Boosting Investments for
Delivery of the Kenya Vision 2030

KENYA ECONOMIC REPORT 2018

To create a globally competitive and prosperous nation with a high quality of life by 2030

Kenya Economic Report 2018

Boosting Investments for Delivery of the Kenya Vision 2030

To create a globally competitive and prosperous nation with a high quality of life by 2030

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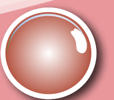


Boosting Investments to Realize the Kenya Vision 2030 Growth and Development Objectives

The theme for the Kenya Economic Report 2018 is "Boosting Investments for Delivery of the Kenya Vision 2030". The theme explores the potential areas for expanding the capacity of the economy to achieve strong inclusive economic growth. It emphasizes on the "Big Four" agenda as a channel for ensuring that economic growth improves welfare for all. In addition, the Report expounds on critical areas that will support in delivering on the agenda.

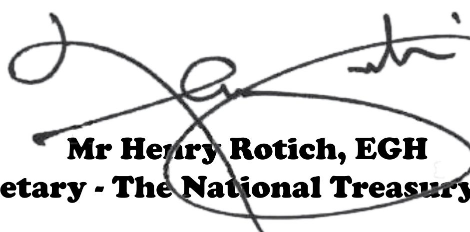
Kenya is midway in implementing the Vision 2030. In implementing MTP I and II, investment value increased steadily but contribution to GDP remained constant at around 20 per cent. The Vision 2030 envisages a 10 per cent GDP growth with investment rate at 30 per cent of GDP. There have been significant gains in social welfare, with statistics indicating that poverty levels have reduced to 36 per cent, but more is required to improve social welfare. As such, the priorities in the "Big Four" agenda to drive growth and address development issues are a step in the right direction. Significant investments are required but it is important to observe that the quality and impact of these investments will depend on incentives to attract investors at all levels, innovations in improving competitiveness of products, and the efficiency and effectiveness of institutions.

The Kenyan economy remained resilient in 2017 despite a prolonged electioneering period, continued drought, and declining credit growth. Agriculture maintained its dominance as the mainstay of the economy but its vulnerability to weather shocks cannot be ignored given the impact on other sectors of the economy and society, including food security, employment and foreign exchange earnings. The manufacturing sector which is central in driving economic transformation has seen its contribution to GDP decline as its growth weakened over time while its competitiveness remained comparatively low. Significant reforms are being implemented in the social sector leading to improved education enrolments, increased uptake of health services, and more targeted social protection programmes. Greater investments are required from both the public and private sectors to fill the existing gaps and ensure that more people have access to health, affordable decent housing and education.

Success in implementing the "Big Four" priorities translates into success in implementing the Vision 2030 development agenda. To support this, development of infrastructure remains critical in enhancing efficiency in production and facilitating the distribution of goods and services, while tourism and international trade sectors are key in earning foreign exchange. In addition, strengthening policy, regulatory and institutional frameworks is important in securing investment confidence. Further, the role of the government both at national and county level remains critical in supporting growth in private sector investments. Besides, there is need for coordinated implementation of the National Trade Policy, and Industrialization Strategy, to fully exploit the opportunities for manufacturing for exports.

The MSMEs have a role in enhancing competitiveness and growth of the industrial sector. Whereas significant progress has been made in improving the business environment, MSMEs are weakly integrated with large firms thereby inhibiting the potential gains from technology transfer and skills development. The establishment of industrial parks is expected to foster their participation in production chains through sub-contracting arrangements. Besides, the pursuit of economic integration provides them with the opportunity to link with regional and international value chains.

Increasing investment will also require a strong institutional coordination framework to attract new and viable investments at both national and county levels. Indeed, integrated investment planning will ensure appropriate sequencing and avoid wastage and delays in implementation. Further, in mobilizing the required resources, it is important to maintain fiscal stability and debt sustainability, have in place an interest rate policy that ensures banks adopt business models in support of growing private sector credit, and deepen financial development with a focus on enhancing MSMEs access to affordable credit. Above all is re-aligning the investment policy with digital development strategies to enable domestic firms to reap the benefits of digitalization and easier access to global markets.



Mr Henry Rotich, EGH
Cabinet Secretary - The National Treasury and Planning

Achieving Inclusive Growth through Investments

This is the 10th edition of the annual Kenya Economic Report series published by KIPPRA in fulfilment of Part V, Section 23(3) of the KIPPRA Act 2006. In each report, KIPPRA assesses the country's economic performance and provides medium term prospects for a three-year period. Prior to finalization of the report, KIPPRA shares the report with statutory stakeholders and other stakeholders for views and validation.

The Kenya Economic Report 2018 focuses on opportunities for investments to achieve strong inclusive growth. The domestic, regional and international development blueprints emphatically emphasize on the need for inclusiveness in the growth process. In pursuit to achieving a strong inclusive economic growth, the Kenya Vision 2030 social pillar, for example, seeks to "engender just, cohesive and equitable social development". While Goal 8 of the Sustainable Development Goals (SDGs) promotes sustained inclusive economic growth, the African Union Agenda 2063 aspires to have a prosperous Africa based on inclusive growth and sustainable development with expanded job opportunities targeting the youth and women.

This report comes at a time when the government is implementing the "Big Four" agenda aimed at improving the social welfare of Kenyans in the next five years. The implementation of this agenda will therefore greatly benefit from the policy options proposed in this report. It is clear from the report that huge investments are needed in the targeted sectors driving the "Big Four" agenda.

On behalf of the Board of Directors of KIPPRA, I wish to commend KIPPRA staff most sincerely for their devotion and dedication to produce this report. A lot of time and resources have been spent towards this effort. I also wish to express gratitude to all the stakeholders for their treasured comments and suggestions which helped to improve this report.

Lastly, I take this opportunity to earnestly thank the Government of Kenya, and the Think Tank Initiative of IDRC for their continued financial support to KIPPRA. This has enabled the Institute to fulfil its mandate as required by the KIPPRA Act 2006.

Dr Linda Musumba
Chairperson
KIPPRA Board of Directors

Investment Growth to Achieve Strong Economic Growth and Development

A statutory obligation in the KIPPRA Act 2006 is the production of the Kenya Economic Report. The Report analyses economic performance of the economy guided by a selected theme and provides policy options for the medium-term prospects. Further, the Report offers a platform for policy dialogue on key priority policy issues in pushing forward the development agenda.

The Kenya Economic Report 2018 is themed, 'Boosting Investments for Delivery of the Kenya Vision 2030'. The focus is to provide impetus on total investments in delivering the desired 10 per cent economic growth. The report provides policy options that support the government in implementing the "Big Four" agenda, namely in enhancing food security, providing affordable housing, promoting job creation through manufacturing, and attaining affordable and universal healthcare, all aimed to improve the social welfare of Kenyans.

A key driver to achievement of the Kenya Vision 2030 growth target is attaining high levels of investments at 30 per cent of GDP. The target for total investments in MTP I was 25.0 per cent of GDP but only 20.4 per cent was achieved. During MTP II, investment to GDP ratio was 20.1 per cent, which was lower than the set target of 28.0 per cent for the period. This notwithstanding, the savings levels have remained low, averaging10.6 per cent of GDP in the last five years. In 2017, the economy remained resilient within a stable macroeconomic environment, achieving a growth rate of 4.9 per cent which was lower than the MTP III target of 10 per cent. While poverty levels have declined in the last decade, a lot more growth in economic activity is required to address persistent development challenges.

Public and private investments are therefore critical in driving strong inclusive economic growth and development. This requires creating a favourable investment climate and the government has put in place various important initiatives but more efforts are still required especially in having an effective and efficient legal, policy and institutional framework. In addition, decent employment opportunities are necessary to support poverty reduction. That said, more resources are required to boost investment in high growth and labour-intensive sectors.

As such, this Report proposes the need to boost investments in trade, tourism, agriculture, manufacturing, infrastructure, human capital development and institutional framework for investment. Further, the Report lays emphasis on the role of county governments in supporting the achievement of the required high investments levels.

Dr Rose W. Ngugi
Executive Director
KIPPRA

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The KER 2018 Technical Committee comprised of Benson Kiriga (Chair), Dr Douglas Kivoi (Secretary) Dr Christopher Onyango, Moses Njenga, Phares Kirii, Victor Mose, John Nyangena and Nahashon Mwongera. Special thanks to KIPPRA researchers from all departments for their contributions to various chapters of the report. The Human Resources, Finance, Supply Chain Management and Knowledge Management Departments tirelessly provided valuable support to ensure timely completion of the report.

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We are particularly grateful for the expert advice whose quality assurance was critical in making the report comprehensive, and feedback from our statutory partners The National Treasury and Planning, the Central Bank of Kenya, and the Kenya National Bureau of Statistics.

The preparation of this report was made possible through financial support to KIPPRA by the Government of Kenya, and the Think Tank Initiative (TTI) of IDRC.

Abbreviations and Acronyms

3Is	Incentives, Innovations and Institutions
ACBF	African Capacity Building Foundation
AFC	Agricultural Finance Corporation
AfCFTA	Africa Continental Free Trade Area
AGOA	African Growth and Opportunity Act
AGPO	Access to Government Procurement
A-in-A	Appropriations in Aid
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral
ASALs	Arid and Semi-Arid Lands
ASDSP	Agriculture Sector Development Support Programme
BCM	Billion Cubic Metres
BDS	Business Development Services
BITs	Bilateral Investment Agreements
CAADP	Comprehensive Africa Agriculture Development Programme
CBO	Community-Based Organization
CIP	Competitive Industrial Performance
COMESA	Common Market for Eastern and Southern Africa
DBK	Development Bank of Kenya
DfID	Department for International Development
DFIs	Development Finance Institutions
DFZs	Disease-Free Zones
EAC	East Africa Community
ECDE	Early Childhood Development Education
EEZs	Exclusive Economic Zones
ENNDA	Ewaso Nyiro North Development Authority
EPZA	Export Processing Zone Authority
ESPs	Extension Service Providers
EU	European Union
FDIs	Foreign Direct Investments
FDSE	Free Day Secondary Education
FNSP	Food and Nutrition Security Policy
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GFCF	Gross Fixed Capital Formation
GHI	Global Hunger Index
HISP	Health Insurance Subsidy Programme
IATA	International Air Transport Association
ICDC	Industrial and Commercial Development Corporation
ICT	Information and Communication Technology

IEC	Information Education and Communication
JKIA	Jomo Kenyatta International Airport
KARLO	Kenya Agricultural Research and Livestock Organization
KDB	Kenya Dairy Board
KeNHA	Kenya National Highways Authority
KER	Kenya Economic Report
KeRRA	Kenya Rural Roads Authority
KIE	Kenya Industrial Estates
KIPI	Kenya Industrial Property Institute
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KIRDI	Kenya Industrial Research Development Institute
KMC	Kenya Meat Commission
KNBS	Kenya National Bureau of Statistics
KNEB	Kenya Nuclear Energy Board
KNH	Kenyatta National Hospital
KPA	Kenya Ports Authority
Ksh	Kenya Shillings
KTMM	KIPPRA-Treasury Macroeconomic Model
KUC	Kenya Utalii College
KURA	Kenya Urban Roads Authority
KWS	Kenya Wildlife Service
KWTA	Kenya Water Towers Agency
LAPSSET	Lamu Port-South Sudan-Ethiopia-Transport Corridor project
LBDA	Lake Basin Development Authority
M.I.C.E.	Meetings, Incentive travel, Conventions and Exhibitions
MCM	Million Cubic Metres
MSMEs	Micro Small and Medium Enterprises
MT	Metric Tonnes
MTEF	Medium Terms Expenditure Framework
MTP	Medium Term Plan
MTRH	Moi Teaching and Referral Hospital
MW	Mega Watts
NAAIP	National Accelerated Agricultural Input Programme
NAIP	National Agriculture Investment Plan
NASEP	National Agricultural Sector Extension Policy
NCDs	Non-Communicable Diseases
NCPB	National Cereals and Produce Board
NGO	Non-Governmental Organization
NHC	National Housing Corporation
NHIF	National Health Insurance Fund
NIB	National Irrigation Board
NOFN	National Optical Fibre Network
NSSF	National Social Security Fund
PAYE	Pay as You Earn
PBGs	Producer Business Groups
PPI	Producer Price Index
PPPs	Public Private Partnerships
RDAs	Regional Development Authorities
RMLF	Road Maintenance Levy Fund
RTAs	Regional Trade Arrangements
SAATM	Single African Air Transport Market
SACCOs	Savings and Credit Cooperative Societies
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SEZs	Special Economic Zones
SGR	Standard Gauge Railway
SMEs	Small and Medium Enterprises
TFC	Tourism Finance Corporation
TVET	Technical Vocational Education and Training
UAE	United Arab Emirates
UHC	Universal Health Coverage
UNCTAD	United Nations Conference on Trade and Development
VAT	Value Added Tax
WTO	World Trade Organization
WTTC	World Tourism and Travel Council

Executive Summary

The Kenyan economy remained resilient with stable macroeconomic conditions despite the prolonged electioneering period and continued drought effects experienced in 2017. However, expansion of the economy was slow, with growth rate of 4.9 per cent in 2017 compared to 5.9 per cent in 2016. Due to the drought effects, the agricultural sector grew by 1.6 per cent but its contribution to GDP remained high at 31.5 per cent. The manufacturing sector grew by 0.2 per cent compared to 2.7 per cent in 2016 which led to a decline in its contribution to GDP. While investment rate remained constant at 20.0 per cent, total investment value increased during the MTP II period compared to MTP I. This performance remained below the 30 per cent target to secure a double-digit growth as envisaged in the Kenya Vision 2030. Further, the savings-investment gap persisted and has remained a challenge in boosting investments.

To secure macroeconomic stability, a key enabler in the growth process, fiscal stability is a priority. This means embracing a growth-enhancing fiscal policy while keeping to the fiscal consolidation path. Continued enhancement of debt management remains a priority in maintaining debt sustainability. Further, supportive monetary policy and financial stability are necessary in securing market confidence.

In boosting investment growth, enhanced mobilization of domestic resources is paramount. This will entail exploiting available opportunities to raise fiscal revenue, fostering private sector savings by deepening financial sector development, and offering alternative sources of finance including by strengthening existing development financial institutions. In addition, strengthening institutional and coordination framework between national agencies and county governments is necessary to effectively promote and target foreign direct investment, which is a non-debt financing channel.

Medium Term Growth Prospects

The third MTP targets an average annual growth rate of 7.0 per cent with a focus on the "Big Four" agenda, and a commitment to complete the government investments initiated during MTP II. This will expand the capacity to grow economic

activity while ensuring that the realized growth is inclusive to uplift social welfare.

Given the potential downside risks, sustaining the medium-term growth momentum will require timely and appropriate policy interventions. This includes continuing the government investment programme as planned to complement private sector investment. Furthermore, growth in exports especially through value addition and diversification is a key component in achieving the medium-term growth target.

Boosting Growth of the Manufacturing Sector

The manufacturing sector is critical in realizing the country's development agenda but its contribution to GDP has declined over the years. For example, in 2017, the sector's contribution to GDP declined to 8.4 per cent from 9.1 per cent in 2016. In the "Big Four" agenda, the sector is targeted to achieve a 15.0 per cent contribution to GDP by 2022 with emphasis on agro-processing, textiles, leather and the blue economy sub-sectors. In this regard, the sector requires an accelerated growth to double its output in meeting the targeted contribution to GDP and job creation.

To boost growth of the manufacturing sector, improving industrial competitiveness is necessary. Kenya's industrial competitiveness has stagnated, with low capacity to produce competitive manufactures and especially for the export market. Although Kenya ranks higher among the EAC members, she lags the aspirator countries. There is therefore need to build a more complex product structure with enhanced capability to shift to higher technology products especially through technology transfers and skills training. In addition, fast-tracking establishment of targeted special economic zones (SEZs) will provide the required incentives to attract investors, but coordination with the county governments is important to ensure adequate space is provided to such zones. Further, a review and rationalization of the incentive packages extended

Kenya's apparel manufacturing companies export garments to the U.S. under AGOA

to firms in SEZs *vis-à-vis* those operating outside the zones is necessary to avoid unfair competition in the domestic market.

For sustainable growth and development of SMEs, fostering sub-contracting with large firms is critical in enhancing access to technology, finance, and innovations. Further, mainstreaming relevant trade facilitation activities into SME policies can support their participation in regional and international value chains. Besides, effective implementation of existing procurement laws and regulation with respect to use of local resources and special considerations to women and youth can foster growth of SMEs. In addition, effective implementation of the counterfeit policy is required to reduce the influx of substandard products and shield domestic firms from unfair competition. Further, strengthening institutions such as the Kenya Industrial Estates, Kenya Industrial Research Development Institute and Kenya Industrial Property Institute is necessary to build the industrial culture and enhance competitiveness of SMEs.

Spurring Investment in Trade

Trade plays an important role in economic transformation by driving up productivity, exchange of new ideas and innovations, increasing access to more varieties of products through distribution process, and employment creation. As such, its growth and development is critical in stimulating investments and supporting delivery of the "Big Four" agenda. Domestic wholesale and retail trade employs 60.0 per cent of informal sector employees. While domestic wholesale and retail trade has gained a good penetration rate, prevailing multiple charges, fees and levies by national and county governments on traders raise the cost of doing business and discourage investments in other productive sectors of the economy. Furthermore, delay in completing targeted flagship projects has led to shortage of appropriate retail markets, thus constraining the efficiency, effectiveness and growth of distribution of goods and services domestically.

At international trade level, there has been notable increased importation of products that could otherwise be locally produced to support domestic manufacturing, including in textiles and leather industries. Supporting expansion of SEZs and strengthening the *Buy Kenya Build Kenya* initiative, and ensuring coordination in implementation of the National Trade Policy and the Industrialization Strategy are pertinent in encouraging use of local materials, value addition and diversification of production. Further, Kenya's active participation in regional economic integration, and implementation of various trade facilitation programmes has been instrumental in improving the business environment and supporting access to regional and international markets. However, there is still weak integration of domestic firms and SMEs particularly in regional value chains. Kenya needs to strategize to fully exploit the market potential in the recently concluded African Continental Free Trade Agreement.

Foreign direct investments have been declining in the recent past partly due to high cost of doing business. While Kenya has signed Bilateral Investment Agreements (BITs) with various countries in a bid to promote and facilitate foreign investments, there is need to strengthen coordination between various national and county government agencies for effective promotional activities. Besides, the investment policy should be re-aligned with the digital development strategies to enable domestic firms to reap the benefits of digitalization and easier access to global markets.

Investing to Grow the Tourism Sector

Kenya is a strong player in tourism in the EAC region, characterized by the highest number of inbound tourists she attracts annually. However, the country is facing stiff competition from Tanzania and South Africa which have similar tourism products. The recovery of the sector was sustained in 2017 but the sector remains relatively less competitive compared

to other tourist destinations such as South Africa in terms of the number of tourists, yields and diversity of experience.

The sector has attracted new investors especially in building accommodation facilities, although hotel occupancy of non-residential premises has declined with growing preference for alternative accommodation facilities. The various flagship projects identified to promote growth and development of the sector need to be completed. There are also numerous investment opportunities for large scale public-private partnership projects in development of tourism-related infrastructure at both national and county levels, including airstrips, airports, M.I.C.E. facilities, accommodation and sports facilities. Furthermore, county governments ought to fully exploit opportunities in cultural and creative tourism.

Enhancing Food Security with Increased Investments in Agriculture

Agriculture development is key in achieving food security because it is the mainstay of Kenya's economy. While over-reliance on rainfall in the agricultural production system remains a challenge in closing the yield gaps, food security is also exacerbated by high post-harvest losses. The average post-harvest losses for maize which is the main staple food in Kenya is 21 per cent, mainly because of inefficiencies in maize handling, improper storage, and lack of knowledge on preservation technologies in the food value chains. Low value addition in agriculture also contributes to high post-harvest losses, compounding food insecurity.

Enhancing agricultural productivity is necessary in achieving food security. This will require the country to extensively promote irrigated agriculture and adopt climate smart agriculture to reduce vulnerability to climate risks. Reducing the cost of agriculture production and providing extension services to improve production methods will increase agriculture output. In addition, enhancing performance of key institutions supporting agricultural sector such as National Cereals and Produce Board, Kenya Meat Commission, Agricultural Finance Corporation, and Kenya Dairy Board and removing roadblocks erected at boundaries of the counties will increase value addition, reduce post-harvest losses, and ensure timely distribution across the country. As a devolved function, a coordinated approach at national and county level is necessary for successful implementation of priority projects.

Closing Infrastructure Gaps to Expand Capacity of the Economy

Infrastructure development is a core foundation for strong economic growth and development. With continued government investment, the quality and adequacy of infrastructure services has improved especially in transport, energy, communication, housing, water and sanitation. The expansion of the road networks, airports, coastline port, and completion of the first phase of the Standard Gauge Railway and increased generation of power have all contributed to improvement of efficiency and productive capacities of various sectors and laid foundation for sustained growth and development. However, significant infrastructure gaps persist, denying a significant proportion of the population access to quality infrastructure services. Absorption of project finance and maintenance of existing infrastructure remains relatively low, and various tariffs are yet to get to competitive levels.

With the significant amount of financing required to keep the momentum in infrastructure development, a robust resource mobilization strategy together with an integrated investment plan need to be put in place in all sub-sectors. Capacity building in project planning and management as well as promoting integrated planning will ensure appropriate and adequate supply of required infrastructure services. Investing in maintenance will secure quality of infrastructure services and reduce the cost of building new infrastructure over time. Further,

the pricing systems of various services need to be reviewed to bring down the costs and attract demand for infrastructure services.

The affordable housing programme under the "Big Four" agenda requires proper targeting. In this regard, improving data management will facilitate in mapping out the role played by the various players in the sector, including their targeted beneficiaries. There is also need to adopt housing technology that preserves the environment while reducing construction costs, creation of land banks, and improving on the regulatory processes. Further, promoting public private partnerships and putting in place incentives to support commercial banks, SACCOs, pension schemes, insurance and diaspora remittances is crucial in mobilizing resources to finance affordable housing.

Investing in Human Capital Development

Investments in the social sector have resulted in increased uptake of healthcare services and improved health outcomes; increased enrolment and completion rates at various levels from ECDEs to universities; and more targeted social protection programmes.

However, a lot more is required in meeting the health targets and addressing emerging health challenges. For example, the number of health facilities has increased without accompanying growth in health workers. Equipping some of the facilities with required medical personnel has been a challenge, while weak management of health human resources has seen gaps in many facilities. With the emerging challenges of non-communicable diseases (NCDs), a lot of collaboration between the national and county governments is required to equip health facilities with relevant specialized human resources and medical commodities and equipment.

Investing in human capital will require a critical look at the education system, healthcare and unemployment among the youth

As the country pushes the universal healthcare agenda, enhancing coverage of social health insurance is critical in reducing the out-of-pocket expenditures. However, since NHIF is not capable of adequately covering all health spending, innovative private health insurance products are needed to cover especially those in the informal sector. In addition, enhanced access to health services requires provision of adequate health programmes to improve service delivery. Similarly, more attention is needed in preventive healthcare, and a quick solution is needed to tame workers unrest in the sector. Further, there is need to consolidate all social protection interventions to enhance efficiency, cost effectiveness and coverage. Besides, there is need to strengthen monitoring and evaluation to ensure effective implementation.

