2016 comprising of key ministries, Kenya National Bureau of Statistics and National Council for Population

and Development, civil society, Council of Governors (CoG), and the private sector. The mandate of this WG is to spearhead the implementation of the SDGs in the country and the respective sectors; ensure that the SDGs are mainstreamed in the development processes and; track and report on progress of the SDGs implementation. To enhance the effectiveness of this committee, the SDGs Kenya Forum and the Kenya Private Sector Alliance (KEPSA) have been appointed as Co-Chairs. At the same time, a sub-committee with representation from government, civil society organization, academia, youth groups, private sector, and parliament was established to offer technical backstopping support to IATWG.

Since the launch of the SDGs process in Kenya the government continues to recognize the need to enhance awareness and build capacity within both levels of government and other stakeholders including among the communities, the private sector, media, civil society, research institutions and universities, and development partners. This has resulted in placing emphasis on advocacy and awareness creation. The government has continued to provide capacity building for various institutions including Universities, Faith Based Organizations and civil society organization on the SDGs.

An assessment of the awareness on the SDGs has been undertaken in all the 47 counties through a questionnaire that was administered during the MTP III dissemination. The assessment showed that information on the SDGs was generally high within the country especially among those working in the Public Sector. Those unemployed and working in private informal sector showed lower awareness levels as depicted in the research findings of the assessment. However more capacity building is required especially on the specific interventions that are needed to accelerate the achievement of the goals and their targets. To further enhance communication and understanding of the SDGs, the government continues to produce and disseminate IEC materials. This is done in collaboration with other stakeholders including UNDP country office and the civil society organizations. The social media communication platforms including Facebook and WhatsApp are continuously being used to disseminate SDGs to the public to enhance publicity and support.

In furthering the SDGs process in Kenya, the Cabinet directed through a cabinet memo that all Ministries, Departments and Agencies (MDAs) mainstream SDGs into their policy, planning, budgeting as well as monitoring and evaluation systems and processes. Following the directive all Ministries, MDAs and Agencies have been advised to map all SDGs targets and indicators, which they are contributing towards. In addition a number of staff of these MDAs have been trained on the SDGs to be trainers of trainers (TOT) to build capacity in their organizations. This is being coordinated by the State Department for Planning. The State Department has reviewed the 4th cycle Strategic Plan Guidelines to ensure that the SDGs are mainstreamed in MDAs' Strategic Plans and performance contracts. MDAs are required to lodge progress report on quarterly basis on the SDGs targets and indicators.

Experience from the implementation of the SDGs in the country has showed that progress on the 2030 Agenda commitments depend on effective partnership with the active engagement of all stakeholders including government, civil society, parliament, the private sector, and the United Nations system among others. To ensure effective coordination, the government in collaboration with other stakeholders has embarked on the preparation of the stakeholder engagement framework. The preparation of this report is meant to provide for a structured engagement between the government and stakeholders on the SDGs. It will enable all actors to actively participate in the realization of the SDGs targets and indicators. The deepening of engagement will assist in the mobilization of resource for development towards the SDGs as well as in adequate utilization of available technical expertise.

The corner stone of achieving the SDGs targets lies in the capability to monitor and evaluate progress. Towards this, the country is expected to monitor the various indicators of the 2030 Agenda. The Kenya National Bureau of Statistics has mapped out 136 indicators which can be monitored with the available data. Under the leadership of the Monitoring and Evaluation Department in the State Department for Planning in collaboration with (KNBS), National level complimentary indicators based on the MTP III that has mainstreamed the SDGs have been developed. The indicators will also be used to track and report on the progress of the implementation of the SDGs.

To further strengthen the local capacity for SDGs, the government has undertaken a detailed analysis of SDGs indicators against Kenyan policy framework. The Study mainly focuses on assessing the country's preparedness to implement the 2030 agenda for sustainable development. It assesses the extent to which the existing policies and strategies contribute to, while at the same time identifying where interventions are needed to facilitate the achievement of the SDGs. The study identified synergies, potential conflicts and overlaps among the goals.

The cascading of the SDGs processes to the County Governments is also key to the attainments of the goals. The counties cover 14 constitutional functions that are critical to the SDGs targets. The counties therefore need to mainstream SDGs in all their development processes in addition to creating a functional institutional framework to deliver on the SDGs. One recommendation from the National Government is the creation of County SDGs Liaison units across all the 47 Counties. To attain this, the Council of Governors and the UNDP Kenya will be useful to augment efforts of the National government in establishing the County SDGs Coordination Units.

3.2 Incorporation of the Sustainable Development Goals in National Frameworks

The SDGs plan at the initial stage called for public awareness, applying multi stakeholder approaches through strengthening existing/creating new coordination mechanism. At this stage, SDGs have been adopted into national and county level context by reviewing existing plans/strategy, identifying areas of change and criteria for prioritizing, identifying synergies and linkages across sectors. Monitoring and reporting systems have ensured that the SDGs indicators have been localized to fit into the national context.

The preparation of the Third Medium Term Plan (MTP III) was through involvement of all stakeholders who were represented in the National MTP Coordination Forum and the Medium Term Sector Working Groups (MTPSWG). The grassroots and the County consultative forums and National Consultative fora served as avenues to obtain the consensus on the MTP III priorities, strategies, programmes and projects. The budgeting process through the Medium Term Expenditure Framework (MTEF) process follows almost a similar pattern. The preparation of the County Integrated Development Plans is also consultative and therefore creates ownership.

The MTP III took on board the regional and international commitments including the mainstreaming of the 2030 Agenda for Sustainable Development and the Africa Union Agenda 2063. Alongside the MTPs are the Sector Plans which like the MTPs are five year that highlight in detail programmes, projects and policies for implementation during the medium term period. The sector plans have also mainstreamed the SDGs.

The Constitution 2010 established a devolved system of government under which government functions are shared between the national and county governments. As a result, the county governments are required to develop five year County Integrated Development Plans (CIDPs) which mirror the national government Medium Term Plans

(MTPs). Having finalized the MTP III, the second generation CIDPs have also been prepared. The 2nd generation CIDP and the MTP III form the basis for planning and budgeting for the next five years to 2022. Both plans ensure that the SDGs are localized and mainstreamed into the development processes at national and in the 47 counties.

The Constitution provides citizens with the right to participate in the decision-making process and further directs the national and sub national legislatures respectively to "facilitate public participation" in their work. Therefore the preparation of the development plans and all the strategies are guided by the Constitution and are required to be participatory by involving all stakeholders.

According to the policy gap analysis report on SDGs, the goals and targets of 2030 Agenda are fully covered directly or indirectly, by the Constitution 2010. They are also almost fully covered, again directly or indirectly, by the Kenya Vision 2030 and its Third MTP which includes the governments Big 4 Agenda. The targets were found to have been covered above average, either fully or partially, by current sector policies (estimated by the Study at nearly 60 percent); and legal and regulatory frameworks (estimated at nearly 70 percent). The implication is that substantial work is required to adequately address all the SDGs. This mainly should focus on reviewing the policies and legal frameworks to ensure that they are fully aligned with the Constitution 2010, the Kenya Vision 2030 and the 2030 Agenda. Areas identified as having critical gaps include those related to gender, youth, poverty reduction, transport, security, energy and inclusive and sustainable cities.

The gaps analysis identified that overall, the Constitution 2010 supports, either directly (68 percent) or implied (32 percent), all the relevant 138 targets of the Global 2030 Agenda. The majority of the targets under goals 1-6, 8, 10 and 16 which focus on social and economic welfare of the population; "leaving no one behind"; and peace and governance, are directly addressed by the Constitution.

The performance contracting framework for Ministries, Departments and Agencies (MDAs) and all public institutions requires that they mainstream the SDGs into their plans, programmes and policies and consequently report to the National Treasury and Planning on progress of SDGs implementation. To capacity build these institutions to mainstream SDGs into their plans, programmes and policies, the State Department for Planning is continually conducting sensitization workshop for the MDAs.

The leading private sector companies and Civil Society Organizations continue to integrate SDGs in their core business and mandate. The private sector in Kenya is fairly well developed and therefore has a huge potential to play its part in implementing SDGs. The United Nations Country Team has further integrated its programmes into national priorities under the framework of Delivering as One (DAO). Similarly, the involvement of parliament has ensured that national budgetary process is informed by the SDGs.

3.3 Institutional Framework

The overall management and coordination of the implementation, monitoring and reporting of SDGs process in Kenya is the responsibility of the State Department for Planning. However, the day to day management and operations of the implementation process is delegated to the SDGs coordinating department which is responsible for planning and overall management of the process; reporting and accounting; monitoring and evaluation of all the SDGs activities. The Department is supported by the Inter-Agency Technical Working Group that was set up in early 2016. This committee is Co-chaired by Kenya Private Sector Alliance and the SDGs Kenya Forum. A subcommittee of the Inter Agency Technical Working Group has been set up to work closely with the SDGs Department and

support in the day to day SDGs activities. The membership of this committee comprises of the national government, the Council of Governors (COG), KEPSA, SDGs Kenya Forum, UNDP and Academia. A Parliamentary Caucus on SDGs and Business is also in place.

To facilitate proper coordination and implementation of the SDGs at the national and county levels, in addition to the SDGs Liaison Office (SLO) at the Council of Governors, the county governments are being facilitated to establish their County SDGs Coordination Units in each of the 47 counties. These will work closely with the SDGs Coordination Department at the National Treasury and Planning to ensure faster implementation of the SDGs. Other institutions will be set up on need basis.

The implementation of the goals is the responsibility of the different actors both at national and sub national levels. The mapping of stakeholders has already been done where each of the SDGs has been mapped with the mandates of the various government ministries. A lead ministry in each of the goal including the key stakeholders has been identified. The lead ministry is expected to work closely with all other stakeholders in their respective sectors.

3.4 Integration of Economic, Social and Environmental Dimensions

The Constitution of Kenya 2010 stipulates that “Integrated Development Planning¹” will govern the preparation of national annual budgets and those of the counties and that no public funds will be appropriated without a planning framework. In addition, all planning is expected to be inspired by the Kenya Vision 2030 and aligned to the Medium Term Plans of Kenya Vision 2030. The Constitution has expounded on the aspect of leaving no one behind and advocates for equity in accessing resources, representation of all population cohorts and gender in decision making, citizen participation at all stages of development. The government embraced the SDGs and signified its commitment by being a signatory to SDGs in line with its development blueprint – the Kenya Vision 2030. The Vision 2030, which is the national development blueprint aims to transform Kenya into a newly industrializing, globally competitive and middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment.

The Vision comprises of three key pillars; Economic, Social and Political. The Economic Pillar aims to achieve and sustain an average economic growth rate of 10% per annum until 2030. This requires macro-economic stability as well as clear focus on key sectors namely; tourism; value addition in agriculture; wholesaling and retail manufacturing; Business Process Off shoring, and financial services, Oil, Gas and Minerals and the blue economy. The Social Pillar seeks to build a just and cohesive society with social equity in a clean and secure environment while the Political Pillar aims to realize a democratic political system founded on issue-based politics that respects the rule of law and protects the rights and freedoms of every individual in Kenyan society.

The three pillars are anchored on the enablers and the foundations of the Kenya Vision 2030. The enablers consist of stable macroeconomics, infrastructure; Information and Communications Technology (ICT); Science, Technology and Innovation (STI); land reforms; policy sector reforms; labour and employment; national values and ethics; Ending Drought Emergencies (EDE); security; peace building and conflict resolution.

¹ Integrated development planning is defined as “a process through which efforts at national and devolved levels of government and other relevant public institutions are coordinated at local level, and through which economic, social, environmental, legal and spatial aspects of development are brought together to produce a plan that meets the need and targets set for the benefit of local communities”.

The implementation of the Kenya Vision 2030 is directly linked towards achieving both Vision 2030 and SDGs in an integrated manner and is a progressive process with goals and milestones to be achieved over time. The Kenya Vision 2030 is implemented in successive five-year cycles called Medium Term Plans (MTPs). The current MTP, which is the third in the country, runs from 2018 to 2022.

The government budgeting process is done through the Medium Term Expenditure Framework (MTEF) that integrates all the key sectors. Agriculture, Rural and Urban Development; Environment, Water and Natural Resources; Public Administration and International Relations; Education; Health and Special Programmes are some of the key sectors under both MTEF and MTP. Through this, social, economic and environmental aspects of development are adequately captured.

At the national level, the 17 goals have been mapped with Vision 2030 within the MTP and the specific flagship projects that are being implemented to achieve both the Kenya Vision 2030 and SDGs aspirations. At the lower levels, the 47 counties covering the country have been implementing their County Integrated Development Plans² (CIDPs), which have mainstreamed SDGs.

The Constitution 2010 provides that sustainable development is a national principle and value and provides for efficient, equitable, sustainable and productive management of land resources. To comply with the constitutional provisions on the management of land resources and attain the aspirations of the Kenya Vision 2030, there is need for prudent utilization of the national space. The National Spatial Plan 2015-2045 launched in March 2017 provides a framework for equitable development through a rational utilization of the country's territorial space. The plan provides a framework to optimize the utilization of the national territory by reorganizing and adjusting the way land is used to achieve overall efficiency and sustainability.

The strategy allocates land to different activities rationally by putting into consideration the land capacities and potentials and by addressing concerns arising from the need to protect and conserve the environment. To underscore the great importance of the environmental considerations, implementation of projects and programmes can only be undertaken after Environmental Impact Assessment (EIA) has been undertaken and results shared and validated. There are programmes to ensure protection and conservation of water resources and ecosystems.

4.0 LEAVE NO ONE BEHIND

Impressive development gains over the last few decades have improved the lives of millions of citizens in the country with the proportion of the population living below the poverty line declining from 45.9% in 2005 to 36.1% in 2016. Over the same period, remarkable progress in lowering the death rate among children under-five years of age, reducing the proportion of women who die in child-birth, and tackling HIV, malaria and tuberculosis has been made. Despite this progress, people are left behind due to discrimination, inequalities, social exclusion, vulnerability and/or multi-dimensional poverty.

The 2030 Agenda spells out 17 SDGs to be achieved “for all nations and peoples and for all segments of society” that includes a firm commitment to “leave no one behind” and “endeavor to reach the furthest behind first”. The pledge is substantiated in the SDGs

² CIDPs are 5-year plans that set out goals and objectives for the development of the various counties in Kenya. Various sectors within the county are required to prepare sectoral plans to feed in the CIDPs.

targets that aim to curb inequalities in health, education and income; end poverty, hunger, curable illnesses, discrimination and exclusion; empower women and girls, disaggregate data, and ensure that all people have clean water, adequate nutrition, decent healthcare, education, energy and other essentials; safe, secure, inclusive and resilient human settlements.

Experience has shown that despite economic growth, it is not translated into significant poverty reduction and neither has it created jobs for the burgeoning youthful population. Many people continue to suffer multidimensional poverty and continue to be excluded from basic social and economic benefits and opportunities for sustainable livelihoods.

The Constitution 2010 Article 43 of the Bill of Rights guarantees all Kenyans economic and social rights including the right to the highest standard of health, education, freedom from hunger and adequate food and decent livelihoods. The county government is responsible for certain functions in such areas as agriculture, health, early childhood education, water and sanitation services, markets, and county public works among others. Every year sub national governments receive 'not less than 15% of all revenue collected by the National Government as part of the equitable share of revenue in addition to various other conditional grants that supplement local taxes at the county level. Devolution has therefore to a large extent set the country on the path towards ensuring leaving no one behind.

The MTP III (2018-2022) focus is on transforming lives through the Big Four (4). Social protection interventions are well addressed in the plan either directly or indirectly. The social protection policy advances have in the past been accompanied by increasing investments in social protection programmes. The Constitution further asserts the right of every person to social security and binds the state to provide appropriate social security to persons who are unable to support themselves and their dependents.

Kenya has also developed a social protection policy that is an important framework focusing on specific vulnerable groups to reduce poverty and the vulnerability of the population to economic, social and natural shocks. The focus is on access to basic social services to those with no predictable income as well as those in employment and the self-employed who require financial cushions against future risks such as loss of employment, injury at work, loss of assets, and or sickness.

A number of social protection (SP) programmes are being implemented by the Government to ensure that no one is left behind. The constitutionally created Equalization Fund, which is allocated one half (0.5) percent of all revenue collection by the national government each year provides basic services including water, roads health facilities and electricity to marginalized areas. To ensure equality, the regions which have more development challenges receive more public resources in order to facilitate the movement towards equality within regions and communities. Similarly, the free primary school education and free tuition for secondary school as well the expansion of Technical and Vocational Educational Training (TVET) institutions to the village level, aim at ensuring that children and pupils from poor backgrounds attain a decent education and life skills that equip them to compete with every pupil from any part of the country.

Other programmes that aim at addressing the plight of the less disadvantaged in society, combat poverty, and promote equity include Hunger and Safety Net Programme, Women Enterprise Fund, Youth Enterprise Development Fund, UWEZO (Ability) Fund, Procurement Preferences and Reservations (30% affirmative action policy for women, youth and persons with disabilities) in public procurement, National Youth Services Capacity Building Initiatives and the Kenya Youth Empowerment Project (KYEP). The Affirmative

Action is geared towards ensuring increased number of women are involved in all political and policy decision making processes in the country.

5.0 PROGRESS MADE IN THE IMPLEMENTATION OF THE SDGs IN KENYA

As has already been mentioned, the SDGs are already mainstreamed in the country's planning frameworks including the MTP III, sector plans, strategic plans and the second generation County Integrated Development Plans. With the fourth year of implementation of the SDGs, Kenya has made progress in the implementation of the SDGs as indicated below,

Goal 1: No Poverty

a) Status of Indicators and Trends Analysis

The overall national poverty headcount rate (proportion of poor individuals) dropped from 46.6 per cent in 2005/06 to 36.1 per cent in 2015/16. The total population of poor individuals declined from 16.6 million in 2005/06 to 16.4 Million in 2015/16 even though the country's entire population increased by approximately 10 million over the two periods. Analysis of poverty based on households at the national level shows a decline from 38.3 per cent in 2005/06 to 27.4 per cent of all households covered in 2015/16. Regarding rural and urban dichotomy, the overall rural poverty rate for individuals declined faster than that of core-urban from 49.7 percent in 2005/06 to 40.1 percent in 2015/16. Spatially, across the 47 counties, overall headcount poverty (proportion of poor individuals) widely ranges from a low of 16.7 per cent in Nairobi City County to a high of 79.4 per cent in Turkana County. In 2015/16, the poorest four counties were Turkana (79.4 %), Mandera (77.6%), Samburu (75.8%) and Busia (69.3%). Conversely, the four counties with least poverty include Nairobi (16.7%), Nyeri (19.3%), Meru (19.4%) and Kirinyaga (20.0%).

Poverty increases with an increase in household size. At the national level, households with one to three members recorded the least poverty headcount rate of 14.7 per cent compared to 54.1 per cent (more than half) of households with seven or more members. This pattern holds across all the domains of analysis.

Poverty rates decrease with increase in the education level of household head. The headcount poverty rates are highest among households headed by individuals with no formal education and lowest in households where the headship had acquired a tertiary level of education or higher.

On the other hand, poverty rate increases as the age of the household head increases, except for households headed by persons in the 15-19 age group. Households headed by older persons (60 years and above) recorded a high poverty rate of 36.3 per cent and contributed a high share of 22.9 per cent of the poor.

Overall (Absolute) Poor Children: The headcount poverty prevalence among households with children is estimated at 33.7 per cent compared to 13.5 per cent of households with no children. Nationally, 41.5 per cent of all children (aged 17 years or less) are categorized as poor. In other words, slightly more than 9 million children live in poor households. Among all the primary school going age group (aged 6-13 years), 43.9 per cent are poor. Similarly, among all the secondary school going age group (aged 14-17 years), 43.8 per cent are poor. In absolute numbers, rural areas account for approximately 6.7 million poor children compared to 1.9 million poor children in urban areas. Geographically at the county level,

the prevalence of child poverty ranges from about 20 per cent in Meru to almost 83 per cent in Turkana. Regarding contribution to overall child poverty at the county level, Turkana which has the highest child poverty prevalence also contributes the highest share of 5.9 per cent of poor children in Kenya. Kakamega County contributes the second highest share of 4.4 per cent of total poor children.

Poverty rates increase with advancement in the age of individuals and this pattern holds across the major domains of analysis, notably; rural, peri-urban and core-urban. Counties with a high prevalence of poverty among the youth (aged 18-35 years), were Mandera (75.9%), Turkana (70.5%), Samburu (66.8%) and Busia (64.3%).

The social protection programs are implemented in all constituencies of the country. The overall objective of social protection is to ensure that all Kenyans live in dignity and exploit their human capabilities for social and economic development.

The orphans and vulnerable children cash transfer program (OVC-CT) covers 353,770 beneficiaries. The allocation for OVC-CT in 2017/2018 was Ksh.8.5 billion. The older persons cash transfer (OPCT) currently covers 833,000 beneficiaries. The allocation for OPCT in 2018/2019 was Ksh.18.1 billion. This program targets all non-pensionable elderly persons who are 70 years and above. Persons with severe disabilities constitute 47,000 people. The allocation to this program in the year 2018/2019 was Ksh.1.3 billion. These three programs are implemented by the state department of social protection and they are fully funded by the government of Kenya. The hunger safety net program is implemented in selected counties of Turkana, Wajir, Mandera and Marsabit covering a total of 98,000 households. They are implemented by the National Drought Management Authority (NDMA). This programme is funded by both the Kenyan government and the World Bank.

The number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population remained constant at 1. This may be as a result of Kenya's continuation to implement the National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030. The proportion of total government spending on essential services (education, health and social protection) increased from 20.4% (14.3% - Education, 2.5% - Health and 3.7% - Social protection) in 2016 to 22.2% (14.5% - Education, 3.2% - Health and 4.5% - Social protection) in 2018.

Interventions/Strategies

Agriculture and Livestock policies particularly the 'Agricultural Sector Transformation and Growth Strategy (ASTGS) 2018-2028' emphasize on commercialization of agriculture. The 'Smallholder Dairy Commercialization Program (SDCP, February 2007- March 2020)' operates in 9 Counties and aims at increasing the income of the rural poor households that depend substantially on production and trade in dairy products for their livelihoods. The Programme is implemented in 59 Dairy Commercialization Areas in 33 Sub Counties in 9 Counties namely; Nakuru, Bungoma, Bomet, Kisii, Kakamega, Nandi, Nyamira, Trans Nzoia and Uasin Gishu. The program activities include farmer training as community resource persons; linkages to formal financial institutions; provision of dairy enterprise grants; gender action learning; establishment and training of artificial insemination service provider groups; establishment of animal health revolving fund; renovation of dairy value chain infrastructure; and setting up of business hubs among others. The programme has supported 59 dairy commercialization areas; 1,096 dairy groups; 28,022 smallholder farmers; 307 small scale milk bars and shop operators; 312 mobile milk traders; 28,461 households (171,846 persons); and 58 apex organizations.

The Kenya Livestock Insurance Programme (KLIP) which so far covers 8 counties in the ASAL areas provides a subsidized government funded insurance scheme to cushion farmers against livestock sub-sector risks. So far 90,600 Tropical Livestock Units and 18,012 households have been covered. In 2018 KShs. 88 million (USD 880,000) was paid to 6,286 households.

The 'Regional Pastoral Livelihoods Resilience Project (RPLRP, 2014- 2019)' covers 14 ASAL Counties and aims to develop and implement regional approaches that enhances livelihoods resilience of pastoral and agro-pastoral communities in the Arid and Semi-Arid lands (ASALs) of Kenya. The project assists the target communities build resilience from extreme weather by facilitating the development of opportunities in the ASALs environment. The current project overall achievement is at 60%. The project is supporting implementation of the Livestock Identification and Traceability System; Peste Des Petits Ruminants control strategy; control of Rift Valley Fever (1,060,000 cattle vaccinated); water infrastructure (64); range reseeding (1400 ha); construction of hay sheds (6); construction of livestock markets (5); Livestock Market Information System; Livestock value chain standards; and Early Warning System and Emergency Response; among others. Currently, the total number of the direct project beneficiaries recorded stands at 211,001, of which 113,700 are female. There has been a reduction in the livestock death rates in the project counties by more than 20% between the years 2017 and 2018.

Stakeholder Collaboration

The CSOs and Faith Based Organizations have played an important role in poverty reduction. Towards ensuring that all men and women, in particular, the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

They have also contributed towards building the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

Challenges, Lessons Learnt and Emerging Issues

The following are the key challenges to the livestock industry:

- i. Increase in the frequency and intensity of extreme climate events, especially droughts and floods, that continue to negatively affect the livelihoods of communities .
- ii. Rural and urban dimensions of poverty.
- iii. Regional disparities within the country and regions.
- iv. Close collaboration and co-operation among MDAs, County Governments and other stakeholders is crucial in development and implementation of sector policies, strategies, programmes and projects.
- v. Inadequate funding for priority interventions.
- vi. High population growth rates exerting pressure onto the limited productive arable land.
- vii. Unimproved agricultural training facilities.

Strategic Areas of Focus/Next steps

The Government will continue to create an enabling environment for agricultural development by developing policies, strategies and regulations. Some strategies and policies that will be developed and finalized include Agriculture Sector Transformation and Growth Strategy (ASTGS); Strategy for the revival of Pyrethrum Industry; Sugar Industry Strategy; Root and Tuber Crops Strategy; Cereals Strategy; and Agriculture (crops) Insurance Strategy. Further, some bills will be developed including bills on: agriculture mechanization; review of the Agriculture and Food Authority Act; and review of the Crops Act.

Goal 2: Zero Hunger

Agriculture is a key sector that contributes to overall economic growth and development in Kenya. Kenya's economy grew by an estimated 5.5 percent in 2018 compared with an estimated 4.8 percent 2017. This was partly due to the good weather experienced in 2018 that enhanced agricultural production. Generally, the sub sector accounts for 65 per cent of Kenya's total exports, 18 per cent and 60 per cent of the formal and total employment respectively. The sector contributes about 26 percent to directly GDP and another 25 percent indirectly. Consequently, the sector remains a major driver of the Kenyan economy, with years of strong agricultural sector growth reflecting an overall GDP growth and vice versa.

Status of Indicators and Trends Analysis

Kenyan households are highly dependent on buying their food and therefore market integration and food prices are key determinants of household food security. The indicator of food price anomalies was 10.1% in 2016 before decreasing to 1.37% in 2018. Rural households purchase around 76 percent of their food consumption days, while the pastoralist community in Kenya's poorest and most Arid and Semi-Arid Lands (ASALs) areas have to buy all commodities apart from livestock products and milk. As a result, they have high levels of low dietary diversity. Food security levels would quickly drop in the likely event of a drought that would make their animals less productive or die and in the event of food price rises. Prevalence of undernourishment, prevalence of moderate or severe food insecurity, prevalence of stunting and prevalence of malnutrition have remained steady at 24.2 per cent, 56.5 per cent, 29.9 per cent and 6.7 per cent, respectively. In the review period, the agriculture orientation index for government expenditures has remained at 0.06 since 2016.

The national food poverty headcount rate (proportion of food poor individuals) declined significantly from 45.8 per cent in 2005/06 to 32.0 percent in 2015/16, implying that in the last ten years, the incidence of food poverty dropped by over 13 percentage points. The results also indicate that the total population of food poor individuals declined substantially from 16.3 Million in 2005/06 to 14.5 Million in 2015/16. The analysis of food poverty by place of residence shows that 35.8 per cent of individuals in rural areas were food poor in 2015/16 compared to their counterparts in core-urban (24.4%) and peri-urban (28.9%) areas. In 2005/06, 47.2 per cent of individuals were deemed to be food poor in rural areas compared to 40.4 percent in core-urban. Over the review period, food poverty rates declined by 11.4 percentage points in rural areas and 16.6 percentage points in core-urban areas implying a more rapid drop for core-urban dwellers. Further, there are considerable variations in the prevalence of food poverty across the counties ranging from 16.1 per cent in Nairobi City County to 66.1 per cent in Turkana County. In 2015/16, six counties registered food poverty rates of more than half their population. These were: Turkana

(66.1%), Mandera (61.9%), Samburu (60.1%), Busia (59.5%), West Pokot (57.3%) and Marsabit (55.6%). Conversely, another six counties recorded food poverty rates of less than 20 percent, namely; Meru and Nyeri (15.5%) each, Nairobi City (16.1 %), Kirinyaga (18.8 %), Nakuru (19.5%) and Lamu (19.9%). The contribution to national food poverty by counties shows that five counties account for almost a quarter of the national food poor.

An analysis of food poverty among children (aged 0-17 years) shows that nationally, 35.8 per cent were food poor, similar to the overall child poverty pattern. The majority (73.6%) of food poor children reside in rural areas, which is equivalent to 5.9 million children. Spatially, the prevalence of food poverty among children from the 47 Counties shows huge variations ranging from a low of 16.3 per cent in Nyeri County to a high of 69.2 per cent in Turkana County. The highest food poverty prevalence rates among children were registered in the following counties; Turkana (69.2%), Samburu (63.5%), Mandera (62.5%) and Busia (62.1%).

Interventions/Strategies

Kenya's development agenda is spelt out in the Kenya Vision 2030 and mainly informed by Kenya Vision 2030; regional and global development agenda such as the Comprehensive Africa Agricultural Development Programme (CAADP), Agenda 2063 of the African Union (AU) and Sustainable Development Goals (SDGs).

The 3rd Medium Term Plan (2018-2022) of Vision 2030 has prioritized delivery of two flagship projects for the sub - sector. These include the Three Tier Fertilizer Cost Reduction and Consolidated Agricultural Reforms. Some of the other priority intervention programmes that operationalize these global agenda and the Kenya Vision 2030 include the Big Four agenda on 100 percent Food Security and Nutrition, and the Agriculture Sector Transformation and Growth Strategy (ASTGS) which anchor this aspiration through enterprise diversification; promotion of agricultural market information; market access and product development; sanitary and phyto-sanitary standards improvement; Agricultural insurance; Climate Smart Agriculture; Agricultural technology development and agricultural mechanization; Youth involvement in modern agriculture; and capacity building.

Fertilizer Subsidy Programme: The Programme was aimed at enabling farmers' access inputs at affordable prices in order to increase agricultural production and productivity. During the period July 2015-June 2018 a total of 486,426 MT was subsidized against a target of 600,000 MT. The target quantities were not made because Fertilizers were expensive in the world markets making it impossible to achieve the targets with the available budget.