Coordinating Growth in Investment

Institutional framework is fundamental in ensuring proper implementation of the various investment programmes. In this regard, maintaining the reform agenda in creating an enabling environment is paramount in securing market confidence, improving the ease of doing business, and reducing the cost of doing business. More importantly is to focus on promoting a conducive business environment at county level by identifying specific factors characterizing each county. This means enhancing coordination of policies and rationalization of regulatory framework at national and county levels.

Furthermore, promoting cooperation among the East African Community members States and other Regional Trade Arrangments will facilitate timely implementation of the planned regional projects. At the same time, harmonizing of investment codes and regimes will allow exploiting of opportunities to promote industrialization and investments for sustainable economic development.

Chapter 1

Introduction

The Kenya Institute for Public Policy Research Analysis (KIPPRA) Act 2006 mandates the Institute to prepare an annual report of Kenya's economic performance and medium term prospects for three years. The theme of this Kenya Economic Report (KER) 2018 is *"Boosting Investments for Delivery of the Kenya Vision 2030"* assessing the investments that can deliver the desired 10 per cent economic growth. Broadly, both public and private investments are critical in driving inclusive economic growth and development. Increasing investments across all sectors of the economy enhances their respective contributions towards overall growth. However, the quality and impact of higher investment depends greatly on incentives, innovations and institutions (3I's). The combinations of the 3I's make it possible to attain macroeconomic stability, higher savings and investment rates, and providing a conducive business environment for private sector investment.

Improvement of the business environment is vital for greater utilization of natural resources to accelerate productivity and revamp industries to provide more jobs for the youth and women. Additional employment opportunities are expected to come from creating special economic zones. In Kenya, more jobs are created in the informal sector, with the services sector creating 60 per cent of the jobs. The major concern is that the quality of these jobs is low and cannot support poverty reduction. As a result, persistent youth unemployment and a growing proportion of the working poor undermine the efforts to achieve the SDG goal to end poverty by 2030.

The economic pillar of the Vision 2030 targets sustained 10 per cent annual average GDP growth until 2030. However, the economy only grew by 5.9 per cent in 2016 and 4.9 per cent in 2017 and at an average of 5 per cent since the launch of the Kenya Vision 2030. For the targeted growth to be realized, high levels of investment are required. These investments are projected to be financed largely by gross national savings. However, the savings level of the country has remained low, maintaining a persistently wide savings-investment gap. Narrowing the gap is thus critical in boosting the much-needed economic growth.

The theme of this report is motivated by the recommendations of the Kenya Economic Report 2017 which identified domestic and foreign investments as being key to driving Kenya's industrial transformative agenda. For Kenya to maintain growth momentum of the Vision 2030, higher investments are required in basic infrastructure, energy, agriculture, tourism, water and sanitation and in human capital development. In addition, investments in productive capacities generate employment opportunities and incomes, thereby facilitating inclusive growth.

So far, the realized investments fall short of the set targets. For instance, total investments were 20.4 per cent of GDP against the target of 25.0 per cent

during the MTPI, whereas it was 20.1 per cent in the MTP II against the target of 28.0 per cent. The prevailing levels of investment have not spurred the desired economic growth, with some flagship projects identified in the Vision 2030 yet to be completed. Under the "Big Four" agenda, huge investments are required to support programmes in raising the share of manufacturing sector to 15 per cent of GDP; ensuring food security for all citizens; achieving universal health coverage; and delivering at least 500,000 affordable housing units by the year 2022.

The Kenya Investment Policy (draft of June 2017) provides an opportunity to strengthen the institutional structures to support growth. However, while there are incentives to investors intending to set up firms within the Special Economic Zones (SEZs), such incentives should be aimed at promoting a competitive environment for all investors. Further, there is a legal framework for public-private partnership (PPP) to facilitate private investments in key areas such as public infrastructure, housing and innovative technologies. Kenya has also signed 19 Bilateral Investment Agreements (BITs) with various countries to promote and facilitate foreign investments, out of which 11 BITs are in force. These agreements are important in protecting foreign investors by respective governments, which they could not otherwise have been accorded.

Developments in ICT and digital transformation have far reaching implications for investment promotion and facilitation, and for regulations governing investor behaviour. Although Kenya has developed strategies for the digital economy, the strategies do not seem to adequately address investment issues and largely focus on telecommunication infrastructure. There is need therefore to re-align the investment policy with the digital development strategies to enable domestic firms to reap the benefits of digitalization and easier access to global markets. The investment decisions of ICT and digital MNEs are influenced by their soft and hard infrastructure needs (e.g. internet infrastructure, electricity supply and costs, ICT skills availability) and sector-specific policy preferences. Policies for the promotion and facilitation of investment in the digital economy ought to take these factors into account.

It is also important to recognize that the nature of investments transcend industry boundaries and pose difficulties for regulators. In addition, investment matters are handled by several players, i.e. the national government, county governments, and the Regional Development Authorities (RDAs). Effective coordination between the various institutions is crucial for smooth policy implementation.

An effective and efficient legal, policy and institutional framework contributes significantly in improving the business environment for increased domestic and foreign investments. This, however, requires commitment, effective coordination, and cooperation among various institutions to ensure that programmes achieve the desired outcomes. Strong institutions influence investment decisions in providing high quality services such as health, education, and connectivity, and to ensure access to economic opportunities.

This Kenya Economic Report 2018 takes cognizance of the importance of remittances in complementing local and FDIs with their potential in filling financing gaps and catalysing implementation of the "Big Four" agenda particularly the housing and manufacturing sectors.

The rest of the report is organized as follows. Chapter two reviews developments in macroeconomic indicators. Chapter three analyses the medium-term prospects of the economy for the period 2018-2022. Chapters four to nine reviews sectoral investment issues namely manufacturing, trade, tourism, agriculture, infrastructure and human capital development. Chapter ten reviews the institutional matters for investment in Kenya.

Chapter 2

Kenya Economic Performance

The economy remained resilient with a stable macroeconomic environment despite the prolonged electioneering period and drought conditions. Investment growth was lower than the expected 30 per cent of GDP level envisaged to deliver 10 per cent economic growth. While accelerated growth in government development expenditures to deliver on the flagship projects saw public debt edge upwards, however, continued fiscal prudence maintained debt sustainability. The persistent slow growth in private sector credit has the potential to constrain growth in private investment as banks adopt different business models to manage risk premiums with the introduction of the interest rate cap.

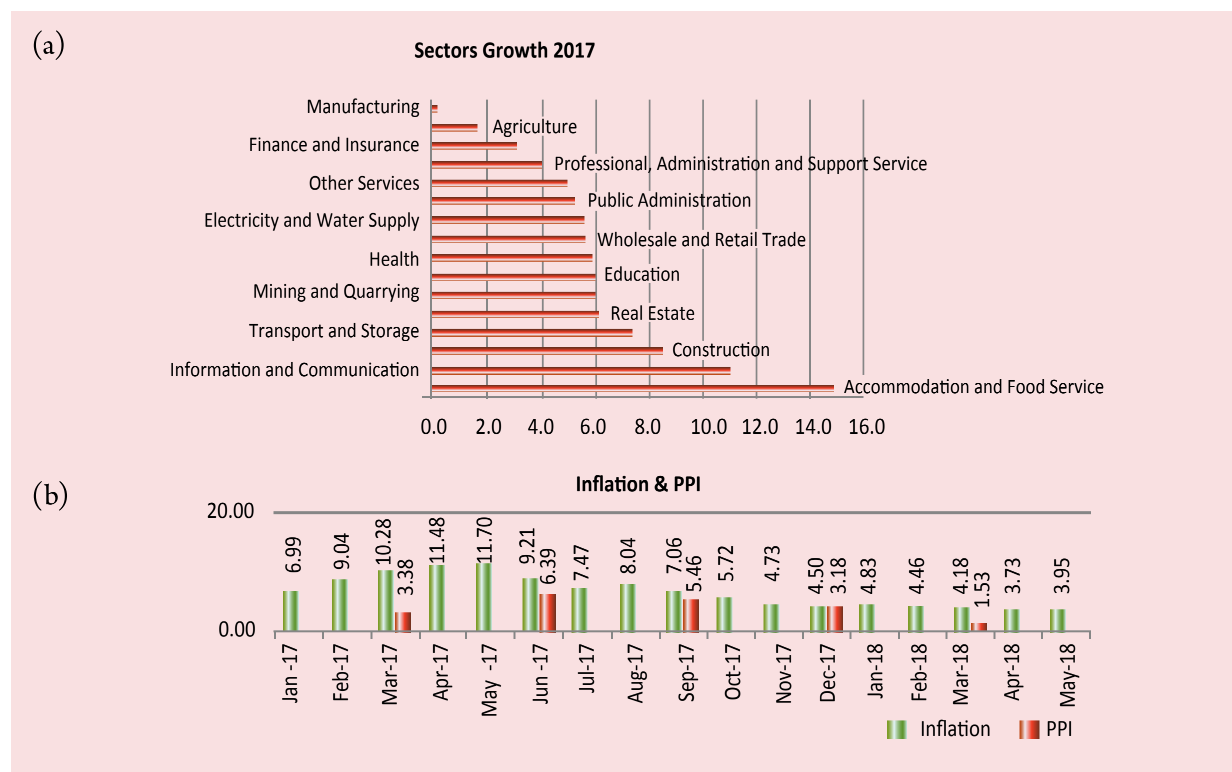
2.1 Economic Growth

The Kenyan economy remained resilient despite the prolonged electioneering period and continued drought effects experienced in 2017. The country registered a growth rate of 4.9 per cent in 2017 compared to 5.9 per cent in 2016.

The performance differed across the sectors, with the non-agricultural sectors contributing significantly to the realized growth rate as shown in Figure 2.1. For example, in 2017, accommodation and food services grew by 15.0 per cent; information and communication 11.0 per cent; real estate 6.2 per cent; transport and storage 7.4 per cent; mining and quarrying 6.1 per cent; and construction 8.6 per cent. Agriculture grew by 1.7 per cent with low growth rates in the first and second quarters due to drought effects. Manufacturing grew by 0.2 per cent which was a significant decline from 2.7 per cent in a similar period in 2016.

Despite the slowed growth, the agricultural sector accounted for 31.5 per cent of GDP in 2017. This reflected a continued stable position when compared to 32.1 per cent in the corresponding period for 2016 and 30.2 per cent in 2015, an indicator that the economy is highly dependent on the sector. As such, weather shocks tend to have a significant impact on the overall economic performance. Enhancing productivity of the sector is a priority in addition to diversifying the sources of growth. The share of the manufacturing sector for 2017 reduced to 8.4 per cent compared to 9.1 per

Figure 2.1: Growth in sectors, inflation and PPI



Source: Kenya National Bureau of Statistics (2018), Economic Survey, and Kenya National Bureau of Statistics (2017), Monthly Statistical Releases (GDP, Inflation and PPI)

cent in the corresponding period in 2016 and 9.4 per cent in 2015, and therefore the need to focus on boosting growth of the sector.

On average, inflation in 2017 was 8.0 per cent which was slightly higher compared to 6.3 per cent in 2016. This is attributable to the drought effects which saw inflation increase to over 10 per cent for the months of March, April and May mainly due to increased food prices. Through the government subsidy on maize flour, and improved rainfall, inflation eased to remain within the 5 per cent targeted inflation from November 2017 to July 2018.

The Producer Price Index (PPI) inflation declined to 3.2 per cent in December 2017 from 5.5 per cent in September 2017 mainly due to a decline in food index during the quarter, with lower producer prices of sugar and tea. The PPI inflation declined further to 1.5 per cent in March 2018 which is mainly due to lower costs of electricity. The index considers all stages of product processing and captures the gross changes in the trading price of products on the domestic and non-domestic markets. The data is collected on a quarterly basis and grouped according to international standards of industrial classification of all economic activities (fourth revision).

2.2 Investment and Savings Performance

2.2.1 Investment trends

Total investments as a ratio of GDP remained relatively unchanged between 2013 and 2015 before declining in 2016 (Table 2.1). This performance was below the targets set in the MTP II for all the years considered partly because of delay in completion of public investment projects.

Table 2.1: Total investments, current prices

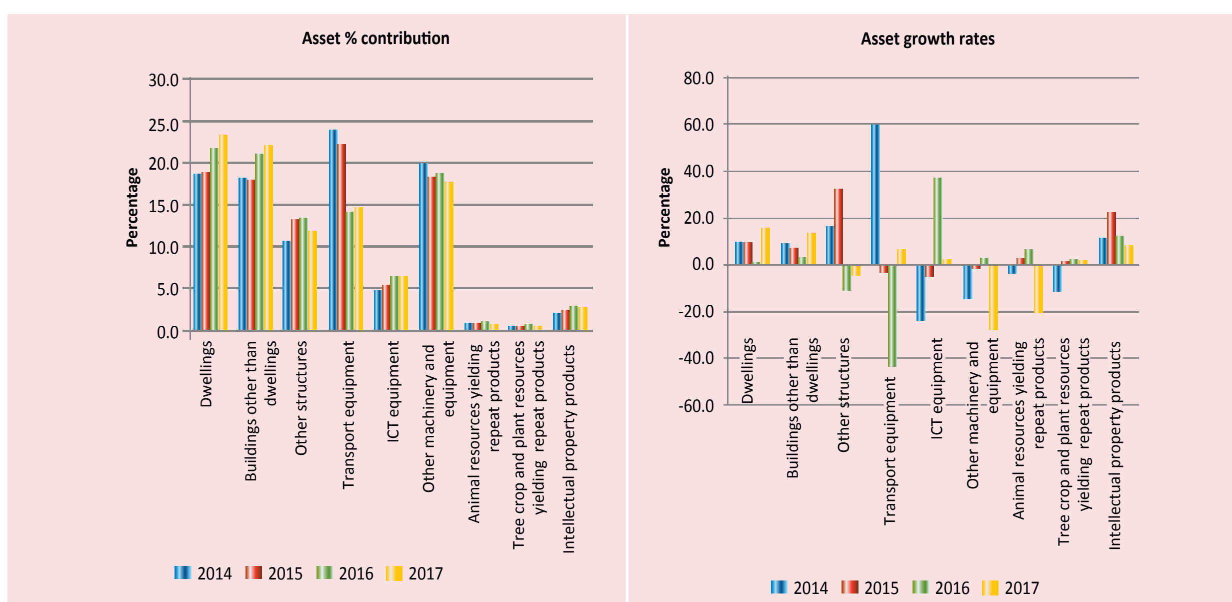
	2012	2013	2014	2015	2016	2017
	Ksh million					
GFCF	901,305	976,086	1,236,107	1,358,366	1,237,818	1,461,256
Change in Inventories	13,850	-22,059	-24,203	-9,406	6,288	32,286
Total Investments	915,155	954,027	1,211,904	1,348,960	1,244,106	1,493,542
GDP	4,261,370	4,745,143	5,402,410	6,284,185	7,194,147	8,196,666
	% of GDP					
Investment	21.5	20.1	22.4	21.5	17.3	18.2
Target (MTP II)	22.1	23.4	25.8	27.8	29.3	29.3
Gross Savings	12.4	9.6	10.3	11.4	11.2	10.1
Savings - Investment GAP	-9.1	-10.5	-12.1	-10.1	-7.1	-8.1

Source: Kenya National Bureau of Statistics (2018), Economic Survey

Gross savings remained low, ranging between 10 per cent and 13 per cent of GDP (Table 2.1), and resulting to a wide savings–investment gap. Although the gap narrowed in 2016, this was mainly because of the significant drop in investment to GDP ratio albeit with decline in savings ratio. To maintain a growth momentum in investments, it is necessary to build capacity for strong economic activity. Mobilization of resources remains critical, including at domestic level.

The value of Gross Fixed Capital Formation (GFCF) in real terms declined by 9.4 per cent in 2016 mirroring the decline in nominal GFCF (Figure 2.2). This was because of the significant decline in real value of assets in transport equipment which reduced its contribution to fixed investment. There was a significant recovery in value of assets in ICT equipment from a negative growth in 2014 and 2015 but its contribution to fixed investment was yet to get back to levels in 2012 (Figure 2.2).

Figure 2.2: Gross Fixed Capital Formation – GFCF - assets



Source: Kenya National Bureau of Statistics (2017), Economic Survey

2.3 Fiscal Performance

2.3.1 Revenues

At national level, revenue performance improved in 2016/17 with cumulative collections including appropriation in aid (A-I-A) totalling 19.6 per cent of GDP from 18.7 per cent in 2015/16 (Table 2.2). However, the performance was below the target mainly due to shortfalls in A-I-A collection and income tax. In 2017/18, total cumulative revenue including A-I-A was 17.3 per cent of GDP) compared to 18.2 per cent of GDP) in 2016/17. The target was 19.1 per cent of GDP and was not attained mainly due to shortfalls in Excise tax, PAYE, VAT imports and A-I-A as economic activity slowed with the prolonged political situation.

County governments managed to collect 56.4 per cent of the target of Ksh 57.7 billion own revenues in 2016/17, a decline of 7.1 per cent compared to 2015/16. As a result, county governments relied on equitable revenues which increased to Ksh 280.3 billion in 2016/17 from 259.8 billion in 2015/16.

2.3.2 Expenditures

Total expenditure and net lending for 2016/17 increased to 29.5 per cent of GDP from 27.2 per cent of GDP in 2015/16. However, this was below the target, given the low absorption levels in wages and salaries, operations and maintenance and A-I-A expenditures. In 2017/18, the cumulative total expenditure and net lending was 24.4 per cent of GDP) against a target of 26.9 per cent of GDP. This was mainly due to low absorption in both recurrent and development expenditures as government activity slowed in the prolonged electioneering period.

The county government expenditures have been increasing every year in nominal terms. However, these expenditures are relatively small, constituting slightly above 4.0 per cent of GDP (Table 2.2). Thus, for the county governments' expenditures to make significant impact on economic growth, there is need to increase development spending.

2.3.3 Fiscal deficit

The fiscal balance on a commitment basis and excluding grants was a deficit of 9.2 per cent of GDP in 2016/17 compared to 8.4 per cent in 2015/16. In 2017/18, budget outturn had a cumulative overall fiscal balance of 6.7 per cent of GDP compared to a target of 7.2 per cent of GDP. The fiscal balance was below a target due to low absorption levels of the expenditure budgets.

2.3.4 Public debt

Total public debt increased to 57.2 per cent of GDP in 2016/17 from 55.5 per cent of GDP in 2015/16. This comprised 52.1 per cent external debt of which multilateral debt comprised 36.7 per cent, bilateral debt 31.6 per cent, and commercial debt 31.0 per cent including International Sovereign Bond. In 2017/18, gross public debt was 57.1 per cent of GDP which was more or less the same as the 57.2 per cent of GDP in 2016/2017. The high level of public debt is mainly due to increased public investments that are financed generally from external borrowing. It is expected that upon completion of the investment projects, strong economic growth will be realized thus reducing the debt ratio.

Although county governments are yet to accumulate debt, total accumulated pending bills for 43 counties amounted to Ksh 35,841.7 million in 2016/17. With a significant proportion of pending bills in development spending, this can be a constraint in pushing the development agenda at county level.

Table 2.2: Fiscal performance at national and county level

	2014/15	2015/16	2016/17	2017/18 Targets	2017/18 Actuals
Revenues					
Total revenue as % of GDP	19.0	18.7	18.2	19.1	17.3
Tax revenue as % of total revenues	79.8	82.2	80.3	82.6	82.7
Total county revenue as % of GDP	3.9	4.1	4.8	4.9	4.7
County own-sourced revenue as % of total revenue	14.8	13.3	8.8	12.2	8.4
Expenditures					
Total national government expenditure as % of GDP	28.1	27.2	29.5	26.9	24.4
Total national development spending as % of total expenditure	31.1	24.8	24.1	25.1	21.9
Total county government expenditure as % of GDP	4.4	4.5	4.1	5.0	3.7
Total county development spending as % of total expenditure	35.1	35.0	32.4	33.9	22.0
Fiscal balance					
Fiscal deficit as % of GDP	(9.1)	(8.4)	(9.2)	(7.2)	(6.7)
Total public debt as % of GDP	48.8	55.5	57.2	-	57.1
External Debt as % of total public debt	50.0	49.7	52.1	-	51.5
Pending bills at county level as % of total expenditure	14.7	12.7	11.2	-	35.7
County pending bills in development spending as % of total pending bills	75.6	72.0	67.8	-	25.9

Source: Office of the Controller of Budget (2017), Quarterly Budget and Expenditure Review. NB: (-) means data is not available

2.4 Monetary Policy

The conduct of monetary policy in Kenya is geared towards maintaining price stability with low and stable inflation. In the period, monetary policy stance was maintained with no change in the policy rate. While there were instances of inflationary pressure in the period, these were mainly supply driven given the drought condition. The Kenya shilling exchange rate remained stable against major currencies, with foreign reserves maintained at 4.9 months of import cover.

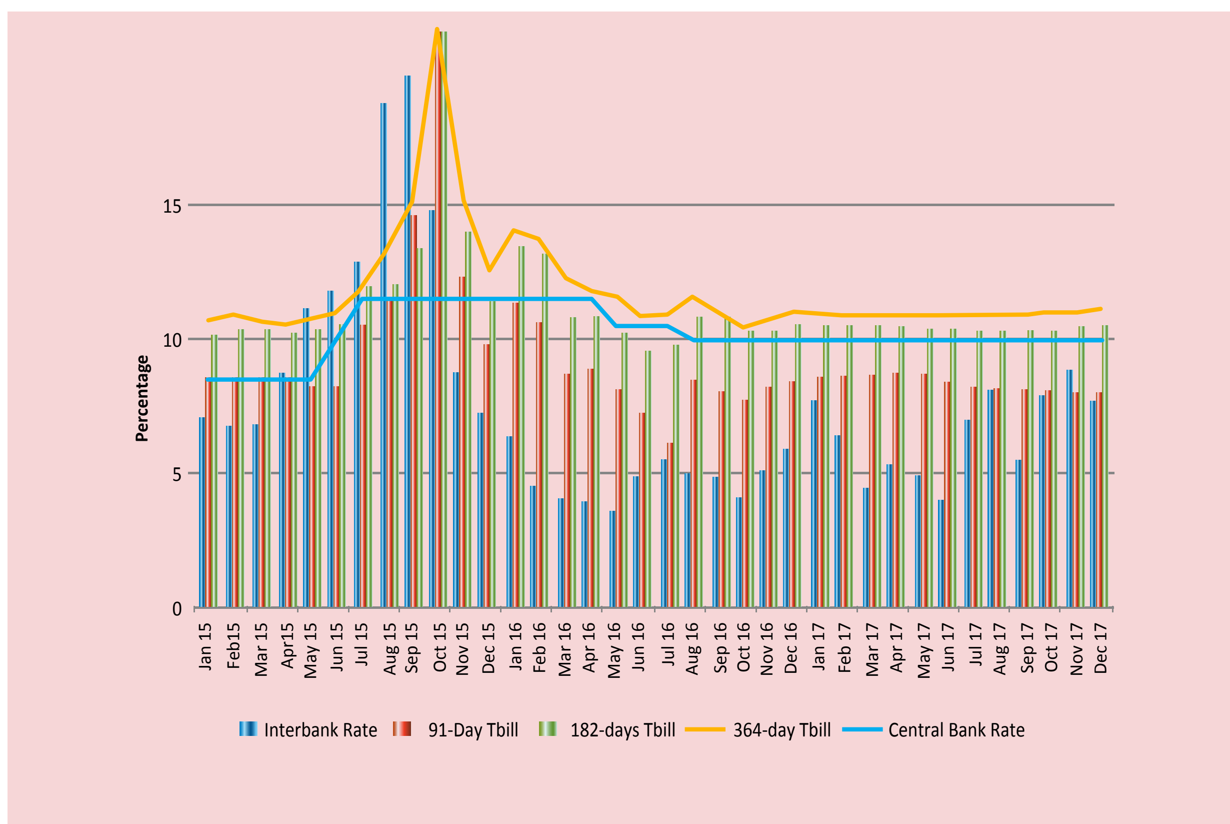
The short-term interest rates remained stable, oscillating around the Central Bank rate (CBR). The interbank rate declined to an average of 4.8 per cent in 2017 compared to 6.5 per cent in 2016 (Figure 2.3). The Treasury bill rate remained stable, declining to an average of 8.4 per cent, 10.4 per cent, and 10.9 per cent for the 91-day, 182-day, and 364-day Treasury bills, respectively, in 2017 from an average of 8.5 per cent, 10.9 per cent, and 11.7 per cent for the 91-day, 182-day, and 364-day Treasury bills, respectively, in 2016.