Strategic Food Reserves: The Government enhanced the grain reserve by availing Kshs. 497,760 in 2015/16; 992,854 in 2016/17; and 3,626,973 in 2017/18. The attractive price of Ksh. 3,200 per 90 Kg bag in 2017/18 resulted in the over achievement (beyond the target of 1.5 million bags). Further, food reserve was diversified through purchase of 1,289 Mt of powdered milk. This resulted to increased level of food security in the country; increased food availability and access; enhanced stability of food prices while cushioning farmers against low prices of their produce.

Agricultural mechanization Programme: The Programme is a key ingredient to modernization of the crop sub sector through increasing efficiency in production and other value chain related activities. Some interventions aimed at enhancing agricultural mechanization were carried out. Under the 2-Kennedy Round project (2KR) programme, 74 tractors with associated implements were acquired and distributed. One combine harvester,

a flat low bed trailer and a five-ton trailer were received and distributed. During the year 2017/2018 two rice cooperatives (Muthithi & Mwea Rice Growers) procured the tractors and machinery. Enhanced mechanization of rice schemes resulted to: improved rice productivity per acre from 18 to 35 bags of 80kgs; increased farmers' incomes; reduced cost of production; food security and involvement of youth in rice production.

Agricultural Technology Development Programme: The Programme aims at ensuring sustainable food production systems achieve resilient agricultural practices that increase productivity and production. In turn, this will help in maintaining the ecosystems, and strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality. Between 2015/2016 to 2017/2018, conservation agriculture technologies; biogas technologies; ground nut processing; soya bean processing; palm oil extraction; grain storage silos; solar drying of farm produce; cassava processing; and sun flower oil extraction technologies were tested and promoted. In addition improved agriculture engineering technology were developed and tested at Bungoma and Mtwapa Agricultural Technology Development Centre's (ATDCs). Further, incubation centres for value addition at ATDC were established at Katumani, Ruiru, Bukura and Siaya agro processing units.

Grain Drying and Storage Facilities: The Government spearheaded the development of community-based grain drying and storage facilities so as to address grain quality issues with a view to limit quality deterioration (post-harvest losses and aflatoxin contamination) and enhance grain marketing. A total of thirty six (36) mobile grain driers were procured and distributed to thirty six (36) sub counties in the main grain production regions. Further, a total of thirteen (13) community-based grain storage facilities were constructed and handed over in 10 counties.

Accelerated Agricultural Inputs Access Programme: A total of 5,781 MT of assorted drought tolerant crop seeds, 18,515,379 sweet potato vines and 18,512,110 cassava cuttings all valued at KSh 1.4 billion were distributed to 2.5 million farmers in various sub-counties.

Rice Promotion Project: Five rice mills were procured for farmers' groups. The project trained 150 extension officers and conducted 8 rice entrepreneur training sessions for farmers' groups. Two projects Rice –based and Market oriented Agriculture Promotion Project (**RiceMAPP**) and Science and Technology Research Partnership [SATREPS) were initiated.

Kenya Cereal Enhancement Programme: The e-voucher scheme was established to facilitate access to agricultural inputs to vulnerable subsistence cereal farmers. During the MTP II period, 23,622 farmers accessed the e-voucher inputs. The scheme is operated in partnership with Equity Bank and agro-dealers under PPP arrangement.

Strategic Food Reserve Trust Fund (SFRTF): The Strategic Food Reserve Trust Fund (SFRTF) was established as a successor of the Strategic Grain Reserve (SGR) in 2015 through Legal Notice No. 15 of 2015. The fund is comprised of foodstuff and cash. The shift to a Strategic Food Reserve is meant to facilitate the stocking of critical foodstuffs such as maize, beans, rice, fish, powdered milk and corned beef. During the MTP II period the SFRTF comprised of 1.5 million bags of maize; 1,289 MT of powder milk; and Kshs. 4 billion in cash.

Revitalizing of the Coconut Industry Programme: The Programme aimed at revitalizing the coconut industry within the traditional coconut growing areas, and other potential parts of Kenya to create wealth and employment. During the review period 696 nursery operators

were trained. In addition, 14 coconut product standards were developed in conjunction with the Kenya Bureau of Standards.

Crop Insurance Project: The Government adopted the concept of agricultural insurance solutions through a Public Private Partnership covering crops in different counties. The overall objective of the Crop Insurance project is to manage risks and losses amongst smallholder farmers, increase productivity in agriculture through improved access to credit and higher yielding technology such as use of certified seed and fertilizers. One thousand farmers procured insurance cover in the pilot phase which covered three counties of Bungoma, Embu and Nakuru. The project coverage has since expanded to 10 counties (Kirinyaga, Kilifi, Kwale, Meru, Migori, Uasin Gishu and Trans Nzoia). The Ministry OF Agriculture, Livestock and Irrigation formalized the formation of insurance pool of 7 insurance companies African Merchant Assurance Company Limited (AMACO), Jubilee, Apollo Pan Africa Insurance (APA), Kenya Orient, Heritage, UAP, Old Mutual and Certified Insurance Counselor [CIC] as underwriters for the programme. 400 county staff have been trained on crop insurance implementation and 100,000 farmers in 10 counties sensitized. The project procured yield estimation (crop-cutting) equipment for use in the 10 counties.

Climate Smart Agriculture: The changes in climate and weather patterns continue to expose farming systems to more climate related vulnerabilities and predisposes farming communities to food insecurity and poverty through loss of the productive assets and the weakening of coping strategies and resilience. On the other hand, the agriculture sector contributes to emissions that arise from inefficiencies in crop, livestock and fisheries production systems.

Climate Smart Agriculture involves promoting measures that ensure adaptable and resilient farming systems that minimize emission of greenhouse gases for enhanced food and nutritional security and improved livelihoods. The Government through the State Department for Crops participated in development and submission of the Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC). Towards meeting this commitment the department spearheaded the development of the Kenya Climate Smart Agriculture Strategy (KCSAS) 2017-2026 and the ongoing Kenya Climate Smart Agriculture Framework Programme (KCSAFP) to guide the implementation of the strategy.

Disease and pest control: The sub sector through Pest Control Products Board [PCPB] has been actively involved in trade facilitation through the national electronic single window system under Kenya Trade Network Agency [KENTRADE] for processing of import/export permits for pesticides. During the MTP11 period, the number of registered pest control products increased from 915 products to over 1,290 products and the pesticide premises inspection increased from 5,000 premises to over 7,000.

Agricultural Trade: The sub - sector collaborated with other sectors in promoting national, regional and international agricultural trade by participating in bilateral and multilateral trade agreements. 12 MOUs and 3 agreements were developed. The sub -sector adopted and implemented international food safety standards and improved physical market infrastructure by constructing 39 markets.

Market Information: The sub-sector provided an average of 315 daily market information releases annually through daily newspapers, e-mails, phone calls and office visits. In addition; an automated Market Information System (MIS) was acquired and operationalized

to improve collection, processing and dissemination of market information on real time basis.

Market Infrastructure Guidelines: The sector developed Model Guidelines for Market Infrastructure Development. The guidelines are expected to support enactment of subsidiary legislation under the Crops and Agriculture and Food Authority (AFA) Acts on markets development.

Regional e-Soko: The sector has developed a concept note and strategy for provision of e-services (e-Soko) for enhanced regional integration for the Northern Corridor Integration Projects (NCIP) as directed by the Heads of States of all East Africa Community (EAC) Partner States during the 13th Summit of Northern Corridor Integration Projects (NCIP) held in Kampala, Uganda, 2016. Regional e-Soko is one of the services identified for implementation due to its positive impact to the majority of Northern Corridor citizens who depend on agriculture.

Youth in Agriculture: The subsector undertook activities aimed at mainstreaming and enhancing the role of youth in agriculture and other capacity building strategies whereby 3,800 youth were trained on modern agriculture. In order to enhance capacity of its staff, the Government supported improvement of training facilities at the Kenya School of Agriculture and trained 317.

Information Management: Through the Library at Kilimo House the centre acquired and documented about 5000 grey literature. The centre also captured and classified 9800 library information materials at AIRC Library Kilimo, while 470 on-line information searches were carried out for clients.

Information processing: There were 491 materials information processed and entered into the Kenya Agricultural Information Network (KAINet) electronic database, while 6,300 contents were captured into the Agriculture Information Resource Centre [AIRC] content management system. During the plan period, 281 agricultural information content were also uploaded into the AIRC website airc.go.ke.

Information dissemination: The centre produced and broadcasted/podcasted 210 “sikio la Mkulima” radio programs, 75 educational agricultural video documentaries and 100,000 print agricultural information products, which were disseminated using radio, audio-visual, the internet, field days, and agricultural shows. The centre served 1,000 information seekers (walk-in clients) visiting the centre or the AIRC stand at the ASK shows, field days and exhibitions. The Centre also designed and created 10 data bases for field officers (at the Counties and ATCs). The Library unit also provided 7,880 referencing services to clients. To improve management and access to online information repository, the centre established an AIRC digital library information retrieval system for published information and an online e-repository for un-published information such as agricultural reports, farm management guidelines and market information.

To strengthen the professional and technical capacity of County Governments the centre equipped 31 information desks with agricultural information resource materials and trained staff on information management. The centre undertook Training of Trainers (TOT) of 105 extension service providers on ICT for agriculture (ICT4Agric). The trainings specifically majored on e-extension, Quantum GIS, Web24Dev in agriculture, Electronic Data Management System (EDMS), data acquisition, processing and dissemination using mobile applications. Technical Centre for Agriculture [CTA] and Moi University assisted in training of TOT on web24dev tools in agriculture. During the review period the sub sector shared valuable information for the benefit of various users and stakeholders. It produced

and broadcasted 82 Kiswahili agricultural radio programs ("*Sikio la Mkulima*"); 23 commercial radio programs; 48 educational and extension agricultural video documentaries. 9,280 different types of agricultural educational and extension publications were shared on various platforms.

The sub- sector documented 5,000 grey literatures, captured and classified 9,800 library information materials and 470 on-line information searches at AIRC Library Kilimo. On information acquisition and processing; 491 information materials were processed and entered into the Agris/KAINeT electronic database; 5,200 contents were captured into the Agricultural Information Management (AIRC) content management system and 281 current agricultural information contents were uploaded into the AIRC website airc.go.ke.

Enhancement of regional disease control initiatives and strengthening of border-point surveillance against trans-boundary diseases. The Government through the State Department for Livestock collaborates with international and regional institutions such as World Organization for Animal Health (OIE), African Union (AU), Inter African Bureau for Animal Resources (IBAR) and Intergovernmental Agency for Development (IGAD). Border Inspection Points (BIPs) services have been established in 7 border areas with neighboring countries, 5 airports, and 1 seaport.

Development of disease control strategies and contingency plans against major notifiable, and trans-boundary diseases such as Foot and Mouth Disease, Contagious Bovine Pleuropneumonia, Contagious Caprine Pleuropneumonia, Peste Des Petits Ruminants and Rift Valley Fever.

Engagement with counties to promote community acceptance and adoption of new livestock technologies such as Livestock Identification and Traceability System (LITS) and disease reporting ICT platforms as well as for county governments to enhance disease control measures. 40,000 cattle have been identified and registered on the system in Laikipia.

The countrywide "Livestock Value Chain Support Project" aims at improving the dairy value chain infrastructure in order to minimize milk losses and support value addition by bulking and cooling of milk in dairy producing regions. 280 milk coolers have been delivered out of which 224 have been installed and 70 are ready for delivery.

The Livestock Disease Free Zones (DFZ)/Livestock Export Zones (LEZ) Program facility is being constructed in Bachuma, Taita Taveta, for pre-export quarantine and inspection of animals to meet sanitary standards. Bachuma phase I is 90% complete and phase II 60%. Further, capacity building for internal pre-export livestock cleansing/feedlot facilities has been done for 9 other strategic counties.

The Standards and Market Access Program (SMAP) is a nationwide project to strengthen the legal framework, including food standards and institutional infrastructure for testing and certification of plant and animal based products. The program has supported the Directorate of Veterinary Services food safety laboratories with equipment, developed food safety official controls, trained laboratory staff and developed Residue Monitoring Plans for honey, milk and beef.

The Kenya Veterinary Association runs the Kenya Livestock Finance Trust (K-LIFT) which funds livestock value chain players including veterinarians, other animal health and production service providers and entrepreneurs. Since 1994 when the scheme began 979 clients have been lent KShs 126 million (USD 1,260,000).

Other Interventions include: Increasing institutional capacity for the Directorate of Veterinary Service disease diagnostic capacity and drug efficacy trials by Construction and Refurbishment of Central Veterinary Laboratories, National Reference Laboratory, Regional Veterinary Investigation Laboratories and Government Livestock Farms Development, Improving livestock breeding to enhance production and productivity. During the reporting period 22 cattle semen production and distribution premises were inspected and licensed in 2018/2019. 586 bulls were evaluated for semen importation; 412 approved and 174 rejected for various reasons. 38 permits for import of 353,383 doses of semen were issued. The Government also engaged Middle East and North Africa (MENA) countries to promote access to markets for livestock producers.

The country has two running animal genetic resource production and conservation centers namely: Kenya Animal Genetics Resource Center (KAGRC); and Agricultural Development Corporation (ADC), Kitale and one farmer cooperative Artificial Insemination Bull Center under construction in Nyeri. This is in addition to the livestock breeds research and multiplication centers namely Kenya Agricultural and Livestock Research Organization (KALRO), and 13 stations/farms.

Creating an Enabling Environment: Policy, Legal and Institutional Reforms

Policies developed/Reviewed: Agricultural and Veterinary policies were reviewed in line with stakeholder concerns and a Cabinet Memoranda and policies documents forwarded to the Cabinet Secretary, the National Treasury and Planning for concurrence before resubmission to the Cabinet for approval. The National Irrigation Policy 2017 was finalized and approved by Cabinet.

Challenges, Lessons Learnt and Emerging Issues

- i. Inadequate funding for priority interventions.
- ii. Emerging crop diseases and pests like the fall army worms which compromised production of food.
- iii. The adverse effects of climate change leading to severe droughts, crop diseases and pests resulting into lower agricultural productivity;
- iv. High population growth rates exerting pressure onto the limited productive arable land.
- v. Underdeveloped rural roads and other key physical infrastructure have led to high transport costs for agricultural produce and farm inputs
- vi. Inadequate legal and policy frameworks
- vii. Low uptake and adoption of modern technology and declining soil fertility
- viii. limited capital and access to affordable credit
- ix. Rising production costs.
- x. Inequalities manifest at household and community levels in terms of access to and control over productive resources and access to services.
- xi. Inadequate agricultural statistics and data.
- xii. Inadequate legal and policy frameworks
- xiii. Inadequate feed and water for livestock
- xiv. Low application of modern technologies
- xv. Fragile natural resource base for Livestock
- xvi. Limited capital and access to affordable credit
- xvii. Inadequate market access
- xviii. High cost, adulteration, low and inappropriate application of key inputs
- xix. Pests and diseases
- xx. Frequent droughts and floods
- xxi. Insecurity in livestock producing areas

Lessons Learnt. These include the positive effects of the continued collaboration and partnership with devolved governments on reporting systems; the need for collaboration with the relevant sectors and institutions; and use of information communication technologies.

Innovative Ways of Addressing Challenges and Emerging Issues

- i. Engagement with counties on disease control and reporting and sharing of data on other veterinary services. This is done through workshops and a published and circulated booklet on Guidelines for Delivery of Veterinary Services in Kenya.
- ii. Introduction of disease reporting through mobile platforms and capacity building of counties to do the same.
- iii. Implementation of Livestock Identification and Traceability System to ensure trace-back of marketed live animals and products in case of sanitary and food safety concerns.
- iv. Implementation of Anti-Microbial Resistance Strategy and Action Plan against this global constraint in livestock and human health.
- v. One Health Approach to animal, human and environmental health in cooperation with the Ministry of Health and Kenya Medical Research Institute (KEMRI). To this end the Directorate of Veterinary Services has established a Zoonotic Disease Unit (ZDU).
- vi. Kenya Livestock and Wildlife Syndromic Surveillance (KLWSS) system to detect diseases in the livestock-wildlife interface.

Strategic Areas of Focus/Next Steps

- i. Development of 50 feedlots and enhanced pasture production to increase annual beef production from 28,000 to 77,000 Metric Tons by 2022.
- ii. Pig multiplication and production to increase pork production from 2,000 to 3,500 MT BY 2022.
- iii. Promotion of indigenous chicken to add meat production from 10,000 to 15,000 MT by 2022.
- iv. To commercialize rabbit production to add meat production from 200 to 550 MT by 2022.
- v. Continue with Kenya Livestock Insurance Program to increase livestock insurance cover from 90,000 to 300,000 Tropical Livestock Units by 2022.
- vi. Continue with dairy value chain development to increase annual processed milk from 630 to 1,000 Million Litres by 2022.
- vii. Develop honey bees bulking for honey production to increase production from 25,000 to 38,000 MT by 2022.
- viii. Increase Hides and Skins production from 59.6 million square feet to 72 million square feet by 2022 to support manufacturing in leather.
- ix. Implement Livestock Identification and Traceability System and enhance disease control programs against Foot and Mouth Disease; Rift Valley Fever; Peste des Petits Ruminants; and Rabies.

- x. Enhance food safety certification and implementation of Anti-Microbial Resistance Action Plan.
- xi. Quality assurance of local and imported animal genetics to enhance productivity and production.
- xii. The government, through the subsector will prioritize several crops for increased production and value addition under the big four agenda on achieving 100 percent food security.
- xiii. The Government through the Agriculture and Food Authority (AFA) will support fiber crops value chains from seed production, crop production, post-harvest handling, processing, cottage industries and marketing.
- xiv. The Government will expand and rehabilitate land under irrigation and drainage by 400,000 hectares. This will be done through: development of community-based irrigation projects and household water pans for irrigation, and rehabilitation and reclamation of 50,000 hectares of degraded land prone to landslides and floods.
- xv. A national soil and water conservation strategy will be developed; enhance utilization and productivity of land through land reclamation, restoration and rehabilitation of 50,000 acres of degraded, marginal and wastelands; improve agricultural water harvesting and storage by constructing 15 medium to large size dams, 50 sub-surface dams and sand dams, and 3,000 small dams and pans
- xvi. An agricultural module will be integrated into the Population and Housing Census that will be conducted by the Kenya National Bureau of Statistics in 2019.

SDGs Inter-linkages

The SDG2 on “End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture” has strong inter- linkages with SDG1: Ending poverty, SDG3: Ensuring health and well-being for all, SDG15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss, and SDG 13: Take urgent action to combat climate change and its impacts.

Eradicating poverty cannot be achieved without ensuring food and nutrition security for all. While SDG2 is a strong enabler for SDG1, increasing agricultural production, productivity and incomes require complementary policies that benefit the poor and vulnerable communities in rural areas and reduce their exposure to adverse environmental shocks. Moreover agricultural interventions almost always address poverty alleviation.

SDG 3 supports SDG 2 because a healthy population is essential for achieving nutrition and agricultural production targets and good nutrition cannot be achieved without the right quantity and quality of food.

Healthy ecosystems, SDG 15, provide vital services from soil and water quality, to genetic diversity and pollination. Agriculture is a key driver impacting ecosystems. Sustainable agricultural systems and practices contribute to ecosystem health. However, increased agricultural production and productivity, if not sustainably managed, can result in deforestation and land degradation, jeopardizing long term food security. A careful balance is needed between achieving food for all and conserving and restoring ecosystems.

Agriculture is an important source of greenhouse gas emissions and so it negatively impact to SDG13 on the climate change. Conversely, climate change has wide-ranging impacts on agriculture and food security and will significantly constrain the achievement of SDG 2. Sustainable agricultural practices play an important role in climate adaptation and mitigation. The development of the Kenya Climate Smart Agriculture Strategy (KCSAS) 2017-2026 and the ongoing Kenya Climate Smart Agriculture Framework Programme (KCSAFP) to guide the implementation of the strategy will address the effects of greenhouse gas emissions contributing to global warming.

Leaving No One Behind

In committing to the realization of the 2030 Agenda for Sustainable Development, and in the spirit of leaving no one behind, member States endeavoured to reach first those who are furthest behind. Inequalities persist in multiple dimensions between and within the farming population in Kenya, often translating into inequality in decision making and access to productive resources such as land, credit, agricultural inputs, agricultural education and training. Segments of the population that are typically excluded are women, youth, and small scale farmers, farmers in arid and semi-arid areas. Towards reducing poverty and enhancing food and nutrition security through agricultural production and productivity, the following interventions were and are being undertaken:

1. Agricultural Sector Development Support Programme Phase II (**ASDSP II**). This covers all counties with the objective of “Transforming crop, livestock and fisheries production into commercially oriented enterprises that ensure sustainable food and nutrition security.
2. Drought Resilience & Sustainable Livelihoods Project (**DRSLP**). It covers 6 counties: Turkana, West-Pokot, Baringo, Samburu, Isiolo and Marsabit. It aims at enhancing drought Resilience and improving sustainable livelihoods of the communities in the arid and semi-arid lands of Kenya.
3. Smallholder Horticulture Empowerment Promotion Project for Local and Up scaling (**SHEP PLUS**) covering 18 Counties, Elgeyo Marakwet, Uasin Gishu, Nakuru, Kiambu, Muranga, Kirinyaga, Makueni, Machakos, Embu, Kitui, Meru, Kisumu, Homabay, Nyamira, Busia, Bungoma, Kilifi, and Kwale; aims to enhance livelihoods and reduce poverty levels among the vulnerable.
4. The Kenya Cereal Enhancement Programme–Climate Resilient Agricultural Livelihoods Window (**KCEP-CRAL**). This programme covers 13 Counties Kitui, Embu Tharaka Nithi, Machakos, Makueni Kilifi, Kwale, Taita Taveta, Nakuru Kakamega, Nandi, Bungoma, Trans Nzoia. Its objective is to contribute to the reduction of rural poverty and food insecurity of smallholders in the ASALs by developing their economic potential while improving their natural resources management capacity and resilience to climate change in increasingly fragile ecosystems.
5. Project for Enhancing Gender Responsive Extension Services (**PEGRES**). Covers 5 Counties: Kirinyaga, Nyeri, Nandi, Isiolo and Busia. Its objective is to contribute to improvement of livelihood for smallholder female and male farmers, pastoralists and fisher folks through capacity building to promote gender responsive agricultural extension services.
6. Kenya Climate Smart Agriculture Project (**KCSAP**). Includes 24 Counties, Marsabit, Isiolo, Tana River, Garissa, Wajir and Mandera, West Pokot, Baringo, Laikipia, Machakos, Nyeri, Tharaka Nithi, Lamu, Taita Taveta, and Kajiado, Busia, Siaya, Nyandarua, Bomet, Kericho, Kakamega, Uasin Gishu, Elgeyo Marakwet, and Kisumu..
7. National Agriculture and Rural Inclusive Growth Project (**NARIGP**). This programme covers 21 Counties, Turkana and Samburu, Makueni, Kitui, Embu, Meru, Kwale, Kilifi and Narok Kirinyaga, Kiambu, Murang’a, Nakuru, Bungoma, Trans Nzoia, Nandi,

- Vihiga, Kisii, Migori, Nyamira and Homa Bay with the objective of to increase agricultural productivity and profitability of targeted rural communities in selected counties, and in the event of an eligible crisis or emergency, to provide immediate and effective response.
8. Improvement of Market Infrastructure In Western Kenya (**IMIWEK**). The project is at Kakamega, Vihiga and Bungoma and aims at improving Socioeconomic living conditions of population in the project area improved through development of market and road infrastructure.
 9. Smallholder Irrigation and Value Addition Project (**SIVAP**). It covers 11 counties namely: Machakos, Kitui, Makueni, Tana River, Bomet, Meru, Tharaka Nthi, Nyandarua, Nyeri, Murang'a, Kajiado with the objective to contribute to poverty reduction by ensuring increased agricultural productivity and incomes and food security among beneficiaries in eleven counties.
 10. Youth In Modern Agriculture Project (**Y- MAP**). Y-MAP aims to create sustainable and gainful self-employment for the youth through participatory engagement in agriculture for increased productivity, income generation and poverty reduction in Embu, Nakuru, Kakamega, Machakos, Samburu, Nandi, and Kisumu counties.
 11. National Accelerated Agricultural Inputs Access Programme (**NAAIAP**); It aims at improving farm inputs (fertilizer and seeds) access and the affordability for smallholder farmers, and the vulnerable groups to increase usage and enhance food security/availability at the household level as well as generate incomes from sales of surplus produce in 5 counties; Kisumu, Uasin Gishu, Bungoma, Kakamega, and Busia.
 12. Food Security and Crop Diversification Programme; the goal is to develop sustainable, diversified, and integrated crop-livestock-aquaculture production systems for increased agricultural productivity, food security and incomes in 40 Counties: Trans Nzoia, Taita Taveta, Kwale, Tharaka-Nithi, Makueni, Murang'a, Samburu, Narok, Kakamega, Kilifi, Garissa, Isiolo, Kitui, Nyeri, Busia, Bungoma, Uasin Gishu Machakos, Migori, Tana River, Marsabit, Embu, Nyandarua, Kiambu, Baringo, Kajiado, Turkana, Kisumu, Meru, Kirinyaga, W. Pokot, Elgeyo-Marakwet, Nakuru, Nandi, Kisumu, Homabay, Wajir, Kisii, Nyamira, and Vihiga.
 13. Coffee Reforms Programme; to Increase foreign exchange earnings, sustainable and profitable coffee industry that enhances coffee grower's income and standards of living in 31 coffee growing counties.
 14. Kenya Agriculture Insurance Programme (KAIP); the Project is in 20 counties which include Migori, Bungoma, Nakuru, Embu, Kirinyaga, Meru, Kwale, Kilifi, Trans Nzoia and Uasin Gishu Homa Bay, Kakamega, Vihiga, Kisumu, Taita Taveta, Narok, Makueni, Nyeri and Kisii. This project aims at enabling vulnerable farmers manage risks and losses amongst smallholder farmers, increase productivity in agriculture through improved access to credit and higher yielding technologies and facilitate the transition from subsistence to commercially oriented farming.

Goal 3: Good Health and Well-being

Status of Indicators and Trends Analysis

Maternal Mortality Ratio (MMR), neonatal, infant and under five mortality remains unacceptably high at 362/100,000, 22 per 1000 live births, 39 per 1000 live births and 52 per 1000 live births, respectively. Malaria incidence per 1,000 populations was 62 in 2017 from a high of 182 in 2016. The proportion of births attended by skilled health personnel is 70.2 per cent which is an increase from 61.8 percent in 2014. The number of registered births increased by 22.9 per cent from 923,487 in 2017 to 1,135,378 in 2018

Tuberculosis incidence per 1,000 populations was 181 in 2017. The overall TB Treatment Completion Rate increased to 90% while TB treatment cure rate improved to 85%. At the same time, Hepatitis B incidences per 100,000 populations decreased from 14 in 2016 to 9 in 2017.

Suicidal mortality rate decreased from 7 per 100,000 populations in 2016 to 2 per 100,000 in 2018. Death rate due to road traffic injuries per 100,000 populations was 11 in 2016 before increasing to 13 in 2018.

The proportion of women of reproductive age who have their needs for family planning satisfied with modern methods remained at 70.7 per cent.

The health workers density and distribution has increased from 23 (Doctors), 230 (Nurses), 3 (Dentists) and 7 (Pharmacists) in 2016 to 24 (Doctors), 260 (Nurses), 3 (Dentists) and 7 (Pharmacists) in 2018.

In 2017, the National adult HIV prevalence rate was estimated at 4.9%. The prevalence was higher among women (5.2%) than men (4.5%). Although the Spectrum results show a continued decline in HIV prevalence among the adult population aged 15-49 years over a period of time, the decline has been modest since 2010. Kenya's HIV epidemic is geographically diverse, ranging from a prevalence of 21.0% in Siaya County to approximately 0.1% in Wajir County. In descending order, Counties with the highest adult HIV prevalence in 2017 included Siaya 21.0%; Homa Bay 20.7%; Kisumu 16.3%; Migori 13.3%; Busia 7.7%; Nairobi 6.1%; Vihiga 5.4%; Kitui 4.5%, Kakamega 4.5%; Kisii 4.4%, Trans Nzoia 4.3%; Murang'a 4.2%; Nyamira 4.2%; Makueni 4.2%; Mombasa 4.1%; Taita Taveta 4.1%; and Kiambu 4.0%.

The Government has initiated major programmes to improve the health sector. Universal Health Coverage (UHC), which is one of the pillars of the Big 4 Agenda, is an important programme that the Government is implementing with the aim of transforming the country's health sector for enhanced service delivery. The initiative is aimed at improving the quality of healthcare services in all public and private healthcare facilities while ensuring that services are accessible, affordable and efficient to all Kenyans. In pursuit of this, various primary health care reforms geared towards embracing public-private partnerships in health provision were introduced during the period under review.

In line with the UHC initiative, the National Government budgetary allocation on health services was increased by 57.8 per cent from Kshs. 61.8 billion in 2017/18 to Kshs. 97.5 billion in 2018/19. Development expenditure on health services is expected to expand by 77.7 per cent to Kshs. 59.0 billion, accounting for 60.5 per cent of total expenditure in 2018/19. Recurrent expenditure is expected to grow by 34.5 per cent to Kshs. 38.5 billion in 2018/19. County governments' expenditure on health services is expected to grow by 28.7 per cent from Kshs. 83.9 billion in 2017/18 to Kshs. 108.1 billion in 2018/19, out of which 77.5 per cent will be recurrent.

The National Hospital Insurance Fund membership rose by 13.2 per cent from 6.8 million in 2016/17 to 7.7 million in 2017/18. Membership from the formal sector registered a growth of 4.3 per cent compared with a 23.3 per cent increase in the informal sector during the review period. Receipts from members rose by 27.1 per cent from Kshs. 35.0 billion in 2016/17 to Kshs. 44.5 billion in 2017/18 while payouts increased by 41.4 per cent to Kshs. 37.2 billion during the same period.

The total number of health facilities increased by 9.8 per cent from 9,854 in 2017 to 10,820 in 2018, with the public dispensaries and private medical clinics accounting for 36.1 per cent and 31.8 per cent of the total, respectively. The number of registered health personnel grew by 6.3 per cent from 165,269 in 2017 to 175,681 in 2018. The number of middle level medical graduates from public medical training colleges increased by 21.2 per cent from 8,967 in 2016/2017 to 10,869 in 2017/18 while undergraduates and post graduates are expected to increase by 6.0 per cent from 4,217 in 2017/18 academic year to 4,470 in 2018/19.

Interventions/Strategies

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To accelerate the reduction in maternal and child mortality the government has prioritized a number of interventions. These include: Linda mama/ free –Maternity services in public and faith-based health facilities; adaptation of the World Health Organization (WHO) Quality of Care Guidelines on Maternal and New born Health; advocacy and Awareness of Adolescents Youths Sexual Reproductive Health (AYSRH) policy; and implementation of Community Based Family Planning.

Some of government led interventions to prevent new HIV infections include: Integrated prevention being implemented countrywide (Structural, Behavioural and Bio-medical – Voluntary Medical Male Circumcision (VMMC), Prevention of Mother to Child Transmission (PMTCT) and Condom programming). Increased Antiretroviral Therapy (ART) uptake at 97%; Development of Policy documents to address stigma and violence towards key populations; Scale up of interventions targeting key populations; and review and finalization of the National Operational Guideline for Partner Notification Services; Implementation of 2018 Prevention and Treatment Guidelines (Test and treat for all identified People Living with HIV(PLHIV); use of efficacious regimens) Implementation of the Adolescent Fast Track Plan; Roll out of point of care for several programme areas – Early Infant Diagnosis and HIV/Syphilis Duo kit for Mean Corpuscular Hemoglobin (MCH) settings.

Tuberculosis incidence per 100,000 population has dropped. This progress is attributed to the implementation of priority interventions that include: development of the National Strategic Plan, Increase in the number of GeneXpert machines; introduction of shorter-term regimen for management of drug resistant TB; and implementation of the TB prevalence survey which revealed a reduction in the actual burden of TB.

The government has continued to distribute long-lasting insecticidal nets (LLINs), intermittent preventive treatment in pregnancy (IPTp), and scaling up diagnosis and management of malaria cases.

Non-Communicable Diseases (NCDs): contribute to annual mortality rate of 182 per 100,000 population, with 12,651 healthy years lost annually per 100,000 population (WHO,

2013). The STEPwise Survey 2015 showed that 27 per cent of Kenyan adults are overweight/obese, 1 in 7 women aged 25-49 years having been screened at least once for cervical cancer, while 23.8 per cent of Kenyans are hypertensive.

More than half of currently married women (58 percent) use a contraceptive method. The most popular modern contraceptive methods used by married women are injectable (26 percent), implants (10 percent), and the pill (8 percent). Use of modern methods has increased over the last decade from 32 percent in the 2003 KDHS to 53 percent in 2014. The public sector remains the major provider of contraceptive methods; 60 percent of modern contraceptive users obtain their contraception from a government source. Thirty-one percent of family planning users discontinue use of a method within 12 months of starting its use. Side effects and health concerns (11 percent) are the main reason for discontinuation. Eighteen percent of currently married women have an unmet need for family planning services, with 9 percent in need of spacing and 8 percent in need of limiting.

Kenya has been implementing the Reproductive, Maternal, Newborn, and Adolescent Health (RMNCAH) programme to improve the health and wellbeing of women and children. As a result, the proportion of Women of Reproductive Age (WRA) using contraceptives improved from 40.7 per cent in 2014/15 to 44.9 per cent in 2016/17.

Thirteen percent of Kenyans currently consume some form of tobacco products with a significantly higher prevalence among men (23.0 percent) than women (4.1 percent). The percentage of Kenyans who are currently using smoked tobacco products that includes manufactured cigarettes, hand rolled cigarettes, pipes and shisha is 10.1 percent. Eight percent of Kenyans are daily tobacco smokers with the mean number of manufactured cigarettes smoked per day being seven sticks per smoker. Current use of smokeless tobacco was reported in 3.6 percent of Kenyans. Twenty four percent and 20.9 percent of Kenyans are exposed to second hand smoke at home and work respectively.

A total of 46,000 health workers were devolved to the counties after digitization of their records. A number of guidelines were developed, including Human Resource for Health HRH norms and standards. By 2016, the health workers' density was 6 per 10,000 population against a target of 7 per 10,000 population following recruitment by counties. Graduates from Kenya Medical Training College (KMTC) increased from 6,394 in 2013 to 8,000 in 2016.

The Country has 68,085 Health Care Workers in the public sector as at November 2018 and 10,626 in private sector totaling to 78,711 Health Workers (HWs) against a population of 47.8 million (KNBS). Kenya hence has a HWs to population ratio of 16.5/10,000 against WHO's recommended 23/10,000 HWs per 10,000 population. The optimal number of health workers is expected to be 109,940 in 2022, hence a shortfall of 31,229. This country has an estimated 11,000 doctors (KMPDB) and 76,000 nurses out of whom only 47,000 (260) nurses are active (NCK). This translates to an average of 21 doctors and 100 nurses per 100,000 population compared to WHO recommended minimum staffing level of 36 doctors and 356 nurses respectively. As at June 2018, the public health sector had an estimated 4,000 doctors and 30,000 nurses (as per IHRIS). Similarly, the country has a total of 53,090 Community Health Volunteers (CHVs) and 1,740 Community Health Extension Workers (CHEWs).

In order to address the human resource deficit more doctors will be recruited as well as scaling up implementation of the Kenya Health Act 2017. Capacity building and training of health workers will also be undertaken.

Emerging Issues, Challenges and Lessons Learnt

Emerging Issues

- i. Emergence of drug resistant strains of TB;
- ii. Other diseases such as Bird flu, Dengue fever, Chikungunya;
- iii. Increased industrial unrest emanating from devolution of human resource function;
- iv. Increased incidence of Non-Communicable Diseases (NCDs) such as hypertension, heart disease, diabetes and cancer; and
- v. Emergence of co-morbidities between NCDs and HIV.

Challenges

- i. Health programmes remain heavily donor dependent;
- ii. Inadequate emergency services for delivery and under-utilization of existing antenatal services;
- iii. Weak governance and accountability;
- iv. Inadequate capacity for emergency and disaster preparedness;
- v. Inadequate skills and competences of health workers and skewed distribution of the health workers across counties;
- vi. Inadequate funding for the sector;
- vii. Low Health Insurance coverage in the country and high cost of health services;
- viii. Inadequate infrastructure and skewed distribution of available infrastructure with a strong bias towards the urban areas as well as existence of obsolete equipment;
- ix. Weak multi-sectoral coordination of programmes and projects in the sector;
- x. Poor surveillance systems for NCDs;
- xi. High new HIV/AIDS infections among adolescents and the youth.
- xii. Lack of decentralized trade unions for health workers; and
- xiii. Climate change.

Lessons Learnt

- i. A multi-sectoral approach is essential for successful implementation of the health sector programmes and projects;
- ii. Innovative mechanisms are necessary for sustainable financing of health services; and
- iii. Effective surveillance and Cross-border collaboration and partnership are critical in prevention and management of infectious and communicable diseases.

The Next Steps

The immediate focus for the health sector is to accelerate universal health coverage (UHC) through: enhancing efficiency in provision of health services; improving availability of essential health services; ensuring equity in access to essential health services; and enhancing human resource capacity for health service provision. Towards these the sector is committed to implement seven priority projects namely, Social Health Protection; Medical Tourism; Health Infrastructure; Community Health High Impact Interventions; Digital Health; Human Resources; Improving Quality of Care/Patient and Health Worker Safety;

and strengthening research and innovation in the health sector. In addition, implementation of the Kenya Health Act 2017 is in progress.

Stakeholder Participation

Under strengthening the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol, Caritas Social Programmes within the Caritas network in Kenya address mental wellness.

Amref Health Africa project supported family planning and reproductive maternal, new born and child adolescents' health, and nutrition training reaching a total of 642 (390 male and 252 female) health workers in Turkana and Samburu. These included 197 community health volunteers and 445 health facility-based staff. Amref Health Africa in partnership with Human Resources for Health Kenya also provides technical support to Samburu County by the rolling out of Human Resources Information Solutions in the sub-counties and provision of monthly internet bundles to the health technical working groups.

Interlinkages with Other Goals

The health SDG 3 is to “Ensure Healthy Lives and Promote Well-Being for All at All Ages. Actions of other sectors such as agriculture, water and sanitation, education, environment are among those that are important in realization of the health goals. Non achievement of the goals of these sectors may adversely impact on the realization of the SDG 3. The achievement of these goals also will depend on a healthy population. The Health Sector will ensure strengthening of platforms for policy dialogue on nutrition, housing, water and environment. Discussion on nutrition will emphasize on women of reproductive age and children under five (5) years of age including joint implementation of the National Nutrition Action Plans.

Goal 2: Adequate food of nutrition value is important for a healthy and productive population. Nutrition is very important especially to women of reproductive age and children under five (5) years of age. If children under 5 years lack adequate nutritious food they have stunted growth.

The health sector collaborates with agricultural sector in development and implementation of national Nutrition policies and related national nutrition Action Plans so that food related issues of health are well addressed.

Goal 4: There is a direct link between education and improved health outcomes. The provision of an all-inclusive high level and quality education, can contribute substantially towards better health seeking behaviour as it rolls out health education and outreach programmes.

The national teaching and referral hospitals continue collaboration with institutions of higher education to facilitate training of medical and paramedical students. The health sector collaborates with basic education sub-sector institutions in the provision of high health impact intervention including deworming and food supplements.

Goal 6: Clean, safe and adequate water has a link to the health status of the population. If the water is contaminated it exposes the population to high risk of disease attack which undermines realization of the health goal.

Some conditions that affect population health are mainly propagated due to unsafe environment. Environmental pollution for example air pollution and second-hand smoke directly contributes to increased risk of cancer and respiratory infections. Access to clean water is key to good health and prevention of waterborne diseases like cholera and diarrhea, which are under-5 mortality. Controlled management and extraction of natural resources ensures that the population is protected against environmental hazards, thereby contributing to healthier citizens.

Leave No One Behind

The Kenya health sector's goal is, "*to attain equitable, affordable, accessible and quality health care for all Kenyan citizens*" and thereby, reduce health inequalities. Various interventions have been put in place to realize this goal. However, in pursuance of the goal part of the population is likely to be left behind. This population comprise of the poor in urban and slum areas in cities and towns and the population living in the arid and semiarid areas of the country. The poor in urban and slum areas lack sanitation infrastructure exposing them to high risk of disease attack. The populations living in the ASALs face poor climatic conditions that affect their social economic status. These regions have low economic activities as well as low income levels. Unreliable climatic conditions affect food security including nutrition in the regions. Stunting of children is also noticeable. To address some of these challenges affecting this population a number of interventions being undertaken include provision of food supplements to children among others.

Scaling up implementation of Universal Health Coverage will ensure that all individuals and communities in Kenya have access to quality essential health services without suffering from financial hardship. In order to leave no one behind some of programmes that are ongoing include: Immunization programmes; Provision of ARTs to those suffering with HIV; Health infrastructure development; Distribution of Insecticide treated mosquito nets and use of Mobile clinics.

Goal 4: Quality Education

Status of Indicators and Trends Analysis

Kenya has embarked on the development and embracing of various policies, strategies, guidelines and programmes geared towards ensuring inclusive and equitable quality education and promotion of lifelong learning opportunities for all. This has resulted in progress in the following areas;

Participation rate in organized learning increased from 74.9 per cent in 2016 to 77.2 per cent in 2018. There was an increase in the number of children attending early learning centers. The, the proportion of teachers for pre-primary who had received at least the minimum organized teacher training increased from 88.2% in 2016 to 91.5% in 2018. The total number of ECDE teachers increased from 118,276 in 2017 to 123,155 in 2018. The number of trained ECDE teachers increased to 112,703 whereas, that of untrained ECDE teachers declined by 7.8 per cent in 2018.

Early Childhood Development and Education (ECDE) has been mainstreamed into basic education and is provided as part of the free and compulsory basic education. Although a recent review of policy prescribes two years of ECDE, the current practice is that schools offer three years of schooling. ECDE enrolment has recorded a 7% increase from 3.17 million (1.61 million boys and 1.56 million girls) in 2015 to 3.39 million (1.73 million boys and 1.66 million girls) in 2018. The latter translates to a Gross Enrolment Rate (GER) of 78.7% indicating maturity of early childhood development whose mainstreaming into basic

education began in 2008. The Net Enrolment Rate has maintained only marginal difference with the GER indicating that children begin ECDE at the right age. There is a stable parity in the participation of girls and boys to education at this level with gender parity on absolute enrolment remaining stable at 0.96 throughout the period under review.

The sustained implementation of the Free Primary Education and Free Day Secondary Education have seen increased completion in primary education; and increased participation and completion of secondary education. Currently the provisions guarantee 8 years of primary and 4 years of secondary education. Arising from these programs, the Gross Intake Rate in Primary education has remained stable at 100% with impeccable retention demonstrated in the same level. Completion rate in primary increased by 1.8 percentage points from 82.6% in 2015 to 84.4% in 2018. Secondary education witnessed higher improvements compared to primary with Gross Intake Rate increasing by 6.1 percentage points from 68% in 2015 to 74.1% in 2018. Completion rate increased by more than 7 percentage points from 51.7% in 2015 to 58.9% in 2018.

Similarly, enrolment in primary and secondary schools grew by 1.3 per cent and 4.0 per cent, respectively, in the review period. The enrolment at Technical and Vocational Education Training (TVET) increased from 202,556 (91,209 – Male and 74,432 – Female) in 2016 to 363,884 (205,142 –Male and 158,712 –Female). Increased enrolment in TVETs over the years is attributed to the rebranding and repositioning of TVET through initiatives such as construction of new TTIs, improvement of infrastructure and equipment, capitation grants to TVET trainees and advocacy for TVET. Adult education enrolment was 271,769 (85,575 – Male and 186,194 – Female) in 2016 before decreasing to 212,441 (65,642 –Male and 146,799 –Female).

In the university, there has been a fluctuation in student enrolment decreasing from 510,613 in 2015 to 537,689 in 2016. Since 2016, there has been a downward trend in the number of students accessing university education. In 2017, the net student enrolment dropped to 522,059 before further declining to 513,182 in 2018. The decline is attributed to the reduction in number of candidates scoring a minimum university entry score of C+ (plus) and above in KCSE examinations since 2016. University enrolment is expected to decline by 1.7 per cent to 513,182 in 2018/19 academic year.

The GPI at ECDE remained at 0.96 indicating that boys have a slight edge over the girls. At primary school level, the GPI increased from 0.97 to 1 over the period. At the Secondary school level, the GPI moved from 0.95 in 2016 to 0.91 in 2018 meaning that boys have a higher edge over girls. At TVET level the GPI moved from 0.78 in 2016 to 0.77 in 2018 indicating more male as compared to female access TVET. At university level, male had an edge over female with GPI ranging from 0.71 to 0.70 over the period.

Table 1-1: Enrollment Rates

	2015	2016	2017	2018
ECDE				
Male	1,607.4	1,634.2	1,681.5	1,730.2
Female	1,560.5	1,565.6	1,612.3	1,660.3
Parity index	0.97	0.96	0.96	0.96
Primary				
Male	5,127.8	5,219.9	5,293.9	5,364.3
Female	4,963.0	5,060.3	5,109.8	5,178.3
Parity index	0.97	0.97	0.97	0.97
Secondary				
Male	1,348.4	1,397.5	1,450.8	1,505.3
Female	1,210.5	1,326.2	1,380.0	1,437.4

	2015	2016	2017	2018
Parity index	0.90	0.95	0.95	0.95
TVET				
Male	92.3	114.0	154.6	205.1
Female	61.0	88.6	120.6	158.7
Parity index	0.66	0.78	0.78	0.77
University				
Male	292.0	315.4	303.9	302.6
Female	209.5	222.3	218.2	210.5
Parity index	0.72	0.71	0.72	0.70

Source: Ministry of Education, 2019

Interventions/Strategies

The achievements realized by the Government since the adoption of SDG4 are attributed to implementation of the following strategic priorities in the education and training sector:

Mainstreaming of ECDE into basic education: The government has pursued this since 2008, changing the traditional delivery of pre-primary education from a community and private based approach and introducing a government led modality. This involves government taking charge of recruitment and remuneration of teachers and provision of teaching and learning materials as well as provision of nutritional supplements to learners. As a result, 1 in 3 learners enrolled in pre-primary is in the public sector and as presented in earlier sections, the coverage of ECDE in the country has demonstrated immense maturity.

Provision and enforcement of re-entry policy for girls: The government has enforced the re-entry policy to address dropout cases of young girls who conceive while in school. This policy is also complemented by the provision of sanitary towels to girls in upper primary to ensure girls stay in school even during their menstruation period. This has led to increased participation of girls in primary as seen in the stabilized gender parity index.

Provision of social support to vulnerable children: The government supports implementation of a bursary scheme to assist selected secondary school students in meeting education expenses which are not catered for by the Free Day Secondary Education. In addition, the government has ring fenced grants directed to students in Arid and Semi-Arid Lands as well as pockets of poverty across the country. As a good practice, “*Elimu Ni Sasa*” initiative to offer bursaries and scholarship to bright students.

Prioritization of Special Needs Education: To support and enhance inclusive education, the government has increased its financial allocation to learners in special and integrated schools. In addition to the regular capitation in primary education, learners with special needs receive a top up grant more than double the regular capitation. In secondary, while the regular capitation is Kshs 22,444, a learner with special needs receives Kshs 57,000. The additional resources are used in the purchase of assistive devices for the learners.

Expansion and equipment of Technical and Vocational Institutions: The government has constructed 130 new technical institutions across the country. In addition, the government has also expanded the faculties in existing institutions to ensure increased provision of technical competencies within reasonable distances from where trainees come. Additionally, the Government has equipped the TVET institutions with State of Art equipment to ensure delivery of quality training at this level. The expansion has seen enrolment in TVET more than double between 2015 and 2018.

Capitation to TVET trainees: In order to address access and equity issues at TVET, the

Government awards capitation grants to trainees at this level. For trainees at Vocational Training Centres (VTCs) also known as Youth Polytechnics, the trainees receive a grant of Kshs. 15,000 annually towards tuition and purchase of tools and equipment. At Technical and Vocational Centres (TVCs) level, the trainees receives a capitation of Kshs. 30,000 annually for tuition. This initiative has gone a long way in improving access and reducing drop out due to lack of fees.

Rollout of Competence Based Curriculum (CBC) and Competence Based Education and Training (CBET): In order to produce competent skills for the labour market, the Government has rolled out CBC and CBET curriculum in education and training. This is aimed at aligning demand and supply of skills through CBET implementation

Increased collaboration with the private sector: As a result of the conducive environment created by the government, the private sector has continued to make significant contribution to the delivery of education. About 33% of learners in ECDE are in private schools; 15% in primary; 7% in secondary; and 17% in university.

Provision of internet for schools: Safaricom Limited is providing 3G Internet to 322 schools, impacting the lives of over 200,000 students. More than 100 schools have been provided with tablet devices to capture data on students and the facilities. From the information acquired, leaders will have a better understanding of current progress and challenges as well as be able to offer recommendations for improvement.

Provision of accommodation facilities: With the increased enrolments in technical and university education, the bed capacity in associated institutions could not accommodate the growth. The private sector has been instrumental in erecting low cost housing and renting out the facilities to students.

Challenges

Overcrowding in schools: The increased enrolment continues to exert high pressure to existing facilities in schools and institutions of learning. The need for infrastructure development, expansion and equipping to cater for the increasing numbers has become a serious challenge in the sector.

Reduction of Schooling expenses: The Government continues to implement initiatives aimed at reducing the burden of school expenses through capitation at all levels. The need to enhance capitation and implement differentiated unit cost at all the levels of education and training and thereby increasing the share of recurrent financing to the sector remains a challenge.

Weak linkage between training and the industry: The public financing of education and training has an immediate implication of increasing the number of trainees released to the labour market either at graduation levels or before graduations. However, there exist weak linkage between training and the industry and therefore require funds to implement work-based programmes aimed at equipping the trainees with necessary skills that will enable them secure jobs and/or develop effective livelihoods.

Disparities in access and participation to education and training: Gender disparity exists with low enrolment in some regions especially marginalized regions. In some regions of the country, girls do not have same opportunities in accessing education and training as their male counterparts due to negative cultural and religious practices. Some religious and cultural beliefs such as female genital mutilation and child labor hinder girls from attending learning and training institutions.

Radicalization and Violent Extremism: There have been trends of violence in learning institutions including vandalism of institutions property. Some students and out of school youth have been victims of recent recruitment into radicalized groups and have been engaged in acts that have obviously infringed on the rights of other citizens and in some cases even caused loss of life. In isolated instances, radicalization literature has been found with learners and teachers/trainers which is an indication that our learning institutions may be porous for anyone who may want to take advantage of children and youth in the sector. In light of the aspirations of the SDG 4 to create global citizens through education and training, collaborative effort will be required across governments and all other stakeholders to ensure this developing phenomenon is addressed.

Drug and Substance Abuse: (DSA) The problem of DSA is a rising concern in the education and training sector. The underlying causes include peer pressure, ease availability of drugs and alcohol and dysfunctional families. The overall effects include: violence and crime, risky sexual behaviour leading to increased HIV infection, sexual pervasion, poor academic performance and high school drop outs.

Adverse Effects/Impacts of HIV/AIDS: The achievement of EFA and SDG 4 targets is seriously threatened by the HIV and AIDS pandemic which has devastating and far reaching impacts on education and training. HIV and AIDS is eroding quality, of education, weakening demand and access, drying up the country's pool of skilled workers and increasing cost which is already high in relation to available resources.

Innovative Ways of Addressing Challenges

Implementation of the Digital Literacy Program: The programme embraces ICT integration in basic education. The main aim is to make teaching and learning processes more effective for teachers and pupils in primary schools by providing an alternative platform for accessing curriculum support materials that otherwise would only be available in print form. Under the program the government has improved ICT infrastructure in primary and secondary schools; developed digital content aligned to the curriculum; trained teachers on delivery of lessons using digital devices; and provided digital devices to learners and students including some for administration of schools.

Review and Implementation of the textbook policy: The government has revised the textbook policy and renegotiated the supply terms for textbooks for primary and secondary schools. This move saw the government reach all schools with requisite textbooks towards the achievement of 1:1 pupils/student textbook ratio.

Strategic Areas of Focus/Next Steps

1. Competency Based Curriculum (CBC) and Competence Based Education and Training (CBET)
2. 100% transition from primary to secondary education
3. Expanding TVET
4. Implementing DUC in TVET and universities
5. Strengthen linkage between training and industry
6. Strengthen research and innovation in the education and training
7. Quality assurance and standards especially in tertiary and higher learning

Stakeholder Participation

The CSOs have also contributed to improving education in the county Twaweza East Africa under its flagship programme, Uwezo, has been producing evidence on the learning

levels of children and their distribution in the country for the last 9 years, for example under the Husika project it has been reassessing pupil and teacher absenteeism in counties. This has resulted in improvement in appreciation that teacher absenteeism was a problem in the counties between baseline and end-line; and improvement in teacher attendance; The programme so far has reached over 5,000 children, 1,700 teachers and 74 local level administrators.

Towards eliminating gender disparities in education and training at all levels of education VSO Kenya has been facilitating access to quality and inclusive education for children and adolescents with disabilities in the counties Under its Education and Empowerment project for out of school girls, it has managed to reach 200 extremely marginalized girls from Kisumu and Siaya. The Organization trained 104 teachers (27 male, 77 female) on appropriate teaching methodologies for deaf children thereby increasing their enrolment in pre-primary and lower primary and equipping family members of deaf children with sign language skills.

To increase, literacy and numeracy levels among youths and adults ZiziAfrique is implementing the Accelerated Learning Program (ALP) in counties with lowest leading ability. ALP is designed to reach learners in middle school (grades 4 and 5) falling behind in foundational literacy and numeracy skills. The goal of the program is to ensure that all children can “read with understanding” and “reason with numbers”.

Interlinkage with other Goals

In order to realize Goal 4, interlinkage with the following goals is key:

Goal No 3: Ensure healthy lives and promote wellbeing for all at all ages- Linkage with goal 3 which will ensure that most of early age vaccination in education institutions to ensure adequate coverage is done. Additionally, a close linkage between the two goals will ensure that education and training regulates specialized training in the Medical field.

Goal 2: - Goal 2 is critical for the implementation of home grown and school meals program, provision of food during emergencies and market for agricultural products for use in schools. In an effort to contribute to the Big four Agenda on Food security, the education and training is offering training in specific areas under agriculture. Adoption of value addition, productivity and competitiveness through enhancing technologies, investing, diversify and accelerating adoption of technological application in niche areas will also create the desired impact. Offering of internship and industrial attachment opportunities to TVET trainees, apprenticeship and upskilling will ensure availability of adequate and competent labour force with skills needed to improve agricultural productivity and rural development.

Goal 6: Goal 8 plays a vital role in teaching and learning by providing a clean learning environment, adequate water supply and sufficient sanitation services. Under this goal provision of sanitation facilities in learning/training institutions will be achieved. The education and training sector will continue working closely with environment sector to ensure mainstreaming of environmental sustainability in the curriculum at all levels of education and training.

Goal 7: Close linkage with Goal 7 will ensure that the learning/ training institutions access reliable and adequate sources of energy and information. This sector continues to provide professional services related to construction, maintenance and supervision of development

projects and ensuring that various investments are aligned to rapid changing technological developments which are critical in the continued improvement of the learning environment.

Goal 16: Insecurity both within and among countries is one of the factors that can hinder access to education and training leading to unemployment and poverty. As a result Goal 16 is critical in ensuring security of learners, teachers/trainers and its assets. The education sector nurtures socialization of individuals and instils basic values and moral principles which are conducive for realization of goal 16. The two sectors need to work together to ensure achievement of the two goals.

Leaving No One Behind

In a bid to ensure that no one is left behind, education and training has put in place strategies and programmes. These include:

Free Primary education and Free Day Secondary Education: Free Primary education which commenced in 2003 and Free Day Secondary which started in 2008 initiative aim at reducing the schooling expenses and therefore ensuring that the vulnerable children have access to education.

Waiving of examination fees for Std 8 and Form 4 candidates: The Government has waived examination fees for all candidates at primary and secondary level for both public and private institutions.

Low Cost Boarding in ASAL: To expand education opportunities in ASALs Low Cost Boarding public schools (LCBs) are supported As a result, enrolment in the LCBs increased from 111,953 in 2015 to 113,524 in 2016 and slightly dropped to 112,023 in 2017.

National Volunteers initiative (Greatness-United): Greatness United (- G-United) is an annual national volunteering programme that targets graduates who are expected to volunteer in areas other than their home or residence counties. The university graduates will gain invaluable exposure to diverse environments and communities. Whilst on placement with partner primary schools, these volunteers live with resident host families, further increasing opportunities for meaningful cultural exchange. University graduates who are selected to participate in this prestigious programme develop essential professional and life skills as they go through extensive training and practical experience that will contribute towards making them better individuals.

Special Needs Grants: The government awards Special Needs grants to learners with Special Needs. The SNE grants support boarding and personnel emolument expenses for non-teaching staff who provide essential services for learners with disabilities in schools. Consequently, this facilitates access to user friendly materials and hence increased level of self-reading by the visually impaired learners.

Partnership with other stakeholders in the provision of scholarships: The Government partners with other stakeholders who award scholarships to learners who would otherwise not access the opportunities in education and training. These include: Equity-Wings to Fly, MasterCard Foundation, Safaricom Foundation, Cooperative bank foundation, KCB foundation, Family bank foundation, Kenol-Kobil foundation and Palmhouse foundation among others.

Construction of Technical Vocational Centres in Each Constituency: This initiative aims at bringing services closer to the people. Construction of the TVCs is ongoing in the constituencies and has seen enrolment in TVET register a significant increase.

100% Transition to secondary schools: In a bid to realize this, there is expansion of secondary schools to accommodate more streams. More specifically at National school level, this initiative has led to opening up of day wing streams in the secondary schools.

Goal 5: Gender Equality

Gender inequality is largely responsible for poverty and backwardness in most countries in the world. Today progress is only possible when men and women work side by side and are adequately involved in development. Despite broad agreement that gender equality matters in its own right and is a driver of development, stark gender gaps still persist. Among the key root causes of unequal outcomes for women and men are norms, laws and practices – which discriminate against women and girls. As a result, gender inequality persists in social, economic, and political hierarchies.

Kenya is implementing the 2010 Constitution that expanded the Bill of Rights and introduced extensive provisions on economic, social and cultural rights. The Constitution also enhanced the institutional systems for the respect, protection and promotion of human rights, including right to equality and freedom from gender-based discrimination. The Constitution has various Articles specifically to address gender equality and empowerment of women and girls. These include; Articles 27, 45, 59, 81, 97, 98, 100, 177, and 232.

Status of Indicators and Trends Analysis

According to the Kenya Demographic Health Survey KDHS (2014), an estimated 36.9 percent of ever-partnered women and girls aged 15 years and older were subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months. Further, an estimated 11.5 percent of women aged 15-49 had experienced gender based violence often or sometimes in the previous 12 months, which was a decline from an estimate of 24 percent in 2008/09. For the women aged 15-49 who experienced physical violence, 82.4 percent of the perpetrators were current or former intimate partners³. Among women aged 15-49 years who had experienced sexual violence in the 12 months preceding the KDHS (2014), 43.4 percent were or had ever been married. In 55 percent of the sexual violence cases against women, perpetrators were current partners and 28 percent were former partners.

The KDHS (2014) also estimated the proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months as 22.7 percent. Among the never-married women aged 15 years or older who have ever experienced sexual violence, 43.8 percent of the perpetrators were strangers, followed by friends or acquaintances (14.4 percent), current/former boyfriend (8.2 percent), family friends (6.9 percent), teachers (5.8 percent), father/step-father (4.7 percent), among others.

Each year, 12 million girls are married before the age of 18, marking the start of their lives as wives and mothers well before they are physically or emotionally ready⁴. The World Health Organization (WHO, 2018) estimates that more than 200 million girls and women alive today have been subjected to FGM in 30 countries in Africa, the Middle East and Asia where FGM is concentrated. Estimates based on the most recent prevalence data indicate that 91.5 million girls and women above nine years old in Africa are currently living with consequences of FGM. An estimated 3 million girls in Africa are at risk of undergoing FGM every year with some countries reporting over 90% prevalence.

³ current husband/partner, former husband/partner, current/former boyfriend

⁴ <https://www.unicef.org/eca/press-releases/25-million-child-marriages-prevented>

The Kenya Demographic and Health Survey (KDHS, 2014), estimates the prevalence of FGM among girls and women in Kenya aged 15-49 years at 21%, a steady decrease from 27.1% in 2008/09, and 32.2% in 2003. In regard to sexual relations, the survey indicates that the proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care was 38.6% in 2014.

As per the 2015/16 Kenya Integrated Household Survey the proportion of the population aged 3 years and above who had mobile phone was 44.4 per cent (45.4% - Male and 43.2% - Female) up from 33 per cent (35.7-Male and 30.2-Female) in 2014.