The interest rate cap introduced in September 2016 saw the lending rates stabilizing at 13.7 per cent and the deposit rate at 7.4 per cent (Figure 2.4). Although domestic credit increased to Ksh 226.0 billion at end of December 2017 compared to Ksh

143.8 billion in December 2016, there was a notable slow growth. At December 2017, total credit was growing by 7.6 per cent compared to 6.4 per cent in December 2016 and 20.8 per cent in December 2015. Further, private sector credit slowed to 2.4 per cent in the year to December 2017 from 4.1 per cent and 18.0 per cent in 2016 and 2015, respectively. Although growth in bank credit was slowing before the introduction of the interest rate cap, the trend was not reversed in the period after, with expected growth in demand for credit.

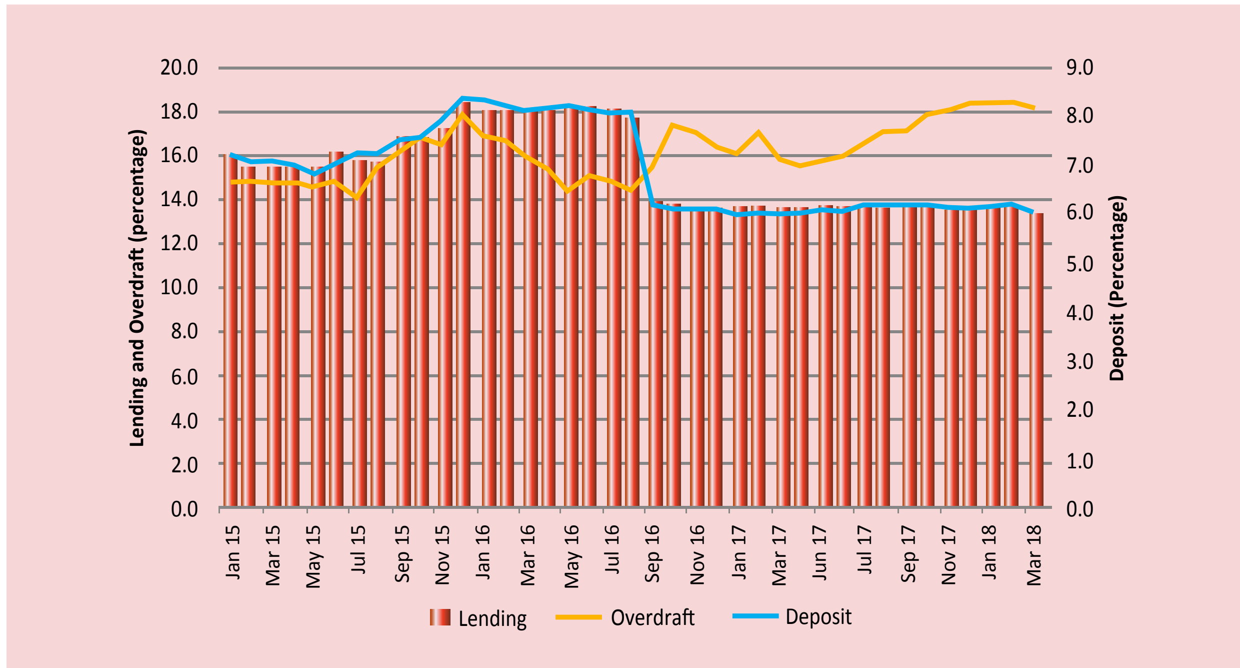
Most sectors of the economy, except for services sector including trade, real estate, consumer durables and private households, experienced a slowdown in the credit uptake in 2017 compared to the same period in 2016 (Figure 2.5). Business services, mining and quarrying, finance and insurance, manufacturing and agriculture sectors experienced a contraction of credit uptake in the year to December 2017. However, there was little change in the shares across the sectors.

Figure 2.3: Trends in money market interest rates



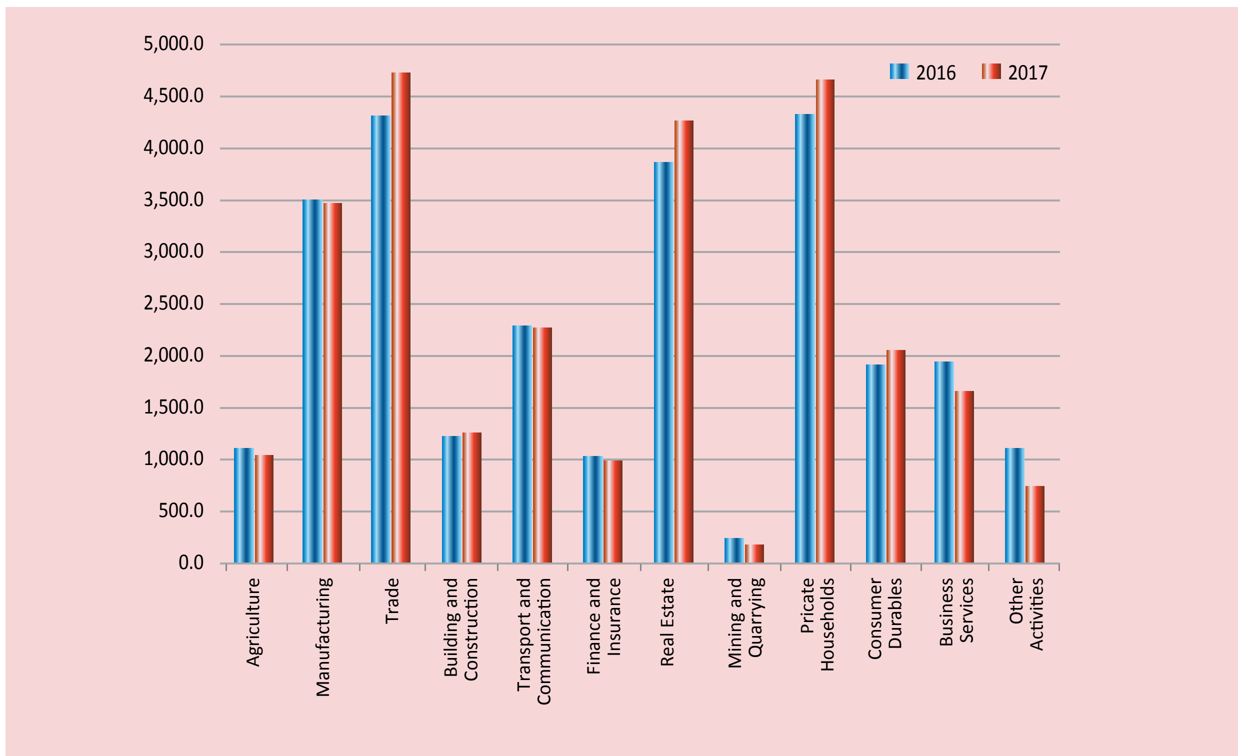
Source: Central Bank of Kenya (2017a), Monthly Economic Bulletin

Figure 2.4: Trends in commercial banks interest rates



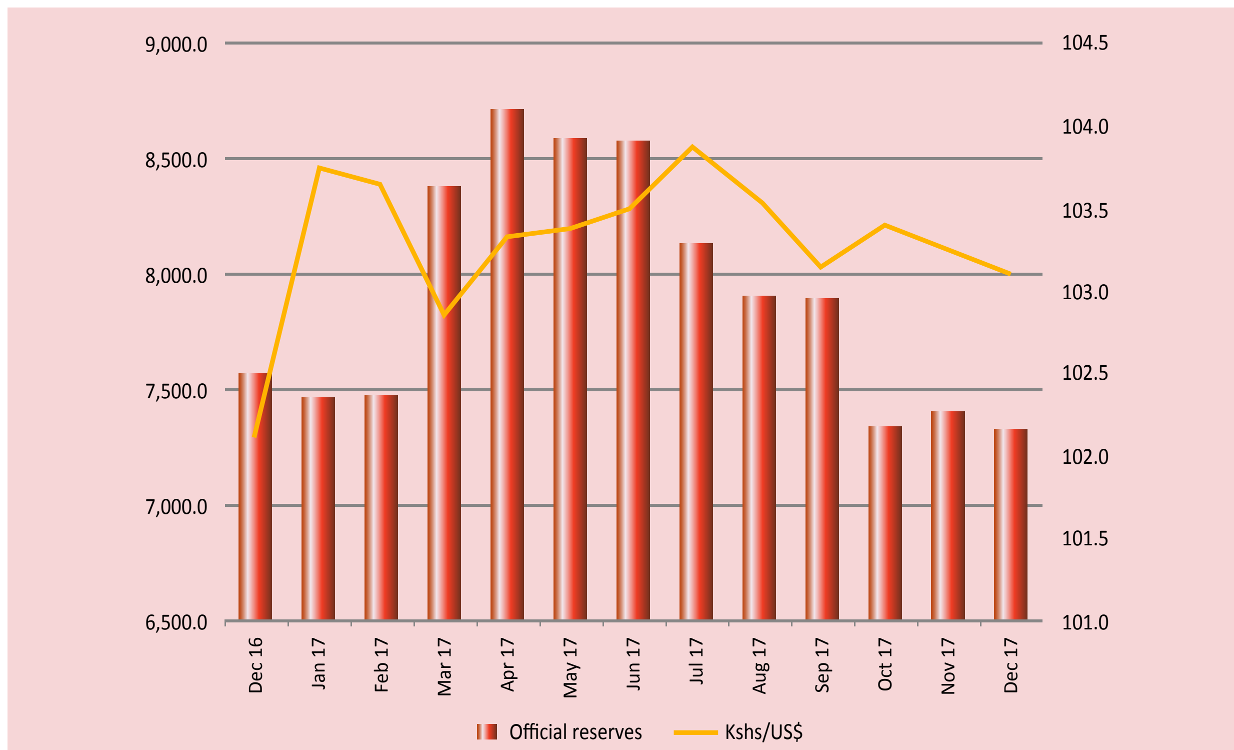
Source: Central Bank of Kenya (2017a), Monthly Economic Bulletin

Figure 2.5: Trends in levels of private sector credit across sectors



Source: Central Bank of Kenya (2017a), Monthly Economic Bulletin

Figure 2.6: Trends in official reserves and exchange rate (Ksh/US$)



Source: Central Bank of Kenya (2017a), Monthly Economic Bulletin

2.5 External Account

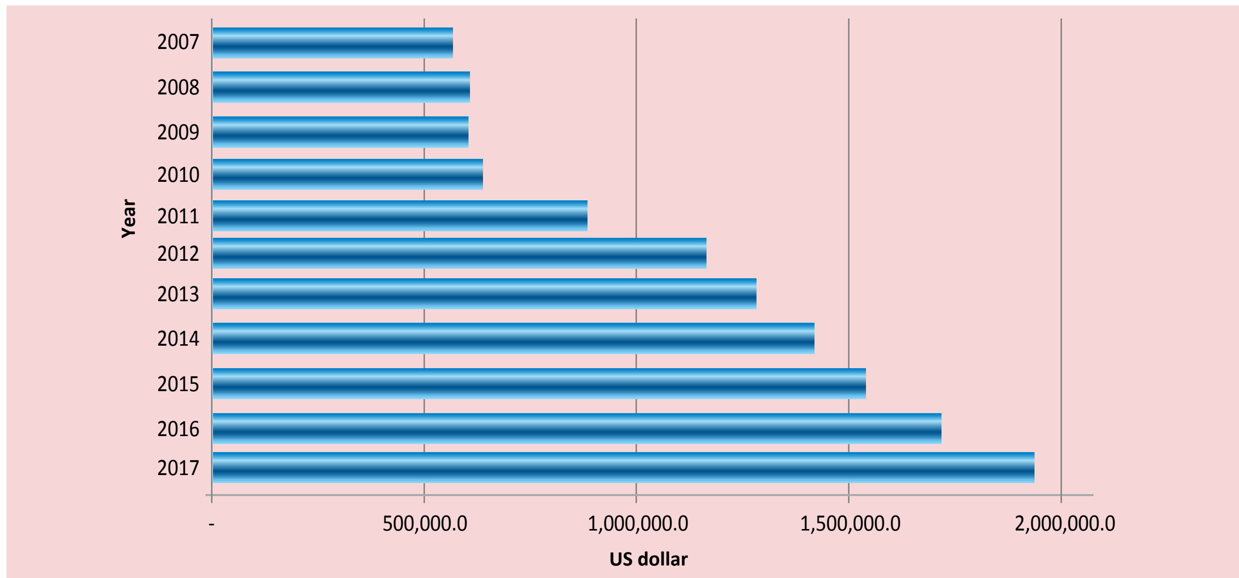
The current account balance slightly worsened to 6.7 per cent of GDP in 2017 compared to 5.1 per cent of GDP in 2016 but at the same position as the one recorded in 2015. This is attributed mainly to a widened merchandise trade deficit from Ksh 853.7 billion in 2016 to Ksh 1,431.8 billion in 2017 majorly driven by high import bill that grew by 20.5 per cent. The key items in this import bill are industrial machinery, petroleum products, road motor vehicles, iron and steel, animal and vegetable fats and oils, and sugar. Total exports increased by a paltry 2.8 per cent from Ksh 578.1 billion in 2016 to Ksh 594.1 billion in 2017. This has led to the ratio of exports to imports deteriorating from 40.4 per cent in 2016 to 34.4 per cent in 2017.

The overall balance of payments position worsened to a deficit of Ksh 16.9 billion from a surplus of Ksh 13.1 billion in 2016. This was attributed to widening of merchandise trade deficit that grew by 35.6 per cent. The remittances to Kenya remained on an upward trend, reaching almost US$ 2 billion in 2017 (at US$ 1,946.904 million) as reported in Figure 2.7. This will continue to be a key source of financing the balance of payments which can be enhanced further through policy and regulatory processes that reduce the remitting costs.

2.6 Conclusions and Policy Recommendations

- Maintaining macroeconomic stability is a priority in attaining the envisaged double digit economic growth. This emphasises the need to continue with a growth-enhancing fiscal policy while also maintaining prudence, including adhering to the PFM Act 2012 in using all external borrowing purely for developmental projects and activities. Furthermore, use of concessional funding is crucial in managing debt levels. Supportive monetary policy and

Figure 2.7: Remittances, 2007-2017 (US$ '000)



Source: Central Bank of Kenya (2017a), Monthly Economic Bulletin

financial stability are important in securing market confidence.

- With significant investment levels required to expand the capacity to grow economic activities, enhancing mobilization of domestic resources is paramount in not only closing the savings-investment gap but also maintaining internal balance. This entails exploiting opportunities to raise fiscal revenue and creating an environment that fosters private sector savings.

- With contribution to the total value-added GDP at 31.5 per cent, agriculture continues to be the mainstay of the economy. As such, reducing the effects of its vulnerability to weather shocks is critical. In this regard, there is need both at national and county level to enhance agricultural productivity by promoting irrigated agriculture.

- Promoting private sector investment is paramount in achieving a strong inclusive growth. This requires a conducive environment especially in accessing finance for new high yielding investment projects. In this regard, the interest rate policy should allow banks to adopt a business model that favours growth in private sector credit. In addition, facilitating more reliance on non-debt increasing financing such as FDIs and remittances will serve to maintain external stability.

- Growth in exports requires supporting value addition to traditional products while exploring other high value frontier products. Thus, greater coordination in implementing the Kenya Industrialization Strategy and the National Trade Policy will enable enhancing of growth of exports while deepening industrialization.

Chapter 3

Medium Term Prospects

Kenya Vision 2030 aspires a 10 per cent economic growth rate that is sustained over a period. This growth requires to be supported by investments at 30 per cent to GDP. In the third Medium Term Plan, a special focus is given to the "Big Four" agenda which is critical in ensuring that the achieved growth is inclusive and serves to uplift social welfare. While downside risks to medium term growth exist, the economy can sustain a growth momentum with appropriate and timely macroeconomic and structural policies.

3.1 Forecasting Scenario in the Context of the Kenya Vision 2030 and MTP III

In this scenario, growth forecasting in the medium term assumes that the proposed increased government spending especially in supporting the "Big Four" agenda is fully achieved. Further, the scenario assumes that various interventions are put in place to mitigate the impacts of the downside risks. Among the downside risks considered include the persistent weather shocks arising from climate change; political uncertainties with general elections; and slow growth in credit to the private sector especially that attributed to the interest rate cap. At global level, is continued slowdown in growth of the trading partners and unfavourable financial conditions.

Regarding government spending, the third MTP proposes new projects including those directly under the "Big Four" agenda, and the commitment to complete government investments initiated during the second MTP in pushing the Kenya Vision 2030 development agenda. Table 3.1 summarizes the proposed allocations of development expenditures across various sectors. There are substantive allocations to energy, infrastructure and ICT to facilitate implementation of prioritized key infrastructural projects. Other investments in the "Big Four" agenda are also allocated substantial resources.

In addition, there are efforts to encourage FDI as part of the strategy to close the savings-investment gap in growing investments. Further, there are proposals to diversify sources of growth by increasing the share of manufacturing sector to 15 per cent of GDP; developing the oil and gas, and other mineral

Table 3.1: Projected development expenditures by sectors in the medium term (Ksh million)

Sector	2018/19	2019/20	2020/21	2021/22
Agriculture, Rural and Urban Development	37,161	37,651	40,278	41,813
Energy, Infrastructure and ICT	338,003	316,594	320946	326,290
General Economic and Commercial Affairs	21,318	13,209	14,446	14,902
Health	40,906	36,672	37,272	37,672
Education	32,231	28,484	35,821	36,710
Governance, Justice, Law and Order	22,343	19,984	22,802	22,370
Public Administration and International Relations	89,696	99,114	106,725	108,315
National Security	14,974	14,974	14,974	14,974
Social Protection, Culture and Recreation	24,368	24,665	24,839	23,022
Environment Protection, Water and Natural Resources	56,225	59,475	61,462	62,307
Total	**677,226**	**650,822**	**679,565**	**688,374**

Source: The National Treasury (2019), BPS

resources sector; development of the blue economy; and enhancing agriculture productivity by irrigating 1.3 million acres of land. The government also aims to promote national unity, review the law on interest rate capping, and explore other opportunities to enhance investment financing.

Considering the assumptions above, economic growth rate is expected to increase gradually to attain a growth rate of 9.9 per cent by 2022 which is very close to the Vision 2030 objective (Table 3.2). This translates to an average of 7.6 per cent per year in the period. Delivering on the proposed projects will see increased government spending which is accompanied by growth in private investment, demonstrating complementarity between public and private investments. This is desirable in attaining the total investment target of 30 per cent of GDP. In addition, accelerated growth in exports is necessary in achieving the desired economic growth. As such, coordinated implementation of the Industrialization Strategy and the National Trade Policy is crucial

Table 3.2: Optimistic scenario based on Vision 2030 and the "Big Four"

	2015	2016	2017	2018	2019	2020	2021	2022
GDP Growth	5.7	5.9	4.9	6.0	6.4	7.5	8.6	9.9
Inflation	6.6	6.3	8.0	4.7	5.1	5.0	5.0	5.0
Private Consumption	2.9	6.8	6.6	6.7	6.9	7.6	8.7	9.6
Government Consumption	11.5	8.5	8.4	7.5	6.6	7.4	7.8	8.9
Private Investment	5.9	-8.1	15.1	8.6	9.1	8.8	9.3	10.7
Government Investment	2.0	-15.6	-2.7	6.8	7.1	8.3	9.4	10.0
Exports of Goods and Services	6.2	-2.6	-6.2	5.7	6.5	6.7	7.4	8.3
Imports of Goods and Services	1.2	-6.3	8.4	5.8	6.8	7.5	7.5	8.4
Current Account Balance	-6.7	-5.2	-6.7	-6.5	-5.5	-5.8	-5.6	-5.7
Fiscal Deficit	-6.0	-5.4	-6.2	-6.4	-6.3	-6.1	-5.9	-5.4
Public Expenditure	26.1	25.2	26.6	25.8	26.2	27.6	28.1	29.5
Interest Rate	10.8	8.5	8.1	8.8	8.8	8.8	8.8	8.8
Ksh per Dollar	98.2	101.5	103.4	103.4	103.6	103.0	103.5	103.3

Source: KIPPRA (2018), KIPPRA -Treasury Macroeconomic Model (KTMM)

to facilitating diversification of exports through enhanced value addition.

Macroeconomic stability will be maintained through prudent management of public spending, while fiscal consolidation could be sustained with a growth-enhancing fiscal policy. With exports growing faster than imports, stability in current account balance should be maintained. In addition, with a supportive monetary policy, inflation should remain within the government target range.

Investment-led growth without improvement in social welfare will not address the development issues of poverty and inequality. As such, the projected growth in private consumption is reflective of the gains expected, with a strong inclusive growth.

3.2 Baseline Scenario

Supposing the prevailing policy environment persists without any major changes. This means experiencing the full impact of the downside risks materialising in the medium term, including at domestic level; the persistent weather shocks; uncertainties in political climate; inability to complete the targeted flagship projects; and continued slow growth in credit to the private sector. At global level, continued slowdown in growth of the trading partners would constrain growth in exports performance. The weak growth in banking sector credit to private sector would adversely affect private investments, as investors face financing constraints. In addition, weather shocks would see increased imports bill and persistent fiscal pressures.