Kenya has made significant gains in women representation in key decision making levels since the promulgation of the 2010 constitution. In 2017 general election, 3 women were elected as governors and 3 as senators while 2013 had none. More women were also elected to the national and county assemblies. There were 23 women elected as members of the national assembly in 2017 as compared with 16 in 2013 and 96 members of county assemblies in 2017 as compared with 82 in 2013. Women running as independent candidates were also elected for the first time. Women comprised 9.2 % of the 1,835 elected individuals in 2017, a marginal increase from 7.7 percent in 2013⁵. The number of Principal Secretaries and Diplomatic Corps also rose from 7 and 15 to 10 and 42 respectively.

Table 1-2 provides the progress on women representation in 2015 and 2018.

Table 1-2: Women in Decision Making Positions

Categories	2015				2018			
	F	M	TOTAL	% F	F	M	TOTAL	(%)F
President	-	1	1	0	-	1	1	0
Deputy President	-	1	1	0	-	1	1	0
Cabinet Secretaries	5	15	20	25.0	6	16	22	27.3
Cabinet Administrative Secretary	-	-	-	-	3	18	21	14.3
Principal Secretaries	15	26	41	36.6	8	32	40	20
Diplomatic Corps	17	47	64	26.6	13	43	56	23.2
Governors	0	47	47	0	3	44	47	6.4
Deputy Governors	9	38	47	19.2	7	39	46	15.2
Senators	18	49	67	26.9	21	46	67	31.3
National Assembly	69	280	349	19.8	76	273	349	21.8
Speaker of Senate	-	1	1	0	-	1	1	0
Speaker of National Assembly	-	1	1	0	-	1	1	0
Members of County Assembly	761	1,463	2,224	34.2	745	1,451	2,196	33.9
County	18	29	47	38.3	14	33	47	29.8

⁵A gender analysis of the 2017 General Elections February 2018; National Democratic Institute and FIDA

Commissioners								
Deputy County commissioners	35	260	295	11.9	34	261	295	11.5
Supreme Court Judges	2	5	7	28.6	2	5	7	28.6
Court of Appeal Judges	8	18	26	30.8	7	12	19	36.8
High Court Judges	41	64	105	39	55	74	129	42.6
Magistrates	231	241	472	48.9	214	244	459	46.6
Kadhis	-	56	56	0	0	54	54	0

Source: Economic Surveys 2016 and 2019

Interventions/Strategies

Development/review of gender Policies and Plans. The Government has developed various Policies and Plans to reduce gender inequalities in all spheres. These include; the National Land Policy, Kenya Health and Gender Equality policy 2015-2030, Education and Training sector Gender Policy 2015 and Kenya National Action Plan (2016) for the implementation of UNSCR 1325 on women peace and security. The National Gender and Development Policy and the Policy on Elimination of FGM are at the final stages of review.

Provision and enforcement of re-entry policy for girls: The Government has enforced the re-entry policy to address dropout cases of young girls who conceive while in school. This has led to increased participation of girls in primary and secondary schools as seen in the stabilized gender parity index.

Scientific Camps of Excellence STEM Mentorship programme. The programme aims at increasing female enrolment into engineering and applied science courses and taking up science-based professions.

Menstrual Health Management Programme. Kenya has Menstrual Health Management Programme that aims at improving menstrual hygiene, retention and performance for girls in schools. The programme implementation constitutes supply of sanitary towels, provision of adolescents' sexual health education, adolescents' nutrition education, mentorship and physco-education and life skills.

Engendering of National and County Development Plans. The Government has developed guidelines for engendering of Medium Term Plans of the Kenya Vision 2030 and the County Integrated Development Plans. These were used in engendering of the Third Medium Term Plan (MTP III) and the second generation County Integrated Development Plans. The Third National Reporting Indicator Hand Book for the Third Medium Term Plan has also been engendered.

Country wide campaign against Gender Based Violence. To eradicate Gender Based Violence (GBV), Kenya is undertaking an aggressive countrywide campaign against GBV targeting all counties. The objective is to increase awareness of the scope of the problem and its impact, improve services for survivors of gender violence and to strengthen prevention efforts in counties. The Government in collaboration with United Nations (Kenya Country Office) is implementing GOK/UN Joint Programme on Prevention and Response to GBV 2017-2020.

The programme will enhance prevention of GBV, strengthen protection of GBV survivors, ensure expeditious prosecution of GBV cases; establish and implement strong sustainable programmes that are well resourced; and implemented through partnership with non-state actors, development partners, county and national government through strong coordination mechanisms at national and county level. Establishment of GBVRCs and gender desks at Police Stations has also been undertaken. Kenya is also in the final stages of development of standards for establishment of Gender Based Violence Recovery Centers and Safe Spaces. Various helpline have also been established and aid in reporting and provision of GBV services in the Country. These include the National GBV 1195, LVCT one2one youth 1190, Kimbilio GBV 1193, Childline Kenya 116, Police 999 and 112, FIDA SMS platform 21661 and UWIANO SMS Platform 108.

Country wide campaign to eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation. The Government has undertaken various initiative to eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation. Key among them is sensitization against the practices countrywide, capacity building of duty bearers (chiefs, churches, etc) on FGM and other harmful practices including the legal frameworks. Inclusion of Anti-FGM content in Kenyan school curriculum, creation of a special Division at the Directorate of Public Prosecution to handle GBV and FGM issues, establishment of Alternative Rights of passage and development of various strategic documents to aid in elimination of the practices has also been undertaken. These include; Guidelines for conducting Alternative Rights of Passage, Guidelines for conducting community dialogues, FGM resource Handbook, stakeholder mapping document and simplified version of the Prohibition of FGM Act, 2011 in both Kiswahili and English versions.

Enhanced collection, analysis and dissemination of gender Statistics. Kenya is implementing UN Women's flagship programme 2016-20 "Making Every Woman and Girl Count" that aims to bring about a radical shift in how gender statistics are used, created and promoted. The programme seeks to address the urgent need to increase the availability of accurate information on gender equality and women's rights in order to inform policy and decision-making. Under the programme, the Government has established a Gender Statistics Inter Agency Technical Committee and has also partnered with research Institutions and Universities on gender research. Plans are also underway to conduct time use surveys to measure the unpaid care work.

Leadership development programs for Women. To increase representation of Women in decision-making, not only in the political sphere, but also within the private sector, at the village level and in civil society organizations, Kenya has developed the National Women in Political Leadership Curriculum and The National Strategy for supporting greater participation of Women in Elective Politics that are under implementation. The Women's Executive Leadership Program and Transformative Leadership program for County Women Executives have also been established. Bungoma County has also established Women in Leadership Academy. All these are geared towards provision of leadership skills for women.

Development, Review and implementation of reproductive health Policies, Plans and Programs. Kenya has developed various Policy and legislative frameworks to address sexual and reproductive health of its citizens. These include; Basic Education Act (Revised) 2017, Prohibition of FGM Act 2011, Kenya Health Policy (2012-2030) and the National Adolescents Sexual and reproductive health policy (2015). Kenya has also undertaken 2014 National Survey on male involvement in Family Planning and Reproductive Health, 2015

National Adolescents and Youth Survey and County Adolescents and Youth Surveys for Counties.

Kenya has undertaken various reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws. The Constitution specifically provides for equitable access to land, security of land rights and elimination of gender discrimination in law, customs and practices related to land and property among the principles of land policy.

Engendering the Standard Chart of Accounts. The review of the current Standard Chart of Accounts is in the final stages. Once reviewed the Chart will enhance monitoring of public allocations from a gender perspective.

Socio-Economic Empowerment for women, youth and PWDs. Various Affirmative Action programmes and opportunities have been established for the empowerment of women, youth and PWDs. These include; Women Enterprise Fund, Uwezo Fund, National Government Affirmative Action Fund, Youth Enterprise Development Fund and Access to Government Procurement Opportunities. The Women Economic Empowerment Strategy 2019 has also been developed to provide a roadmap for the realization of sustainable socio-economic empowerment for women through better business services, access to finance, improvement of markets and technology and increasing productivity and competitiveness among women. The Government is also implementing Access to Government Procurement Opportunities Program. The aim of the Programme is to facilitate the youth, women and persons with disability-owned enterprises to be able to participate in government procurement.

Challenges

- i. Inadequate gender statistics, dissemination and use of gender research
- ii. Medicalization of female genital mutilation
- iii. Cross border FGM
- iv. Insufficient GBV response and prevention mechanism and Harmful socio-cultural practices such as FGM, child marriage and widow inheritance.
- v. Inadequate understanding by the wider population on gender as they confuse that gender is synonymous with women
- vi. Weak entrepreneurial skills amongst women to start and sustain income generating activities
- vii. Insufficient financial resources for gender mainstreaming and women's empowerment programmes

Lessons learnt

- i. Enhanced partnership approach model is key for implementation of gender programs. This enhances the efficiency in implementation of programs and resources for gender programs.
- ii. The concept of Gender Mainstreaming and Gender Responsive Budgeting has not been fully understood across the MDAs and the Counties hence the need to strengthen the capacity of national and county government on gender mainstreaming and gender responsive planning and budgeting.
- iii. Inadequate gender statistics continues to hinder informed programming. The State Department for Gender will strengthen partnership with Kenya National Bureau of Statistics and other agencies that deal with gender statistics production, analysis and utilization. This will be done through the Flagship Project on Making every woman and girl count that Kenya is implementing. The project aims at enhancing

production, analysis and dissemination of quality gender statistics.

Innovative ways of addressing the Challenges

- i. Inclusion of Anti-FGM content in Kenyan school curriculum;
- ii. Regional declaration and action plan on ending cross border FGM in Kenya, Uganda, Tanzania, Ethiopia and Somalia; and
- iii. Establishment of Gender Statistics Inter Agency Technical Committee and partnership with research Institutions and Universities on gender research.

Strategic Areas of Focus/ Next steps

- i. Develop and implement gender statistics sector plan to enhance collection, analysis and dissemination of gender statistics;
- ii. Finalize and implement the gender seal that aims at assessing Institutions on compliance with gender provisions in the Constitution and National Policy on Gender and Development;
- iii. Strengthen capacity on gender to MDCAs and the public to enhance knowledge on gender;
- iv. Enhance of funds and entrepreneurship skills for women; and
- v. Develop and implement resource mobilization strategy for gender programs to enhance funding.

Inter linkages with other Goals

Gender equality and women empowerment is an enabler to the achievement of all the other goals. The provision of empowerment programme has contributed to achievement of the poverty reduction, food security and nutrition education and health and well-being of the household level. On the other hand progress

Measures taken to ensure no one behind

- i. Empowering women, youth and PWDs through entrepreneurship skills and financial support
- ii. Implementing Leadership development programs for Women
- iii. Implementing girls empowerment programs
 - a. Supply of sanitary towels to school girls
 - b. Provision and enforcement of re-entry policy for girls:
 - c. Scientific Camps of Excellence STEM Mentorship programme.
- iv. Access to Government Procurement Opportunities-Ensure Women, Youth and PWDs are not left behind this does not target girls only in procurement matters. This does not focus on women only.

Implementing a Program on 'Making every women and girl count'. The aim of the Program is to stimulate the sustained production and dissemination of quality gender statistics for monitoring the 54 gender-related SDG indicators.

Goal 6: Clean Water and Sanitation

Status of Indicators and Trends Analysis

The proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management stood at 100% in 2018. Proportion of population using safely managed drinking water services was 72.6 per cent (Households) and 68.6 per cent (individuals) in 2016. The population with

safely managed sanitation services was 65.7 per cent (Households) and 59.3 per cent (individuals) in 2016. During the same time, the proportion of population with hand washing facility with soap and water was 19.4 per cent (Households), 29.7 per cent (urban) and 11.4 per cent (rural).

The Ministry of Water and Sanitation estimate that about 200,000 new water connections and 350,000 new sewer connections (for about 3.2 million people) will be required annually in urban areas for universal water and sanitation access to be reached by 2030. Access to clean, safe, adequate and reliable water supply is one of the central indicators of socio-economic development).

Interventions/Strategies

The emphasis of the Water and Sanitation Sector has been given to full operationalization of the water Act 2016; investment planning, water storage and last mile water connectivity so that households benefit from the already completed projects with no connections. The water Act 2016 has provided an enabling environment for the universal access to water by separating policy, regulation and implementation roles.

In the medium term, the sector is targeting to increase the percentage of national population with access to safe water from 60% in 2017 to 80% by 2022. The Ministry will also rehabilitate water supply infrastructure in major urban areas of Nairobi, Mombasa, Nakuru and Eldoret and expansion and the rehabilitation of water supplies in 20 medium sized towns. To serve rural populations with access to safe water, the ministry will rehabilitate and expand existing large rural water supply schemes, drill and equip 215 boreholes. In the urban informal settlements and rural marginalized areas, the ministry targets to serve 1,660,000 and 2,800,000 people with clean, safe water respectively.

The sector target is to increase the percentage of the national population with access to improved sanitation from 68% in 2017 to 80% by 2022. This increase will be achieved through improvement of onsite sanitation facilities in major urban and satellite towns and construction of new ones in selected towns across the country. In addition, the Ministry will increase the percentage of urban population with access to sewerage system connection from 25% in 2017 to 40% in 2022.

As an enabler to the 'Big four' agenda, the ministry is will implement 32 water and sanitation projects to support manufacturing, affordable housing, food security and universal health coverage.. To improve climatic data collection for planning and flood early warning, installation of 103 flood early warning systems is being undertaken.

Increase water storage capacity for domestic and industrial use by 623MM³ by constructing two large dams (Thwake, Mwache), four medium size dams (Siyoi -Muruny, Itare, Karimenu II and Yamo), and 500 small dams. Undertake the last mile water connectivity in collaboration with county governments to benefit 500,000 households nationwide.

Stakeholder Participation

The Kenya Water and Sanitation Network supported two schools in Kilifi and Kwale counties with a student population of 1,085 (544 boys and 531 girls) to have access to improved hygiene in their schools. Kenya Water Health Organization, Laikipia Wildlife Forum, Neighbours Initiative Alliance and Centre for Social Planning and Administrative Development, formed a strategic partnership to address poor water governance in Athi and Ewaso Ng'iro North Catchment area. Under the Watershed empowering citizens, (2016 – 2020), the CSOs aim to produce evidence including tracking of Water Sanitation and

Hygiene (WASH) and water resource management budgets and expenditure using the life cycle costs approach and Track Fin.

Leaving No One Behind

Over time access to water and sanitation services in some areas such as ASAL and informal settlements in major urban centres has been low. To ensure that no one is left behind in the provision of safely managed drinking water, the Ministry through the Water Act 2016 is transforming Water Services Trust Fund (WSTF). It will have an expanded mandate to provide conditional and unconditional grants to the Counties, and to assist in financing the development of and management of water services in the marginalised and underserved areas. It will also develop water services in rural areas considered not to be commercially viable for provision of water services by licensees, and in the under-served poor urban areas. In addition, the ministry has disbursed Ksh 2.6 billion to fund 128 water projects in 14 marginalized counties under equalization fund programme. This will ensure availability and sustainable management of water and sanitation for all.

Challenges, Lessons Learnt and Emerging Issues

Pollution and Degradation of Catchment Areas: Contamination of water resources leads to reduced water available for use. Cleaning water of low quality requires a high amount of energy, which increases the cost of delivering water to the people. Furthermore, degradation of the catchment areas has not only reduced flows and quality of water in the rivers but also increased possibility of conflict between upstream and downstream users. Pollution as evidenced by the presence of effluent, waste water, heavy metals and agro-chemicals in rivers and water bodies as well as catchment degradation continue to be major challenges to human health. There is also inadequate enforcement of laws, policies, strategies and regulatory guidelines to prevent water catchment degradation and pollution of water sources.

Tran's County Conflicts on Water Resources: This conflict is hindering development of water & sewerage infrastructure and demand for a share of the revenues generated from water resources obtained from their areas.

Last mile water and sewerage connectivity: The county governments through the water service providers are expected to develop and manage water distribution and sewerage collections including household water connection systems under the last mile water connectivity project. The slow implementation of the connections is affecting the attainment of the set SDG targets on water and sanitation services.

Wastewater management: Untreated or inadequately treated municipal sewerage is a major source of ground and surface water pollution in Kenya. It is estimated that only about 25% of urban areas in the country have some form of sewerage collection.

Inadequate Water Storage Infrastructure: The current water storage capacity is 180 million m³ while the demand is 4,800million m³. The low water storage capacity is attributed to lack of clear policy on water harvesting and storage, which has led to among other factors limited investment in water storage and water wastage due to low off the roof and ground water runoff harvesting and storage.

Non-Revenue Water (NRW): The current levels of NRW stands at 42% with the largest water losses being through illegal connections, leaks due to dilapidated infrastructure and commercial losses (flat rate supply billing). Small water schemes have inadequate capacity to manage NRW. Having devolved water services, the Ministry will support the counties through capacity building to develop policies and increase investment in the reduction of NRW.

The effects of climate change and associated extreme weather is threatening sustainable development of water resources. This has resulted in substantial reallocations of financial resources towards mitigation and adaptation measures.

Inadequate disaggregated data on water and sanitation coupled with weak data collection and management practice in the water sector nationally and in counties limit the availability and accuracy of data. The key challenge is lack of integration of data management and inadequate technologies to collect analyze and store data.

Land Acquisition for water and sanitation projects: The process of preparation and implementation of the Resettlement Action Plans (RAPs) and especially involving National Lands Commission is very lengthy thus delaying implementation of projects.

Lessons Learnt

- i. The national commitment to international obligations requires additional funding to achieve the SDG 6 targets.
- ii. Collaborative framework between the National and County governments is essential for sustainable water resource and sanitation management.
- iii. Use of Regional blocks like EAC, IGAD to handle Trans boundary conservation issues by creating inter-countries conservation areas and programs which is attracting funding from partners and World Bank will lead to fast tracking the implementation of SDGs targets.

Emerging Issues

- i. Operationalization of the legal, regulatory and policy frameworks such as National Water Policy and Water Act 2016. These new legal, regulatory and policy frameworks require funding and adequate human capital to implement. In addition, some institutions have received expanded mandates while others have acquired new mandates that will require additional resources to fulfil their mandates in the implementation of SDG 6.
- ii. The emergence of the blue economy has provided an opportunity to invest in marine, rivers and lakes ecosystems and natural/water resources management.
- iii. The income accruing to Water Services Boards from Water Services Providers for use of the assets is determined through a tariff structure, approved by the Water Services Regulatory Board (WASREB). The tariff structure does not make provision for payment of corporation tax and Value Added Tax on water bills. The proposed taxation of water services would make services unaffordable to majority of the consumers who would be expected to finance taxes through higher bills.

Innovative Ways of Addressing Challenges and Emerging Issues

- i. Enhance waste water treatment through piloting in selected urban centres. This will involve piloting of Omni processor sanitation technology in 4 urban areas. This is a self-powered technology which is developed in a small-scale treatment plant to process fecal sludge and bio-solids from pit latrines, septic tanks, and sewers. It will be piloted in satellite towns surrounding Nairobi City with populations ranging

- from 400,000 to 500,000 people and where land is very limited for conventional waste water treatment plants.
- ii. Tap into the capital markets through water infrastructure bond financing (Implementation of Kenya Pooled Water Fund framework) to raise additional funds.
- iii. Development and digitization of e-water portal to improve data collection and information management for effective planning and decision making.
- iv. Use of supply of renewable energy from the sun by installing solar farms to run water supply projects for sustainability.

Strategic Areas of Focus/Next Steps

The next strategic areas of focus are to:

- i. Prioritize expansion of sanitation infrastructure by constructing new sewerage systems and expanding the existing ones.
- ii. Engage other stakeholders in the water sector for support to conduct baseline surveys on the indicators with no information and data.
- iii. Fast track the implementation of Kenya Water Pooled fund framework.
- iv. Partner and collaborate with County Governments on the last mile water and sewerage connectivity. The Ministry has signed an Inter-Governmental Water Sector Coordination Framework with the Council of Governors. The Framework will be operationalized through development of guidelines (by June, 2019) on water sector inter-governmental relations. The goal of the Water Sector Framework is to steer the attainment of a robust and sustainable sector through the attainment of policy and standards including monitoring and reporting on the implementation of SDG 6. It is also a liaison between the Ministry and County Governments through the provision of a platform for dialogue and engagement of key stakeholders in the Sector.
- v. Support the Counties in improving the sustainability of water supplies and sewerage schemes by providing technical support to reduce Non-Revenue Water.

Inter-linkages with other goals

Article 43 of the Constitution, 2010 gives every person the right to clean and safe water in adequate quantities and reasonable standards of sanitation. Provision of these rights is a shared responsibility between the National and County Governments. Therefore the implementation of the SDG goal on water and sanitation can affect or be affected by other goals either positively or negatively. The effects on the various SDG goals are as follows:

Goal 2: The irrigation agriculture has a direct linkage with SDG 6 through provision of water to meet their water demands for agriculture and livestock to improve food security situation. The Ministry through the implementation of Upper Tana Natural Resources Management Project (UTaNRMP) has put 800 Ha under upgraded small-scale irrigation schemes in Nyeri, Embu, Kirinyaga, Meru and Tharaka Nithi counties. Also implementation of Thwake Multipurpose Water Development Programme to put 40,000 hectares of land under irrigation as well as Lower Nzoia Dykes and Irrigation project which involves the improvement of Flood Mitigation dykes 17km on either side of River Nzoia; and Intake water supply and conveyance for irrigation of 4,000 ha to benefit 2,000 households are ongoing.

Goal 7: Sustainable management and conservation of water resources greatly contribute towards sustainable provision of hydro power. The Ministry has contributed to the development of National Water Towers Coordination and Sustainable Management Policy

by the Ministry of environment and forestry. The goal of the policy is to provide a framework for the sustainable management of Water towers and their ecosystems through coordinated conservation for socioeconomic development. Also affordable energy costs are key in ensuring affordable water services as pumping and treatment of water involves use of energy. Therefore making energy affordable and sustainable will improve access to clean and safe water.

Goal 11: Water and sanitation is important in modernization of urban areas in housing development. The Ministry with support from African Development Bank (ADB) is currently implementing the Kenya towns sustainable water supply and sanitation programme which will cover 28 towns to improve access, quality, availability and sustainability of water supply and wastewater management services. The programme will provide more than 2.1 million people with reliable and sustainable water supply services and more than 1.3 million people with water-borne sewerage systems which will enhance the implementation of goal 3-“Ensure Healthy Lives and Promote Well-Being for All at All Ages.” This is because Provision of clean drinking water and basic sanitation promotes good health to the population through reduction of water related diseases which in turn reduces pressure on the health sector budget and resources.

In addition, to support the construction of sustainable neighborhood housing in Mavoko, the Ministry is constructing Mavoko drinking water supply project which is at 70% completion level. Urban solid waste without adequate final discharge pollute water resources making it unsafe for consumption and hence generated urban waste should regularly be collected and adequately discharged. There is need to fastrack the finalization of the solid waste management bill 2019, which provide a framework for sustainable management of solid waste in cities and urban centres.

Goal 13: This affects water resources through its impacts on the quality, quantity, timing, form and intensity of precipitation leading to decreased water resources available for water supply. The impact of climate change have caused an increase in incidences of natural disasters such as floods, droughts, landslides and introduction of micro-organisms in fresh water sources thereby reducing quality. The Ministry is coming up with innovative adaptation measures to reduce the vulnerability of water systems and water services through the installation of 103 flood early warning systems in areas prone to floods and mainstreaming of climate change in the implementation of water and sanitation projects.

Goal 15: Protection and sustainable management of forests goal 15 which form the water catchment areas is critical for availability and accessibility of water resources. The Ministry in collaboration with other stakeholders through an integrated approach is implementing Upper Tana Natural Resources Management Project (UTaNRMP) covering the counties of Nyeri, Embu, Kirinyaga, Meru and Tharaka Nithi where in the last three years 1,330 ha of forest which is both indigenous and exotic were rehabilitated. Also 636 schools were supported with tree seedlings on greening programme and 108 Km of riverbanks were conserved through the local Water Resources Users Associations (WRUAs). Going forward the project will be replicated in other counties in the country.

Goal 7: Affordable and Clean Energy

Availing affordable and clean energy is important for improving living standards, and has direct implications on other goals such as elimination of poverty, good health and gender equality.

Status of Indicators and Trends Analysis

Proportion of households with access to electricity increased from 41.5% in 2016 to 46% in 2018 while the proportion of population with primary reliance on clean fuels and technology rose from 14.6 per cent in 2016 to 19.8 per cent in 2018. Renewable energy share in the total final energy consumption increased from 56.6 per cent in 2016 to 57.7 per cent in 2018. Energy intensity measured in terms of primary energy and GDP increased from 0.00002049 to 0.00001762.

The percentage of population with primary reliance on clean fuels and technology was 11.9 percent in 2014. At the same time, the renewable energy share in the total final energy consumption stood at 11.4 percent in 2014 before decreasing slightly to 10.7 percent in 2017 and subsequently increasing to 12.2 percent in 2018

Interventions

Kenya possess significant potential sources for power generation in geothermal, wind and biomass energy. Kenya's electricity installed capacity stands at 2,334MW as at 2015 and 2,721MW at 2018. In the medium term, the target is to increase installed electricity capacity by 5,538MW to slightly over 6,700MW by 2017.

Kenya's reliance on renewable energy sources that are significantly less input intensive and favourable to the sector's performance continued to grow in 2018 with the introduction of additional power from wind and solar to the national grid. During the period under review, the proportion of electricity from renewable sources stood at 86.0 per cent compared to 75.5 per cent in 2017. This was on account of a significant growth (43.6 per cent) in hydroelectricity generation that was supported by heavy rains experienced in 2018. The Electricity Supply subsector grew by 10.5 per cent in 2018 compared to a growth of 8.9 per cent in 2017 partly as a consequence of the shift in the sources of generation from thermal to hydro generation. In 2018, geothermal electricity generation grew by 31.6 per cent to stand at 5,127 Gigawatt hours (GWh). The sector's performance was also boosted by a rise in wind and solar energy during the year. The substantial growth in hydro, wind and solar energy led to a considerable decline in generation from thermal sources (39.0 per cent) and electricity imports (43.3 per cent) during the review period.

Improved access to energy sources especially electricity improves human development conditions through provision of water, industrial and agricultural productivity; disadvantaged groups empowerment; better health and education conditions and environmental sustainability. In view of that, universal electricity access remains one of the drivers of social economic development in Kenya. As at June 2013, Energy Access Rate was 23% in Kenya with only 2,264,508 total electricity connections, negatively affecting all sectors of the economy. This situation has drastically changed where the Access Rate currently stands at 73% with a corresponding total electricity connection of 6,761,090 households across the country. These are remarkable achievements which have enhanced growth in all other sectors of the economy.

Equally, access to affordable, competitive, reliable, quality, safe and sustainable energy remains an integral part in the achievement of the "Big 4 Agenda". As such, development of the energy sector is critical if Kenya is to achieve the Kenya Vision 2030 and become a newly industrialized, middle income country by 2030. Kenya possesses significant potential sources for clean and affordable power generation in geothermal, wind, hydro and biomass energy.

Kenya's installed electricity capacity stood at 2,316MW as at 2016 and during the period under review additional power was installed bringing the total installed capacity to 2,721MW, of which 67 percent comes from renewable sources: hydro, geothermal and wind. The expected increase in the power generation was rescheduled as a result of suppressed economic growth resulting into slowed industrial growth. Equally some of the major Kenya Vision 2030 programmes and projects that were the main targets for electricity consumption failed to materialize (e.g. Konza City, Isiolo and Lamu City & new port), as well as the redesign of SGR from electricity powered to diesel.

One of the main goal of the energy sector is to ensure that every Kenyan has access to affordable, reliable and clean electricity. To achieve this, about 6.76 million households have been connected to electricity supply, which is a 38.3 percentage increase in three years resulting in 73 percent access to electricity. With a view of transforming the country into a 24 hour economy, the government embarked on lighting up the three cities and major towns by installing street lights achieving a total number of 113,204 street lighting points in the three (3) cities and major towns; 6,235 public facilities were connected to electricity of which 4,732 were public primary schools and 1,503 other public facilities. To ensure system stability, quality of power and reliable accessibility, heavy investment in the electricity infrastructure have been deployed resulting in increase of the number of kilometers of Transmission and Distribution lines from 56,611kms, 179,174kms, and 233,700kms in 2014, 2016 and 2018 respectively being 313 percent increase. The number of combined general, transmission and distribution substations constructed increased from 8,328 to 10,697 and 12,608 in 2014, 2016 and 2018 respectively.

To enhance generation from renewable energy technologies, Kenya has completed the largest wind farm in Africa – the Lake Turkana Wind Power Consortium (LTWP). It aims to provide 300 MW of low-cost electrical power when operating at 100% installed capacity allowing the country to retire some of the expensive thermal power plants. Equally, geothermal power has the potential to provide reliable, cost-competitive, base load power with a small carbon footprint, and reduces vulnerability from the vagaries weather by diversifying power supply away from hydropower, which currently provides the bulk of Kenya's electricity. Kenya currently has 665 MW of installed geothermal capacity and aims to have 5,530 MW of geothermal power or 26% of total capacity by 2030. This will make it Kenya's largest source of clean energy by 2030.

Total domestic demand for electricity increased by 4.4 and 3.5 per cent to 8,410.1 and 8,702.3 GWh in 2017 and 2018 respectively. The demand for electricity registered growth in all categories except off peak whose demand declined by 28.0 per cent to 30.4 GWh in 2018. Demand for domestic and small commercial consumers increased by 3.9 per cent to 3,665.9 GWh in 2018. Similarly demand for commercial and industrial consumers increased from 4,199.0 GWh in 2017 to 4336.5 GWh in 2018. Likewise, demand for street lighting and the rural electrification category rose by 13.6 and 3.6 per cent, respectively, in 2018. The share of domestic and small commercial, large, and medium categories combined accounted for 92.0 per cent of total domestic demand in 2018.

Local electricity generation increased by 1.6 and 9.1 per cent to 10,130.3GWh and 11,051.8 GWh in 2017 and 2018 respectively. Transmission and distributive losses increased from 1,937.5 GWh to 2,444.5 GWh in 2018, accounting for 21.9 per cent from 18.7 percent in 2017 of total supply.

The private sector contribution to this goal includes the Mkopa solar product that aims at enabling off-grid communities to leap from using non-renewable energy to affordable and sustainable practices, while cutting down on pollution. Others include the development of a

Carbon Action Plan, with the aim of increasing the use of energy from renewable sources with dedicated projects. Some of these include (photovoltaic power plants, cogeneration plant powered by vegetable oil, biomass plant for steam generation and supply of electricity from wind power. Households have also been supported to invest in improved cooking stoves, household biogas systems and to access small solar systems for lighting and basic electricity services.

On policy, legal and institutional framework, the Energy Act 2019 was enacted and the Energy Policy 2015 as a fundamental successor to Sessional Paper No. 4 of 2004 on Energy was formulated passed by the National Assembly and presented before the Senate for deliberations. In addition, the process of review of the FiT policy was also initiated. The National draft policy and strategy for the nuclear power programme was also developed.

Challenges

- i. Long lead time of developing energy infrastructure projects and high capital investment cost required in energy projects;
- ii. Reluctance among the population in switching from conventional to new and more environment-friendly energy sources;
- iii. Cost of extending power supply network remains a key challenge to electrification especially in rural areas owing to the effect of the country's land tenure system with dispersed settlement patterns, making it expensive to expand the electricity infrastructure;
- iv. Balancing competing objectives in the sector such as rapid capacity expansion against the need for lower tariffs and the need for greening our generation against the desire for cheaper reliable capacities that are not necessarily green such as coal;
- v. Difficulty in the acquisition of sites, way leaves, rights of way and easements to facilitate energy infrastructure development;
- vi. Ever increasing costs of compensation for way-leaves and sites for energy projects due to land speculations;
- vii. Vandalism of energy infrastructure facilities.

Emerging Issues

The following are emerging issues in the energy sub-sector;

- i. Embracing of Public Private Partnership (PPP) as a financing option for the sustainability of infrastructure development;
- ii. Growing concerns on safety, health and environmental issues during project implementation and operation;
- iii. Need for security of power infrastructure installations as a key national concern to guard against terror threats and safeguards against projects delivery timelines;
- iv. Economic integration and growth of regional power trade and taxation of cross-border power exchanges;
- v. Climate change related issues and significant shift towards production of clean and green renewable energy; and
- vi. Gender mainstreaming in the implementation of energy projects and programme.

Innovative Ways of Addressing Challenges and Emerging Issues

Strengthening and Expanding the Network: A strong and expansive electricity grid is crucial in providing quality service to the customers and is the backbone in securing the power market for business sustainability. To build a resilient, flexible and modern network, construction of 8 new substations, enhancement of capacities for 23 existing substations and building additional feed-out power lines from these substations was done. These include Nairobi GIS substations, seven new sub stations for network resilience, upgrading 23 substations.

The completed substations have expanded the country's installed capacity by 1,096 MVA bringing the total to 12,608 MVA as at end of the year. At the same time, capacity for secondary substations increased by 330 MVA to 7,606 MVA. As at end of 2018/2019, the grid was being served by 337 high and medium voltage substations; and 67,352 distribution transformers.

Connecting More Customers: To address the cost of high connection due to the land tenure system and the terrain, the government is implementing the Last Mile Connectivity Project (LMCP) was launched in 2015 to scale up connectivity in rural and peri-urban areas by providing subsidy for grid extension to enable customers get electricity supply at affordable cost. The programme is designed at stimulating economic growth at the micro-economic level, improving quality of lives, growing the customer base and electricity sales for long term power-economic viability.

Security of the infrastructures: The sector is working closely and creating liaison between the respective parastatals security, national security apparatus and local citizens to monitor the street lighting network and address arising challenges that affect the sector infrastructure. The sector is also undertaking automation of the street lights with a complete central monitoring system and securing memoranda of understanding and Maintenance Agreements with county governments.

Time of Use Tariff: Implementation of the Time of Use (TOU) tariff targeting customers in the Industrial and Commercial segment commenced in December 2017. The overall objective of the TOU tariff is to spur growth in the manufacturing sector through increased hours of production. The tariff will help boost off-peak demand for electrical energy by industrial and commercial customers through shifting of demand from peak to off peak periods and thereby increasing consumption due to lower off-peak tariff. Under the TOU tariff, customers are given a 50 percent discount on the applicable energy charge rate after attaining defined consumption thresholds.

Additionally, the tariff enables us to optimally utilise baseload capacity mainly from geothermal resources during off-peak periods while minimising use of thermal energy generation during peak time.

Leave No One Behind

Though national electrification has risen from 23% in 2009, to 73%, much of these have been achieved alongside the central corridor of the country –Mombasa – Nairobi- Lake Victoria, leaving out North East and Northern Kenya un-electrified. With the strategy of achieving universal connectivity by 2022, the sector cognizance of leaving some sections of the countries behind developed a new Kenya Off-Grid Solar Access Project (KOSAP). It's aimed at providing electricity to parts of the country that are not served by the national grid hence accelerating universal connectivity.

KOSAP targets to provide 1.3 Million households in the large swathes of the North East and Northern Kenya with electricity. The project is designed to scale-up electrification in households, market centres, schools, community facilities and enterprises in the furthest corners of Kenya which lack grid networks. It is therefore a critical plank of the National Electrification Strategy that will ensure universal access to electricity by 2022 and a key aspect of the Vision 2030, the country's long-term development plan.

The project is jointly implemented by the Ministry of Energy, the Kenya Power and Lighting Company (KPLC) and the Rural Electrification Agency (REA).

Strategic Areas of Focus/Next Steps

The following measures will be considered as strategic area of focus;

- i. Increase budgetary support for energy sector to promote geothermal resources assessment, transmission capacity enhancement and rural electrification expansion.
- ii. Expand and strengthen the energy infrastructure to deal with ever increasing demand of energy services in the Country. This includes transmission lines, distribution lines, and substations among others.
- iii. Promote public private partnerships in the energy sector. This will increase investments in the sector since the government budgetary in allocation of the sector is inadequate.
- iv. Diversification of electrical energy generation mix by finding other commercially viable alternative sources of energy such as geothermal, coal, wind, nuclear and solar to reduce dependence on hydropower and thermal energy.
- v. Deliberate interventions in the energy market through fiscal incentives (taxes, duties, levies) and non-fiscal incentives (subsidies, fees, guarantees, credits).
- vi. Consensus building and mutual understanding among key stakeholders in project planning and implementation.
- vii. Support research and development on the new and renewable sources of energy.
- viii. Strengthening performance monitoring, accountability and project/program planning systems, i.e. to improve governance and productivity of resources.
- ix. Develop a regional Energy policy framework learning from the successes and short-comings of the East Africa Power Pool Agreement.

Interlinkages with goal 13 Climate Action

Climate change increases the intensity of extreme weather conditions such as drought. This interrupts the amount of energy that is produced, distributed and consumed. Proper mitigation will therefore increase the supply of energy especially hydro power. Energy policies and strategies should therefore be integrated into the climate change measures.

Besides other sources of Energy, the country also relies on hydropower to generate electricity. Overtime the generation mix has been interrupted by deforestation. This necessitates the adoption of thermal energy to bridge the demand gap created by reduction in hydropower occasioned by the vagaries of weather.

In order to minimize this imbalance in future, the hydropower catchment areas must be managed in a sustainable manner. In an attempt to address this situation, the Ministry has been implementing a programme for reforestation of the catchment areas.

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity) as an Enabler. Besides other sources of Energy, the country relies on hydropower to generate electricity. Overtime the generation mix has been interrupted by unfavourable weather conditions. This necessitates the adoption of thermal energy to bridge the demand gap created by reduction in hydropower occasioned by the vagaries of weather. In order to minimize this imbalance in future, the hydropower catchment areas must be managed in a sustainable manner. In an attempt to address this situation, the Ministry has been implementing a programme for reforestation of the catchment areas.

Goal 8: Decent Work and Economic Growth

Status of Indicators and Trends Analysis

The country's economic growth rate has been increasing gradually from 5.7 per cent in 2015, 5.9 per cent in 2017 and 6.3 per cent in 2018. The annual growth rate of real GDP per capita stood at 3.6 per cent in 2018 from 3.1 per cent in 2016, while the annual growth rate of real GDP per employed person increased to 1.29 in 2018 from 0.4 in 2016.

Proportion of informal employment in non-agriculture employment rose from 83.01 per cent in 2016 to 83.6 per cent in 2018. The proportion of jobs in sustainable tourism out of the total jobs decreased marginally from 2.99 per cent in 2016 to 2.95 per cent in 2018. The proportion of youth aged 15-24 years who are not in education, employment or training was 18.6 per cent in 2016. The proportion of children aged 5-17 years who are engaged in child labour dropped from 34.5 per cent in 2014 to 13.1 per cent in 2016. A total of 313 CBAs were registered in 2018 compared to 298 in 2016.

Tourism sector recorded an increase in tourism earnings Kshs. 157.4 billion in 2018 from Kshs. 119.9 billion in 2017. Tourism direct GDP as a proportion of total GDP remained at 0.7 while tourism direct GDP in growth rate rose from 13.3 per cent in 2016 to 16.6 per cent in 2018. The number of international visitor arrivals increased from 1,666.0 thousand in 2016 to 2,027.7 in 2018

The number of hotel bed-nights increased from 7,174.2 thousand in 2017 to 8,617.9 thousand in 2018. The number of international conferences held in the country were 204 in 2018 from 191 in 2017. Visitors to national parks and game reserves rose to 2,868.9 thousand in 2018 from 2385.2 in 2017.

The number of commercial bank branches per 100,000 adults declined from 7 branches in 2018 to 6 branches in 2016. The number of automated teller machines (ATMs) per 100,000 rose from 11 in 2016 to 12 in 2017 and then back to 11 in 2018. Further, the proportion of adults (15 years and above) with an account at a commercial bank or with mobile money service provider increased from 73 per cent in 2016 to 81 per cent in 2018. The number of active mobile money subscriptions stood at 49.5 million in 2018 which implies that 66 out of 100 inhabitants had access to and used mobile money transfer services. Subsequently, mobile penetration reached 103.5 percent mark in 2018 from 85.93 per cent in 2016, an indication that subscribers are having more than one subscription to take advantage of competing voice or data plans by the operators. The value of mobile commerce transactions increased from Kshs. 1,750 billion in 2016 to Kshs. 6,077 billion in 2018.

The total number of internet subscriptions for both fixed and wireless increased from 58.82 per 100 inhabitants in 2016 to 95.52 per 100 inhabitants.

Interventions/Strategies

1. Establishment of a common platform where subscribers can send money across all networks.
2. Increasing mobile penetration per 100 inhabitants
3. Establishment of Universal Access Fund to take services to unserved and underserved areas
4. Increasing the number of 2G, 3G, and 4G transceivers
5. Initiation of Basic voice communication services in sub locations on 2G network
6. Extending additional 2,100 km of fiber to all the county headquarters
7. Development of a broadband strategy; and
8. Provision of fiber to public institutions such as schools, hospitals, police stations among others.

Challenges, Lessons Learnt and Emerging Issues

- i. Funding constraints
- ii. New/emerging technologies
- iii. Way leave acquisition from County Governments
- iv. Digital divide between rural and urban areas
- v. Cable vandalism
- vi. High cost of communication services
- vii. Market dominance by big operators
- viii. Regulations of market dominance and competition issues
- ix. Cybercrime
- x. E-waste management

Lessons Learnt

- i. Acquisition of concessional loans and PPP arrangements is an alternative way of funding ICT infrastructure projects
- ii. New and emerging technologies provide future opportunities as well as a threats to the existing ICT environment
- iii. Collaboration with County governments will ease of way leave acquisition challenges
- iv. The establishment of Universal Service fund will help bridge the Digital divide between rural and urban areas
- v. There is need for the designation of ICT infrastructure as Public Key Infrastructure to reduce cable vandalism
- vi. Reduction of cost of communication services will accelerate up-take of ICT enabled services
- vii. Market dominance needs to be properly managed to avoid abuse of the status. There is also need for enhanced regulations of the market dominance and competition issues is required
- viii. Network security needs enhancement to reduce Cybercrime

Emerging Issues

- i. New technologies such as Artificial Intelligence, internet of things, big data analytics, crypto currencies, etc; and
- ii. Cloud computing.

Innovative Ways of Addressing Challenges and Emerging Issues

- i. Public Private Partnerships (PPP) in development of ICT infrastructure
- ii. Establishment of Universal Service Fund to bridge the digital divide between urban and rural areas
- iii. Setting up Kenya Computer Incidence Response Team (KCIRT) to counter cyber crime
- iv. Adoption of wireless internet on mobile phones
- v. Development of appropriate ICT applications for service delivery such as IFMIS, e-citizen, Huduma centers, Mpesa among others
- vi. Adoption of new technologies (4G network)

Strategic Areas of Focus/Next Steps

- i. To formulate, review and implement appropriate ICT policies, legal and institutional frameworks that improve efficiency of service delivery.
- ii. To develop a world class ICT infrastructure that ensures availability, efficient, reliable and affordable ICT services.
 - a) To foster development of ICT applications and innovations.
 - b) To promote Business Process Outsourcing (BPO) and Information Technology Enabled Services (ITES)
 - c) To train, build and strengthen the ICT and mass media skills development
 - d) Development of e-commerce.

Goal 9: Industry, Innovation and Infrastructure

The Kenya Government identified key national sectors including elimination of Poverty, universal health care and education for all by 2030. In furtherance to reduction of poverty, creation of employment is inevitable and hence special attention on industrialization is critical.

Status of Indicators and Trends Analysis

The proportion of the rural population who live within 2 km of an all-season road increased from 61.4 per cent in 2016 to 69 per cent in 2018. Rail, air and water freight traffic increased from 1,380, 249.5 and 27, 384 thousand tonnes in 2016 to 3,544, 358.7 and 30,923 thousand tonnes in 2018, respectively. This was mainly due to introduction of freight transportation services on the Standard Gauge Railway (SGR). Revenue from railway freight increased from Kshs. 3.0 billion in 2017 to Kshs. 9.8 billion in 2018. Similarly, earnings from the passenger traffic stream rose to more than double standing at Kshs. 1.7 billion in 2018.

Total pipeline throughput increased by 2.7 per cent to 6,321.5 thousand cubic metres during the review period. The number of newly registered motor vehicles increased by 5.2 per cent from 282,672 units in 2017 to 297,289 units in 2018. Passengers using the railway line per thousand increased from 2,793 in 2016 to 4,490 in 2018, while air transport passengers per thousand increased from 9,719 in 2016 to 11,751 in 2018.

The total number of reported road traffic accidents increased by 15.5 per cent from 4,452 in 2017 to 5,144 in 2018. The number of death resulting from road traffic accidents increased by 8.0 per cent to 3,153 in 2018 while the number of person who sustained serious injuries increased by 18.5 per cent over the same period. The growth in the length of roads constructed slowed to 9.5 per cent in 2018 compared to 30.6 per cent in 2017.

Manufacturing value added as a proportion of Gross Domestic Product (GDP) decreased from 9.3 per cent in 2016 to 7.7 per cent in 2018 and manufacturing employment as a proportion of total employment also decreased from 11.6 per cent in 2016 to 11.12 per cent in 2018.

The small-scale industry proportion of total industrial value added was growing dismally. The value of loans access to MSMEs grew by 35% in 2018.

Despite positive growth of National GDP, industrial research and development expenditure has declined to 37 percent in 2018 from 21 per cent in 2017. The research and development expenditure as a proportion of GDP shows marginal funding. Further, both number of full-time industrial researchers and researchers per million inhabitants shows reduction reflecting inadequate research product support for industrialization.

Table 1-3: GDP, Research and Development Expenditure

Years	2016	2017	2018
GDP at Market (Kshs Mns)	7,022,963.1	8,144,372.7	8,904,983.9
Research and Development expenditure (Kshs Mns)	6338.3	6795.4	6588.3
Research and development expenditure as a proportion of GDP	0.0009	0.0008	0.0007
No. of full time Researchers	248	242	239
Researchers (in full-time equivalent) per million inhabitants	31	29	28

Source: Kenya Industrial Research Development Institute (KIRDI, KARLO, KEMFRI)

Interventions

In promoting industrialization, the earmarked interventions are:-

- Buy Kenya Build Kenya Strategy (BKBK) to enhance locally made products in the market competitively;
- National Automotive Policy to resuscitate quality manufactured products and restricts 10% usage in various assembly plants;
- County Governments in collaboration with National Land Commission (NLC) to establish and zone land for Industrial development;
- Setting up industrial zones/parks for leather, textile and apparel, agro-processing, fish processing;
- Establish Small Micro Enterprise (SME) parks from the current 65 to approximately 115 by 2022;
- Establish Science and Technology parks in each County;
- Promote cottage industries through One Village One Product (OVOP) Programme;
- Development of Skills and Capacity through implementation of a competency based education and training (CBET) curriculum, revitalization and

- modernization of Technical Vocation and Education Trainings (TVETs) and upgrading Kenya Industrial Training Institute (KITI) to a regional centre of excellence; and
- i. Enhance Eco- innovation for productivity and competitiveness - Strengthen Academia- Industry- Government- Civil society (Quadruple helix) to boost research and attract funding opportunities.

The proportion of population covered by a mobile network, by technology increased from 95 (2G) and 78 (3G) in 2016 to 95 (2G), 86 (3G) and 35 (4G) in 2018.

Transportation; During the review period, 5,500km were targeted for construction and rehabilitation comprising of 3,825km of national trunk roads and 1,675km of county roads. Under the Road Expansion Programme 3473.66kms of roads were constructed and rehabilitated.

Low Volume Seal Roads (LVSR) - Roads 10,000: Under the programme. a total of 450.75kms of roads had been upgraded to bitumen standards Out of the 4,993kms awarded projects, 2,953kms were officially launched.

Periodic and Routine Maintenance of Roads: A total of 5,298.55kms of roads (124%) were put under periodic maintenance while 208,088.91 kms of roads (104%) were put under routine maintenance.

Roads 2000 Programme: The strategy was designed to facilitate rural accessibility and mobility with an objective to spur rural productivity thus creating wealth and reducing poverty through promotion of employment and income earnings. It targeted maintenance of 4,700kms where, a total of 765.65kms (16%) of roads were maintained during the plan period.

Lamu Port South Sudan Ethiopia Transport (LAPSSET): This is a Corridor Project aimed at opening up northern Kenya and providing a reliable transport corridor to Ethiopia, South Sudan and to some extent Uganda.

Railway Services System: The Standard Gauge Railway has two phases. Phase 1 (Mombasa – Nairobi) 472 kilometers was completed and Phase 2A (Nairobi-Naivasha) of the project have been 80% completed. The development of rail commuter services is at various stages including mass Rapid Transit Systems.

Legal Frame Work

The supporting legal framework developed were; i) Draft Nairobi Metropolitan Transport Authority Bill, 2017; ii) Road Annuity Fund for financing Annuity roads under the Roads 10,000 programme; iii) Preparation of the Roads Sector Policy 2016; iv) The Kenya Roads Bill 2016 which is awaiting enactment; v) Enforcement of specifications and standards for construction, development and maintenance of National trunk road.

Challenges, Lessons Learnt and Emerging Issues in Transport and Industrial Sectors

Challenges

- a) High capital investments involved
- b) Bureaucracies in Land acquisition for development of infrastructure
- c) Inadequate skilled manpower in transport management and planning

- d) Vandalism of infrastructure facilities
- e) Weak governance and accountability
- f) Encroachment of land earmarked for public infrastructure development
- g) Un-availability of Industrial Zoned land
- h) Inadequate Skills and human capital Capabilities in manufacturing
- i) High cost of industrial production – energy is comparatively expensive than other regional countries
- j) Unfriendly Business Environment–instil business reforms and improves on ease of doing business
- k) Inadequate Funding of the exchequer –l Inadequate access to financial services for industrial development- industrial Development fund
- l) Dumping of Counterfeit and Sub-standard goods-Strengthen the Anti-Counterfeit Agency
- m) Non-Tariff barrier within East Africa Community-Intensify engagement on removal of Non- Tariff Barriers (NTBs) and strict implementation of agreed protocols and statutes
- n) Slow uptake on Innovation and Technology Development-
- o) Low Export base and Value Addition-

Lessons Learnt

- a) Exhaustive public participation is very important during projects planning and implementation for ownership;
- b) Optimal institutional capacity is necessary for successful planning, implementation, monitoring and operation of programmes and projects;
- c) Innovative resource mobilization is important for successful implementation of infrastructure projects;
- d) Land acquisition should always start much earlier than the projected date of commencement to reduce speculation on pricing on land earmarked for infrastructure development;
- e) Some manufacturing association are frustrating Africanizing the manufacturing sectors; and

Emerging Issues

- 1) Climate Change Adaptation and Mitigation: the impacts of the aggressive agitation of environmental concerns, adverse weather conditions on the implementation of sector projects and programmes makes capital industrial installation uncompetitive;
- 2) High community expectations through inflated prices for land compensation and resettlement for projects makes them stall before commencement.

Innovative Ways of Addressing Challenges and Emerging Issues

Development of Roads through Public Private Partnership: The Government created a Road Annuity Fund which is a dedicated fund for financing Annuity roads under the Roads Annuity programme. In a bid to accelerate domestic borrowing the government has issued infrastructure bonds as an alternative approach that will see the government initiate projects before privatizing at a later stage and use the proceeds to provide initial funding for new projects. The Ministry of Transport, Infrastructure, Housing and Urban Development is promoting the wider use of performance-based contracts (PBC) by regional authorities while the National agencies are already using PBCs to contract out road maintenance.

Strategic Areas of Focus

Development and Implementation of the 50 Year Transport Master Plan to document a valiant vision for the long-term multimodal transportation system that will support the country into the future. The plan will also provide priority actions and strategies for implementing projects and services to meet short-term needs while working toward the long-term goals for the absolute transportation system. The government will continue with the Roads expansion Programme and target to construct and rehabilitate 10,000km of roads. . Full implementation of the Mass Rapid Transit Improvement Programme will improve mobility and accessibility in the Nairobi City in terms of efficiency, inclusiveness, safety and environmental sustainability.

- a) Development of Freeport, Public and Private Industrial Parks:
- b) Private Special Economic Zones (SEZs) are:
- c) Development of the integrated iron and Steel Mill:
- d) Increase in production of engineering materials and alloy steels:
- e) Revitalization of local Automotive Assembly and Auto Parts Manufacturing
- f) Revitalization of Fabrication of Industrial Machinery and Parts
- g) Leather Sector development – Kenanie leather park:
- h) Construction of textile Hub at Athi River:
- i) Modernization of Rivatex (upgrading of the machinery):
- j) Provision of Industrial Training (KITI):

The institution has been proposed to be upgraded to a regional centre of excellence in artisan and short-term courses to enhance skill capacity in textile and manufacturing.

Leave No One Behind

The concept of Leave No One Behind (LNOB) has been embraced enthusiastically for industrialization in i) promotion and lobbying for cottage industries under auspices of Kenya Industrial Institute (KIE), ii) development of Constituency Industrial Development Centres (CIDCs) as common user facility and iii) promote One Village One Product (OVOP) programme to grow manufacturing.

Sectoral Inter-Linkages

Goal 2: Improve extension services for Agriculture and Livestock services to increase agro-raw materials for Agro-processing and improved quality of hides and skins for leather and leather products

Goal 4: Development of Skills and Capacity through implementation of a competency based education and training (CBET) curriculum, revitalization and modernization of TVETs and upgrading KITI to a regional centre of excellence. This collaboration enhances Eco-innovation for productivity and competitiveness - Strengthen Academia- Industry-Government- Civil society (Quadruple helix) to boost research and attract funding opportunities.

Goal 9: Develop special tariffs for heavy Manufacturers, Provision of Geothermal gas, Roads, and power line to SEZs and Naivasha Industrial Park

Goal 6: The development of clean water supply and its disposal has become very important at EPZA, all SEZs and Industrial Parks.

Goal 10: Reduced Inequalities

In September 2015, the UN General Assembly adopted the 2030 Agenda for Sustainable Development that includes 17 Sustainable Development Goals (SDGs). Building on the principle of “leaving no one behind”, the new Agenda emphasizes a holistic approach to achieving sustainable development for all. The Agenda has its main objective as: eliminating poverty, making growth inclusive and sustainable, and ecosystems (including the climate) restored. At the global front, it is expected that the vulnerable groups will be key in rolling out the 17 SDG Goals by playing their role as: disruptive critical thinkers; change agents; innovators; communicators/ educators; and leaders. Therefore the inclusion of youth, women, PWDs and special interest groups is an essential component of the nation’s development and a key driver in the realization of Kenya’s Big Four Agenda, the Kenya Vision 2030, and Sustainable Development Goals (SDGs).

Status of Indicators and Trends Analysis

The labour share of GDP, comprising wages and social protection transfers increased from 28.7 per cent in 2016 to 29.2 per cent in 2018 while total resource flows for development increased from Kshs. 25.9 billion in 2016 to 47.5 billion in 2018. Remittance costs as a proportion of the amount remitted remained at 8.47 per cent. The labour share of GDP, comprising wages and social protection transfers increased from 28.7 per cent in 2016 to 29.2 per cent in 2018. Kenya retained 6 voting and membership rights. The total flows for development increased from Kshs. 29.9 billion in 2016 to Kshs. 47.5 billion in 2018.

Interventions/Strategies

In response to citizens’ demand for greater inclusion in social and economic benefits and opportunities for sustainable livelihoods, the government has been implementing specific interventions, targeting the most vulnerable sectors of the population. Such programs and interventions are implemented by different stakeholders that include Government ministries and agencies, the private sector, communities, households, and other non-state actors.

The constitutionally created Equalization Fund, aims at correcting the disadvantage of the previously marginalized areas. It is allocated one half percent of all revenue collection by the national government each year to provide basic services including water, roads health facilities and electricity to marginalized areas. It has ensured that regions with more development challenges receive more public resources as a way of catalyzing movement towards equality within regions and communities. Similarly, the provision of free primary school education and subsidized free secondary school as well the expansion of Technical and Vocational Educational Training (TVET) institutions to the village level, the Government of Kenya endeavors to ensure that children and pupils from poor backgrounds attain a decent education and life skills that equip them to compete with those from privileged backgrounds.

The Procurement Preferences and Reservations directive of the Public Procurement and Asset Disposal Act, 2015 makes it mandatory for Public Entities to comply with the provisions of Part XII which requires Accounting Officers of public entities to “... reserve a prescribed percentage of its procurement budget, which shall not be less than 30%, to the disadvantaged group.

The government has established institutions championing and safeguarding youth and vulnerable groups’ rights like the National Youth Council, Anti-FGM board, National Council for Persons With Disabilities, Women Enterprise Fund, Youth Enterprise

Development Fund, National Government Affirmative Action Fund, National Government-Constituency Development Fund, UWEZO Fund, National Youth Services Capacity Building Initiatives and the Kenya Youth Employment and Opportunities Project (KYEOP) which is a successor of the pilot Kenya Youth Empowerment Project (KYEP), and Hunger and Safety Net Programme among others.

In addressing the plight of the less disadvantaged in society, combat poverty, and promote equity; these programmes aim at increasing access to capital for enterprise development, developing employability skills and increasing representation and participation of the youth, women, PWDs and the vulnerable groups in governance. The Affirmative Funds: Uwezo Fund, Women Enterprise Fund and Youth Enterprise Development Fund, have availed over 25 billion to nearly 3 million youth, women and PWDs. Complimentary interventions such as the National Youth Service through the 5-point Vision has since 2016, increased its annual intake of youth recruitment to over 20,000 annually.

The Government of Kenya is implementing the **Kenya Youth Employment and Opportunities Project (KYEOP)** with the World Bank, through the Ministry of Public Service, Youth and Gender Affairs alongside other implementing agencies namely; National Industrial Training Authority-NITA, Micro and Small Enterprises Authority-MSEA, and State Department of Labour-SDL. The project targets youth aged between **18 and 29 years** to access training, workplace experience and internship opportunities as well as entrepreneurship support services. The Project has so far reached 13 counties and will roll out to 4 other counties over this year. So far, **30,000 youth** have benefitted from the project. Of these, over **7,500 youth** have received grants amounting to over **214 million shillings** under the business support component to enable the youth start, run, and expand their businesses. Another **23,000 youth** have benefitted under the Training and Internship component where they are attached to trainers in the formal and informal sectors, after undergoing Life Skills and Core Business Skills Training. This will enhance their absorption into the labour market.

The project will directly train over **70,000 youth** in **17 Counties** within its 5-year period. Another **30,000 youth** will be awarded business grants over the same period. At the same time **180,000 youth** will also benefit through other project interventions like the Business Plan Competition, Digital delivery services and the Innovation Challenge for the Hard-to-Serve Youth. The project is also developing a Labour Market Information System (LMIS) to mitigate the gap between demand and supply of labour.

Huduma Kenya is a programme by the Government of Kenya that aims to transform Public Service Delivery by providing citizen's access to various Public Services and information from One-Stop-Shop citizen service centres called Huduma Centres and through integrated technology platforms. It provides Efficient Government Services at the convenience of the citizen.

The ICT sector in Kenya has been growing at a very fast rate, mainly driven by the private sector. The government has made efforts to ensure that the ICT's business demand and supply sides are addressed. The government commitment to meet and fast track ICT development in the country was mainly through investing in the establishment of a conducive environment such as modern communication infrastructure. Kenya has effectively harnessed digital technologies for financial inclusion through the development and launch of the mobile money transfer.

Citizen participation in public policy decisions making including in the prioritization, planning, ownership and, sustainability of sub national and national development is embedded in the constitution. Further, the Constitution in Article 201 (a) requires openness

and unlimited accountability. As part of these processes the vulnerable and the poor should be fully and effectively involved in the country's development agenda and public participation is a mandatory constitutional requirement.

Stakeholder Collaboration

Towards empowering and promoting the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status, United Disabled Persons Kenya with support from the National Council of PWD implemented a project to empower PWDs to participate in the voter education process in all counties. Under the project, it trained 30 PWDs on campaign management. The project also successfully trained elected and nominated PWDs on their mandate to represent PWDs in various assemblies.

The Bio-Intensive Agricultural Training Centre is one of the rural and urban development programmes under the umbrella of the Methodist Church of Kenya in Kaaga, Meru County. In collaboration with Ecumenical Disability Advocacy Network (EDAN), the Centre undertook construction of ramps on the walk ways to the Centre's demonstration farms; accommodation rooms, fish ponds and common rooms to improve access for PWDs. They can now access the centre easily and be part of any activity being held there.

Challenges, Lessons Learnt and Emerging Issues

Challenges

Kenya as a developing country still encounters resource constraints in its desire to expand its social protection transfers.

Radicalization and violent extremism create mistrust, discontent and disillusionment among the citizens affecting constructive participatory engagements. The country has neighbors who have been unstable for a long time leading to illegal immigration as well as trafficking in persons and illegal fire arms which pose perpetual security concern in the country. The illegal firearms cause insecurity and lawlessness in the northern frontier counties threaten source of livelihoods, scare investors and thus affect delivery of essential services. Weak values, norms and societal desire for quick wealth and ambitious lifestyle comes with tough choices between alternative investment opportunities like betting and investment in securities.