In such situation, the impetus for growth (Table 3.3) would be lower than the Vision 2030 targets. Without accelerated growth in government spending, growth in public and private investment will not be enough to attain the target of 30 per cent of GDP. This demonstrates that it is not enough to maintain macroeconomic stability. To achieve strong growth, Kenya needs to accelerate growth in investments and exports while also addressing distributional factors to address the underlying developmental issues.

Table 3.3: Baseline scenario assuming no policy change

	2015	2016	2017	2018	2019	2020	2021	2022
GDP Growth	5.7	5.9	4.9	6.0	6.1	6.2	6.4	6.4
Inflation	6.6	6.3	8.0	4.7	5.2	5.0	5.0	5.0
Private Consumption	2.9	6.8	6.6	5.7	5.0	6.0	6.0	6.1
Government Consumption	11.5	8.5	8.4	6.6	6.3	5.9	5.5	5.1
Private Investments	5.9	-8.1	15.1	6.5	7.0	6.6	6.8	7.1
Government Investments	2.0	-15.6	-2.7	6.4	7.2	6.3	5.8	5.4
Exports of Goods and Services	6.2	-2.6	-6.2	2.8	6.8	6.9	6.1	6.8
Imports of Goods and Services	1.2	-6.3	8.4	4.0	5.4	6.3	5.7	5.7
Current Account Balance	-6.7	-5.2	-6.7	-5.9	-5.1	-5.8	-5.5	-5.2
Fiscal Deficit	-6	-5.4	-6.2	-6.4	-5.5	-4.5	-4.3	-3.5
Public Expenditure	26.1	25.2	26.6	26.8	25.8	25.1	25.2	25.1
Interest Rate	10.8	8.5	8.0	7.8	7.8	7.8	7.7	7.7
Ksh per Dollar	98.2	101.5	103.4	101.3	101.1	100.3	100.1	100.1

Source: KIPPRA (2018), KIPPRA -Treasury Macroeconomic Model (KTMM)

3.3 Conclusions and Policy Recommendations

Significant policy interventions are required to achieve strong inclusive growth.

- Macroeconomic stability is a necessary condition to attaining a strong inclusive growth. However, this should be accompanied by interventions that support expansion of the capacity for economic activity to maintain a strong momentum for growth. In this regard, the commitment to complete implementation of the projects under MTP II is a step in the right direction.

- Increased government investment plays a complementary role in enhancing growth of private sector investment. To ensure this is sustained, fiscal prudence is required in implementing a growth-enhancing fiscal policy. It is important that all proposed projects are implemented and therefore the need to explore opportunities for enhancing resource mobilization.

- Accelerated growth in exports serves to boost an investment-led growth. Thus, investments in the industrial sector should target to enhance diversification of exports through value addition, and this requires a coordinated implementation of the National Export Policy, and Industrialization Strategy.

- Supporting financial sector development facilitates strong economic growth with a thriving private sector. As such, reviewing the interest rate cap to enable credit flow to high yielding private sector projects is a priority. In addition, promoting FDI would enable diversification of sources of investment financing while securing external balance.

- Structural reforms are necessary to reduce vulnerability to effects of weather shocks. Moreover, there is need to ensure a stable political environment, and strong institutions of governance to enhance accountability, transparency and integrity.

- A strong coordination framework is required for successful implementation of MTP III because of the various stakeholders involved, who include the national government, county government, private sector and development partners.

Chapter 4

Transforming the Manufacturing Sector

The manufacturing sector has significant potential in supporting Kenya's development agenda especially by enhancing value addition and diversifying sources of growth. With the "Big Four" agenda, the sector is targeted to achieve a 15 per cent contribution to GDP by 2022 with emphasis on agro-processing, textiles, leather and blue economy sub-sectors. To achieve this, the sector must accelerate its growth rate to double the current levels of output. This requires improvement in industrial competitiveness of the country by enhancing the capacity to produce more advanced products, and move to faster growing activities. Further, adequate financing is required for the heavy investments, and in supporting the SMEs. Continuous improvement of the business environment both at national and county level will help accelerate the industrialization momentum.

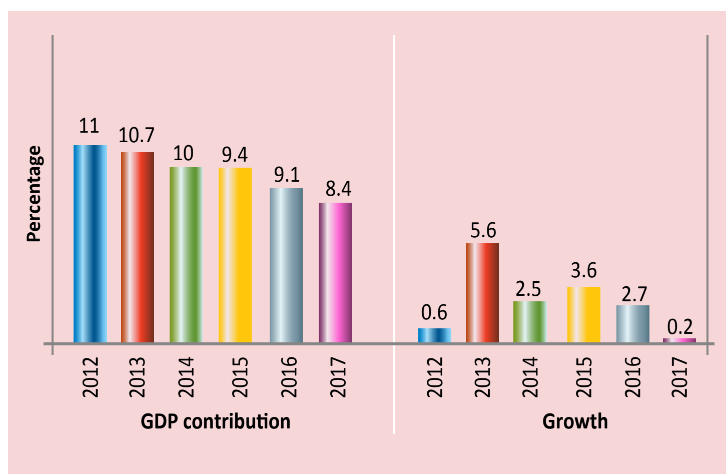
4.1 Contribution of the Manufacturing Sector to GDP

The manufacturing sector is one of the priority sectors expected to drive Kenya into an industrialized middle-income country by the year 2030. The Kenya Vision 2030 aims to have a robust, diversified and competitive manufacturing sector which will transform Kenya into an industrial hub. In the "Big Four" agenda, the manufacturing sector's GDP share is expected to increase from 8.4 per cent to 15.0 per cent by year 2022 with the aim to fast-track economic growth, employment creation and poverty reduction by creating an additional 1,000 Small and Medium Enterprises (SMEs) and supporting value addition in four sub-sectors, namely agro-processing, the blue economy, leather and textiles.

The manufacturing sector's contribution to GDP averaged 9.5 per cent in the last five years and has been on a declining trend. In 2013, the sector achieved the highest growth of 5.6 per cent, recovering from a contraction of -0.6 per cent in 2012 mainly attributed to high cost of production because of drought and volatility in international oil prices. While the sector grew steadily in 2015 and 2016 at 3.6 per cent and 2.7 per cent, respectively

(Figure 4.1), it slowed to 0.2 per cent in 2017, a period when the country was experiencing extended effects of drought.

Figure 4.1: Contribution to GDP and growth (%)



Source of data: Kenya National Bureau of Statistics (2018), Economic Survey

The declining contribution of the manufacturing sector to GDP is slowing down the impetus in transforming and diversifying the economy. To achieve a 15 per cent contribution to GDP by 2022, the sector requires an accelerated growth rate to more than double its current level of output from about Ksh 440 billion in 2016 to about Ksh 900 billion by 2022. And, given the focus on food products, textiles and leather which are capital intensive, significant investments especially in machinery and equipment are required to expand the capacity to produce such a huge amount of additional output.

While the value added by the sector has grown over time, there are significant variations in contributions of the various sub-sectors. For example, in the period 2012-2016, the value added for processing and preservation of fish has been less than 1 per cent. Textiles, wearing apparel and leather sub-sectors averaged about 8.7 per cent, 4.1 per cent and 1.2 per cent, respectively (Table 4.1). These are the key products targeted to contribute to the "Big Four" agenda. While the share of textiles

Table 4.1: Sub-sectors value added (% of total manufacturing sector)

Sub-sectors	2012	2013	2014	2015	2016
Processing and preserving of meat	4.8	4.6	4.7	4.6	5.3
Processing and preserving of fish	0.3	0.2	0.2	0.1	0.3
Processing and preserving of fruits and vegetables	0.8	0.9	0.6	0.3	0.2
Vegetables and animal oils and fats	3.2	3.0	3.0	3.1	2.9
Dairy products	1.6	1.7	1.8	1.9	1.8
Grain mill products	4.4	4.4	4.3	4.8	4.0
Bakery products	1.1	1.0	1.1	1.1	1.0
Sugar and confectionery	1.8	2.4	2.3	2.1	2.1
Other food products, n.e.c.	8.2	7.9	7.2	8.1	7.5
Prepared animal feeds	1.7	1.8	2.0	2.2	1.8
Total food products	**27.9**	**28.3**	**27.1**	**28.3**	**26.9**
Beverages and tobacco products	11.0	11.5	12.3	10.9	12.6
Textiles	7.8	8.3	9.0	8.7	9.9
Wearing apparel	3.9	3.9	4.2	4.0	4.5
Leather and related products	1.3	1.4	1.3	1.1	1.0
Other products	48.1	46.5	46.1	47.0	45.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source of data: Kenya National Bureau of Statistics (2017), Statistical Abstract

has slowly increased, that of leather and related products has been on a steady decline. Attaining a 15 per cent of GDP by 2022 through these sub-sectors means that their share of value added must increase by about 1.5 times every year. Therefore, accelerated growth in investments in the targeted sub-sectors is one of the ways of achieving the target. This should be complemented by technological advancement to support value addition.

4.2 Employment in the Manufacturing Sector

The manufacturing sector contributes on average 18 per cent of total employment in the economy, comprising 12 per cent of wage employment and 20 per cent of informal employment. Although wage employment in the sector has been increasing, it has declined in growth in the last five years (Table 4.2). Informal employment makes up the bulk of employment in the sector with over 2.8 million people working in the sector as at 2017. The average annual wage earnings per employee in the private sector formal employment in 2017 were Ksh 458,322 compared to the national average of Ksh 679,489. These formal employment earnings are higher than for informal employment which continues to offer low quality jobs hence inhibiting poverty reduction among the workers.

On average, wage employment in the food sub-sector accounted for about 30 per cent of wage employment in manufacturing sector over the period 2012-2016. Processing and preserving of fish, crustaceans and molluscs under the blue economy employed less than 1 per cent of wage employment in the manufacturing sector (1,334 persons) while textile and related products sub-sector's employment averaged about 25 per cent (about 72,000 persons). The leather and leather products averaged 2 per cent (about 5,700 persons). A significant proportion of those in the textile sub-sector are engaged in manufacturing of apparel, and made-up textile articles while in the leather industry a significant proportion is in the manufacture of footwear.

Between 2012 and 2016, the manufacturing sub-sectors targeted to drive the "Big Four" agenda created a total of 19,842 jobs equivalent to about 65 per cent of jobs created in the manufacturing sector (Table 4.3). This implying that the sub-sectors have the potential to generate the targeted employment

Table 4.2: Employment in the manufacturing sector

	2012	2013	2014	2015	2016	2017
Employees in private sector	245,400	253,400	261,300	269,000	274,300	276,900
Employees in public sector	25,600	26,000	26,100	26,500	26,500	26,400
Total wage employees	271,000	279,000	287,000	295,500	300,800	303,300
Wage employment growth (%)	0.3	3.0	2.9	3.0	1.7	0.9
Share of total wage employment (%) in the country	12.6	12.2	12.1	11.9	11.8	11.4
Employees in informal employment	2,040,500	2,233,700	2,364,900	2,545,300	2,710,200	2,841,300
Share of total informal employment (%)	19.4	20	20	20.3	20.4	20.2
Total manufacturing employment	2,311,500	2,512,700	2,651,900	2,840,800	3,011,000	3,144,600
Share of total employment (%) in the country	18.1	18.7	18.7	18.9	19	18.8

Source of data: Kenya National Bureau of Statistics (2017), Economic Survey and Kenya National Bureau of Statistics (2018), Statistical Abstract

Table 4.3: New wage employment by sub-sectors' activities

	2012	2013	2014	2015	2016	Total
Textiles						
Growing of fibre crops (sisal)	860	368	(767)	211	(45)	627
Preparation and spinning of textiles fibres	73	293	295	319	73	1,053
Manufacture of textile and related products	504	1,944	5,476	4,374	3,329	15,627
Blue economy						
Marine fishing (ocean and coastal fishing)	0	18	13	13	12	56
Fresh water fishing (inland water fishing)	2	7	35	10	32	86
Processing and preserving of fish, crustaceans and molluscs	48	136	24	18	109	335
Leather						
Raising of cattle and buffaloes (ranches) and related support activities	887	1381	(1399)	311	543	1,723
Tanning and dressing of leather, dressing and dyeing of fur	(17)	27	57	8	20	95
Manufacture of leather and related products	27	166	(67)	106	8	240

NB: Total new wage employment is the difference between wage employment in various periods

Source of data: Kenya National Bureau of Statistics (2017), Statistical Abstract

levels. New employment was highest in the textiles sub-sector at 17,307, comprising those in the growing of fibre, preparation and spinning of fibres and manufacture of textiles and related products (627; 1,053 and 15,627 persons, respectively). Employment creation in the growing of fibres has consistently reduced while that of preparation and spinning of fibres has been erratic. However, job creation in the manufacture of textiles and related products has increased during 2012-2016. In the "Big Four" agenda, it is targeted that 50,000 jobs and 500,000 jobs will be created in 2018 and by 2022, respectively, from cotton processing. Similarly, 10,000 jobs and 100,000 jobs are to be generated by 2018 and 2022, respectively, from apparel processing. This means creating more than three times new jobs in 2018 than what has been achieved in the last five years.

Under the blue economy, a total of 447 new jobs were created between 2012 and 2016: marine fishing (56), fresh water fishing (86) and processing and preserving of fish (335). Again, the processing and preserving of fish has the highest job creation. This partly compares to a total of 50,000 new jobs targeted from fish processing by 2022, or equivalent of 10,000 new jobs every year. This implies that significant growth in the blue economy activity is required for the new jobs to be created.

In the leather sub-sector, raising of cattle and buffaloes and related support activities created the highest number of new jobs at 1,723 between 2012 and 2016. Manufacture of leather and related products managed 240 new jobs. In the leather sub-sector, 5,000 and 50,000 new jobs are to be created by 2018 and 2022, respectively. This requires that job creation in 2018 be 2.4 times what has been achieved in the last five years. Promoting a competitive value chain in the leather industry will go a long away in attaining the target set.

4.3 Competitiveness of the Industrial Sector

In ensuring that the manufacturing sector delivers on the set targets, the level of competitiveness will play a major role. A key indicator used to gauge the competitiveness of the sector is the Competitive Industrial Performance (CIP) Index which captures the ability of countries to produce and export manufactures competitively and hints to progress in structural transformation. Kenya's ranking worldwide moved from position 124 in 2013 to 105 in 2014 (Table 4.4) with the Competitive Industrial Performance index at 0.011 compared to the world average of 0.079. Though Kenya is ranked at the top in the East African region, it ranks behind South Africa, China and aspirator countries such as India and South Korea. While Kenya's CIP was below the world average, China and South Korea indices were far above the world average (Appendix 4.1).

Kenya's capacity to produce and export manufactures while at the same time keeping the pace with technological changes lags far behind the global average, although scoring higher than other East Africa countries. The manufacturing value added per capita index which captures the capacity to produce and export goods scored 0.007 in 2014 which was far below the world average score of 0.133. While Kenya's capacity to produce manufactures is higher than that of the other East African countries, this capacity is far less than that of aspirator countries such as China and South Korea (Appendix 4.1). On the manufacturing export per capita index, Kenya's score in 2014 was 0.002 against the world's average score of 0.104, implying a slow pace with technological changes especially for exported products.

A more complex production structure signals industrial maturity, flexibility and ability to move to faster growing activities. Two indictors are used to measure the degree of industrialization intensity

*Table 4.4: Kenya's Competitive Industrial Performance**

	2013	2014		
	Rank/144	**Rank/144**	**Score**	**World average**
Competitive Industrial Performance index	124	105	0.011	0.079
Capacity to produce and export manufactures				
Manufacturing value added per capita	124	124	0.007	0.133
Manufacturing export per capita	125	125	0.002	0.104
Technological deepening and upgrading				
Share of manufacturing value added in GDP	87	90	0.318	0.370
Share of medium and high-tech activities in total manufacturing value added	101	102	0.153	0.308
Industrialization intensity	96	98	0.236	0.339
Share of medium and high tech-activities in total manufacturing export	95	94	0.497	0.627
Share of manufacturing exports to total exports	91	93	0.231	0.361
Industrial export quality	95	95	0.364	0.494
World impact				
Share of world manufacturing value added	74	74	0.002	0.030
Share in world manufacturing export	94	92	0.001	0.041

* Kenya's manufacturing structure has not changed much since 2014

Source of data: UNIDO (2017)

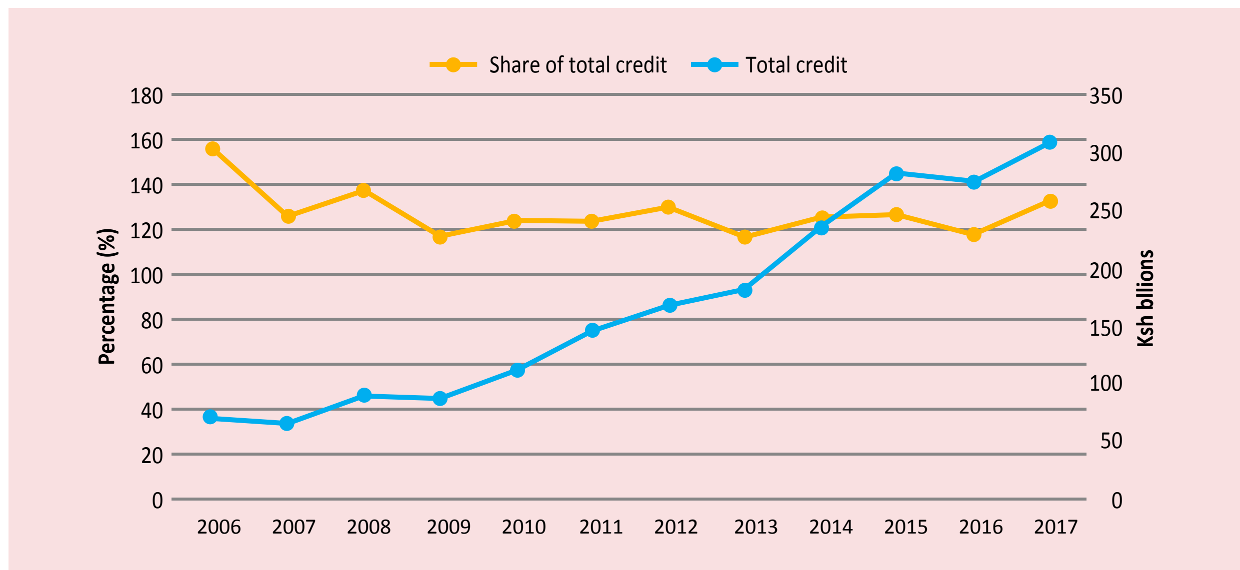
capturing the role and technological complexity of a country's production: share of manufacturing value added in GDP, and share of medium and high technology activities in total manufacturing value added. Kenya's score in share of manufacturing value added in GDP Index was 0.318 in 2014, which was close to the world's average of 0.370. However, the score in share of medium and high technology activities in total manufacturing value added was twice less than the world's average score of 0.308. In addition, while Kenya has shown flexibility and the ability to move to faster growing activities, it has not been able to move into more dynamic areas of export growth, especially advanced products with comparative advantage in agro-processing products such as tea, coffee, cut flowers, fruits and nuts, and legumes; in textiles, products such as non-knit suits for women and men, shirts and T-shirts; in the blue economy in products such as fish fillet and processed fish; and in leather products such as bovine hides. In addition, the country has not been able to exploit opportunities in frontier products such as pharmaceuticals. Countries such as China and South Korea have more complex production structures and therefore industrial maturity.

The share of exports reflects the competitive status of a country's manufacturing sector in international markets. An increase in world market share indicates advancement in relative industrial competitiveness while a decrease indicates deterioration. With a score of 0.002 in 2014 compared to the world's average of 0.030, Kenya needs to focus on improving industrial competitiveness in the international market. Though the competitive status is higher than that of East African countries, it ranks lowly when compared to South Africa, India, China and South Korea (Appendix 4.1). This is despite Kenya having a high comparative advantage in agro-processing products, textiles products and the blue economy products. Exploring frontier products including chemicals and allied industries is also important in enhancing exports.

4.4 Financing Investment Needs in the Manufacturing Sector

With the significant amount of investment required for the sector to deliver on the targets, access to adequate and appropriate finance is crucial. This section explores two main sources of finance

Figure 4.2: Commercial banks credit to the manufacturing sector



Source of data: Central Bank of Kenya (2017b), Statistical Bulletin and and 2018, Quarterly Economic Review

supporting the sector, namely credit by commercial banks, and by development finance institutions.

4.4.1 Credit by commercial banks

Commercial banks' credit is a major source of credit for manufacturing firms in Kenya. Figure 4.2 shows the commercial banks' credit and share to the manufacturing sector. While the value of credit has been increasing over the years, the growth has been slow.

Manufacturing is a priority sector of the Kenya Vision 2030 but its credit share to total credit has been stagnant over the last 10 years, partly reflecting the slowing growth in returns. This though has in turn implications on the growth and development of the sector. Bank credit to the manufacturing sector is crucial in supporting growth of the sector but other sources of financing are needed for long term financing.

4.4.2 Credit by Development Financial Institutions

Development Finance Institutions (DFIs) in Kenya have played a critical role in supporting the manufacturing sector especially for the SMEs. DFIs provide a wide range of products including finance, workspace, Business Development Services (BDS) and technological development.

The total number of projects approved for financing by DFIs increased significantly to 549 in 2014 from 119 in 2012, with Kenya Industrial Estates (KIE) sharing the largest proportion as shown in Table 4.5. KIE provides medium and long-term machinery, equipment and finance to SMEs, either for start-ups, expansion, modernization or rehabilitation of projects throughout the country. It also provides workspace industrial sheds/parks to small and medium enterprises through development of industrial estates countrywide. ICDC and DBK, however, lead in total loans advanced at Ksh 2,499 million and Ksh 1,242 million, respectively, in 2012 and 2017.

Most of the projects and loans approved in 2012-2017 by KIE were in food and textiles which are priority sub-sectors under the "Big Four" agenda. Projects approved in the leather sector, also a priority sub-sector are few, oscillating between 1 and 2 projects except in 2017 when 11 projects were approved (Appendix 4.2). The loans per project are however higher in the leather sector than in the food and textiles sector. For example, in 2016, the loans per project for food and textiles sub-sectors were Ksh 0.608 million and Ksh 0.307 million, respectively, compared to Ksh 2.7 million per project in the leather sub-sector. However, in 2017, the loan per project in the leather sector was low at Ksh 0.070 million compared to Ksh 0.574 and Ksh 0.457 million for food and textiles sectors, respectively. To realize the "Big Four" agenda targets, the leather sub-sector requires heavy capital investments, and alternative sources of financing may be required.

In fulfilling its mandate, KIE created about 480 new SMEs in 2015/16 period, demonstrating its potential to contribute in creating an additional 1,000 SMEs

Table 4.5: Industrial projects approved by development financial institutions

Institution	2012	2013	2014	2015	2016	2017
IDB Capital Limited	3	5	3	5	3	3
Development Bank of Kenya (DBK)	5	4	2	6	6	3
Kenya Industrial Estates (KIE)	109	257	543	233	325	280
Industrial and Commercial Development Corporation (ICDC)	2	2	1	7	4	7
Total	**119**	**268**	**549**	**251**	**338**	**293**

Source of data: KNBS (2018), Economic Survey

mainly focused on the food sub-sector as envisioned in the "Big Four" agenda. These new enterprises are targeted to create an additional 200,000 jobs by 2022 through value addition in tea, coffee, meat, sugar, dairy, fruits and vegetables. Such enterprises thus require huge funding to cater for the heavy investments needed. The average Ksh 0.608 million per project loaned by KIE may not adequately fund such investments. Though IDB, DBK and ICDC have the potential to fund such huge investments, they can only handle a few enterprises due to financial constraints.