Strategic Areas of Focus/Next steps

- i) Enhance dialogue and trust building between the Youth and the society at all levels;
- ii) Strengthen multi-agency, families and communities to engage the youth in promoting peace and secure crime free neighborhoods and include *the Nyumba Kumi* and Community Policing Initiatives into the Youth Volunteerism Plan;
- iii) Enhance employability skills through Public Private Partnerships and strengthen institutions championing and safeguarding of the rights of the vulnerable groups.
- iv) Collaborating with relevant stakeholders for incorporation of *the Nyumba Kumi* and Community Policing Initiatives into the Youth Volunteerism Plan (NYS Cohorts Model). During training the youth are trained on national values thus increase trust and reduce discontent and disillusionment in government.
- v) Enhance dialogue and trust building amongst the vulnerable groups and the society at all levels; Unemployment coupled with weak values result to radicalization and violent extremism among the youth. The government has established affirmative

fund programmes like the WEF, YEDF, Uwezo Fund provide relatively cheaper loans with no collateral security requirements.

- vi) Enhance employability skills through Public Private Partnerships and strengthen institutions championing and safeguarding of the rights of the vulnerable groups. The KYEOP offers opportunity for youth to gain employability skills experiences to secure formal employment or start own enterprises.

Linkage with other goals

Insecurity and lawlessness is threat to source livelihoods. Farming and involvement in agriculture is made impossible as ownership to property is at mercy of intruders! Insecurity turns away potential investors' especially northern frontier counties and make delivery of essential services (education, health and social services is made difficult.

Strong Institutions championing and safeguarding the rights of the Vulnerable groups. Design programmes based on the needs and locality of the vulnerable groups. Affirmative funds- offer relatively low interest rates and help in Increasing investment and reducing intergenerational poverty cycles. Building capacity of right of right holders through awareness creation. Education and inclusive policies including infrastructure. There are existing policies and legal frame works in place targeting the vulnerable groups.

Goal 11: Sustainable Cities and Communities

The objective of the Social Pillar of the Kenya Vision 2030 is to invest in the people of Kenya in order to improve the quality of life for all Kenyans by targeting a cross-section of human and social welfare projects and programmes, including Housing and urbanization. In line with this vision, Sustainable Development Goal No. 11 aims at making cities and human settlements inclusive, safe, resilient, and sustainable.

Measures taken to ensure sustainable cities and communities include formulation, review and legislation of various policies and laws as follows: - the National Housing Policy of 2016, the Slum Upgrading and Prevention Policy of 2016, The National Urban Development Policy of 2016, the amendment of the Urban areas and Cities Act by Parliament in October 2017, approval of the Sectional Properties Bill 2018 in February 2019 by the Cabinet among others. The policy and legal framework are aimed at improving the sustainability of cities and urban settlements in line with the aspirations of Vision 2030.

a) Status of Indicators and Trends Analysis

Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage decreased from Kshs. 338.79 in 2016 to Kshs. 310.92 in 2018. In the review period, the number of deaths, missing persons and persons affected by disaster per 100,000 people stood at one (1). The proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated increased from 56.6% in 2016 to 57.4% in 2018 while 100% of all county governments have adopted and implemented local disaster risk reduction strategies in line with national risk reduction strategies. The proportion of urban population living in slums, informal settlements or inadequate housing stood at 7.9 percent as per 2009 Kenya Population and Housing Census.

Through the Ministry of Transport, Infrastructure, Housing and Urban Development promoted and disseminated the use of Appropriate Building Materials and Technologies (ABMT) by constructing ten (10) Constituency (ABMT) centers in Uasin Gishu, Embu, Kwale, Marsabit, Kajiado, Makueni, Migori, Isiolo, Meru, and Nyamira Counties. By June

2019, five centres were under construction. The Ministry also adopted and promoted use of Interlocking Stabilized Soil Blocks (ISSBs) and Industrial Building Systems (IBS); trained 300 community groups on use of ABMTs; and established an Enterprise Development Model that is being piloted in Kitui County. The model targets organized groups comprising of youth and women. The group shall be facilitated with equipment, technical assistance and hosted by the ABMT Centre for a maximum duration of one year within which it will be expected to stand on its own. This program aims at facilitating young men and women to deliver affordable housing using ISSB technology while empowering them to become construction entrepreneurs. The model will progressively be rolled out to other counties in future. The Ministry also initiated local fabrication of a Hydraulic Interlocking Block making machine in collaboration with Numerical Machine Complex.

Through the Kenya Slum Upgrading Programme, 462 sustainable neighborhood housing units in Mavoko, Machakos County were constructed.

To mitigate flooding, improve urban accessibility, mobility and safety, the following had been undertaken by June 2018: 202.4 Km of Non-Motorized Transport (NMT) constructed; 56Km of storm water drainage constructed in Mombasa, Embu, Machakos and Garissa; 1,109No. street and security lighting installed; 3No. Bus parks completed in Maungu, Eldama Ravine and Homabay; 10No. Schools in poor urban areas constructed; 2No. Kenya Municipal Programme markets completed i.e. Machakos and Garissa Livestock Markets; and 26.2Km of missing link roads constructed in Kerugoya, Kutus, Mombasa and Kisii.

Through the Nairobi Metropolitan Improvement Project, the preparation of integrated strategic urban development plans for 12 towns in clusters of 4 within the NMR is underway. The development of Physical address system for Nairobi and other major town is ongoing. The construction of the Mitubiri sanitary landfill and improvement of Kikuyu and Kahawa commuter railway stations, Dandora and Githurai commuter railway stations, Ruiru, Athi river, Donholm, Pipeline and Mwiki commuter railway stations are also being undertaken.

To improve transport mobility and accessibility within Nairobi Metropolitan Areas (NMR), work is ongoing for Non-Motorized Transport (NMT) construction of bus terminus, Bicycles and Pedestrian pathways in various parts of the city.

The National Government through the Urban and Metropolitan Development department undertook measures to address fire disasters and also improve city lighting. A study on Disaster Preparedness was completed.

The National Housing Corporation has completed development of 245 housing units in various urban centres for sale to the general public with 450 urban housing units at various levels of completion. It also advanced Kshs.259million to 156 Kenyans for development of rural houses; and produced 317,522 square meters of Expanded Polystyrene panels at their factory in Mavoko. During the same period, the Kenya Building Research Centre completed mapping of traditional building materials in Mombasa, Kilifi, Lamu, Taita Taveta, Kwale and Tana River. Furthermore, research activities in appropriate building materials and technologies for use in the construction of 500,000 affordable houses were initiated. The Draft Kenya Construction Research Institute Bill, 2018 is being developed.

The sector is also encouraging investors with technologies that facilitate mass development of houses at short periods while reducing the costs of construction to come on board.

The Sector has also engaged Technical and Vocational Education department to ensure that the youth are equipped with requisite skill for provision of various construction services. These are: plumbers, carpenters, electricians among others. Moreover, the Government will leverage on economies of scale by ensuring standardized designs of housing components such as doors, windows and other fittings.

The National Building Inspectorate (NBI) had audited 10,070 buildings and structures with 656 buildings having been found to be unsafe and require immediate testing. Those structures that were found to be unsafe were demolished.

b) Interventions/Strategies

- i. Kenya has undertaken measures to ensure sustainable cities and communities which include formulation, legislation and implementation of various policies and laws such as the National Housing Policy of 2016, the National Slum Upgrading and Prevention Policy of 2016, the National Urban Development Policy of 2015, the amendment of the Urban areas and Cities Act by Parliament in October 2017, approval of the Sectional Properties Bill 2018 in February 2019 by the Cabinet whereby the enactment of this Bill will repeal the Sectional Properties Act, 1987 and digitization of land registration processes which shall overhaul land management system, registration of titles as well as ease of doing real estate business among others. These policy and legal frameworks are aimed at improving the sustainability of cities and urban settlements in line with the aspirations of Kenya Vision 2030.
- ii. The construction of the National Police and Prisons Services housing units in different parts of the country under annuity financing model to improve their living conditions.
- iii. The Government is committed to delivery of 500,000 affordable housing Units by 2022 mostly in the urban and peri-urban areas. Towards this, the government has engaged various stakeholders to discuss how to actualize this goal. The Government has installed street and security lighting in all major towns in Kenya including all county headquarters. The programme is aimed at increasing security in major towns as well as creating employment opportunities and facilitates the realization of a 24-hr economy. In addition, Closed Circuit Television Cameras (CCTVs) cameras have been installed in Nairobi and Mombasa to help towards enhancing security and prevent crime. Similar projects are planned for implementation in other major towns.

c) Challenges, Lessons Learnt and Emerging Issues

Challenges

- i. Financial constrain;
- ii. Multiple legislative and regulatory framework for the built environment sector;
- iii. Inadequate decent and affordable housing;
- iv. Litigation from stakeholders;
- v. Rapid population growth in relation to the available resources;
- vi. High rural-urban migration;
- vii. High land compensation and resettlement costs;
- viii. Inaccessibility and rising cost of housing finance and building materials;
- ix. Incentives for low cost housing are inadequate to spur private sector investments in low cost housing;

- x. Inadequate research and development on construction materials:. The uptake of the same by the industry has been slow partly due to lack of resources; and
- xi. Inadequate skilled labor in construction industry

Lessons Learnt

- i. Fast tracking the review of the Public Private Partnership framework is key towards housing delivery process by accommodating new approaches e.g., land swap and Joint Ventures.
- ii. Strengthened collaboration between the National Government, County Government and other relevant agencies is key towards the success of housing delivery.
- iii. Provision of housing infrastructure facilities is key towards lowering the cost of housing development.
- iv. There is need to prepare spatial plans for all urban area.

Emerging Issues

Adoption of the New Urban Agenda (NUA) - the NUA was adopted during the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) that took place in Quito, Ecuador in 2016. It provides a framework for guiding development of sustainable urbanization, housing and human settlements over a period of twenty years as well as implementation of the Sustainable Development Goals (Agenda 2030). It seeks to pursue a paradigm shift in the way cities and other human settlements are planned, managed and governed. It also seeks to transform existing and emerging challenges into opportunities by leveraging the potential of urbanization for structural transformation and advocates for a radical commitment to three fundamentals of urbanization, which are: - urban legislation and the rule of law; urban planning and design; and sound financial tools.

The Kenya Mortgage Refinance Company (KMRC) - This is a financial institution whose sole function is to provide long-term loans to primary mortgage lenders including Banks, Microfinance Banks and Sacco's. It was launched in 2019 and is aimed at making mortgage cheaper for Kenyans. Its role will be to source loans from big investors and multilateral lenders and act as a pool from which mortgage lenders in the country can draw from at affordable rates.

d) Innovative Ways of Addressing Challenges and Emerging Issues

- i. Promotion of Appropriate Building Materials and Technologies in order to lower construction cost, improve quality of housing, enhance speed of delivery and achieve environmentally friendly constructions.
- ii. Improve research on construction materials and disseminate the findings for the purpose of uptake and use in the industry.
- iii. Establish a public land database by working closely with National Land Commission, the Ministry of Lands and Physical Planning and County Governments
- iv. Explore use of Public Private Partnerships (PPPs) in project implementation
- v. Partnership and Capacity Building.-The Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works has engaged Technical and Vocational Education (TVET) department to ensure the youths have requisite skill for provision of various construction services. These are: plumbers, carpenters, electricians among others. Moreover, the government will leverage on economies of scale by ensuring standardized designs of housing components such as doors, windows and other fittings.

e) Strategic Areas of Focus/Next Steps

- i. **Housing development:** this involves facilitation of development of 500,000 affordable housing units for lower income Kenyans from 2018 to 2022 through various initiatives.
- ii. **Up-scaling slum upgrading and prevention initiative:** This involves construction of social housing units, installation of physical and social infrastructure in slums and informal settlements in selected urban areas
Implementation of Kenya Informal Settlement Improvement Project (KISIP) II- this project covers informal settlements in 33 counties which did not benefit under KISIP I. It entails enhancement of tenure security and investment in infrastructure and service delivery, which will open up more areas for housing development.
- iii. **Establishment of National Housing Data Centre-** the programme entails establishment of a centre to provide informed guidance and accurate data on the sector as well as act as a one stop real estate advisory centre. The centre will have a housing database offering housing sector data, information on market trends, best practices and risk assessment on real estate investment.
- iv. **Metropolitan Development:** this will involve preparation and implementation of strategic development and investment plans in six metropolitan regions (Nairobi, Mombasa, Kisumu-Kakamega; Nakuru-Eldoret, Wajir-Garissa-Mandera, Kitui-Mwingi-Meru) and their respective Spatial Plans.
- v. **Development of Appropriate Building Materials and Technologies Centres countrywide-**the aim is to disseminate the use of alternative building materials and technologies and also encourage the uptake of the same towards facilitating delivery of 500,000 affordable housing units.
- vi. **Research in Appropriate Building Technology:** research on alternative building technologies will be undertaken on: brick/soil-based materials; natural stones; cement based materials; wood based materials; indigenous roofing materials; interlocking bricks; and prefabricated buildings.
- vii. **Planning of Urban Mass Transport, Bus Rapid Transport and Non-Motorized Transport Infrastructure-** This includes development of terminal facilities (bus/lorry park), access roads, missing link roads, high mast lighting and street lighting, improvement of railway stations and Non-Motorized Transport.
- viii. **Kenya Urban Support Programme-**the programme objective is to establish and strengthen urban institutions to deliver improved infrastructure and services in participating counties.
- ix. **Policy, Legal and Institutional Reforms-**continue to formulate, review and implement required policies and acts.
- x. **Setting up of a National Housing Development Fund-**this will be a vehicle for providing funding support for both developers and home owners towards housing delivery. On the supply side, the Fund will be the Bulk Purchaser of housing units from developers, thereby mitigating the offtake risk while on the demand side, it will be the Long-Term Financier offering homeowners affordable and accessible funding to buy homes primarily through a National Tenant Purchase Scheme.

Interlinkages with other Goals

Goal 8: This section should describe briefly which goals facilitate its achievement and how e.g. water and sanitation, infrastructure especially transport. On the other hand there are goals that hinder its achievement e.g. environment.

Leaving No One Behind

The government is committed to fulfilling this principle especially with regard to facilitating affordable and decent housing by employing various strategies and programmes which include the following: -

Delivery of Five Hundred Thousand Affordable Housing Units By 2022: The purpose is to facilitate mass housing production of affordable housing units across the country by working in partnership with financial institutions, private developers, manufacturers of building materials and cooperatives. This will ensure more and more Kenyans own homes and thus address the housing deficit. To enhance range of affordability, we have the maximum cost for each unit to be delivered under the program.

Collaborate with Counties in production of 22,000 affordable housing: The Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works will collaborate with County Governments in provision of 22,000 housing units for County Governments by carrying out the following activities: signing of Memorandum of Understandings with 11 counties, identify and survey land in counties and undertake land use planning for the project sites.

Construction of social housing units: Through the Kenya Slum Upgrading Programme 462 housing units have been constructed in Mavoko. Additionally, 7,125 social housing units are expected to be constructed up to substructure level and besides undertaking a socio-economic survey.

Rural Housing: According to Vision 2030, each Constituency centre is supposed to have an Appropriate Building Material and Technology (ABMT) centre. In this regard, the Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works has constructed 92 ABMT centres across the country to promote use of local materials in building construction. This will help the rural communities to construct better houses through use of cheap building materials.

Employer Assisted Housing-the government through civil servants Housing scheme has continuously provided housing loan facilities to civil servants for development and purchase of residential houses. For instance, during the 2018/19 financial year, , 124 Civil Servants had benefitted from the Civil Servants Mortgage Scheme and other applications were under processing through Kenya Commercial Bank and Housing Finance. The scheme will also construct civil servants houses in various counties where a total of 620 houses will be constructed.

Installation of physical infrastructure in selected slums and informal settlements:

In order to facilitate the development of social housing, the Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works is expected to undertake the following by June, 2019: -

- i. Construct: access roads, and trunk sewer lines in informed settlements, Implement Kenya Informal Settlement Improvement project (KISIP) Phase II
- ii. Install High mast flood lights in selected informal settlements Construct 5 classrooms, office block, ablution block and administration block at Kiwanjani primary school in Isiolo

Implementation of Kenya Urban Support programme

During the 2018/19 financial year, the Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works is expected to;

- i. Disburse Urban Institutional Grants per county to 45 counties to support establishment and strengthening of urban institution for services delivery and infrastructure development
- ii. Disburse Urban Development Grants to qualifying Counties.

Legislative and Regulatory Framework

A number of statutes have been proposed to address various issues such as:-review of Housing Act (Cap 117), Housing Bill to amend the Housing Act Cap 117, Sectional Property Act which provide for the division of buildings into units to be owned by individual proprietors. It will also provide for common property to be owned by proprietors of the units as tenants in common and to provide for the use and management of the units and common property. The Physical Planning Bill that makes provision for the planning, use, regulation and development of land and for connected purposes will also be reviewed.

Goal 12: Sustainable Production and Consumption

The food loss index decreased from 73.3 per cent in 2016 to 60.3 per cent in 2018.

In order to enhance efficiency in the use of natural resources and energy, the industrial sector has embraced cleaner production technologies through technical assistance by the Kenya National Cleaner Production Centre. The Centre has continued to capacity build industries in improving efficiency in the status of production systems/equipment in order to reduce wastage of raw materials and energy aimed at minimizing waste generation at source.

The country has also pioneered the Green Economy Strategy initiatives that aim to support development efforts towards addressing key challenges such as poverty, unemployment, inequality, environmental degradation, climate change and variability, infrastructure gaps and food insecurity. A green growth path results in faster growth, a cleaner environment and high productivity.

Towards halving per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses, Techno Serve, the Rockefeller Initiative and YieldWise Initiative teamed up to mitigate waste in fruit production with 20,000 farmers in four regions of Kenya. Farmers are offered training on optimal harvesting times and practices. In Embu County, the project piloted a solar drying facility to add value on mango productions. Innovative post-harvest technologies are being promoted in the project areas. Since 2015, YieldWise have trained more than 15,000 farmers on post-harvest loss technologies while Techno Serve has also brought together a variety of local and regional buyers, including fresh market traders, exporters, mango dryers and processors, to establish volume purchase agreements with YieldWise farmer business groups.

To substantially reduce waste generation through prevention, reduction, recycling and reuse, the successful implementation of the single-use plastic ban in Kenya was championed by TEAMEnvironment KENYA, linking it to target 12.5 and also SDG 11 on sustainable cities and communities. The CSO carried out sensitization campaigns and awareness creation programmes in various counties for at least five months before the ban took full effect.

Interventions/Strategies

In order to achieve environmental sound management of chemicals, the government has developed a draft Chemicals policy and terms of reference for inter-ministerial coordination on chemicals. In addition, the country participated in international dialogue, BRS, triple COP 2017, 2019, Minamata Convention COP1 and COP2, Strategic Approach to International Chemicals Management (SAICM).

Towards reduction of waste generation, the Ministry developed a National Solid Waste Management Strategy ; developed action plans on waste management and pollution levels in Mombasa, Thika, Nakuru, Eldoret and Kisumu as well as county solid waste management roadmap; implemented Plastic Bags Initiative vide Gazette notice No. 2334; harmonized Municipal and Industrial effluent standards within the Lake Victoria Basin; constructed sewerage treatment plants in Kisumu, Homa Bay, and Bomet towns; and developed a system to monitor Nutrient and Sediment Losses from Land Use and Cover in the Nyando Basin.

Challenges

- i. Inadequate physical and social infrastructure in slums and informal settlements;
- ii. Rapid urbanization;
- iii. Rapid population growth; and
- iv. Proliferation of informal settlements.

Goal 13: Climate Action

Environment has been identified as a key sector in the realization of the goals of the Vision 2030 and global Sustainable Development Goals. During the review period, the National Government continued to implement initiatives geared towards environmental protection

Status of Indicators and Trends Analysis

The number of deaths, missing persons and persons affected by disaster per 100,000 people has stood at 1 since 2016. Kenya has adopted and implemented national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030. A National Disaster Reduction Strategy & Policy 2010 and National Disaster Preparedness and Response Strategies have also been prepared. Additionally, all the 47 County Governments have mainstreamed Disaster Risk Management Planning which is implemented through the County Integrated Development Plans (CIDPs).

The Country has put in place an integrated policy/strategy/plan that increases the ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production. Towards this, National Climate Change Response Strategy 2010; National Climate Change Action Plan 2013-2017; Kenya Independent Nationally Determined Contribution (INDC) 2015; The Climate Change Act 2016; National Climate Change Framework policy 2016; Kenya National Adaptation Plan 2015-2030 have been developed and re being implemented.

In 2018, there was improved performance in selected indicators on environment and natural resources. Overall, the National Government expenditure on water and related services is expected to grow by 46.3 per cent to Kshs. 53.4 billion in 2018/19. Total value of fish landed grew by 4.5 per cent to Kshs. 24.0 billion in 2018. Area stocked under government forest plantations increased by 4.8 per cent from 135.1 thousand hectares in 2017 to 141.6 thousand hectares in 2018. In the same period, a moratorium on logging and extraction of timber in public and community forests was imposed to aid in the restoration and rehabilitation of the critical water catchment and natural forest areas. Value of minerals

produced in the review period increased by 5.9 per cent from Kshs. 28.7 billion in 2017 to Kshs 30.4 billion. The year 2018 recorded the highest mean annual rainfall over the last five years. The highest mean rainfall was 496.4 millimeters and was recorded during the March to May 2018 season.

Overall, environment and natural resources accounted for 3.2 per cent of Gross Domestic Product (GDP) in 2018 compared to 3.1 per cent in 2017. The GVA in the sector grew by 12.7 per cent from Kshs. 254.8 billion in 2017 to Kshs. 287.2 billion in 2018. Forestry and logging grew by 14.7 per cent in 2018 and accounted for 40.3 per cent of the GVA. Similarly, mining and quarrying, and water supply industries grew by 9.7 per cent and 7.3 per cent, respectively. In 2018, the GVA from the fishing industry grew by 20.5 per cent to Kshs. 44.1 billion from Kshs. 36.6 billion in 2017.

Interventions/Strategies

Climate change has increased the frequency and magnitude of extreme weather patterns and is likely to negatively influence the country's future development and achievement of its development agenda.

Impact of climate change that is being felt in Kenya include species losses and seasonal changes negatively affecting rain-fed agriculture, and increasing prevalence of diseases such as malaria. Climate-related disasters such as droughts, floods, landslides, wind storms and hailstorms contribute to natural disasters in the country heightening food insecurity and causing economic losses. To mitigate against such consequences over the Plan period and beyond the Country will strengthen its risk and disaster management system.

To integrate climate change measures into national policies, strategies and planning, the following interventions/ strategies have been put in place to achieve the target

- i. Development of the National Climate Change Action Plan (NCCAP) 2018-2022.
- ii. Adaptation Technical Analysis Report 2018-2022
- iii. Mitigation Technical Analysis Report
- iv. Mainstreaming of climate change into planned actions of the MTP
- v. Templates and formats for reporting climate action
- vi. of National Climate Change Council

To improve education awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning, draft Guidelines on integration of climate change in curriculum at all levels has been developed. Development of the Kenya School of Government training curricula for national and county government officials on climate finance was done.

County Governments are working on developing their County Climate Change Fund model legislation to offer counties an opportunity to finance their own Climate change budget.

Makueni became the first County to enact CCCF regulations allowing them to access climate finance from their own budget and has allocated 1% of their development budget, to finance climate change budget. Wajir County and Garissa Counties have allocated 2% of their development budget to support climate change same to Garissa County. Other counties with advanced progress in developing County Climate Change Fund (CCCF) legislations are Kitui and Isiolo.

The county governments are developing Climate Change Model laws premised on national Climate Change Act 2016 to domesticate the Climate Change Act to the counties and help them mainstream climate change in their development.

Some Counties have established climate change units. For example Kisumu County has climate change and green energy department to support coordination of climate change adaptation and mitigation interventions.

Stakeholder Participation

To strengthen resilience and adaptation, ILEPA is undertaking interventions among pastoral communities in Narok County. These efforts include livelihood diversification options such as, beekeeping, hay production and beadwork. These programmes target pastoral land owners, group ranch leaders and organized women's groups. The programmes have also integrated the relevant County Departments to explore strategies for scaling up the adaptation activities.

Caritas Kenya rolled out an environmental campaign (2018 – 2020) to plant 25,000,000 trees nationwide. So far, 2,500 trees have been planted at Shanzu teachers training college, 1,600 trees have been planted in Nyeri Hill Farm and 5,000 trees have been planted by Caritas Meru within the Diocese.

Challenges, Lessons Learnt and Emerging Issues

- i. Climate change: impact of Climate change has increased the frequency and magnitude of extreme weather patterns.
- ii. Inadequacy of modern meteorological, climatological and hydrological infrastructure to facilitate the rapid exchange of data and products.
- iii. Need to mainstream climate change in environment, natural resources conservation and management programs.
- iv. Collaborative framework between the National and county governments is essential for sustainable environmental management

Innovative Ways of Addressing Challenges and Emerging Issues

- i. Mainstreaming climate change in environment, natural resources conservation and management programs; and
- ii. Partnership between the National and county governments on matters climate.

Strategic Areas of Focus/Next Steps

- i. Operationalize the climate change council and climate change resource centre.
- ii. Establish County Climate Outlook fora at the county level to enhance application of meteorological services to priority sectors.
- iii. Upscale the flood early warning systems
- iv. Development of the mid-century emissions reduction projections
- v. Updating of Kenya's NDC according to COP24 decision
- vi. Upscale the capacity building of government departments on reporting of climate action
- vii. Upscale the training of Ministries and Departments on GHG Inventory and climate finance
- viii. Upscale the capacity building of county planners and project implementers on the integration of climate change into county and sector plans and budgets

- ix. Upscale the training of County Government Officials on Climate Finance
- x. Fast-track the establishment of County Climate Change Fund model legislation to offer counties an opportunity to finance their own Climate change budget

Interlinkages with other Goals

The impacts of climate change affects negatively on SDG 2 and 3 in that Climate change related disasters such as droughts, floods, landslides, wind storms and hailstorms contribute to the food insecurity causing economic losses. It also leads to species losses and seasonal changes negatively affecting rain-fed agriculture, and diseases such as malaria. This goal is interlinked with the SDG 15 on sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt land degradation and halt biodiversity loss. The impacts of climate change negatively affect goals that are Climate-change related.

Goal 14: Life Below Water

Status of Indicators and Trends Analysis

The goal focuses on three indicators namely: 14.4.1 on proportion of fish stocks within biologically sustainable levels; 14.5.1 on coverage of protected areas in relation to marine areas; and 14.a.1 on proportion of total research budget allocated to research in the field of marine technology.

In Kenya, fisheries are mainly composed of natural fisheries (capture fishery) resources and farmed fisheries (aquaculture). The natural fisheries are found in inland freshwater lakes, rivers and dams, and coastal and marine waters in the Indian Ocean. During the period under review, information and data for both capture and aquaculture on the proportion of fish stocks within biologically sustainable levels was inadequate. This was as a result of inadequate funding to undertake the required studies and surveys.

The available information is from five reports done by the Kenya Marine and Fisheries Research Institute (KMFRI) in collaboration with other stakeholders through Kenya Coastal Development Project (KCDP) in 2016. The information is on marine capture fisheries. The reports showed that, rabbit fish (*Siganus sutor*) along the Kenya coast, fishing mortality was at 1.8 and needed to be reduced to 1.062 (a decrease of 59%). The survey also recommended the prawn mortality to be reduced from 1.99 to 1.05 (a decrease of 86.5%). Along the Kenyan Coast, the *S. jello* and *S. obtusa* were overfished in the inshore waters for the fishing effort of 2.1 and 2.8 was higher than that at Maximum Sustainable Yield (MSY) of 1.1 and 0.8 respectively. Further, it was found the Spawning Stock Biomass (SSB current) of 40 tones for *S. jello* and 49.3 tones for *S. Obtusata* were much lower than the recommended 20% of Steady State Biomass (SSB) of 1,000 tones and 2,700 tons respectively that are supposed to be maintained. , From 2009 - 2015 there was general declining trend in total annual aquarium fish catches reported. The observed declines in catches and Catch Per Unit Effort (CPUE) for some species were an indication of potential localized depletion in some fishing grounds. It was also found the lobster fishery was not fully over- exploited and that *P. Omatus* was under - exploited.

In the inland fishery, Lake Victoria contributed 66% in 2018 (Economic Survey, 2019) to the total national annual fish production even in the face of rapidly declining fish stocks in the lake. The major challenges affecting the fisheries of Lake Victoria are mainly attributed to destructive fishing methods and habitat degradation, mainly due to the water hyacinth. These have had adverse impacts to the fishery by changing the species diversity and reduction in total harvestable biomass. Scientists have advised that, the fish stocks are

continuously declining and that unless this is effectively dealt with, the sustainability of the fishery remains under threat.

In view of the above, and based on the available information and data, it is clear that, 40% was the proportion of fish stocks within biological sustainable levels. In other words, six fish species out of ten were found to be over - exploited.

The coverage of protected areas in relation to marine areas includes the Marine parks, Marine Reserves, and National Sanctuaries. This has remained the same for the period under review. The Marine Parks in the country are: Kisite Marine (28km²); Malindi Marine (6km²); Mombasa Marine (26.1km²); and Watamu Marine (10km²). While the Marine Reserves includes: Diani Chale Marine (165km²); Kiunga Marine (250km²); Malindi Marine (213km²); Mombasa Marine (200km²); Mpunguti Marine (11km²); and Watamu Marine (32km²). On the other, hand, the National Sanctuaries in the country are: Maralal (6km²); L. Simbi (0.4km²); Ondago Swamp (0.2km²); and Kisumu Impala Sanctuary (0.3km²).

The total research budget in the field of marine technology was Kshs. 696 million for the Financial Years (2017/2018 and 2018/2019) allocated to KMFRI. This translated to 28.3% out of the total KMFRI research allocated budget of Kshs. 2.46 billion for the same period. The funds were used mainly for seaweed farming, Fisheries Catch Assessment Surveys (CAS) in Coastal Kenya, harnessing the Blue Economy through research vessel (R.V Mtafiti), and fisheries and environmental research among others.

Interventions/Strategies

Involvement of Stakeholders

Fisheries and aquaculture sub - sector management and development is multi-sectoral in its approach and it has strong forward and backward linkages. It involves many stakeholders and its development directly and indirectly affects other sectors. On the converse, it is also affected by other sectors.

The major stakeholders in fisheries and aquaculture in the country include: the County Governments; the Beach Management Units; Aquaculture Association of Kenya; Association of Fish Processors and Exporters of Kenya; Fish Traders Association; The Anglers Association; Wavuvi Association of Kenya; and Aquarium Keepers Association among others.