4.5 Business Environment for Manufacturing Sector Growth

A favourable business environment is critical for growth and development of the manufacturing sector. This is because high cost of doing business inhibits business returns thus negatively affecting investment levels. Due to government efforts to improve the environment, Kenya's ranking in the Ease of Doing Business by the World Bank improved from position 92 in 2017 to position 80 in 2018. Kenya targets to be ranked among the top 50 countries by 2020.

An improved business environment in the counties is also important for them to participate effectively in the industrialization process. In the third sub-national Doing Business in Kenya 2016, the World Bank considered 11 counties, namely: Nairobi, Busia, Isiolo, Kakamega, Kiambu, Kisumu, Machakos, Mombasa, Narok, Nyeri and Uasin Gishu. The focus was on four areas: starting a business; dealing with construction permits; registering property; and enforcing contracts. The performance of the counties on the indicators was varied. For instance, it is easier to enforce a contract in Busia, start a business in Uasin Gishu, deal with construction permits in Kisumu and register property in Nairobi (Table 4.6). While Busia is ranked first in enforcing a contract, it ranks lowly on starting a business (ranked 7th overall). On average, Busia ranks first while Kakamega trails on all the four indicators. There are disparities between national

Table 4.6: Sub-national Doing Business in Kenya

County (City/ Town)	Starting a business		Dealing with construction permits		Registering property		Enforcing contracts		Overall performance	
	DTF score	Rank	DTF score	Rank	DTF score	Rank	DTF score	Rank	Average DTF	Rank
Busia *(Malaba)*	82.26	7	70.35	2	50.91	4	59.46	1	65.75	1
Kisumu *(Kisumu)*	82.26	7	70.49	1	50.31	6	58.24	7	65.33	2
Nyeri *(Nyeri)*	82.26	7	68.86	4	50.68	5	58.37	3	65.04	3
Mombasa *(Mombasa)*	82.91	4	66.22	8	51.62	2	58.96	2	64.93	4
Uasin Gishu *(Eldoret)*	83.73	1	66.34	6	51.03	3	58.28	5	64.85	5
Machakos *(Machakos)*	83.41	3	67.11	5	48.33	9	57.9	9	64.19	6
Narok *(Narok)*	81.92	10	66.33	7	49.89	7	58.01	8	64.04	7
Kiambu *(Thika)*	83.64	2	63.87	9	48.63	8	56.97	10	63.28	8
Nairobi *(Nairobi)*	82.76	5	56.17	11	54.27	1	58.27	6	62.87	9
Isiolo *(Isiolo)*	82.44	6	70.18	3	39.67	11	58.35	4	62.66	10
Kakamega *(Kakamega)*	81.57	11	63.02	10	47.98	10	56.74	11	62.33	11

Source of data: World Bank (2016)

NB: The distance to frontier (DTF) score for each indicator shows how far, on average, a county is from the best performance achieved by any economy on each doing business indicator. The measure is normalized between 0 and 100, with 100 representing the frontier of best practices (the higher the score, the better).

Kiserian retail market in Kajiado County

government ranking and the county government performance in the indicators.

There are other aspects across the counties not included in the ease of doing business index but are important to micro and small enterprises (MSEs), which are part of the manufacturing sector. These enterprises need access to utilities for their growth and development. MSEs should not have difficulties in accessing internet, roads, electricity and public security. Though key milestones have been made towards ensuring supply of water in the country, a significant number of stakeholders, including MSEs, still face the challenge of accessing water. Also, some worksites may still be lacking important facilities critical to operations such as access to proper waste management and sewerage services. While accessing proper worksites and related infrastructure is critical for innovation and technology development, it is also a challenge to many MSEs entrepreneurs. Finally, many of the MSEs do not have Access to Government Procurement Opportunities (AGPO), which provides the opportunity to conduct business with the government. Evidence shows that firms incur costs in form of bribes to access such utilities and opportunities. In addition, firms also bear costs from crime-related incidents (Appendix 4.3). To curb crime incidents, firms put in costly measures of security.

4.6 Conclusions and Policy Recommendations

- To double the current contribution of the manufacturing sector by 2022, accelerated growth in investments in all the targeted sub-sectors of agro-processing, textiles, leather and the blue economy is required. Fast-tracking the completion of targeted Special Economic Zones (SEZs) is a viable option in achieving the huge investment levels required, including nurturing innovations and the MSEs. A high level of cooperation between the National

and County governments is necessary to provide for space and focus on comparative advantage in each county. Further, provision of incentives to enterprises located outside SEZs is also important in providing a competitive environment to all investors.

- Enhancing industrial competitiveness is necessary in exploiting opportunities available for investment. In addition, keeping pace with innovation and technological advancement to build the necessary capabilities for medium to high technology industries is important. Further, there is need to put in place policies to enhance transfer of technology through sub-contracting of SMEs by large firms. Designing a consolidated manufacturing policy for the country is one way of achieving industrial competitiveness.

- While banks continue to finance the manufacturing sector, the anticipated growth in investment requires additional long term financing that is not provided by the banking sector. Strengthening the IDB, DBK and ICDC would enable them to play a significant role in supporting the industrialization process.

- SMEs and the informal sector play a significant role in the manufacturing sector. Thus, providing an enabling environment for them to thrive will be critical. The role of KIE and other institutions such as the Kenya Industrial Research Development Institute (KIRDI) is important in generating new 1,000 SMEs in agro-processing by 2022.

- The role of the county governments in the industrialization process is also critical especially in identifying areas of comparative advantage in advancing appropriate value chains. Thus, counties need to provide the enabling environment to attract investors. A focus on the ease of doing business at the county level is a priority, as well as monitoring the investment environment in the counties.

Chapter 5 Spurring Investments through Trade and Economic Integration

Trade plays an important role in economic transformation by driving up productivity, promoting exchange of new ideas and innovations, increasing access to more varieties of products through the distribution process, and creating employment. As such, growth and development of trade is critical in supporting delivery of the "Big Four" agenda.

Domestic wholesale and retail trade has a good penetration rate and employs 60 per cent of informal sector employees. There has been significant improvement in the general business environment arising from reforms in registration of businesses and facilitating transactions, among others. However, high costs of production coupled with multiple charges, fees and levies by national and county governments on traders raise the cost of doing business. Further, the delay in completing targeted flagship projects has seen shortage of appropriate retail markets thus constraining the efficiency, effectiveness and growth in distribution of goods and services domestically.

For international trade, trade deficit widened in 2017 due to increased importation of products that could otherwise be locally sourced to support domestic manufacturing particularly in textiles and leather industries. Firms in the EPZ which are largely dominated by garments, agro-processing and services sub-sectors use very low levels of local resources despite their potentially long value chains and labour-intensive nature. In increasing export earnings and diversifying exports, there is need to exploit the potential for value addition of the main export commodities, namely tea, coffee and horticultural products while venturing into products with high level of complexity. Implementation of various trade facilitation programmes has improved business and supported access to regional and international markets, but integration of domestic firms in regional value chains remains low. For a start, there is need to enhance participation of SMEs in the supply chains, encourage use of local resources by facilitating sub-contracting linkages with large enterprises, and exploit the opportunities in government procurements. In addition, intensified promotion of Kenyan products in the wider African Continental Free Trade Area and emerging markets is required for sustained production and improvement of trade balance.

5.1 Domestic Trade

5.1.1 Policy and regulatory environment

The National Trade Policy (2017) focuses on improving the domestic business environment, promoting value added production, and expanding regional and international markets. The objective is to encourage regulation that is efficient, transparent and supports backward and forward linkages with the other productive sectors of the economy. The key policy issues include facilitation of registration of businesses and property, access to credit, enforcement of fair trade practices, payment of taxes, enforcement of contracts, and resolving insolvency, among others.

In addition, the policy aims at mainstreaming the small and medium enterprises into domestic, regional and global market chains. So far, the registration of new businesses and issuance of various permits, certificates and licences has become more efficient and simpler following the establishment of *Huduma Kenya* centres across the country. Besides, modernization of the tax payment system, access to credit information and paying and filing of corporate income tax on *iTax* system have also significantly improved the business environment. These efforts have partly led to recent improvements in the World Bank's Ease of Doing Business rankings from position 113 to 80 during the years 2016 and 2017, respectively, with significant improvements made in ease of starting business, dealing with construction permits, getting electricity, getting credit, enforcement of contracts, and protection of investors.

The use of ICT has also significantly facilitated business operations in Kenya. This is reflected in the increased use of internet, and connectivity to enterprises which are estimated 90.2 per cent and 84.2 per cent, respectively (KNBS, 2016). Subsequently, an e-trade portal which provides timely, reliable and comprehensive information to the business community and other interest groups has been developed. The web-based e-portal integrated system also supports the attraction of both local and foreign investments. The establishment of a National Electronic Single Window System has also simplified and harmonized e-commerce transactions and accelerated business development through increased efficiency and reduced costs of business operations.

With respect to promotion of value addition and exports, the *National Export Development and Promotion Strategy 2017-2022* prioritizes specific interventions, including the *"Buy Kenya Build Kenya"* initiative aimed at promoting value added production and enhancing access to domestic, regional and global markets. Key among the specific actions being undertaken under this programme include reservation of procurement budget for locally produced goods and services, subsidies and other incentives for local producers, branding and promotional events to implement the programme. The other area of focus is on reduction or elimination of illicit and unfair trade practices that undermine the growth and development of domestic industries. The establishment of the Anti-Counterfeit Agency in 2010 after the enactment of the Anti-Counterfeit Act 2008 gave impetus to prohibition of trade in counterfeit and contrabands in Kenya. Besides, the enactment of the Trade Remedies Act 2017 which provides for imposition of anti-dumping, countervailing duties and safeguard measures, and the planned establishment of the Trade Remedies Agency are expected to strengthen protection of domestic industries against unfair trading practices with the rest of the world. Furthermore, the enactment of the Special Economic Zones Act 2015 and subsequent establishment of special economic zones provides an avenue for promotion of local and foreign direct investments and value added production.

The trade policy further seeks to strengthen economic integration of Kenya's economy with neighbouring and global economies. In this respect, Kenya actively participates in regional trade arrangements (RTAs) including the EAC,

COMESA, the EAC-COMESA-SADC Tripartite Free Trade Area and the African CFTA. The RTAs implement programmes that facilitate cross-border trade, investments and development of regional value chains.

The policy recognizes the role of county governments in regulating domestic business activities whereas the national government oversees trade policy formulation. The Finance Acts prepared by various county governments provide for enactment of rates for business licenses, levies, and charges for various types of businesses within the counties. However, a survey on business levies and other charges across various counties conducted by KIPPRA in 2015 established that many county governments introduced new charges and/or increased the rates of existing ones, thereby generally increasing the cost of doing business. Effective implementation of the trade policy is expected to enhance the competitiveness of the country in the global arena.

5.1.2 Performance of domestic trade

Domestic trade in Kenya is dominated by wholesale and retail sub-sectors with many firms being small and medium enterprises (SMEs) which are largely informal. The enterprises are generally characterized by ease of entry; unsuitable work-sites; unregistered outfits; reliance on indigenous resources; family ownership; small-scale operations; intensive use of labour; extensive use of adaptive technology; and skills acquired outside the formal sector. The high levels of informality imply that a large segment is unregulated and contributes to trade-related costs, including environmental degradation, health risks, infringement of copyright laws, and depressed tax revenues.

The sector registered improved performance during the MTP II implementation period, with its value rising from Ksh 380.6 billion in 2013 to Ksh 520.4 billion in 2016. However, the sub-sector's contribution to GDP declined from 8.0 per cent in 2013 to 7.6 per cent in 2017. The average contribution over the period was 7.8 per cent, which was below the 9.7 per cent realized in the first Medium Term Plan period. Generally, the wholesale and retail trade sector employs an average 10 per cent of total formal wage employment and accounts for about 60 per cent informal sector employment, or an estimated 8.4 million persons (Table 5.1).

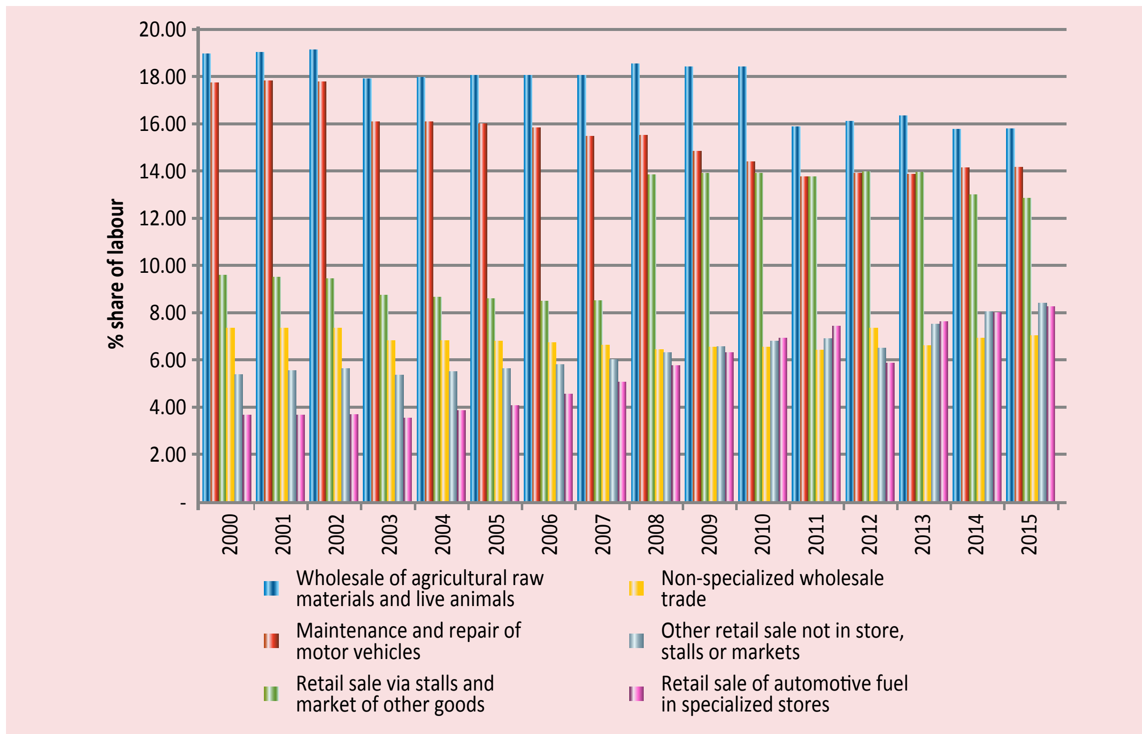
The informal traders are engaged in the sale of various product categories, including but not limited to sale, repair and maintenance of vehicles, food and beverages, textiles, clothing and foot wares, household merchandise, pharmaceuticals, construction materials, fuels, agricultural materials, etc. The leading sub-sectors in terms of labour demand are the sale of agricultural materials and motor vehicle repairs, accounting for an average of

Table 5.1: Selected indicators for domestic trade, 2013-2016

Year	2013	2014	2015	2016	2017
Contribution to GDP (%)	8.0	8.0	7.6	7.3	7.6
Total wage employment (000)	2,283.1	2,370.2	2,478.0	2,553.5	2,656.6
Wage employment in wholesale and retail sector (000)	212.2	220.2	232.0	250.8	239.8
Total informal sector employment (000)	11,150.1	11,846.0	12,562.5	13,309.7	14,097.5
Wholesale and retail trade employees in informal sector (000)	6,693.4	7,120.4	7,510.9	7,946.7	8,445.5
Total employment (000)	**13,510**	**14,319.2**	**15,163.6**	**15,995.7**	**16,893.5**

Source: Kenya National Bureau of Statistics (2018), Economic Survey

Figure 5.1: Distribution of labour demand in wholesale and retail sector, 2000-2015



Source: Kenya National Bureau of Statistics (2018), Economic Survey

18 per cent and 16 per cent, respectively, between year 2000 and 2015 (Figure 5.1).

Despite the challenges facing the sector, the penetration of retail activity in domestic market is good with a rating of between 30 per cent and 40 per cent. According to the Oxford Business Group (2017), this is only second to South Africa which stands at 60 per cent in overall activity in Sub-Saharan Africa.

The retail market penetration is largely driven by increasing urbanization, technological advancements, rising disposable incomes and demand for varieties. This has fuelled the expansion of the retail segments of distribution, thereby attracting international brands and a rise in capital investments in commercial and retail estate. Examples of foreign brands that have opened branches in Kenya include Botswana's Choppies; Carrefour, the French retailer; and Game and Turkish luxury fashion line LC Wakiki. This is despite the poor performance of two leading local supermarket chains (Uchumi and Nakumatt), attributed to increased indebtedness to suppliers, poor management and heightened competition from local and foreign retail chains.

The majority of Kenya's formal retail capacity is concentrated in major cities and towns, namely Nairobi, Mombasa, Kisumu and Eldoret and satellite towns housing expansive shopping malls, with potential for even wider diversification in the future. This is partly driven by the devolved system of government which has brought about increased budgetary resource allocations, the associated demand for goods and services, and subsequent increase in investment interests in retail centres across various counties.

However, the main challenges facing the wholesale and retail traders include lack of appropriate market infrastructures, poor business management skills,

The Thika Road Mall along the Thika Road Superhighway

lack of credit for business expansion, multiple levies and fees, and weak coordination among operators.

5.1.3 Implementation of the Vision 2030 flagship projects

There were four flagship trade projects under the MTP II, namely building of wholesale hub market, building of tier 1 retail markets, profiling of Producer Business Groups (PBGs) and establishment of Credit Guarantee Scheme. Implementation of these projects is behind schedule as illustrated below.

(a) Building pilot wholesale hub in Maragua to serve as model for the private sector

Development of the scheme and detailed designs for the proposed wholesale hub were completed and geotechnical and topological surveys undertaken. The designs were disseminated in Mombasa, Nairobi, Taita Taveta, Murang'a, Uasin Gishu and Kisumu counties, which have been identified for development of similar markets. However, completion of the project has been delayed by lack of funding; the project has not been allocated funds since financial year 2014/15.

(b) Building pilot tier I retail market in Athi River to serve as model for the private sector

Like the above project, the detailed designs for the proposed tier 1 retail market were completed and geotechnical and topological surveys undertaken. Subsequently, the designs were shared with Mombasa, Nairobi, Taita Taveta, Murang'a, Uasin Gishu and Kisumu counties, which had been identified for development of similar markets. However, the project has not been allocated funds since financial year 2014/15, hence delayed completion.

(c) Profiling of Producer Business Groups

So far, 350 PBGs have been profiled through identification of economic activities, challenges faced, and expected mitigation measures to address the challenges. Subsequently, a strategy

for implementation of PBGs interventions was developed and shared with six counties for implementation.

(d) Establishment of Credit Guarantee Scheme

The Credit Guarantee Scheme aims to support access to credit by micro, small and medium enterprises (MSMEs) and expanding credit availability and up-scaling manufacturing through agro-processing and product diversification. The state-guaranteed loans are expected to finance production and cross-border integration of value chains, particularly targeting expanded markets in the 26 nation COMESA-EAC-SADC Tripartite Free Trade Area. The draft policy and bill on the scheme are at formative stages.

5.1.4 Establishment of Special Economic Zones

Special Economic Zones (SEZs) are designed to promote exports, create jobs, attract foreign direct investment (FDI), increase consumption of local resources, and facilitate transfer of technology to local companies and workforce (Government of Kenya, 2015)). Under the management of the Export Processing Zones Authority (EPZA), the zones aim at promoting production and diversification to meet demands for domestic, regional and global markets by offering incentives in the form of various tax exemptions, exemptions from certain licences and regulatory permits. The zones are therefore important drivers for enhancing value added production, export diversification, and integration with regional and international value chains which are pertinent in the realization of the "Big Four" agenda of raising the share of manufacturing in GDP.

The Kenya Vision 2030 and MTP II focused on the establishment of special economic zones in Lamu, Mombasa and Kisumu; development of SME parks and industrial parks in each of the 47 counties to attract new companies; expansion of employment opportunities; and attracting FDIs. The programme also targets skills development for technical resources; value addition to natural plant resources particularly those with high medicinal, cosmetic and nutritional value; and productivity improvements and training in new technologies for home-based value addition.

Performance of EPZs

There has been improved performance in the Export Processing Zones (EPZs) in the recent past as indicated in Table 5.2. As at the end of December 2016, a total of 65 zones were gazetted compared to 56 in December 2015 out of which 62 are privately-owned and operating while three (3) are public zones at Athi River, Kipevu and Samburu in Machakos, Mombasa and Kwale counties, respectively. In terms of distribution across counties, seven (7) zones are in the County of Nairobi, 23 in Mombasa, 10 in Kilifi, 5 in Machakos, 3 each in Bomet, Nakuru and Kwale, 2 in Kiambu, and one each in Murang'a, Kajiado, Taita Taveta, Elgeyo Marakwet, Nandi, Uasin Gishu, Laikipia, Embu and Meru counties.

Table 5.2: Performance indicators in EPZs

	Unit	2015	2016	2017
Gazetted zones	Number	56	65	71
Enterprises		89	111	131
Employment – locals		50,302	52,947	54,622
Employment – expatriates		597	618	717
Total employment		50,899	53,565	55,339
Export sales	Ksh millions	60,879	63,116	60,377
Domestic sales		4,018	5,566	6,512
Total sales		64,897	68,569	66,889
Imports		31,370	30,160	29,739
Local purchase of goods and services		8,815	10,742	10,945
Investment (cumulative)		48,128	88,973	92,300

Source: Kenya National Bureau of Statistics (2018), Economic Survey

Total capital investment of Export Processing Zone (EPZ) enterprises increased from Ksh 88.9 billion in 2016 to Ksh 92.3 billion in 2017 while the number of local employees engaged by EPZ enterprises increased by 3.4 per cent to 54,622 in 2017. Exports marginally declined by 4.3 per cent to Ksh 60.4 billion in 2017.

Sectoral contributions of EPZ firms to employment and exports

There are about 15 sub-sectors operating within EPZs, including agro-processing, chemicals, commercial and commercial craft dartboard, electrical/electronics, food processing, garments, garment, support services, minerals/gemstones, pharmaceuticals and medical supplies, plastics, printing, relief supplies, services and others (beverage and silicone products) (Table 5.3). With total investments worth Ksh 57 billion in 2016, the agro-processing and garments sub-sectors accounted for 22 per cent and 28 per cent, respectively. Out of 92 firms, 28 were in agro-processing, 21 in garments and 15 services industries.