At International and Regional level Kenya is a signatory to many regional and international Conventions, Agreements and Protocols, governing fisheries. The Country is also a member of Regional Fisheries Bodies such as the Indian Ocean Tuna Commission, International Whaling Commission, Lake Victoria Fisheries Organization, South West Indian Ocean Fisheries Commission, and the Committee of Fisheries and Aquaculture of Africa.

In view of the above, it is important that, the development and implementation of policies, strategies, plans and projects/programmes towards the achievement of the reported indicators under SDG 14 involve all the stakeholders in order to create synergies and avoid duplication of efforts. Towards this end, the Government through the State Department for Fisheries Aquaculture and the Blue Economy (SDFA&BE) will continue to involve stakeholders at the international, regional and the county levels.

Development/ Review of Policies, legal, institutional Frameworks and Strategies

In order to create a conducive environment for the management and development of the fisheries sub- sector, the following policies, legal, institutional frameworks and strategies have been developed/reviewed or are under way:

- i. Revision of the National Oceans and Fisheries Policy, 2008 was completed;
- ii. Sector Plan for Blue Economy, 2018-2022 was completed and launched among others on 23rd November, 2018;
- iii. The Government established the Kenya Coast Guard Service through the Kenya Coast Guard Service Act, 2018 to address and strengthen Monitoring, Control and Surveillance (MCS) systems to combat Illegal, Unreported and Unregulated (IUU) fishing and the persistent threats to safety and security in the maritime domain, including piracy, dumping of toxic waste, drug and human trafficking. The Government also acquired and commissioned Offshore Patrol Vessel (P.V Doria) in 2018 to facilitate MCS of the Exclusive Economic Zone (EEZ).
- iv. The Government established Liwatoni fishing Port in Mombasa as designated fishing ports vide Kenya Gazette Supplement No. 7 of 11th February, 2019
- v. The institutions established by the Fisheries Management and Development Act, 2016 namely: The Kenya Fisheries Service (KeFS), The Kenya Fish Marketing Authority (KFMA); Fish Levy Trust Fund (FLTF); and The Kenya Fisheries Council, become fully operational through appointment of their Board of Management in 2018 and early 2019. KeFS is mandated to conserve, manage and develop Kenya's fisheries resources; the KFMA is mandated to market fish and fisheries products from Kenya; while FLTF will provide supplementary funding of activities geared towards management, development and capacity building, awards and urgent mitigation to ensure sustainability of the fisheries resource in accordance with the Fisheries Management and Development Act (FMDA), 2016; and the KFAC will review and advise the national Government on all matters relating to fisheries resources

Strategic Areas of Focus/Next Steps

The planned interventions and strategies will include: development of legal, regulatory, and institutional framework for Kenya's fisheries and maritime blue economy; development of maritime spatial planning; protection and regulation of the marine ecosystem; sustainable exploitation of agro based marine resources; development of fishing ports and associated infrastructure; promotion of Kenya as a center for aquaculture; capacity building for the Blue Economy; and fisheries and marine research among others.

Challenges, Lessons Learnt and Emerging Issues

Challenges

Kenya's fisheries sector faces a number of development challenges that require appropriate action. The key challenges include:

Impacts of Climate Change

Climate change impacts on oceans show systematic changes in plankton abundance and aquatic plants worldwide. Warming of water causes plankton reduction and decline in fish stocks. In addition, changes in ocean circulation are predicted to lead to loss of certain fish populations or establishment of new ones. Temperature changes will likely result in changes of up-welling patterns, which might affect fish spawning period and success of larvae, thereby altering the entire life cycle and size of fish populations. Heavy tropical storms and sea level rise that are projected to occur with the changing climate will make fishing a dangerous activity, while the fluctuation of river volumes and to some extent lake

levels will alter breeding ecology not only of permanent populations but also of anadromous fishes. Such fluctuations also have a deleterious consequence on the overall fish production in the country. Increased incidents of flooding and drought are predicted to impact on aquaculture. High temperatures have led to loss of cold water fish growing areas and rivers.

In addition, fishing in major lakes such as Victoria and Turkana is likely to be affected by recurrent droughts and rising temperatures, conditions that starve the lakes of inflowing water and increases evaporation leading to reductions in water levels. For example the total value of the effects of drought on fisheries was estimated at Kshs. 4.2 billion, comprising of Kshs. 3.6 billion in losses and Kshs. 0.5 billion in damages due to the prolonged drought of 2008 - 2011 (Government of Kenya, 2013, National Climate Change Action Plan 2013 - 2017). To minimize negative impacts of climate change on fisheries and aquaculture resources and the fisheries investments, the Government through the State Department for Fisheries, Aquaculture and the Blue Economy will continue to collaborate with other stakeholders to promote climate change adaptation and mitigation measures on fisheries and aquaculture.

Declining fish stocks

Fish stocks in some Kenyan inland water bodies have been declining over time due to overexploitation owing to excessive increase in fishing effort caused by various factors, namely: rapid population growth; high fish demand; lack of alternative employment opportunities; breakdown of traditional fisheries management systems; ready market for fish including immature ones; destructive fishing practices; and environmental degradation due to catchment activities, invasive weeds such as water hyacinth and exotic species contribute to decline of fish stocks. To address this challenge the Government will strengthen Monitoring, Control and Surveillance (MCS) of fishing activities; develop and review the relevant policy, legal and institutional frameworks including capacity building for better management and development of the fisheries sub-sector; promote co-management of fisheries with the local communities; and promote involvement of stakeholder at all levels.

Limited domestic capacity for deep sea fishing

The marine inshore waters, which are traditional fishing grounds for artisanal (small-scale) fishermen, are over-exploited and degraded. This is partly due to the fact that the artisanal fishermen have limited fishing technology for semi-industrial and industrial fisheries in the deep waters which are rich in tuna and tuna-like species currently exploited by foreign industrial fishing vessels. These foreign vessels do not land their catches at the port of Mombasa due to lack of fish port facilities. This denies the country employment opportunities, income, food, revenue and raw material for the fish processing industry. One of the Government's strategies in developing the EEZ is to promote local deep sea fishing companies through joint ventures, reflagging of foreign fishing vessels and chartered fishing vessels. Further, to facilitate the landing of the catch by the deep sea fishing vessels on the Kenyan soil, the Government has identified three berths designated for the fish port under the Lamu Port Southern Sudan - Ethiopia Transport (LAPSSET) corridor Flagship Project. This is besides establishing Liwatoni fishing Port in Mombasa as designated fishing ports vide Kenya Gazette Supplement No. 7 of 11th February, 2019.

Low Aquaculture Development

Kenya enjoys a competitive advantage for aquaculture in terms of access to diverse fresh and marine water resources that include ocean waters, springs, wetlands, rivers, water reservoirs and other temporary water bodies. The country's vast water system and diverse climatic conditions favours the farming of a wide variety of cultured fish species and can be used for large scale production. The potential area for fish farming on land stands at 1.4 million hectares of which only 2 % (about 55,000 hectares) is utilized.

This has largely been attributed to inadequate supply of certified quality fish seeds (fingerlings) and species-specific feeds as well as exorbitant transport cost of inputs for the smallholder fish farmers. Apart from these, poor aquaculture extension service delivery due to inadequate funding has led to poor information dissemination and slow adoption of appropriate aquaculture technologies. Other impediments include inadequate management skills, technical know-how and access to reliable and timely information despite the recent dramatic growth in the telecommunication and mass media. The National and County Governments will continue to promote manufacturing of affordable quality fish feeds and seed; and sustainable cage culture and mari-culture in fresh, brackish and marine water bodies among others.

Degradation of the Environment

The fisheries sub-sector faces serious threats arising from the agricultural, industrial and municipal and other land use competing activities that negatively affect the sub-sector. The Government will continue to mainstream environmental concerns in its development agenda as it is envisaged in the Constitution under Article 10, and 69 besides development and implementation of relevant legislations on environment in collaboration with all stakeholders at all levels.

Insecurity

Insecurity at sea, piracy and gear thefts are major challenges to the fisher folk especially in the Trans boundary waters. The Government will continue to strengthen MCS in both marine and inland fisheries.

Lesson Learnt and Best Practices

Co-ordination of the sub - sector is important at all levels in the development and implementation of Protocols, Conventions, Policies, Strategies, Plans and Projects/Programmes, with a view to avoiding duplication of efforts but creating synergies. The sub- sector involves many stakeholders and therefore, requires a sector wide approach (SWAP). This calls for the need to identify and involve all the stakeholders at all levels in the development and management of fisheries and aquaculture in order to realize the desired results. Further, provision of adequate financial resources is critical to facilitate human capacity development and acquisition of necessary equipment and facilities. This is with a view to ensuring the right interventions are undertaken and to facilitate collection of the required data and information to monitor and fast track relevant indicators.

Emerging Issues

A key emerging area is the development of the Blue Economy. The Blue Economy covers both aquatic and marine spaces, including oceans, seas, coasts, lakes, and underground water. It encompasses a range of productive sectors, including fisheries, aquaculture, tourism, transport, shipping, energy, bio prospecting, and underwater mining and related activities. This is however compounded by inadequate policy integration and uncoordinated development in the Blue Economy sector in the country. At the regional level, there is lack of regional institutional framework for collaboration for some of the trans-boundary water bodies. In this regard, the State Department for Fisheries, Aquaculture and the Blue Economy, being the coordinating department on matters of fisheries and the Blue Economy will continue to collaborate with other stakeholders towards the management and development of the Blue Economy.

Interlinkages with other SDGs

This goal has both direct and indirect linkages with all the other SDGs. However, the following four SDGs have the greatest positive impact. Poor people will unsustainably use

the Oceans, Seas and Marine Resources for their survival and the converse will positively result to realization of SDG 14. On the other hand, conservation and sustainable use of the Oceans, Seas and Marine Resources will significantly have a positive contribution to SDG 1. For example, the fisheries sub - sector plays a significant role in employment and income generation. The sector supports about 1.1 million people directly and indirectly, working as fishers, traders, processors, suppliers and merchants of fishing accessories and employees and their dependents'. Besides fish consumption provides a rich source of protein especially for riparian communities. The sector is also important for the preservation of culture, national heritage, and recreational purposes. Projects and programmes being implemented include: Aquaculture Business Development Project targeting smallholder farmers with an aim of improving production, productivity as well as food security and nutrition; and Aquaculture Technology Development and Innovations Transfers Programme to the private sector and capacity building of fisheries officers at the County Governments; and undertaking research on fish production, productivity and along the fish value chain through KMFRI.

SDG 6 contributes to conservation and sustainable use of the Oceans, Seas and Marine Resources for Sustainable Development, promoting efficient water production systems in aquaculture like Recirculation Aquaculture Systems (RAS) and reduction of pollution emanating from fisheries sub - sector in water bodies through construction of fish auction centers; and rehabilitation and development of fish landing sites with sanitary facilities in L. Victoria and the coastal region will contribute to the realization of SDG 6.

Climate change impacts on oceans show systematic changes in plankton abundance and aquatic plants. Warming of water causes plankton reduction and decline in fish stocks. In addition, changes in ocean circulation are predicted to lead to loss of certain fish populations or establishment of new ones. Temperature changes will likely result in changes of upwelling patterns, which might affect fish spawning period and success of larvae, thereby altering the entire life cycle and size of fish populations. Heavy tropical storms and sea level rise that are projected with the changing climate will make fishing a dangerous activity, and the fluctuation of river volumes and to some extent lake levels alters breeding ecology not only of permanent populations but also of anadromous fishes. Such fluctuations also have a deleterious consequence on the overall fish production in the country. Further, increased incidents of flooding and drought are predicted to impact on aquaculture and high temperatures have led to loss of cold water fish growing areas and rivers. Interventions, towards realization of this goal will also address climate change through climate-smart aquaculture, implementation of Aquaculture Technology Development and Innovations Transfers Programme, green port initiatives, capacity building on greenhouse gas emissions from shipping and related energy efficiency programmes.

The protection, restoration and promotion of sustainable use of terrestrial ecosystem, sustainable management of forests, combating desertification and halting and reversing land degradation is a sure way to realize this goal. This is due to the fact that, SDG 14 is influenced/depend on land-based activities at the international, regional and national levels. The achievement of this goal will also contribute to the overall realization of SDG 15. This will be achieved through targeted interventions on sustainable management and development in the fisheries sub - sector. This includes: mapping and demarcation of fish habitat; protection of marine ecosystems; promotion of fisheries co-management; strengthen MCS; and stocking and restocking of water bodies mainly rivers, lakes and dams.

Leave No One Behind

In the fisheries sub - sector involvement of women have been limited and lagging behind in the areas of: development and implementation of policies; plans and strategies; and

programmes and projects. In marine fisheries, the artisanal fishers have limited fishing technology for semi-industrial and industrial fisheries in the Exclusive Economic Zone (EEZ) that are exploited by foreign industrial fishing vessels. To address these constraints with a view to ensuring no one is left behind, the following interventions have or will be undertaken:

- i. Mainstreamed gender matters in the Blue Economy Sector Plan, 2018-2022. In management and development of the Blue Economy Sector, the sub - sector will ensure active participation of men, women and the youth (males and females) as well as Persons Living with Disabilities (PLWD) by having meaningful representation in decision-making processes. These will include: development and review and implementation of sector policies; legislations; guidelines; regulations; strategies/plans; projects and programmes; and introduction of gender based resource budgeting among others. Further, the Constitution provides a strong legal foundation towards achieving equal rights and opportunities for women, men, girls and boys.
- ii. Promote local deep sea companies through joint ventures, reflagging of foreign fishing vessels and chartered fishing vessels
- iii. Support and strengthen fisher and producer organizations (Kenya National BMU Networks, Aqua-cultural Association of Kenya and Wavuvi Association of Kenya)
- iv. Organize and support Beach Management Units (BMUs) into viable commercial entities
- v. Sensitize fisheries stakeholders on fisheries, aquaculture and the Blue Economy policies, laws and regulations including creating awareness about the blue economy especially to the young population

Implement Aquaculture Technology Development and Innovations Transfers Programme, Aquaculture Business Development Project aiming at improving production, productivity as well as food security and nutrition of smallholder farmers in fifteen counties (Meru, Tharaka Nithi, Embu, Kirinyaga, Nyeri, Kiambu, Machakos, Kajiado, Kisii, Migori, Homa Bay, Siaya, Kisumu, Busia and Kakamega), Kenya Marine Fisheries and Social Economic Development Project at the coastal region, and support up - scaling of sea weed farming also in the coastal region.

Goal 15: Life on Land

Status of Indicators and Trends Analysis

Forest area as a proportion of total land area has increased from 7.21 per cent in 2016 to 7.28 per cent in 2018 while the proportion of land that is degraded over total land area stood at 11.4 per cent in 2018.

Interventions/Strategies

During the review period, the national government continued to implement initiatives geared towards environmental protection.

In strengthening environmental governance, the country developed policies and legislation including; environment policy, Education for sustainable Development policy, Wetlands Conservation and Management policy and Chemicals Management policy. Further, the review of Environmental Management and coordination act 1999 was done. The enactment of Forest Conservation and Management act, 2016 and climate change act 2016 was done other instruments developed include National Climate Action plan, National Adaptation plan, Green Economy Strategy and implementation plan; and the National Forest programme 2016-2030.

Towards waste management and pollution control, the government developed a National solid waste management strategy; action plans on waste management and pollution levels in Mombasa, Thika, Nakuru, Eldoret and Kisumu and implemented the Plastic bags ban initiative.

The government imposed a moratorium on logging and extraction of timber in public and community forests to aid in the restoration and rehabilitation of the critical water catchment and natural resources areas. In addition the government facilitated production of 222,124 bamboo seedlings and 800 million tree seedlings and availed these for planting 500,000 hectares on farmlands for livelihood improvement; restored 156,000ha of degraded natural forests, established 19,359ha of commercial forest plantations and promoted planting of 300,109ha of tree on farmlands and in schools across the country. Further 565,607.4ha of new forests in Tana River, Lamu and Garissa were gazetted.

The country is continuously rehabilitating and protecting Kenya's five major water towers namely; the Aberdares, Cherangany, Mau, Mt. Kenya and Mt. Elgon and other smaller significant Water Towers and catchment areas. The rehabilitation, protection and securing of Enosupukia (12,000 Ha), South West Mau (19,000 Ha), Masai Mau (64,000 Ha) and Olpusimoru (26,000 Ha) was realized. An area of 1,250 Ha was surrendered voluntarily at Mau complex.

Towards introducing measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species, Kenya enacted Forest Conservation and Management Act, 2016 and developed National Forest Programme 2016-2030 and Wetlands Conservation and Management Policy.

Challenges, Lessons Learnt and Emerging Issues

- i. Urban waste: the generation of urban solid, liquid and gaseous waste has been increasing proportionately with the rate of industrial development and the diversification of consumption patterns.
- ii. The emerging challenge of managing electronic waste (e-waste)
- iii. Climate change: impact of Climate change has increased the frequency and magnitude of extreme weather patterns.
- iv. Inadequate institutional framework for management of trans-boundary resources
- v. Pressure on natural resources due to population increase
- vi. Inadequate enforcement of laws and regulations
- vii. Invasive and alien species continue to affect ecosystems across the country.
- viii. Slow uptake of Public Private Partnership (PPP) projects.
- ix. Commitment to international multi-lateral environmental Agreements

Innovative Ways of Addressing Challenges and Emerging Issues

- i. Mainstreaming climate change in environment, natural resources conservation and management programs.
- ii. Development of e-waste strategy
- iii. Established status and action plans on waste management and pollution levels in major cities and towns (Mombasa, Thika, Nakuru, Eldoret and Kisumu)
- iv. Harmonization of environment and natural resource sector policies and management of the natural resources within the region to avoid conflicts.

Strategic Areas of Focus/Next Steps

- i. Formulate and review environmental laws and guidelines
- ii. Rehabilitate and restore urban rivers system
- iii. Dry land afforestation programme to increase area under forest in ASAL
Improve environmental management information system
- iv. Implementation of the Green Economy strategy and implementation plan.
- v. Development of a National strategy for management of invasive species.
- vi. Compilation of Biodiversity atlas.
- vii. Development of bamboo policy and commercialization of bamboo.

Interlinkages with other Goals

This goal is interlinked with SDG 11 on reduction of per capita environmental impact of cities; SDG 12 on environment sound management of chemicals and all wastes as well as SDG 13 on combating climate change and its impacts.

Leaving No One Behind

In order to increase forest cover in ASAL areas the government gazetted 565,607.4ha of new forests in Tana River, Lamu and Garissa.

Goal 16: Peace, Justice and Strong Institutions

Status of Indicators and Trends Analysis

Number of victims of intentional homicide per 100,000 population remained unchanged, at 6, since 2016. Unsentenced detainees as a proportion of overall prison population increased from 60.8 per cent in 2006 to 62.5 per cent in 2018. Proportion of seized small arms and light weapons that are recorded and traced, in accordance with international standards and legal instruments reduced from 444 in 2016 to 185 in 2018. The proportion of population that feel safe walking alone around the area they live remained at 70.4 per cent.

The total number of crimes reported to the police increased by 13.2 per cent from 77,992 in 2017 to 88,268 in 2018. In the same period, crimes reported to the police, involving dangerous drugs increased by 44.1 per cent while other offences against persons and stealing increased by 11.3 per cent and 10.2 per cent respectively. Overall, the number of persons reported to the police to have committed crime increased by 5.1 per cent in 2018. The number of persons reported to have committed defilement accounted for 75.9 per cent of all persons reported under the category of crimes against morality. The number of persons reported to have committed homicides declined by 21.1 per cent in 2018. Murder accounted for 74.3 per cent of all reported cases of homicides and declined by 8.6 per cent in the same period.

The number of corruption reports referred for investigation declined by 22.4 per cent to 2,898 in 2017/18. However, the total number of ethics and corruption reports forwarded to the Office of the Director of Public Prosecutions (ODPP) increased from 143 in 2016/17 to 183 in 2017/18. The value of assets recovered by the Ethics and Anti-Corruption Commission (EACC) was Kshs. 3.8 billion in the same period. A total of 527 crimes were reported to the National Environment Management Authority (NEMA) in 2018 out of which, 328 were related to illegal movement or dumping of waste. The number of cases filed in courts increased by 16.9 per cent to 402,243 in 2018. Similarly, the number of pending cases increased by 5.9 per cent to 571,094 over the same period. In addition, the number of cases disposed of by courts increased by 21.8 per cent to 370,488 cases in 2018 partly due to the increase in the number of judicial officers.

The overall prison population increased by 7.5 per cent to 223,718 persons in 2018. In the same period, the daily average prison population increased by 9.9 per cent to 53,765 persons. The total convicted prison population increased by 4.3 per cent from 80,404 persons in 2017 to 83,896 persons in 2018 while those remanded increased by 9.4 per cent to 139,822 persons during the same period.

The number of passports processed and issued increased by 76.0 per cent from 136,990 in 2017 and 241,095 in 2018 due to the requirement to replace old passports with the new generation ones. There was an overall decline of 21.6 per cent in the number of applications made for national identity cards from 1,234,149 in 2017 to 967,651 in 2018. The registered refugee population declined by 3.4 per cent from 488,415 in 2017 to 471,724 in 2018, attributed to the ongoing repatriation and resettlement.

Goal 17: Partnership for the Goals

Status of Indicators and Trends Analysis

Total government revenue as a proportion of GDP, by source increased from 18.9% in 2016 from 21.2% in 2018. Proportion of domestic budget funded by domestic taxes decreased from 55.9% in 2016 to 53.5% in 2018. Volume of remittances (in United States dollars) as a proportion of total GDP increased from 2.52 in 2016 to 3.09 in 2018. Debt service as a proportion of exports of goods and services rose from 7.8% to 20% in 2018. Kenya's share of exports increased from Kshs. 578 billion in 2016 to Kshs. 612 billion in 2018. Debt service on external debt, total (% exports and primary income) increased from 7.8% in 2016 to 18% in 2018.

Interventions/Strategies

In order to ensure quality and adequate data on SDGs, the policy priority of the Kenya Government is to strengthen the National Statistical System to support planning, and monitoring and evaluation of government policies and programmes. The Kenya National Bureau of Statistics (KNBS) is therefore, expected to generate official statistics that are comprehensive, reliable, timely and disaggregated up to the sub national level. Towards this end, the Bureau has established offices in each of the 47 counties to coordinate statistical capacity building programmes at the sub national level and ensure that international standards are applied in the production and dissemination of county statistics

The rolling out of the National Integrated Monitoring and Evaluation System (NIMES) and fast-tracking implementation of electronic Project Monitoring Information System (e-promis) to provide a non-stop information portal where information is easily and readily available is ongoing. Additionally, the County Monitoring and Evaluation System has been rolled out.

To enhance capacity-building support to increase significantly the availability of high-quality, timely, reliable and disaggregated data. The Open Institute has worked with county governments of Makueni, Elgeyo Marakwet, Kiambu and West Pokot to provide a technology platform to open data and provide citizens with data and information that they can use to monitor and also to strengthen citizen engagement. The Open County Platform (www.opencounty.org) was developed for county management teams to be guided to manage development results more effectively, as well as provide a platform for engaging citizens and to receive feedback. The platform contains various datasets that showcase multiple stakeholders on the state of various sectors in the counties. Presently, the data therein is being broadly used by county governments to overcome challenges they face in

actualizing their ambitions for good governance, integrity, transparency, and accountability. More than 65% of the visits are from Nairobi.

As part of mobilizing additional financial resources for developing countries from multiple sources, CSOs continue to produce evidence and lobby at national, regional and international levels for equitable global partnership. On such example is Reality of Aid Africa Network (RoA Africa), which researches and presents comprehensive reports on effectiveness of aid in Africa. Through the reports and analysis, the network has been instrumental in lobbying for appropriate aid-related policies. In 2018, it assessed the level of preparedness for the Busan Agenda among Youth and Child Rights CSOs for Kenya and three other African countries. Using regional and international platforms, such as the Second - High Level UN Conference on South- South Cooperation, (RoA Africa) continues to champion for a human-rights based, social and environmental justice approach towards South-South cooperation as well as the realization of SDGs.

Kenya's Real Gross Domestic Product (GDP) is estimated to have expanded by 6.3 per cent in 2018 compared to 4.9 per cent in 2017. The growth was attributable to increased agricultural production, accelerated manufacturing activities, sustained growth in transportation and vibrant service sector activities. Agricultural activities benefitted from sufficient rains that were well spread throughout the country. Similarly, the increased precipitation was a significant boost to electricity generation and consequently favorable to growth during the review period. The Agriculture, Forestry and Fishing sector growth accelerated from a revised growth of 1.9 per cent in 2017 to 6.4 per cent in 2018. The manufacturing sector expanded by 4.2 per cent compared to a revised growth of 0.5 per cent in 2017 mainly buoyed by increased agro-processing during the review period.

The growth realized was anchored on a relatively stable macroeconomic in 2018. Inflation remained low at 4.7 per cent in 2018 compared to 8.0 per cent in 2017 majorly as a result of considerable declines in prices of food after the shortage experienced in 2017. The current account deficit narrowed to stand at KSh 441.8 billion in 2018 compared to KSh 503.4 billion in 2017 mainly due to a faster growth of imports of goods and services.

Development Financing

The Global Partnership for Effective Development Co-operation of which Kenya is a signatory recognizes that sustained, inclusive and sustainable growth; supported by sound economic policies and an enabling environment at all levels are of paramount importance to realize the 2030 Agenda. The efficient mobilization and effective use of domestic resources to support national development priorities and the 2030 Agenda is critical for sustainable long-term, country-owned development. Therefore Governments need to improve the domestic tax administration structures to mobilize more domestic resources for development without increasing the tax burden. The Government of Kenya has therefore improved its tax administration system and is putting in place measures to net in more taxpayers and seal loopholes for tax evasion.

During the 2015 Third Financing for Development Conference held in Addis Ababa, Developed Countries committed to provide 0.7 per cent of their Gross National Income as Official Development Assistance (ODA) to developing countries. In 2016, only five countries met this requirement (Denmark, Luxembourg, Norway, Sweden, United Kingdom and Germany). This shows that in as much as Development cooperation is important for the realization of the 2030 Agenda, Governments need to improve on domestic resource mobilization since ODA targets to developing countries are not being realized as agreed. To most countries, ODA still remains the most important financial flow especially to LDCs and countries affected by conflict and fragility. But with the decrease of ODA to LDCs,

alternative sources of financing which have not been tapped before needs therefore to be explored.

The SDGs can only be realized with strong global partnerships and cooperation. ODA is required to encourage inclusive growth and the demand for more financial resources and Aid. Improving access to technology and knowledge is an important way to share ideas and foster innovation. Coordinating policies help in managing debt as well as promoting investment which are vital for sustainable growth and development.

Development Partners of all kinds should be encouraged to gear their cooperation, including at global and regional level, towards supporting national and local efforts to achieve the SDGs. The Government of Kenya has taken the lead in driving its development agenda and all Development Partners' assistance is aligned to the Government's national development agenda.

At any stage of development, sustainability, inequality, vulnerability and wealth creation concern us all. Development cooperation in the SDG era is expected to play a more prominent and strategic role in supporting all developing countries, with an intensified focus on achieving sustainable development impact. It is unfortunate that OECD-DAC is redefining ODA to include humanitarian assistance. With the increasing refugee crisis in most countries in Africa, amount of ODA channeled to development will decrease as more will be allocated to support the emerging global refugee crisis. This should be a wakeup call to Governments to explore alternative forms of development financing including South – South Cooperation, public private partnerships and untapped resources from the philanthropic organizations for the realization of the SDGs.

Multi-Stakeholder Partnerships

The development co-operation landscape is changing and it is no longer a bipartisan agenda between governments and development partners only, but the development agenda dialogue is becoming more inclusive and multi-stakeholder in nature. The successful implementation of the Sustainable Development Goals (SDGs) and 2030 Agenda will require a more inclusive, coordinated and harmonized approaches at the country level and not working in “silos”. Governments need to tap on all forms of development financing available from all stakeholders at the Country level to complement the Government development efforts. This needs to be done through more integrated, accountable and transparent approaches to development through inclusive multi-stakeholder dialogues.

The government has organised strategies on how to maintain well-informed and coordinated relations between the government and the markets, investors, credit rating agencies and international creditors. Periodic reports of the country's debt and risk management strategies, funding needs and development priorities help to increase stakeholders' awareness while promoting transparency and confidence.

Kenya has a structured coordination and dialogue platform with her partners for discussing national development priorities; which includes development partners, private sector, civil society organizations and the philanthropists. Through the multi-stakeholder dialogue forums, all stakeholders are encouraged align their support to the Country's Medium Term Plans, with the current one having integrated the SDGs. Kenya now has a vibrant philanthropic organizations platform, the Kenya Philanthropy Forum, which has brought together over 40 philanthropic organizations with the objective of bringing coherence and championing alignment to the national development priorities and providing support towards the implementation of the Sustainable Development Goals. Civil Society Organizations are also being encouraged to align the resources they receive to the national development agenda.

Having been classified as Lower Middle Income Country in 2014, loans to Kenya are becoming increasingly expensive. In the recent past, we have seen the concessionality reducing with the grant element percentage reducing, implying more expensive ODA loans. This has led the Government to consider exploring other sources of financing apart from ODA. In this regard, more public private forms of financing are being encouraged and considered.

Development Partners however need to realize that Countries in transition from developing countries status to Lower Middle Income Status experience many developmental challenges including high income inequalities. Therefore providers of development cooperation should not be quick to provide more expensive ODA to such countries to avoid a debt crisis and if we are to achieve sustainable development. Therefore, member states need to intensify efforts to discourage more expensive ODA to countries in transition, until such a time that they become more stable resource wise. ODA sourced should be catalytic in nature to unlock domestic resources for sustainability.

The **key achievements** are the regular technical and policy dialogue usually held between Government, Development Partners and other stakeholders; and Kenya External Resource Policy which is in place and operational.

The Strategic Area of Focus

- i. Harmonization of joint Sector Working Groups: A joint technical team is working on harmonization of MTP and MTEF sectors to come up with joint Sector Working Groups.
- ii. Training of Development Partners and Ministries on use of the eProMIS
- iii. Encouraging more Development Partners to use GoK systems in budgeting, procurement, reporting, accounting, auditing and monitoring and evaluation
- iv. Increase participation of Government/Parliament/Local/civil society/private sector capacity in the development effectiveness agenda
- v. Link development effectiveness with the SDG Framework

Capacity-building

Capacity-building remains critical if ODA is to be efficiently sourced and managed. Kenya having embraced devolved system of governance, which gives the sub-national governments mandate to directly source for ODA from development partners, will necessitate capacity building for effectiveness. Therefore development cooperation should consider sustainable capacity building components on the assistance they provide to Governments.

The Private Sector, CSOs, development partners will continue to play a pivotal role in the implementation of SDGs in the true spirit of leaving no-one behind. The development partners will work in partnership towards attainment of the national development priorities, which will contribute to realization of Sustainable Development Goals (SDGs) targets and global commitments.

Status of Indicators and Trends Analysis

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Interventions/Strategies

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STATISTICAL ANNEX: STATUS OF SDG INDICATORS

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
Goal 1: End Poverty in all its forms everywhere								
1.2.1	Proportion of population living below the national poverty line, by sex and age	Per cent	46.6 (Total); 49.7 (Rural); 34.4 (Urban)	..	36.1 (Total); 40.1 (Rural); 29.4 (Urban)	..	..	Refers to individuals
	By Sex	Per cent	..	..	36.2 (Female) 36.1 (Male)	..	..
	By Age group	Per cent	..	..	41.5 (0-17 yrs) 29.1 (18-35 yrs) 32.5 (36-59 yrs) 36.2 (60-69 yrs) 39.1 (70+ yrs)	..	..	Refers to individuals
1.2.2	Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	Per cent	45 (Children 0-17 yrs) 19 (Urban) 56 (Rural)	..	..	..	..	Kenya Child Poverty Study (KNBS & UNICEF) based on Multi-overlapping Deprivation Analysis (MODA)
	a) Children aged 0-17 years deprived in 3 or more dimensions							
	b) Multi-dimensional poverty	Per cent	38.9 (Total); 20.3 (Urban); 48.4 (Rural);	..	..	..	..	Based on KDHS 2014 data
1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	Number	..	351,650 (OVC) 47,000 (PWSDs)	352,000 (OVC) 46,917 (PWSDs)	349,778 (OVC) 43,884 (PWSDs)	353,000 (OVC) 47,000 (PWSDs)	OVC- Orphans & Vulnerable Children PWSDs-Persons With Severe Disabilities
		Older Persons (%)	..	..	..	34.4 (Total) 28.0 (Male), 39.9 (Female),	34.4 (Total) 28.0 (Male), 39.9 (Female),	
1.5.1	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	Number per 100,000	1	2	1	1	1	
1.5.3	Number of countries that adopt and implement national disaster		National Disaster	National Disaster Reduction	National Disaster Reduction	National Disaster Reduction	National Disaster Reduction	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030		Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	
1.5.4	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national risk reduction strategies	Per cent	100	100	100	100	100	All the 47 County Governments have mainstreamed Disaster Risk Management Planning which is implemented through the County Integrated Development Plans (CIDPs)
1.a.1	Proportion of domestically generated resources allocated by the government directly to poverty reduction programmes	Per cent	2.5 (NG-CDF); 20 (Counties)	2.5 (NG-CDF); 20 (Counties)	2.5 (NG-CDF); 20 (Counties)	2.5 (NG-CDF); 24.2 (Counties)	2.5 (NG-CDF); 22.2 (Counties)	National Government (NG)-Constituency Development Fund (poverty share) and Equalisation fund used as proxies
1.a.2	Proportion of total government spending on essential services (education, health and social protection)	Per cent	21.2 (Total); 15.6 (Education); 2.5 (health); 2.9 (Social protection);	20.7 (Total); 15.3 (Education); 1.7 (Health); 3.7 (Social protection);	20.4 (Total); 14.3 (Education); 2.5 (Health); 3.7 (Social protection);	22.3 (Total); 16.0 (Education); 2.4 (Health); 3.8 (Social protection);	22.2 (Total); 14.5 (Education); 3.2 (Health); 4.5 (Social protection);	
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture								
2.1.1	Prevalence of undernourishment	Per cent	..	..	24.2	..	..
2.1.2	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale	Per cent	33.4	..	56.5 (Moderate or severe) 19.1 (Severe)	..	..	Baseline figure refers to 20 of the 47 counties

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	(FIES)							
2.2.1	Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age	Per cent	26.0 (Total); 29.7 (Male); 22.3 (Female)	..	29.9 (Total); 32.8 (Male); 26.9 (Female)	..	..
2.2.2	a)Prevalence of malnutrition (weight for height <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting)	Per cent	4.0 (Total); 4.4 (Male); 3.7 (Female)	..	6.7 (Total); 7.2 (Male); 6.1 (Female)	..	..
	b)Prevalence of malnutrition (weight for height >+2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (overweight)	Per cent	4.1 (Total); 4.7 (Male); 3.5 (Female)	..	4.9 (Total); 4.7 (Male); 6.5 (Female)	..	..
2.a.1	The agriculture orientation index for government expenditures	Index	0.09	0.05	0.06	0.06	0.06	
2.c.1	Indicator of food price anomalies	Per cent	8.7	11.4	10.1	13.4	1.37	food inflation as a proxy
Goal 3: Ensure healthy lives and promote well-being for all at all ages								
3.1.1	Maternal mortality ratio	Deaths per 100,000 live births	362	..	..	..	..
3.1.2	Proportion of births attended by skilled health personnel	Per cent	61.8	..	70.2	..	..
3.2.1	Under-five mortality rate	Deaths per '000 live births	52	..	..	..	..
3.2.2	Neonatal mortality rate	Deaths per '000 live births	22	..	..	..	..
3.3.2	Tuberculosis incidence per 100,000 population	Number per 100,000 population	..	..	..	181	..	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
3.3.3	Malaria incidence per 1,000 population	New infections per '000 population	225	173	182	62	..	Facility based disease incidence.
3.3.4	Hepatitis B incidence per 100,000 population	Number per 100,000 population	27	11	14	9	..	
3.4.2	Suicide Mortality Rate	Number per 1,000,000 population	7	5	7	9	2	rate per 100,000 is negligible
3.6.1	Death rate due to road traffic injuries	Deaths per 100,000 population	11	12	11	13	13	
3.7.1	Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	Per cent	70.7	..	..	..	..
3.7.2	b). Adolescent birth rate (aged 15-19 years) per 1,000 women in that age group	Births per '000 women	96	..	..	..	..
3.8.2	Proportion of population with large household expenditures on health as a share of total household expenditure or income							
	a) health expenditure more than 10%	Per cent	..	..	8.6	..	..	Inpatient and Outpatient expenses
	b) health expenditure more than 25%	Per cent	..	..	4.8	..	..	Inpatient and Outpatient expenses
3.a.1	Age-standardized prevalence of current tobacco use among persons aged 15 years and older	Per cent	11.6 (Total); 19.1 (Male); 4.5 (Female)	..	..	..	..
3.c.1	Health worker density and distribution	Number per 100,000 population	21 (Doctors); 165 (Nurses); 3 (Dentists); 5 (Pharmacists)	22 (Doctors); 217 (Nurses); 2 (Dentists); 7 (Pharmacists)	23 (Doctors); 230 (Nurses); 3 (Dentists); 7 (Pharmacists)	24 (Doctors); 230 (Nurses); 3 (Dentists); 7 (Pharmacists)	24 (Doctors); 260 (Nurses); 3 (Dentists); 7 (Pharmacists)	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all								
4.2.2	Participation rate in organized learning (one year before the official primary entry age), by sex	Per cent	71.8	74.6	74.9	76.9	77.2	Early Childhood Development (ECD) Net Enrolment Ratio (36 - 59 months)
4.3.1	Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex a) Technical and Vocational Educational Training (TVET) Enrolment	Number	147,821 (Total); 75,105 (Male); 49,454 (Female);	153,314 (Total); 79,846 (Male); 52,927 (Female);	202,556 (Total); 91,209 (Male); 74,432 (Female);	275,139 (Total); 154,581 (Male); 120,558 (Female);	363,884 (Total); 205,142 (Male); 158,712 (Female);	
	b) Adult education	Number	330,340 (Total); 113,552 (Male); 216,788 (Female);	306,228 (Total); 102,076 (Male); 204,152 (Female)	271,769 (Total); 85,575 (Male); 186,194 (Female);	206,224 (Total); 63,588 (Male); 142,636 (Female);	212,441 (Total); 65,642 (Male); 146,799 (Female);	Adult enrolment
4.5.1	Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	Ratio	1.05 (Pre-primary) 0.97 (Primary) 0.92 (Secondary) 0.65 (Tertiary), 0.71 (University)	0.97 (Pre-primary) 0.97 (Primary) 0.90 (Secondary) 0.66 (Tertiary), 0.71 (University)	0.96 (Pre-primary) 0.97 (Primary) 0.95 (Secondary) 0.78 (Tertiary), 0.71 (University)	0.96 (Pre-primary) 0.97 (Primary) 0.95 (Secondary) 0.78 (Tertiary), 0.70 (University)	0.96 (Pre-primary) 1.00 (Primary) 0.91 (Secondary) 0.77 (Tertiary) 0.70 (University)	Enrolment by female/male
4.6.1	Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	Per cent	89.1 (Total); 87.8 (Female); 92.4 (Male)	..	..	..	..	Literacy (15 - 49 years)
4.a.1	Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for	Per cent	43.8 (Primary); 75.3 (Secondary);	..	..			Proportion of Schools connected to Electricity.

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)							
4.c.1	Proportion of teachers in: (a) pre- primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in- service required for teaching at the relevant level in a given country	Per cent	84.1 (Pre-primary); 100 (Primary); 100 (Secondary)	86.7 (Pre-primary); 100 (Primary); 99.8 (Secondary)	88.2 (Pre-primary); 100 (Primary); 99.8 (Secondary)	90.4 (Pre-primary); 100 (Primary); 99.8 (Secondary)	91.5 (Pre-primary); 100 (Primary); 99.8 (Secondary)	For primary and secondary education, refers to public schools only
Goal 5: Achieve gender equality and empower all women and girls								
5.1.1	Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex		The Constitution of Kenya, 2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8	The Constitution of Kenya, 2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8 ; The Prohibition of FGM Act, 2011; Prevention against Domestic Violence Act, 2015.	The Constitution of Kenya, 2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8 ; The Prohibition of FGM Act, 2011; Prevention against Domestic Violence Act, 2015.	The Constitution of Kenya, 2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8 ; The Prohibition of FGM Act, 2011; Prevention against Domestic Violence Act, 2015.	The Constitution of Kenya, 2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8 ; The Prohibition of FGM Act, 2011; Prevention against Domestic Violence Act, 2015.	
5.2.1	a). Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate	Per cent	36.9	..	..	..	..

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	partner in the previous 12 months, by form of violence and by age (Physical Violence)							
	b).Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age (Sexual Violence)	Per cent	13.3	..	..	..	..
	c).Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age (Emotional/Psychological Violence)	Per cent	32.4	..	..	..	..
	d).Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age (Physical or Sexual or Emotional/Psychological Violence)	Per cent	47.1	..	..	..	..
	e).Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age (Physical and Sexual and	Per cent	8.5	..	..	..	..

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	Emotional/Psychological Violence)							
5.2.2	Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence	Per cent	22.7	..	..	..	..	Refers to those aged 15-49 years who ever experienced sexual violence
5.3.1	Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18	Per cent	22.9	..	..	..	..
5.3.2	Proportion of girls and women aged 15-49 years who have undergone female genital mutilation/cutting, by age	Per cent	21	..	..	..	..
5.5.1	a). Proportion of seats held by women in national parliaments and local governments (National Assembly)	Per cent	19.8 (National Assembly); 26.9 (Senators); 0.0 (Governors); 19.2 (Deputy Governors)	19.8 (National Assembly); 26.9 (Senators); 0.0 (Governors); 19.2 (Deputy Governors)	19.8 (National Assembly); 26.9 (Senators); 0.0 (Governors); 19.2 (Deputy Governors)	21.5 (National Assembly); 31.4 (Senators); 6.4 (Governors); 14.9 (Deputy Governors); 33.9 (MCAs)	21.5 (National Assembly); 31.4 (Senators); 6.4 (Governors); 14.9 (Deputy Governors); 33.9 (MCAs)	MCAs-Members of County Assemblies
5.5.2	Proportion of women in managerial positions	Per cent	22.2 (Total) 19.4 (Public sector) 22.6 (Private sector)	..	..	..	..	Legislators ,Administrators and Managers
5.6.2	Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education	Number	The Constitution of Kenya, 2010;	The Constitution of Kenya, 2010;	The Constitution of Kenya, 2010;	The Constitution of Kenya, 2010; The Education Act, 2017	The Constitution of Kenya, 2010; The Education Act, 2017	

[illegible]

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
7.1.1	Proportion of population with access to electricity	Per cent	36.0 (Households)	..	41.5 (Households) 33.8 (individuals)		46.0 (Households)	
7.1.2	Proportion of population with primary reliance on clean fuels and technology	Per cent	11.9 (Households)	..	14.6 (Households) 10.7 (Individuals)		19.8 (Households)	Refers to percentage of Households. 'clean' includes only Electricity and LPG & biogas;
7.2.1	Renewable energy share in the total final energy consumption	Per cent	54.8	56.7	56.6	52.8	57.7	New formula. Formal final energy consumption only.
7.3.1	Energy intensity measured in terms of primary energy and GDP	Tonnes of Oil equivalent per USD	0.00001995	0.00002096	0.00002049	0.00001846	0.00001762	Modern energy only
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all								
8.1.1	Annual growth rate of real GDP per capita	Per cent	2.5	2.9	3.1	2.1	3.6	
8.2.1	Annual growth rate of real GDP per employed person	Per cent	-0.55	-0.16	0.40	-0.77	1.29	Employment excludes small scale farming and pastoralist activities.
8.3.1	Proportion of informal employment in non-agriculture employment, by sex	Per cent	84.70	82.66	83.01	83.24	83.60	
8.5.2	Unemployment rate, by sex, age and persons with disabilities	Per cent	9.7(Total) 9.9(Male) 9.4(Female)	..	7.4 (Total) 5.3(Male) 9.6(Female)	..	..
8.5.2	Unemployment rate, by sex, age and persons with disabilities	Age	17.3 (15-19 yrs) 15.1 (20-24 yrs) 9.9 (25-29 yrs) 7.2 (30-34 yrs) 6.1 (35-39 yrs) 5.8 (40-44 yrs) 5.2 (45-49 yrs) 5.8 (50-54 yrs) 5.8 (55-59 yrs) 5.8 (60-64 yrs)	..	14.9 (15-19 yrs) 19.2 (20-24 yrs) 9.0 (25-29 yrs) 4.6 (30-34 yrs) 3.7 (35-39 yrs) 2.7 (40-44 yrs) 1.8 (45-49 yrs) 1.6 (50-54 yrs) 1.9 (55-59 yrs) 1.6 (60-64 yrs)	..	..

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
			(55-59 yrs) 7.0 (60-64 yrs)					
8.6.1	Proportion of youth (aged 15-24 years) not in education, employment or training	Per cent	..	..	18.60	..	..
8.7.1	Proportion and number of children aged 5-17 years engaged in child labour, by sex and age							
	a) Proportion	Per cent	34.5	..	13.1	..	..	Refers to working children
	b) Number	Number ('000)	4,552.3 (Total) 2,351.7 (Male) 2,200.6 (Female)	..	2,074.3 (Total) 1,179.5 (Male) 894.8 (Female)	..	..	Refers to working children
8.8.2	Level of national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	Number	328 (CBAs registered)	230 (CBAs registered)	298 (CBAs registered)	386 (CBAs registered)	313 (CBAs registered)	CBAs - Collective Bargaining Agreements
8.9.1	a) Tourism direct GDP as a proportion of total GDP	Per cent	0.9	0.8	0.7	0.7	0.7	
	b) Tourism direct GDP in growth rate	Per cent	-16.7	-1.3	13.3	14.3	16.6	
8.9.2	Proportion of jobs in sustainable tourism industries out of total jobs	Per cent	3.09	3.03	2.99	2.96	2.95	
8.10.1	(a) Number of commercial bank branches per 100,000 adults and	Number per 100,000 Adults	5	7	7	6	6	
	(b) number of automated teller machines (ATMs) per 100,000 adults	Number per 100,000 Adults	12	12	11	12	11	
8.10.2	Proportion of adults (15 years	Per cent	..	..	73	..	81	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	and older) with an account at a bank or other financial institution or with a mobile-money-service provider							
Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation								
9.1.1	Proportion of the rural population who live within 2 km of an all-season road	Per cent	..	..	61.4	69.0	69.0	Includes tarmac, graded, gravelled and earth-maintained roads in rural areas
9.1.2	Passenger and freight volumes, by mode of transport	000 Passenger	3,715 (Railway) 8,882.0 (Air)	2,288 (Railway) 8,993.2 (Air)	2,793 (Railway) 9,791.9 (Air)	3,096 (Railway) 10,118.2 (Air)	4,490 (Railway) 11,751.9 (Air)	
		000 tonnes	Rail-1,509 Air-279.4 Water-24,875	Rail-1,542 Air-263.0 Water- 26,732	Rail-1,380 Air-249.5 Water- 27,384	Rail-1,147 Air-290.8 Water- 30,245	Rail - 3,544 Air - 358.7 Water- 30,923	
9.2.1	Manufacturing value added as a proportion of GDP and per capita	Per cent	10.0	9.4	9.3	8.0	7.7	As a proportion of GDP
		KSh/Person	12,511.60	13,323.40	14,415.33	14,062.91	14,421.37	Per capita
9.2.2	Manufacturing employment as a proportion of total employment	Per cent	12.13	11.76	11.60	11.24	11.12	Formal sector
9.5.1	Research and development expenditure as a proportion of GDP	Per cent	0.48	..	..	..	..
9.5.2	Researchers (in full-time equivalent) per million inhabitants	Per million inhabitants	100	..	..	..	..
9.c.1	Proportion of population covered by a mobile network, by technology	Per cent	91 (2G) ; 61 (3G)	..	95 (2G) ; 78 (3G)	95 (2G); 85 (3G) ; 25 (4G)	95 (2G); 86 (3G) ; 35 (4G)	
Goal 10: Reduce inequality within and among countries								
10.2.1	Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities	Per cent	..	..	15.2 (Total)	..	..	Household Expenditure
	a) Sex	Per cent	..	..	15.1 (Male) 15.2 (Female)	..	..
	b) Age Group	Per cent	..	..	14.8 (0-4 yrs)	..	..

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
					19.2 (5-9 yrs) 19.6 (10-14 yrs) 17.8 (15-19 yrs) 11.3 (20-24 yrs) 9.1 (25-29 yrs) 10.4 (30-34 yrs) 11.7 (35-39 yrs) 13.4 (40-44 yrs) 13.7 (45-59 yrs) 12.9 (50-54 yrs) 15.5 (55-59 yrs) 15.3 (60-64 yrs) 18.7 (65-69 yrs) 19.4 (70+ yrs)			
	c) Disabilities	Per cent	..	..	21.1 (Total) 16.8 (Visual) 22.8 (Hearing) 22.6 (Speech) 22.9 (Physical) 26.6 (Mental) 24.4 (Self-care) 13.0 (Others)	..	..
10.4.1	Labour share of GDP, comprising wages and social protection transfers	Per cent	30.1	30.0	28.7	29.1	29.2	
10.6.1	Proportion of members and voting rights of developing countries in international organizations							of the 11 institutions Kenya is a Member of 6(UNGA, IMF, IBRD, IFC, AfDB, WTO). Not a member of three (FSB, ADB,IDB) as of 2019.
	a) Membership	Number	6	6	6	6	6	
	b) voting rights	Number	6	6	6	6	6	Number of institutions where Kenya has a voting share
10.b.1	Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development	KSh Million	28,117.50	29,596.70	25,903.99	27,600.14	47,483.00	External Grants

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	assistance, foreign direct investment and other flows)							
10.c.1	Remittance costs as a proportion of the amount remitted	Per cent	..	..	8.47	..	..	Estimate
Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable								
11.1.1	Proportion of urban population living in slums, informal settlements or inadequate housing	Per cent	7.9	..	..	..	..
11.4.1	Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)	KSh/person	274.62	296.62	338.79	284.77	310.92	Refers to Public Expenditure on Recreation, Culture and Religion
11.5.1	Number of deaths, missing persons and persons affected by disaster per 100,000 people	Number per 100,000	1	2	1	1	1	
11.6.1	Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	Per cent	44.0	..	56.6	53.6	57.4	Nairobi City County Only
11.b.1	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030		National Disaster Reduction Strategy & Policy 2010, National Disaster	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
			Preparedness and Response Strategies	Strategies	Strategies	Strategies	Strategies	
11.b.2	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national risk reduction strategies	Per cent	100	100	100	100	100	
Goal 12: Ensure sustainable consumption and production patterns								
12.3.1	(a) Food loss index	per capita (Kcal)	79	84.6	73.3	79.6	60.3	food loss per capita derived from Food Balance Sheet (FBS)
Goal 13: Take urgent action to combat to combat climate change and its impacts								
13.1.1	Number of deaths, missing persons and persons affected by disaster per 100,000 people	Number per 100,000	1	2	1	1	1	
13.1.2	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030		National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	National Disaster Reduction Strategy & Policy 2010, National Disaster Preparedness and Response Strategies	
13.1.3	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national risk reduction strategies	Per cent	100	100	100	100	100	All the 47 County Governments have mainstreamed Disaster Risk Management Planning which is implemented through the County Integrated Development Plans (CIDPs)

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
13.2.1	Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	Number	National Climate Change Response Strategy 2010; National Climate Change Action Plan 2013-2017; Kenya Independent Nationally Determined Contribution(IND C) 2015; Kenya National Adaptation Plan 2015-2030.	National Climate Change Response Strategy 2010; National Climate Change Action Plan 2013-2017; Kenya Independent Nationally Determined Contribution(IND C) 2015; The Climate Change Act 2016; National Climate Change Framework policy 2016; Kenya National Adaptation Plan 2015-2030.	National Climate Change Response Strategy 2010; National Climate Change Action Plan 2013-2017; Kenya Independent Nationally Determined Contribution(IND C) 2015; The Climate Change Act 2016; National Climate Change Framework policy 2016; Kenya National Adaptation Plan 2015-2030.	National Climate Change Response Strategy 2010; National Climate Change Action Plan 2013-2017; Kenya Independent Nationally Determined Contribution(IND C) 2015; The Climate Change Act 2016; National Climate Change Framework policy 2016; Kenya National Adaptation Plan 2015-2030.	National Climate Change Response Strategy 2010; National Climate Change Action Plan 2013-2017; Kenya Independent Nationally Determined Contribution(IND C) 2015; The Climate Change Act 2016; National Climate Change Framework policy 2016; Kenya National Adaptation Plan 2015-2030.	
Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development								
14.4.1	Proportion of fish stocks within Biologically sustainable levels	Tonnes	182,626	163,824	147,678	135,100	148,347	Fish landed from greshwater bodies and marine is used as a proxy
14.5.1	Coverage of protected areas in relation to marine areas	Per cent	..	..	..	0.8	0.8	Study done by KMFRI in collaboration with UNEP & World Conservation Monitoring Centre
Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss								
15.1.1	Forest area as a proportion of total land area	Per cent	7.07	7.16	7.21	7.28	7.28	
15.3.1	Proportion of land that is degraded over total land area	Per cent	..	..	..	11.4	11.4	
Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels								
16.1.1	Number of victims of	Per 100,000	6	6	6	6	6	Homicide crimes as a

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	intentional homicide per 100,000 population, by sex and age	population						proxy
16.1.3	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	Per cent	16.3 (Physical violence) 5.3 (Sexual violence)	..	..	..	..
16.1.4	Proportion of population that feel safe walking alone around the area they live	Per cent	..	..	70.4	..	..	refers to individuals that feel very safe or fairly safe when walking during the night
16.3.2	Unsented detainees as a proportion of overall prison population	Per cent	56.3	60.3	60.8	61.4	62.5	
16.4.2	Proportion of seized small arms and light weapons that are recorded and traced, in accordance with international standards and legal instruments	Number	392	331	444	186	185	Firearms recovered and surrendered
16.5.1	Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months	Per cent	..	..	9.8	..	..
16.8.1	Proportion of members and voting rights of developing countries in international organizations a) Membership	Number	6	6	6	6	6	of the 11 institutions Kenya is a Member of 6(UNGA, IMF, IBRD, IFC, AfDB, WTO). Not a member of three (FSB, ADB, IDB) as of 2019
	b) voting rights	Number	6	6	6	6	6	Number of institutions where Kenya has a voting share
16.9.1	Proportion of children under 5	Per cent	66.9 (Total);	..	..	..	..	Registration here

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	years of age whose births have been registered with a civil authority, by age		68.0 (< 2 yrs); 66.2 (2-4 yrs)					refers to only those with a valid birth certificate. Actual registration may be higher than indicated
16.10.2	Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information	Number	Constitution of Kenya 2010	Constitution of Kenya 2010	Constitution of Kenya 2010	Constitution of Kenya 2010	Constitution of Kenya 2010	
16.a.1	Existence of independent national human rights institutions in compliance with the Paris Principles	Number	Kenya adopted this and formed Kenya National Commission for Human Rights in 2010	7	7	7	7	Baseline 2010, KNCHR. Others with with a national outlook: KHRC,IMLU, IPOA, CAJ,FIDA, CRADLE
Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development								
17.1.1	Total government revenue as a proportion of GDP, by source	Per cent	19.5	19.0	18.9	18.3	21.2	
17.1.2	Proportion of domestic budget funded by domestic taxes	Per cent	56.9	55.5	55.9	52.1	53.5	
17.3.1	Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget	Per cent	..	3.0	3.0	5.1	5.4	FDI as a proportion of total domestic budget
17.3.2	Volume of remittances (in United States dollars) as a proportion of total GDP	Per cent	2.34	2.45	2.52	2.49	3.09	Balance of payments
17.4.1	Debt service as a proportion of exports of goods and services	Per cent	10.3	10.8	7.8	9.9	20.0	External debt service
17.6.2	Fixed internet broadband subscription per 100 inhabitants, by speed	Internet subscribers per 100 inhabitants	0.03 (256 kbps - < 1Mbps) 0.17 (>=2 Mbps)	0.05 (256 kbps - < 1Mbps) 0.17 (>=2 Mbps)	0.06 (256 kbps - < 1Mbps) 0.27 (>=2 Mbps)	0.04 (256 kbps - < 1Mbps) 0.58 (>=2 Mbps)	0.02 (256 kbps - < 1Mbps) 0.76 (>=2 Mbps)	256 kbps - < 1Mbps is 1st tier while >=2 Mbps is 2nd and 3rd tier combined

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
17.8.1	Proportion of individuals using the Internet	Per cent	6.3	..	16.6	..	..	Population aged 3 years and above
17.11.1	Developing countries' and least developed countries' share of global exports	KSh Million	537,236	581,045	578,067	594,128	612,929	Values refer to Kenya's exports
17.13.1	Macroeconomic Dashboard							
	External							
	Merchandise trade (% of GDP)	Per cent	39.90	34.35	28.62	28.48	26.65	
	Personal transfers, received (% of GDP)	Per cent	2.34	2.45	2.52	2.49	3.09	
	Current account balance (% of GDP)	Per cent	-10.38	-6.70	-4.89	-6.18	-4.96	
	Foreign direct investment, net inflows (% of GDP)	Per cent	1.34	0.97	0.98	1.62	1.85	
	Portfolio investment, net (BoP, current US\$)	USD	-3,716.86	155.05	349.00	788.87	-624.66	
	Total reserves in months of imports		5.0	4.8	5.0	5.0	5.3	
	Debt service on external debt, total (% exports and primary income)	Per cent	15.2	5.9	7.8	10.8	18.0	
	Total external debt (% of GNI)	Per cent	10.3	7.3	6.2	7.3	9.6	
	Official exchange rate (LCU per US\$, period average annual)	KSh to USD	87.92	98.18	101.50	103.41	101.30	Annual Average
	Commodity Prices (Export/import)		73.10	76.00	78.80	75.50	68.00	Terms of Trade for all items
	Financial Sector							
	Broad money growth (annual %)		16.1	14.1	4	9.6	10.1	
	Broad money to total reserves ratio							
	Bank nonperforming loans to total gross loans (%)							
	Bank capital to assets ratio (%)							
	Fiscal Sector							
	Tax revenue (% of GDP)	Per cent	18.9	18.1	18.2	16.5	18.2	
	Overall Fiscal Balance (% of GDP):	Per cent	-4.1	-5.2	-5.5	-5.6	-4.9	
	D2 gross government and	Per cent	41	41.4	45.6	48.8	51	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	public sector debt (% of GDP):							
	Real Sector and Prices							
	GDP (annual % growth)	Per cent	5.4	5.7	5.9	4.9	6.3	
	Gross capital formation (annual % growth)	Per cent	14.2	6.6	-9.2	6.4	4.6	
	Household final consumption expenditure, etc. (annual % growth)	Per cent	4.3	5.2	4.8	7.6	5.9	
	General government final consumption expenditure (annual % growth)	Per cent	1.7	11.5	5.6	5.1	1.0	
	Exports of goods and services (annual % growth)	Per cent	5.8	6.2	-2.2	-6.8	4	
	Imports of goods and services (annual % growth)	Per cent	10.4	1.2	-3.4	8.7	2.6	
	Consumer Price Index	Index	149.74	159.6	169.68	183.23	191.82	
	Commodity Prices (Export/import)		73.1	76	78.8	75.5	68	Terms of Trade for all items
	Unemployment							
	Unemployment rate	Per cent	9.7	..	7.4	..	..
17.18.2	Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics	Number	Statistics Act, 2006	Statistics Act, 2006	Statistics Act, 2006	Statistics Act, 2006	Statistics Act, 2006	
17.18.3	Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding		KNBS Strategic Plan (2013-2017)	KNBS Strategic Plan (2013-2017)	KNBS Strategic Plan (2013-2017)	KNBS Strategic Plan (2013-2017)	KNBS Strategic Plan (2018-2022)	
		Total (Ksh '000)	841,519	1,173,880	3,203,570	3,230,884	2,451,679	Total funding
		GoK:Recurrent (Ksh '000)	677,980	748,980	1,732,958	1,762,333	1,411,806	GoK - Government of Kenya: Recurrent
		GoK:Development (Ksh '000)	136,800	98,400	1,439,000	1,419,000	999,000	GoK-Government of Kenya :Development
		Others: Donors (Ksh '000)	26,739	326,500	31,612	49,551	40,873	Others- Development partners/Donors
17.19.2	Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b)	a) Year	2009 (38,412,088)	2009	2009	2009	2009	
		Birth registration (Per	70.2	65.8	64.1	60.9	73.6	

Indicator	Indicator Description	Unit	Baseline Data (2009-2014)	2015	2016	2017	2018	Remarks
	have achieved 100 per cent birth registration and 80 per cent death registration	cent) Death registration (Per cent)	45.8	45.2	41.9	41.2	38.9	



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