The garment industry generates about 81 per cent of local jobs followed by the agro-processing sub-sector which accounts for about 11 per cent. The rest of the sectors, including the services sector, contribute very minimal to creation of local jobs. The garment sub-sector also dominates in contribution to exports which stood at 59 per cent compared to agro-processing (18%), electricals (8%) and services (5%). Regarding utilization of local resources, the agro-processing, garment and services sectors are predominant, accounting for 42 per cent, 39 per cent and 6 per cent, respectively. The textile and agro-processing sub-sectors also have revealed comparative advantages and are therefore favourably competitive in international markets. However, production of these products is currently taking place at low levels of economic growth complexity indices. Therefore, there is great potential to enhance their competitiveness

Table 5.3: Percentage share of sectoral contributions of EPZ firms, 2016

Sector	No. of firms	Local jobs	Exports	Totals sales	Local resources	Investments
Agro-processing	**30.43**	**11.21**	**17.77**	**18.24**	**42.56**	**21.72**
Chemicals	2.17	0.29	0.22	0.21	0.50	7.29
Commercial and commercial craft	3.26	0.37	0.27	0.25	0.25	0.24
Dartboard	1.09	0.78	1.41	1.30	1.58	1.88
Electricals/electronics	2.17	0.08	8.82	8.11	0.07	0.00
Food processing	2.17	0.23	1.81	2.22	1.10	3.59
Garments	**22.83**	**80.85**	**58.54**	**55.27**	**38.67**	**28.44**
Garments support services	4.35	0.14	0.02	0.25	0.20	0.38
Minerals/metals/ gemstones	3.26	0.33	0.41	0.38	2.63	1.84
Pharmaceuticals	3.26	0.91	0.79	1.27	1.26	7.64
Plastics	1.09	0.15	0.02	0.02	0.10	0.35
Printing	1.09	0.55	3.19	5.81	2.89	5.08
Relief supplies	3.26	0.35	1.59	1.76	1.71	2.53
Services	**16.30**	**3.67**	**5.12**	**4.90**	**6.43**	**18.97**
Others	3.26	0.10	0.02	0.02	0.04	0.04
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Export Processing Zones Authority (2016)

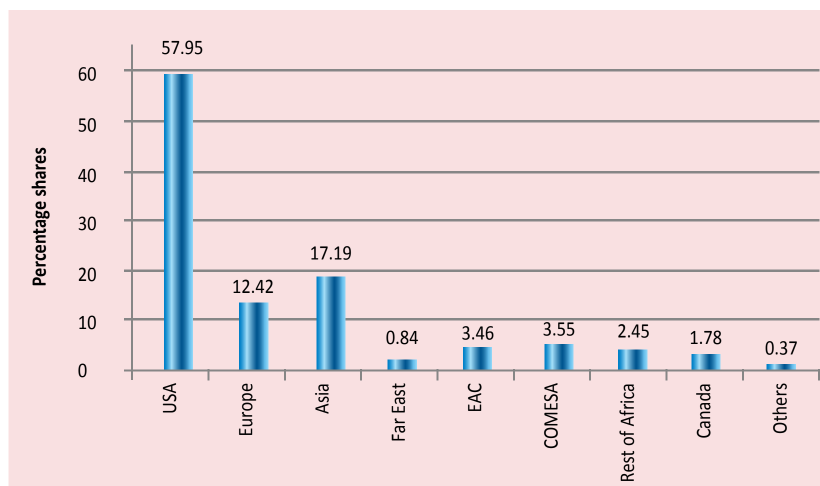
by building more capabilities or moving up the sophistication ladder through innovations and value addition.

Furthermore, EPZ firms are engaged in non-traditional exports of value added goods, including clothing which is among the leading merchandise export. There is more room to expand investment and exports in the EPZ sector particularly in agro-processing, accessories of textiles, services and value addition of tea, coffee and horticultural products.

In terms of ownership, majority of the firms are foreign-owned, accounting for about 45 per cent of the enterprises whereas Kenyan-owned and joint ventures accounted for 34 per cent and 21 per cent, respectively. The foreign investors are from Sri Lanka, Taiwan, Dubai, China, Qatar, Singapore, USA, UK, Belgium, Netherlands, Denmark, Australia, Mauritius and Tanzania, among others.

Total exports from the EPZ firms were Ksh 63.1 billion or about 11 per cent of total exports during 2016. The bulk of these exports are textile and apparels and the US is the main destination accounting for 58.0 per cent (Ksh 36,510 million) of all exports in 2016 out of which 94.2 per cent (Ksh 34,409 million) were garment products (Figure 5.2). Europe accounted for 12.4 per cent (Ksh 7,825 million) of the export market, EAC 3.7 per cent (Ksh 2,179 million), Asia 17.2 per cent (Ksh 10,832 million), COMESA 3.6 per cent (Ksh 2,234 million), Rest of Africa 2.5 per cent (Ksh 1,540 million), Far East 0.84 per cent (Ksh 529 million) and 0.4 per cent (Ksh 233 million) was destined to the rest of the world.

Figure 5.2: Export destinations of EPZ products during 2016



Source: Export Processing Zones Authority (2016)

Key constraints and challenges facing the EPZ programme

Several factors inhibit the growth and expansion of the EPZ programme despite the bright prospects in driving Kenya's industrialization.

(a) Inadequate space for expansion

Many EPZ enterprises which plan to expand their operations lack space and land for expansion. This has been made more complicated by escalation of land prices in prime areas, and weaknesses in coordination between the national and county governments as far as availability of land is concerned.

(b) Market limitations due to commitments within the EAC framework

Article 25 of the Protocol on the establishment of the EAC Customs Union places a 20 per cent limit on sales by EPZ firms and other export promotion schemes in the EAC region. This follows the Customs Union definition which treats the EAC market as a domestic market. Thus, the continued expansion of the EAC shrinks the regional market for EPZ firms, making establishment in Kenya for regional sales unattractive. The government temporarily applies for a stay of application under the EAC protocol allowing EPZ firms to sell to the Kenyan market

(only) duty free and VAT free in a bid to support the vision of transforming the trade in secondhand clothing and promote domestic supply of affordable clothing. However, this strategy requires careful implementation to avoid discrimination or unfair competition with firms operating outside of the EPZ and SEZ zones.

Table 5.4: Employment, investment and exports to the US under AGOA from the EPZ programme

Indicator	2013	2014	2015	2016	2017
Employment (No.)	32,932	37,785	41,597	42,645	43,987
Investment (Ksh million)	13,465	15,051	15,708	14,413	14,097
Exports to US (Ksh million)	24,246	30,244	35,224	34,410	32,761

Source: Kenya National Bureau of Statistics (2018), Economic Survey

(c) Inadequate supply of domestic raw materials

The EPZ firms experience shortage of domestic raw material which affects mainly the textile and agro-based enterprises because of under-developed cotton sector and other factors, including seasonal variability and infrastructure constraints. Besides, the weak integration of local firms affects production of intermediate inputs and accessories, forcing the firms to import the bulk of inputs from outside the region.

(d) High production costs

The production costs arising from transport, energy and labour are relatively higher which lowers the competitiveness of EPZ products in regional and international markets. However, there are efforts to improve infrastructure and energy supply to reduce the associated costs.

5.1.5 African Growth Opportunity Act (AGOA)

The extension of the AGOA trade preferences to 2025 provides opportunities for Kenya to expand and diversify its export market. Kenya's exports to the US have increased particularly in the textile/ apparel sector which remains the leading Kenyan export product to the US. Total exports from Kenya to the US increased by about 20 per cent from Ksh 47.8 billion in 2016 to Ksh 57.4 billion in 2017 out of which Ksh 34.4 billion in 2017 were derived from EPZ apparel exports under the AGOA framework.

The employment and investment levels under the EPZ are shown in Table 5.4.

However, Kenya has yet to diversify its export products to the US. For instance, over 81 per cent of exports to the US are textiles and apparels produced in EPZs. Other eligible products have not been performing well in the US market due to a few challenges related to access to US market information, consolidation of products as the US demands bulk supply, quality/value addition issues, and sanitary and phytosanitary compliance issues.

5.2 International Trade Performance

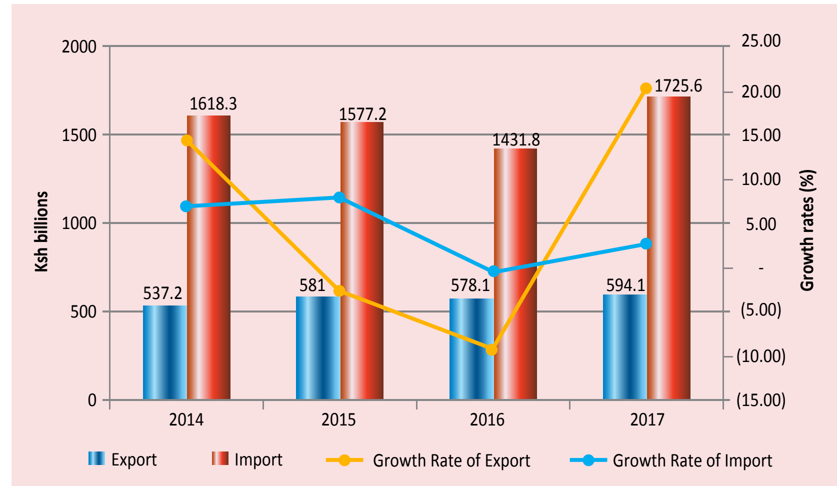
Kenya's trade sector has been characterized by declining trends of her overall trade balance, low shares of trade in global markets, low levels of diversification of export products and export markets, and high costs of production. After declining by about 11.5 per cent between 2014 and 2016, total imports sharply rose by about 20.5 per cent to Ksh 1,725.6 billion in 2017 from Ksh 1,431.8 billion in 2016. During the same period, total exports also marginally increased by about 2.8 per cent to Ksh 594.1 billion, leading to the worsening of balance of trade deficit and the export-import ratios (Figure 5.3).

However, improved export unit prices of beverages and tobacco; animals and vegetable oils and fats; chemicals; and machinery and transport equipment,

coupled with the declining import unit prices of mineral fuels resulted in improvements in the terms of trade for all items by 2.8 percentage points to 78.8 per cent in 2016.

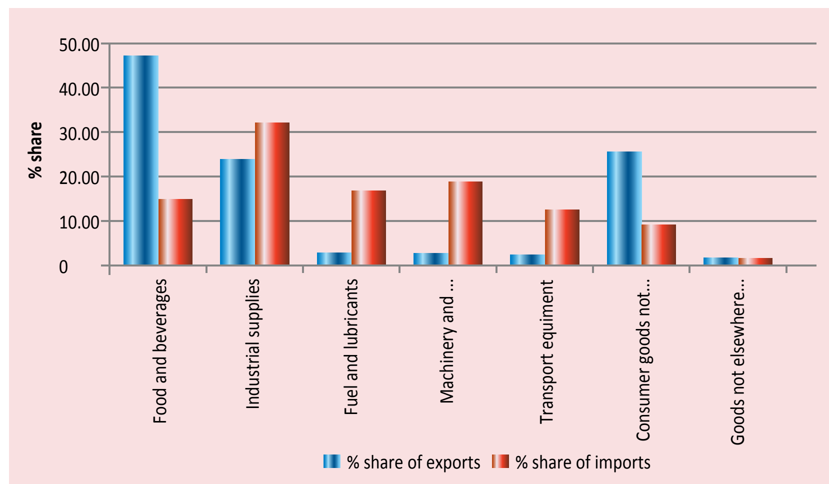
Food and beverages are the main domestic exports by Broad Economic Category (BEC), accounting for about 48 per cent while non-food industrial supplies and consumer goods not elsewhere specified accounted for 24 per cent and 25 per cent of the value of total domestic exports, respectively (Figure 5.4). Industrial supplies, machinery and equipment, fuel products and transport equipment accounted for 32 per cent, 18 per cent, 16 per cent and 11 per cent of imports, respectively, as indicated in Figure 5.4. Overall, the structure of Kenya's exports and imports has not changed since independence.

Figure 5.3: Trade performance, 2013-2017



Source: Kenya National Bureau of Statistics (2018), Economic Survey. NB: The 2017 numbers are up to November 2017

Figure 5.4: Share of exports and imports, 2017

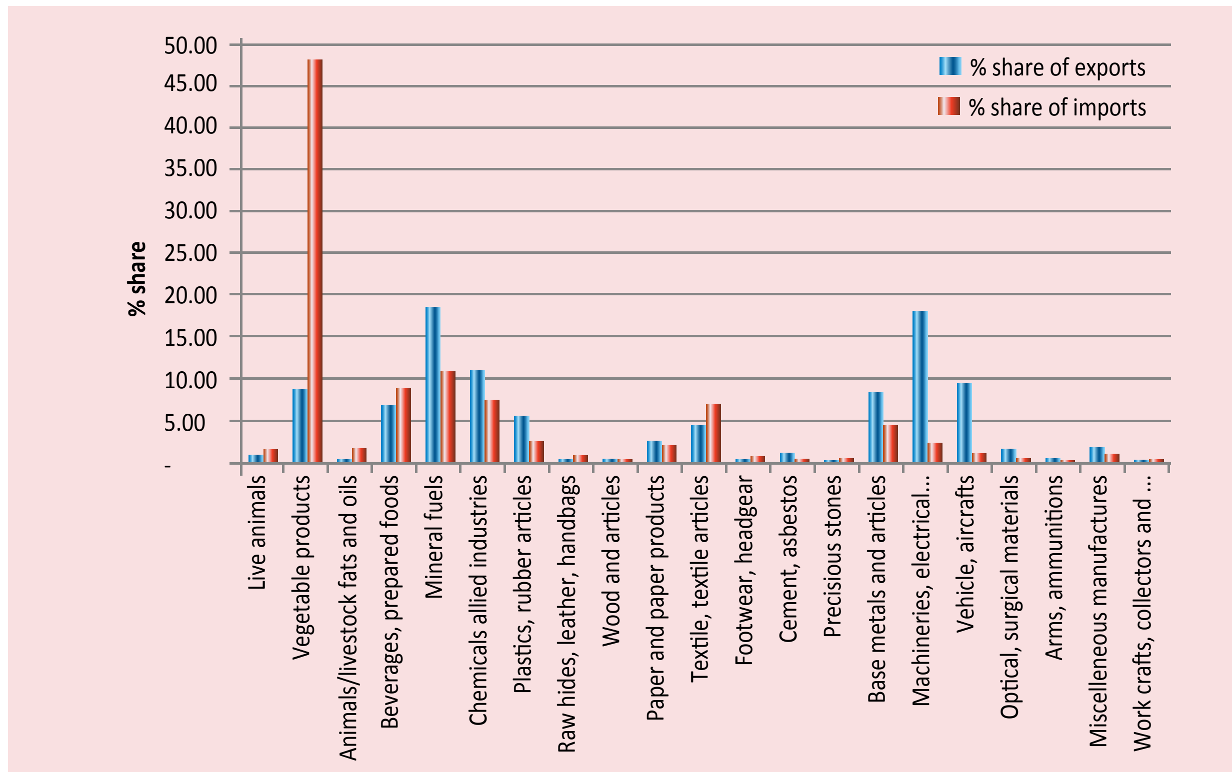


Source: Kenya National Bureau of Statistics (2018), Leading Economic Indicators

Kenya's food and drink industry is the most developed in the region and this is reflected in the big pool of restaurants and supermarket chains. The industry is set to grow further considering the continued expansion of the tourism industry, a growing middle class, and the country's status as a regional transport hub. These developments create opportunities and growing need for new products as evident by the increasing number of international supermarket chains entering the domestic market as alluded to earlier.

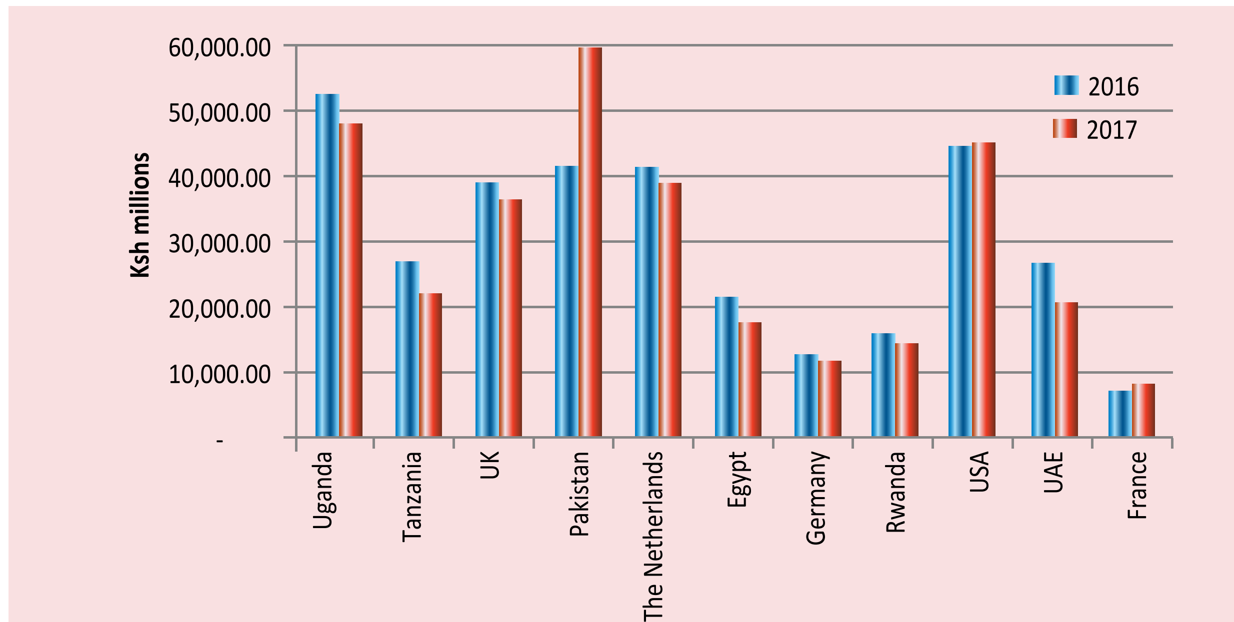
So far, the manufacturing sector is largely inward-looking with 82 per cent of products sold locally, 6 per cent destined for the EAC and 12 per cent to the rest of the world. Indeed, only 177 out of 1,061 commodities exhibited revealed comparative advantage, representing 0.6 per cent of the global commodities with revealed comparative advantage during the year 2015. These include vegetable products, textiles and chemicals and allied products, with mineral-related commodities having the highest export value. Besides, Kenya's top exports have a low product complexity index, especially tea, cut flowers, coffee, legumes, titanium ore and textiles. Membership to WTO and the various RTAs significantly contributed to increased access to diverse markets and increased number of product lines that the country exports.

Figure 5.5: Share of exports and imports, 2017



Source: Kenya Revenue Authority (2017)

*Figure 5.6: Major destinations for Kenya's exports, 2016-2017**



*NB: The 2017 numbers are up to November 2017

Source: Kenya National Bureau of Statistics (2018)

The latest statistics indicate substantial importation of processed and intermediate products which can be otherwise sourced locally (Figure 5.5). For instance, importation of textiles accounted for 4.4 per cent of total imports during 2017 out of which worn (used) clothes (31%), man-made fabrics (25%), articles of apparels and accessories (17%) and knitted fabrics (12%) of total textiles imports. Despite potential for production and export of leather products, Kenya imported leather and leather products worth over Ksh 2.1 billion with over 78 per cent of the imported products being articles of leather, travel goods and handbags.

Increased importation of intermediate products that can be locally sourced directly hinders the development of local industries, SME development and job creation along the value chains.

In terms of export destinations, Pakistan overtook Uganda as Kenya's leading export destination with total exports increasing to Ksh 58 billion compared to Uganda's Ksh 46 billion during the year 2017 (Figure 5.6). This was mainly attributed to increased value of tea exports during the year. The exports to the US also increased to Ksh 43.6 billion from Ksh 43.0 billion in 2016. It is also notable that exports to EAC countries declined marginally perhaps due to persistent non-tariff barriers.

5.3 Foreign Direct Investments

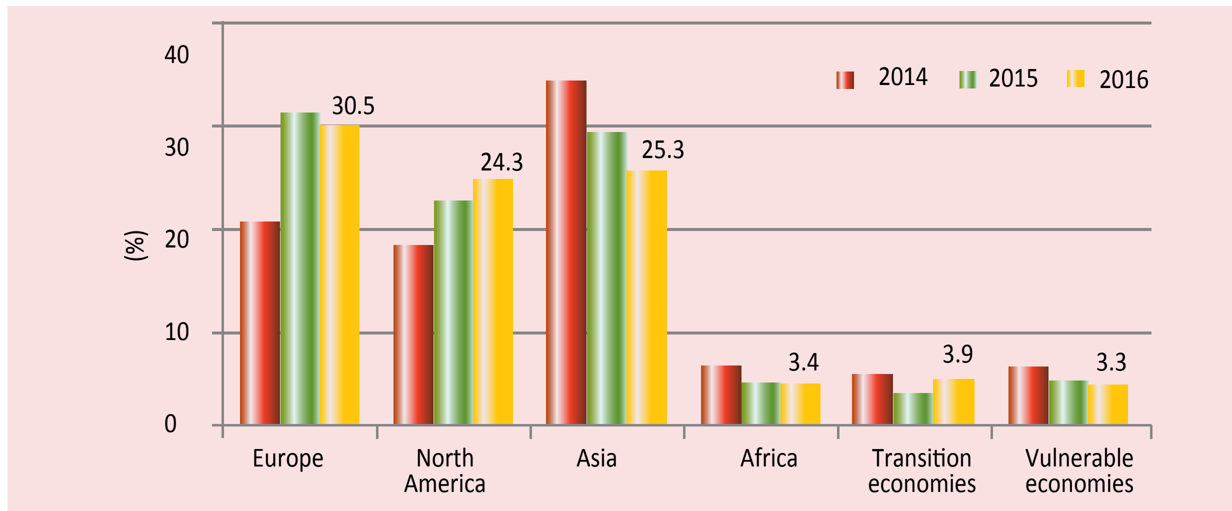
Kenya's investment policy seeks to foster coordination for efficient investment attraction, facilitation and a favourable investment climate. Regarding FDIs, the policy manifests through issues related to foreign takeovers, and trade restrictions that indirectly affect foreign investors. In addition, the government offers tax incentives including allowance of 100 per cent ownership in listed companies, exemption of developers and investors from value added tax, and import duties on items directly linked with the development and construction of SEZs. Besides, the public-private partnership (PPP) law establishes a legal framework to attract private investment in key areas such as public infrastructure, housing and innovative technologies. Kenya has signed 19 Bilateral Investment Agreements (BITs) with various countries in a bid to promote and facilitate foreign investments, out of which 11 BITs are in force (UNCTAD, 2017).

5.3.1 Performance of FDIs

According to the World Investment Report 2017, global foreign direct investment (FDI) inflows declined by 2 per cent overall in 2016 to US$ 1,746 billion down from US$ 1,774 billion in 2015 but with variance among country groups and regions. The overall FDI flows to developed countries increased by 5 per cent from US$ 984 billion to US$ 1,032 billion during the period whereas those to developing economies declined from US$ 752 to US$ 646 billion. The African region experienced a marginal decline in investment from US$ 61 to US$ 59 billion. In 2016, Europe was the leading recipient of FDI flows with 30.5 per cent share of global FDI flows ahead of Asia which had a 25.3 per cent share while Africa's share was a paltry 3.4 per cent (Figure 5.7).

FDI performance in Africa exhibited mixed performance. Notably, Egypt registered a 17 per cent rise of FDI flows to US$ 8.1 billion buoyed by discovery of gas reserves in the country. FDI flows to Nigeria rose to US$ 4.4 billion in 2016 (up 45% from a 2015 low) but remained depressed following the decline in oil outputs. FDI inflows to Ghana increased by 9 per cent to US$ 3.5 billion supported by continued development on the US$ 7 billion offshore oil and natural gas projects, combined with industrial policy efforts to revive the cocoa processing industry. FDI flows to Ethiopia rose by 46 per cent to US$ 3.2 billion propelled by investments in infrastructure and manufacturing, whereas FDI was also buoyant in Mauritius thanks to a variety of services investments. However, low commodity prices dampened economic prospects in Sub-Saharan Africa and shrunk investor interest

Figure 5.7: Share of World FDI flows, 2014-2016



Source: UNCTAD (2017)

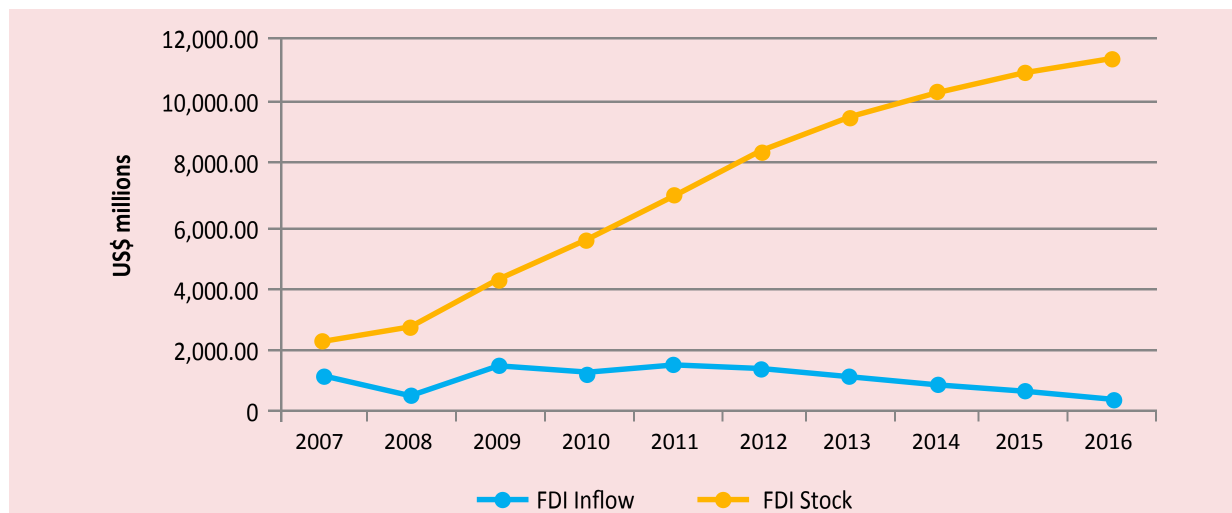
in the sub-region. South Africa, the economic powerhouse of the continent, underperformed with FDI at a paltry US$ 2.3 billion in 2016 although this was up 31 per cent from a record low in 2015.

FDI flows to East Africa increased by 13 per cent to US$ 7.1 billion in 2016 although with mixed performances across countries. For instance, flows to the United Republic of Tanzania shrank by 15 per cent to US$ 1.4 billion amid concerns about the country's regulatory environment and tax policies towards foreign firms. Besides, FDI into Kenya continued its decline, slumping by 36 per cent to US$ 394 million in 2016 despite investment reforms and a supportive domestic policy environment (Figure 5.8).

5.3.2 FDI flows to Kenya by sector

In 2016, the leading sectors in attracting FDI were construction, energy, services and wholesale and retail trade (Table 5.5). In 2014, again construction

Figure 5.8: FDI trends in Kenya, 2007-2016



Source of data: UNCTAD (2017)

Table 5.5: Sectoral FDI flows 2009 -2016 (in US$ millions)

Sector	2009	2010	2011	2012	2013	2014	2015	2016	Total
Agriculture	411.11	59.95	6.26	-	430.72	3.22	27.89	17.02	966.20
Construction	309.03	630.99	220.95	13.16	9.97	489.33	1,330.5	264.72	3,268.63
Education	-	-	-	-	-	-	-	1.42	
Energy	96.96	0.38	295.12	23.51	198.38	111.50	31.42	580.57	1,338.01
Financial Services	-	-	-	-	-	-	-	0.75	
Health	-	-	-	-	-	-	-	7.47	
ICT	6.45	11.93	17.39	2.91	0.33	109.23	11.25	15.43	174.92
Manufacturing	13.02	14.08	206.46	76.06	228.58	27.28	32.24	79.97	858.95
Mining	13.78	206.67	13.92	84.99	-	5.09	463.47	0.97	788.89
Service	51.23	11.11	49.32	290.12	25.53	71.32	109.97	108.99	2,111.54
Tourism	127.17	29.26	38.73	107.41	13.19	51.93	26.21	-	440.83
Wholesale and Retail	5.79	1.39	1.46	-	20.32	5.24	144.99	770.17	949.37
Total	**1,034.54**	**965.76**	**849.62**	**598.16**	**927.02**	**874.14**	**2,177.92**	**1,847.46**	**9,059.50**

Data Source: Kenya Investment Authority (2017). NB: (-) means no data available

was the leading sector accounting for 55.9 per cent. Traditionally, however, agriculture, manufacturing, tourism and services (banking and financial services, ICT) have been the main sectors of growth. In the recent past, the country has experienced more new investments in construction, real estate development, transport and logistics, wholesale and retail, energy, mining and quarrying.

It is notable that the construction, wholesale and retail, services and energy sectors have been receiving the highest levels of FDI in recent years. Increased investments in the construction sector is likely to boost achievement of government agenda of providing affordable housing. The wholesale and retail, services and the energy sectors are critical enablers for supporting the growth and development of the manufacturing sector. Apparently, agriculture receives very low foreign investments yet scaling up production in agriculture, reduction of post-harvest losses and value addition through agro-processing require substantial investments to meet desired food security levels.

5.3.3 FDI flows by sources

The top ten source countries accounted for 91.9 per cent of the total proposed FDI inflows to Kenya in 2015 (Table 5.6). This indicates a high concentration of FDI sources in a few countries, posing a risk to FDI inflows.

5.3.4 Types of investment flows in Kenya

The flow of FDI to Kenya is through two broad categories: that is greenfield, and mergers and acquisitions as presented in Table 5.7. Greenfield investments constitute the bulk of FDI flows into Kenya rather than cross-border mergers and acquisitions. The key investments in Kenya are mainly in oil and gas exploration, industrial production and transport. Greater focus is also being given to expansion of power generation to serve as a platform of economic growth and firmly

Table 5.6: Kenya's major sources of FDI, 2014 and 2015

2014				2015			
Country	**No. of projects**	**Employment**	**US$ millions**	**Country**	**No. of projects**	**Employment**	**US$ millions**
China	20	3,253	272	South Africa	9	357	1,201
Japan	2	48	33	Ireland	2	76	463
UK	7	331	26	Rwanda	4	554	112
Turkey	5	220	25	Japan	7	1,243	72
South Africa	4	387	27	UK	13	590	41
Switzerland	1	19	17	China	24	1,043	33
Italy	6	118	16	Qatar	1	35	29
USA	11	177	13	India	23	624	25
Malaysia	1	261	6	Italy	12	313	20
Mauritius	1	8	4	USA	16	322	14
Sub-total	**58**	**4,822**	**440**	**Sub-total**	**111**	**5,157**	**2,010**
Rest of world	66	1,880	434	Rest of world	140	5,694	178
Total	**124**	**6,702**	**874**	**Total**	**251**	**10,851**	**2,187**

Source: Kenya Investment Authority (2017)

set up the country as a favoured regional hub for energy, services and manufacturing over the next decade.

Table 5.7: Types of investment flows into Kenya

Type	2005-2007	2014	2015	2016
Mergers and Acquisitions (US$ millions)	150	68	369	116
Greenfield Investments	250	1,780	2,564	1,135

Source: UNCTAD (2017)

NB: Greenfield FDI entry implies assembling all the elements from scratch. They are the primary targets of a host nation's promotional efforts. Mergers and acquisitions occur when the control of assets and operations is transferred from a local to a foreign company, with that local company becoming an affiliate of the foreign company.

The country also boasts of a well-developed capital market with a stable and growing market capitalization which offers additional opportunities for increasing investments. The Nairobi Stock Exchange plays a key role in promoting investments in sustainable businesses, hence supporting sustainable development through market-based financing instruments. The trading value on Kenya's liquid stock exchange has been on the rise in recent times relative to regional stock markets. The good performance partly propelled cross-border mergers and acquisitions in various sectors of the economy. According to the Competition Authority of Kenya (2017), 150 merger notifications from various sectors were made majority of which were in manufacturing, healthcare services, logistics and property. Of the mergers notified, 41 applications met the required merger threshold for mandatory notification and 76 were excluded from provisions of Part IV of the Act while 20 were non-mergers and 13 were on-going by the end of the financial year.

There was a significant rise in the share of mergers with international dimensions from 44 per cent to 72 per cent during 2015/16 and 2016/17, respectively (Table 5.8). Out of these, the merger transactions involving private equity investments were 16.1 per cent. The increase in the number of mergers with international dimension is attributed to a conducive business environment, favourable investment climate, and the rebasing of Kenya's economy to a middle-income status.

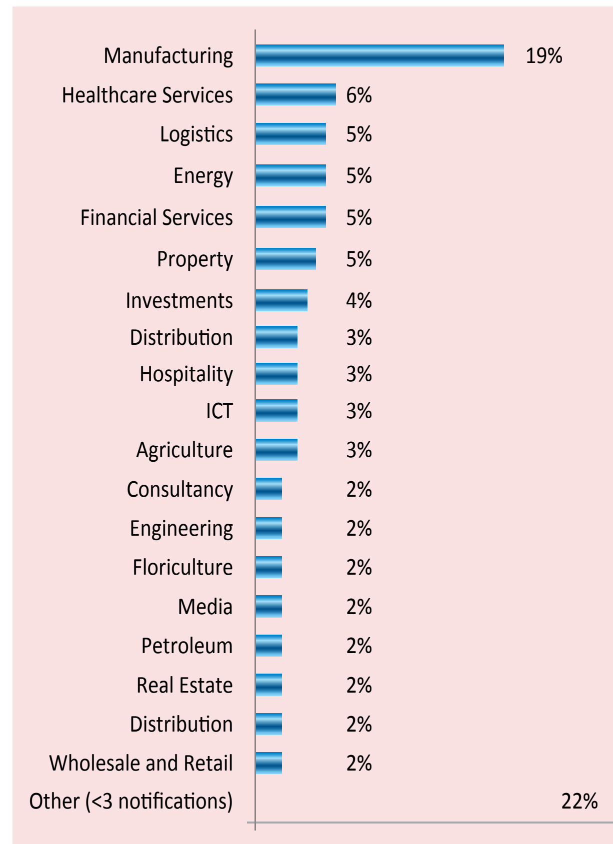
Table 5.8: Merger notifications during 2015/16 - 2016/17

Item	2015/2016	2016/2017
Merger transactions	38	41
Exclusions transactions	79	76
Non-merger transactions (restructuring)	22	20
Transactions carried forward	10	13
Mergers with international dimension excluding non-mergers	44%	72%
Local dimension transactions excluding non-mergers	56%	28%

Source: Competition Authority of Kenya (2017)

In terms of sectoral distribution of applications, majority are in the manufacturing sector which recorded the highest notifications accounting for about 19 per cent of the total number of applications received in 2016/17 (Figure 5.9). The high number of notifications in the manufacturing sector may be attributed to regulatory reform measures the government put in place given that the sector is an important driver of economic growth and a source of employment in Kenya. Other sectors such as financial, investment, logistics, energy, health, real estate and telecommunications have been alternating in percentage of notifications as indicated in Figure 5.9.

Figure 5.9: Sectoral merger notifications 2016/17 (%)



Source: Competition Authority of Kenya (2017)

NB: Other sectors' category (22%) consists of: assembly, audit, aviation, cleaning services, floriculture, construction, dairy, green energy, horticulture, insurance, online market, pest management, printing, publishing, Information Technology (IT), internet market, freights and forwarding, green energy, horticulture, insurance, online market, pest management, security, services, telecommunication, tours and travel, training and transport.

5.4 Cross-cutting Trade Issues

5.4.1 Creating linkages with regional and international market chains

According to World Bank (2017), the key to building value chains is cutting trade costs including those related to infrastructure, transportation, and uncertainty. Participating in deep trade and investment agreements can advance this agenda and such agreements will be most powerful if they involve several neighbouring countries. Regional Trade Arrangements (RTAs) provide the platform through which countries can effectively participate in value chains thereby encouraging splintering of production and thus allowing trading partners to exploit each other's comparative advantages and fostering trade in value added products. Integration in regional and global markets can enable local producers to reach more efficient production scales, access cheaper production inputs, and promote economic diversification. In addition, participation in regional and global value chains also increases firms' exposure to new technologies, tacit knowledge, and technical or managerial capabilities, fostering productivity gains and allowing firms to upgrade their activities and climb up the value chain. Although Kenya is an active player in regional and

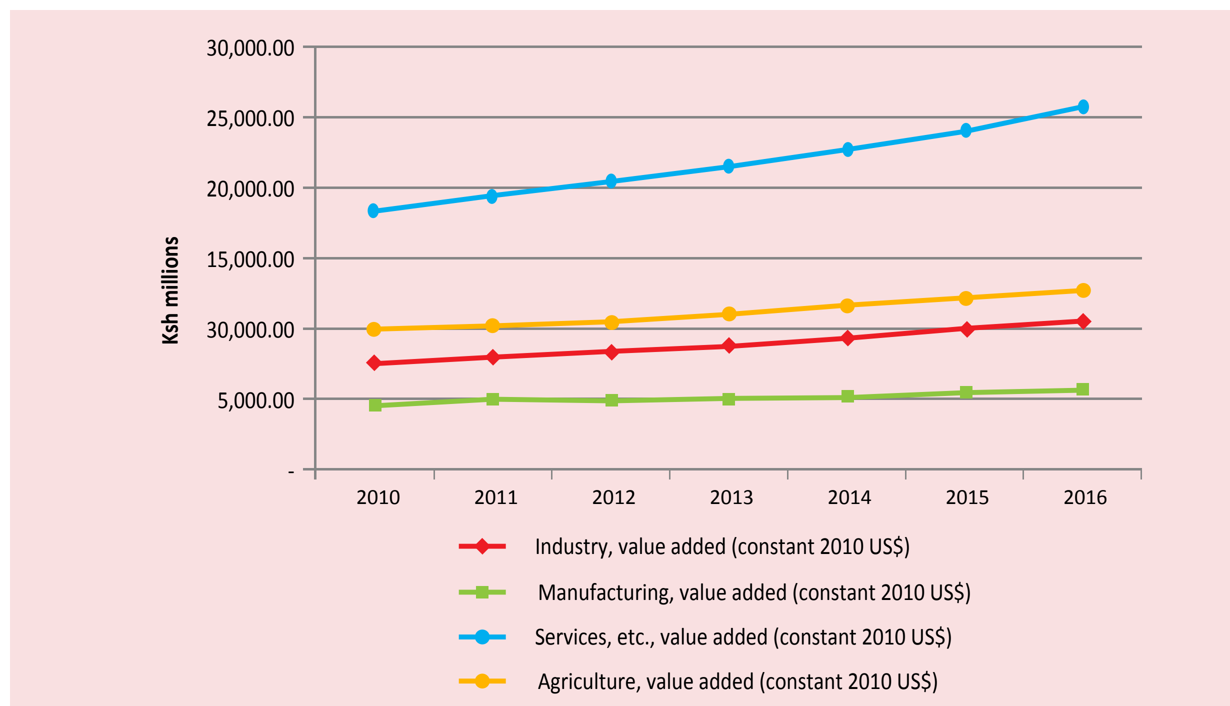
multilateral trade matters, there is weak integration between local and international firms. This is evidenced by the relative low use of local resources and substantial importation of intermediate and finished products. However, sectoral performance in value addition is mixed. For instance, the services and the agricultural sub-sectors have the highest level of value addition compared to industries and manufacturing sub-sectors (Figure 5.10). Manufacturing value added has been the most stagnant.

The domestic services sector has been experiencing fast growth in the recent past and is poised to play a significant role in overall development of the economy. The services sector which comprises tourism, transport and communications, and financial and business services accounts for 60 per cent of GDP. Furthermore, there are new developments of the domestic-oriented Business Processing Outsourcing (BPO) and Information Technology Enabled Services (ITES) which has created trade opportunities for MSMEs to provide Business Development Services (BDS). The MSMEs play a significant role in domestic and cross-border trade, and outsourced services. The recent signature of the CFTA by Kenya and more than forty (40) other African states provides an opportunity to further exploit trade and investment opportunities in an enlarged market with a combined population of 1.2 billion people and GDP of US$ 3.4 trillion. The lowering of tariffs will stimulate cross-border investments and foster sourcing of supplies by large firms from the smaller ones, thus strengthening the latter's participation in regional value chains.

5.4.2 Trade facilitation

Trade facilitation measures aim at increasing the transparency and efficiency of customs and other administrative procedures involved in trading goods across international borders. Trade facilitation programmes are expected to benefit consumers and Small and Medium-Sized Enterprises which

Figure 5.10: Sectoral performance of value added, 2010-2016



Source: World Bank (2017), World Economic Indicators

represent 95 per cent of global enterprises and at least two-thirds of all private sector employment (ITC, 2014). SMEs play an important role in closing the development gap through their contribution to poverty reduction, women empowerment, and income distribution. Kenya has signed the WTO Trade Facilitation Agreement and established the National Trade Facilitation Committee to facilitate domestic coordination and implementation of the provisions of the agreement.

So far, Kenya has implemented a few trade and transportation facilitation projects under the EAC and COMESA. The key projects include the Northern Corridor Transit Transport Facilitation which entails the development of hard and soft infrastructure projects aimed at easing movement of cargo along the transport corridor from the Port of Mombasa to countries in the hinterland. These include the upgrading of the Port of Mombasa, the implementation of the Single Window System to enhance efficient customs clearance and administration, the implementation of the EAC simplified trade regime and development of regional cross-border roads, and the establishment of one-stop border posts (OSBP) with neighbouring countries, for example: Taveta (Kenya)–Holili (Tanzania); Namanga (Kenya–Tanzania) and Busia (Kenya–Uganda). The latter was commissioned on 24th February 2018 and paving way for speedy clearance of cargo destined to Uganda and the great lakes region, improved security, sharing intelligence and improved utilization of resources considering that several government agencies from both countries share the same roof. Besides, the EAC has put in place mechanisms to disseminate trade-related information, harmonization of standards and removal of non-tariff barriers to trade.

Furthermore, the Lamu Port South Sudan and Ethiopia (LAPSSET) project is expected to open South Sudan and Ethiopia for transit traffic and by extension to Central African Republic. The LAPSSET project encompasses development of Lamu port and a network of road, rail, inland waterways, oil pipeline networks and ICT infrastructure to South Sudan and Ethiopia (LCDA, 2016). It is anticipated that the Lamu port will transit about 3.8 million tonnes and 4.4 million tonnes of cargo by 2020 from South Sudan and Ethiopia, respectively. Elimination of delays on the inland systems will lead to overall competitiveness of the port. The government has also upgraded airports across major towns in a bid to ease domestic and international air transport and air transport costs. For instance, the development of the Jomo Kenyatta International Airport (JKIA) has led to its upgrading to a Category One status which paves way for direct flights to the United States of America and other global destinations. This is expected to further boost international trade and FDI flows.

5.5 Conclusions and Policy Recommendations

(a) To promote growth and development of domestic trade, there is need to:

- Mobilize funds from public and private sources for construction of appropriate market structures across all counties to enhance the efficiency in distribution of goods and services.
- Rationalize the regulatory framework between the national and county governments for effective management of the domestic trade sector.
- Rationalize the charges, levies and fees across counties to eliminate multiplicity and reduce the cost of doing business.
- Rationalize inspections and enforcement actions which are the primary way through which businesses, micro, small and medium enterprises (MSMEs) "experience" regulations and interact with regulators.

(b) To promote domestic production of exports, there is need for:

- Effective coordination between national and county governments to facilitate identification of appropriate land and appropriate spaces for construction and expansion of SEZs across all counties.

- Reduction of production costs, particularly the cost of energy and transport, expanding investments in efficient energy sources such geothermal and improvement of physical infrastructure.

- Affirmative action to revive the cotton and leather industries. This would enhance use of local resources and facilitate linkages between SMEs and local and regional value chains and also foster technological transfers and innovation necessary for inclusive economic growth.

- Kenya and the EAC to enhance protection of domestic textile industries through appropriate mechanisms, including review of import duties on secondhand clothes. There is also need for skills development, innovation and new technologies to enhance the sophistication and competitiveness of EPZ products in global markets.

- Review and rationalization of the incentive packages extended to SEZ firms *vis-a-vis* those operating outside the zones to avoid unfair trading in domestic markets.

- Effective implementation of the counterfeit and trade remedies regulations to reduce influx of substandard products and shield domestic firms from unfair competition.

(c) To grow export revenues, there is need to:

- Effectively implement the National Export Development and Promotion Strategy 2017-2022 including exploiting opportunities provided by the African Continental Free Trade Area.

- Encourage and facilitate value addition for traditional export products, namely tea, coffee and horticulture. Besides, local industries should be encouraged to increasingly use locally available resources to support growth and development of SMEs.

- Support local firms and encourage them to invest in skills development and adoption of new technologies to enhance their sophistication in production and raise the competitiveness of their products in global markets.

- Support greater investments in marketing of Kenyan products in local, regional and emerging markets and integration in regional and global value chains.

(d) To enhance productivity through value chains, there is need for:

- Affirmative action to support sub-contracting linkages between SMEs and large firms and enhance access to government procurement budgets.

- Affirmative action to SMEs during implementation of the national trade facilitation activities, including capacity building on emerging trade issues, sharing information on trade procedures, processes and digitalization of commercial transactions.

- Mainstreaming relevant provisions of trade facilitation measures in SMEs policies and initiatives to support their participation in regional and international value chains.

(e) Finally, to promote FDIs, there is need to:

- Strengthen institutional and coordination framework between national government agencies and county governments for effective promotion and targeting of FDIs.

Chapter 6

Spurring Investments in Tourism

Tourism is one of the priority sectors in the economic pillar of the Kenya Vision 2030. It has the potential to contribute to higher Gross Domestic Product (GDP) growth, foreign exchange earnings, employment and income generation. In this regard, various flagship projects were identified to promote growth and development of the sector but some are yet to be implemented. At the county level, tourism development is yet to attract adequate budget allocations to enable exploitation of opportunities in cultural and creative tourism. While tourism arrivals are on the recovery path as the government implements security interventions, hotel occupancy by non-residents has declined with preference to alternative accommodation facilities. To continue enhancing competitiveness for Kenya as a tourism destination, significant investments are required in developing tourism-related infrastructure. With limited funding for mega projects, alternative sources should be explored.

6.1 Tourism Sector Performance and Contribution to the Economy

The government has prioritized tourism as an important sector in propelling the nation's economic development. It is one of the sectors expected to ensure Kenya sustains double-digit economic growth. The contribution of tourism to Kenya's economy is encapsulated in the economic activity (including employment) generated through backward and forward linkages in various sectors including hospitality (hotels and restaurants); transportation (road, sea, airline, and other passenger transportation services) and booking services (travel agents and tour operators); meetings, incentives, conventions and exhibition events; and tourism-related leisure activities. Therefore, boosting investment in these sub-sectors is crucial in enabling the tourism sector to attract more visitors (both international and domestic) and revenue to the economy.

Globally, tourism is widely regarded as one of the largest and fastest growing economic sectors that creates jobs, drives exports, and generates prosperity across the world. The sector has seen significant growth in revenue and employment as well as the development of new markets. In 2017, tourism generated US$ 8,272.3 billion (10.4% of global

GDP) and 313 million jobs equivalent to 1 in 10 jobs in the global economy. The sector accounted for 6.6 per cent of total global exports and almost 30 per cent of total global service exports. In addition, US$ 882.4 billion was invested in the sector, equivalent to 4.5 per cent of total global investments (WTTC, 2018).

In the East African Community (EAC), Kenya attracts the highest number of inbound tourists annually followed by Uganda and Tanzania. It is estimated that the country's tourism sector contributes about 10 per cent to GDP annually, 3.5 per cent to direct job creation (formal), and 9.0 per cent to total direct and indirect employment. In 2017, Rwanda's tourism accounted for the highest contribution to GDP and employment (in percentage terms) compared to other EAC member states indicating the country's high dependency on tourism sector while Tanzania attracted the highest tourism revenues and tourism capital investments in the region as a proportion of total national investments (Table 6.1).

The recent achievements in Tanzania's tourism sector are attributed to implementation of the country's Tourism Master Plan 2002 (MNRT, 2002) which focused on development of an integrated tourism product to attract low volume, high yield segment of the international tourism market aimed at maximizing on spending per visitor, length of stay and portraying Tanzania as a 'single destination' for holiday visitors. In line with the master plan, the government has set up Tourism Information Centres and an online interactive portal aimed at providing tourists with a 'one-stop-shop' for information on available destinations, experiential activities per destination, heritage sites, cultural tourism, accommodation facilities, business tourism, tour and travel facilitation, investment opportunities in tourism, and other pertinent information on the sector. In addition, an improved system for capturing tourism statistical data on arrivals and spending, and

Table 6.1: Performance of tourism sectors in East Africa in 2017 (selected indicators)

Performance indicators		Kenya	Uganda	Tanzania	Rwanda	Burundi
Tourist arrivals[2]	Total (No.)	1,448,800	1,322,522	1,284,279	1,016,468	168,000
	International tourists (%)	65.8	30.0	72.0	-	-
	Cross-border tourists (%)	34.2	70.0	28.0	-	-
Total tourism receipts (US$ billion)[2]		1.20	1.35	2.0	-	-
Total tourism contribution to GDP (%)		9.7	7.3	9.0	12.7	5.1
Direct Tourism contribution to GDP (%)[1]		3.7	2.9	3.8	5.2	2.4
Total Tourism contribution to GDP (%)[1]		9.7	7.3	9.0	12.7	5.1
Direct contribution to total wage employment*	No. of Jobs[1]	429,500	229,000	446,000	132,000	41,500
	% of total wage employment[1]	3.4	2.4	3.3	4.4	2.0
Direct and indirect contribution to total employment[1]	No. of Jobs[1]	1,137,000	605,500	1,092,500	333,500	90,500
	% of total wage employment[1]	9.0	6.3	8.2	11.1	4.4
Tourism capital investments attracted (US$ billion)[1]		0.85	0.32	0.33	0.19	0.004
Tourism's share of total national investment (%)[1]		5.7	4.9	8.7	8.6	1.4

Data Sources: ([1]) = World Tourism and Travel Council (2018) Country Impact Reports; ([2]) = Country Tourism Sector Reports. NB: (-) means data not available

a Tourism Satellite Account for assessing tourism's significance were developed.

Likewise, Kenya can improve on dissemination of information on available tourist products, experiential activities, cultural and heritage sites, accommodation and other infrastructure facilities through an integrated online portal and a system to track tourist arrivals (air, sea and cross-border), spending and other statistics in addition to developing a Tourism Satellite Account to accurately assess the contribution of the sector to the economy.

Tourism receipts and arrivals in Kenya in 2017 grew by 20.3 per cent and 8.1 per cent, respectively. However, the levels were below the MTP II targets of Ksh 200 billion receipts and 3 million tourist arrivals. Out of the Ksh 119.9 billion receipts from 1,448,800 tourists, 65.8 per cent of arrivals were international tourists. Holiday, business and conferencing are the main reasons for travelling to Kenya (Table 6.2).

The leading source markets in 2017 by arrivals were USA (11.8%), UK (11.1%), Uganda (6.4%), India (6.2%), and China (5.5%). Comparing with 2011 when the country achieved peak performance, the top five markets were UK (16.1%), USA (9.5%), Italy (7.6%), Germany (5.4%) and India (4.7%) (Appendix 6.1). This composition indicates a declining share in arrivals from UK, Italy, Germany, France and Scandinavian countries while market shares for USA, India, China, Uganda and South Africa have recorded gradual increase (Figure 6.1). The decline in arrivals from the European markets is partly attributed to travel advisories issued by the source markets following spates of terrorism-related insecurity witnessed in the Eastern Africa region. The growth in arrivals from China and India may also be attributed to growth in trade between Kenya and the two countries.

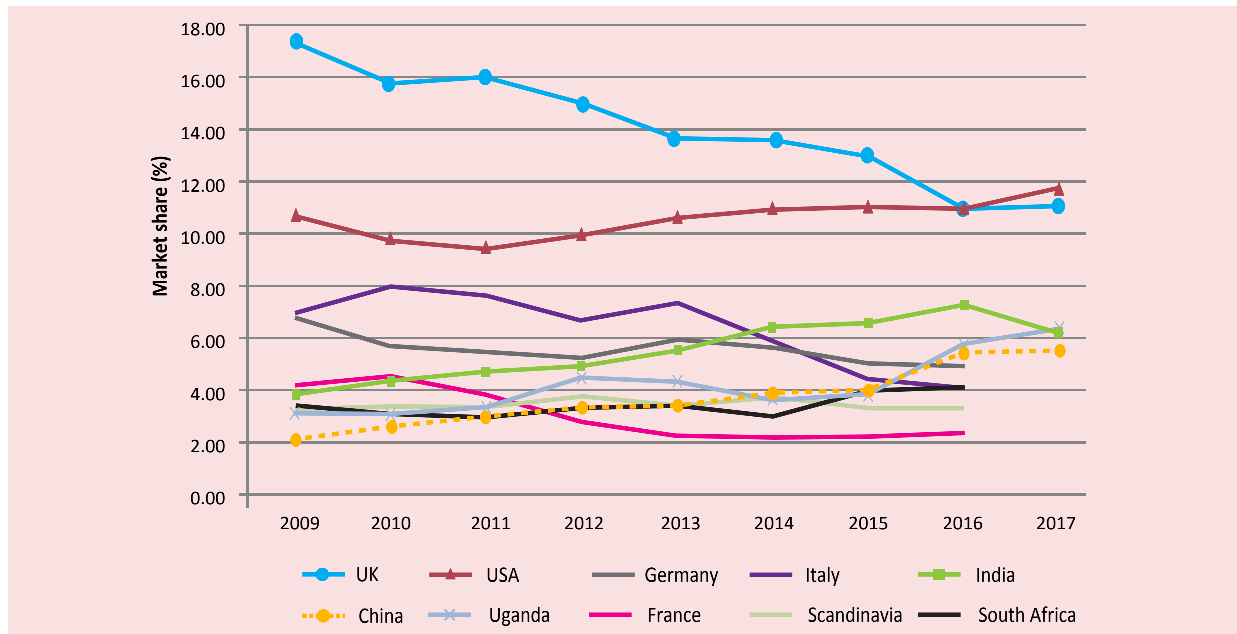
Several other markets with potential for growth have emerged over the review period including Nigeria, Ethiopia, Burundi and Rwanda (Figure 6.2). The growth in arrivals from Uganda and Rwanda is attributed to implementation of the single East Africa Tourist Visa that was introduced between Kenya, Rwanda and Uganda as part of a tripartite agreement on the Northern Corridor Integration Project. Growth in arrivals from Nigeria is partly attributed to increase in number of Nigerian nationals attending Kenyan universities.

Table 6.2: Tourist arrivals and earnings, 2011-2017

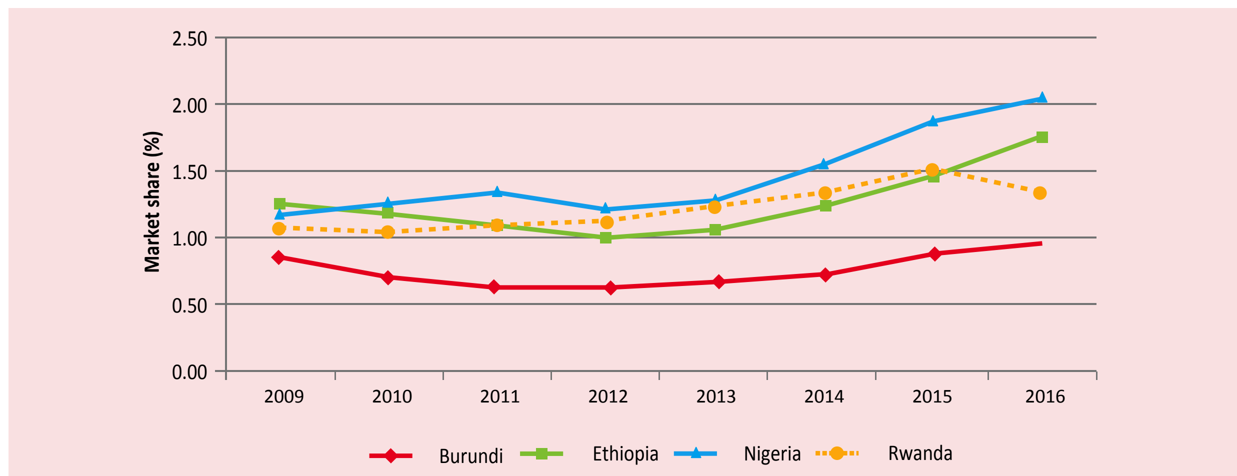
	Annual Arrivals ('000)			Purpose of Travel (% of tourists)				Receipts (Ksh billions)
Year	By Air (MIA & JKIA)*	Other border points	Total International tourist arrivals	Holiday	Business and conference	Transit / visiting friends or relatives	Other	
2011	1,272.9	550.0	1,822.9	72.4	12.7	4.0	10.9	97.90
2012	1,235.5	475.3	1,710.8	71.2	13.8	5.4	9.6	96.00
2013	1,107.1	412.4	1,519.5	72.6	12.5	5.7	9.2	94.00
2014	861.4	605.9	1,467.3	72.3	12.4	6.6	8.7	87.10
2015	748.8	431.8	1,180.6	71.6	13.4	5.6	9.4	84.60
2016	874.4	465.3	1,339.7	71.9	13.4	5.3	9.4	99.70
2017	964.3	484.5	1,448.8	68.4	13.7	5.9	12.0	119.90

Data Source: Kenya National Bureau of Statistics (Various), Economic Survey; Kenya Tourism Board (Various), Reports

MIA: Moi International Airport, Mombasa; JKIA: Jomo Kenyatta International Airport, Nairobi



Data Source: Kenya Tourism Board (Various), Reports



Data Source: Kenya Tourism Board (Various), Reports

In 2017, despite the prolonged electioneering period and related uncertainty the country received more tourists than the previous three years. This is attributed to concerted efforts by the government to market Kenya abroad as a tourist destination amidst travel advisories by governments of key source markets and negative publicity by foreign media. During the year, the country also received positive visibility and endorsement through global accolades such as the World Travel Awards' declaration of Kenya as the world's best Safari destination (Box 6.1). The growth in revenues in 2017 is also attributable to government's investment in promotion of domestic tourism through awareness campaigns sensitizing Kenyans on attractive destinations and experiences in the country. As a result, bed-night occupancy by Kenyans grew by 15.8 per cent to 4.05 million (Table 6.5).

Box 6.1: Kenya voted Africa's leading Safari destination in 2017

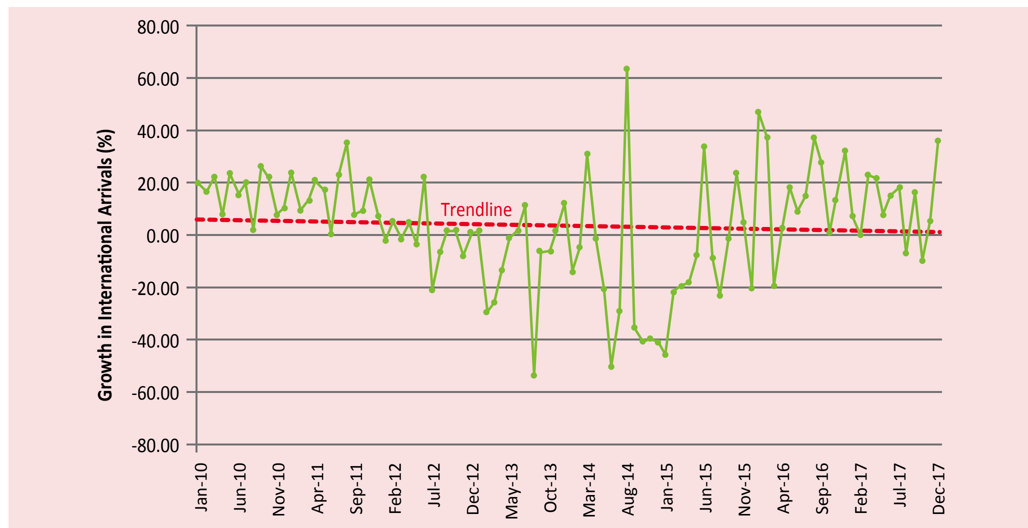
For the fourth time in five years, Kenya was voted the world's leading safari destination by the World Travel Awards. Kenya scooped the prestigious award during a grand ceremony that took place at JW Marriott Phu Quoc Emerald Bay Hotel in Vietnam on 10 December 2017. Kenya bagged the global accolade, overcoming fierce competition from other African safari destinations such as South Africa, Botswana, Namibia, Tanzania, Zambia, Uganda and Zimbabwe. Kenya scooped the award previously in 2013, 2015 and 2016.

Apart from the global win, Kenya scooped awards in over 14 categories including: Africa's Leading Tourist Board (Kenya Tourism Board); Africa's Leading Airline (Kenya Airways); Africa's Leading Airline - Business Class (Kenya Airways); Africa's Leading Beach Destination (Diani Beach); Africa's Leading Business Travel Agency (Carlson Wagonlit Travel); Africa's Leading Cruise Port (Port of Mombasa); Africa's Leading Destination Management Company (Destination Kenya); Africa's Leading Family Resort (Leopard Beach Resort and Spa); Africa's Leading Hotel (Fairmont Mount Kenya Safari Club); Africa's Leading Hotel Brand (Sarova Hotels, Resorts and Game Lodges); Africa's Leading Luxury Lodge (Sirikoi lodge); Africa's Leading National Park (Maasai Mara National Reserve); Africa's Leading Tented Safari Camp (Finch Hattons); Africa's Leading Travel Agency (Bonfire Adventures).

Source: https://www.worldtravelawards.com/winners/2017/africa

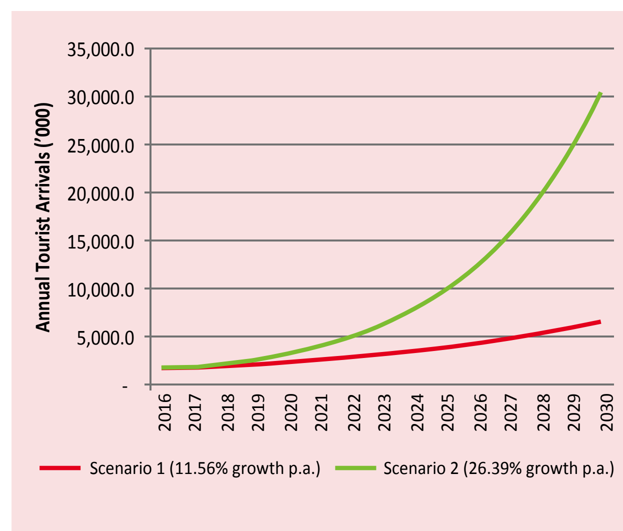
Monthly international arrivals often peak around July-August as tourists arrive to watch the spectacular wildebeest north-bound migration from Serengeti National Park in Tanzania and crossing of the Mara River in Maasai Mara Game Reserve. The trend in arrivals continues to December as tourists arrive for end of year holidays and extends to February the following year. However, the sector is yet to regain the record 2011 achievements given that average month-on-month growth in arrivals over the last 10 years is a paltry 2.5 per cent (Figure 6.3). The month-on-month arrivals are required to grow at a rate of 8.0 per cent to achieve the projected total annual arrivals of 1.857 million by 2020, exceeding the 2011 record. Despite its potential in contribution to the economy, performance of the sector is susceptible to both domestic and global macroeconomic and security shocks.

Figure 6.3: Monthly international tourist arrivals performance, 2010-2017



Data Source: Kenya National Bureau of Statistics (Various), Leading Economic Indicators

Figure 6.4: Projected tourist arrivals, 2018–2030



Data Source: Kenya National Bureau of Statistics (Various), Leading Economic Indicators

To achieve the MTP III target of 2.5 million visitors by 2022, the sector needs to achieve an annual growth of 11.6 per cent in arrivals (Figure 6.4, scenario 1). The *National Tourism Blueprint 2030* unveiled in 2018 targets 30.4 million tourist arrivals and increase in the number of direct jobs in the tourism industry to 561,800 by 2030 (Government of Kenya, 2018). This means increasing tourist arrivals by at least 2.23 million per year and therefore growing the current levels by an average of 26.4 per cent annually (Figure 6.4, scenario 2).

The tourism blueprint is anchored on four pillars, namely: product development, marketing, tourism investment promotion, and infrastructure. The objectives of the master plan regarding investments are to: identify investment product and market segmentation (opportunities and investors); identify public infrastructure investments; formulate strategies to mitigate challenges to tourism investment; and link the tourism investment strategy to the tourism product development strategy. Investors will be supported to upgrade their facilities to modern standards to provide quality services to guests.

6.2 Investment in Tourism Product Development

Kenya's menu of traditional tourism products has mainly been safari, coastal/beach and business/conferencing travel. The Safari product which is dependent on natural and wildlife resources is generally seasonal, affected by unreliable infrastructure and fragile ecosystems. Visitor numbers to national parks and game reserves have remained almost the same over the last five years (Table 6.3). The coastal/beach product is outdated and not attractive to the modern traveller in terms of lodging options, pricing, access, infrastructure, limited utilities, insufficient waste management and lack of innovations.

(a) Potential in culture and creative arts tourism

Tastes and preferences of the modern, technology-savvy traveller are evolving and therefore the need to define and deliver an effective mix of touristic experiences that integrate environmental, social-cultural and economic linkages to ensure visitors stay longer in a destination and spend more. One of the key growth trends in the global tourism industry is diversification of the tourism product from high-impact mass tourism towards speciality niche markets such as cultural tourism. Cultural tourism

Table 6.3: Visitors to national parks, game reserves, snake parks and historical sites

Year	No. of visitors to national parks and game reserves ('000)	No. of visitors to museums, snake parks and historical sites ('000)
2012	2492.2	824.6
2013	2337.7	770.8
2014	2164.6	690.9
2015	1952.8	797.5
2016	2284.7	923.5
2017	2345.2	782.0

Data source: Kenya National Bureau of Statistics (Various), Economic Survey

activities cut across each country's traditional product offerings but have potential to evolve into distinct product lines. Festival tourism is a sub-component of cultural tourism that has experienced significant growth in the last two decades as tourist planners have come to recognize the demand-pull of the arts, popular music, entertainment and themed events.

Throughout the Caribbean and South America, for instance, festival tourism has gained prominence in the tourism calendar. The reasons behind this include participation by government through inclusion of festival products in tourism development strategy; investment in festival brand development, marketing, training of personnel, business sponsorship and product differentiation; availability of appropriate indoor and outdoor venues; and investment in a blend of other touristic attractions in the location that enables the tourist to not only participate in the carnivals but also spend time visiting other heritage and archaeological sites in the locality (Nurse, 2001).

Festivals and creative arts are significant in impacting on visitor arrivals, hotel occupancy tourist spending, and spillover effects on media, advertising, local transport, food and beverage, and other sectors. They generate new tourism demand to fill gaps in revenue during low tourism seasons, combining arts, music culture, and media attraction to enhance the image and attractiveness of a tourist destination. Creative industries are largely based on intangible content which generates new experiences compared to a tangible culture.

During 2016/17, only five cultural festivals were held in Kenya. The County of Lamu has been successful in investing in annual cultural festivals (Box 6.2). Other counties that hold cultural festivals include Mombasa, Migori, Marsabit and Turkana. The Turkana cultural festival is held around May; Mombasa cultural festival in November; and the international Carmel Derby Festival held every year in August in the northern region of Kenya.

Counties are not taking advantage of the full range of technological and innovative potential of the creative industries. With over 40 diverse ethnic groupings in the country, each county has unique cultural tourism products to showcase. Counties can invest in development of niche cultural tourism markets around architectural and archaeological, historic or heritage sites, monuments and landmarks; arts, sculptures, crafts and galleries; museums and exhibitions; botanical gardens; music and dance activities; castles and palaces; national parks and wildlife sanctuaries; culinary activities; religious venues, temples and mosques; festivals, carnivals and cultural weeks or events organized at inter-county level.

(b) Potential of Meetings, Incentives, Conferences and Exhibitions

The Meetings, Incentives, Conferences and Exhibitions (M.I.C.E.) sub-sector is a growing segment of the global tourism industry. Travellers attending M.I.C.E. activities have a purpose beyond leisure tourism and are in fact business travellers. The global M.I.C.E. industry generated revenue of US$ 752 billion in 2016 and is expected to grow at a compound annual growth rate (CAGR) of 7.5 per cent to reach US$ 1,245 billion by 2023. The growth in M.I.C.E. industry is fuelled by growth in business travel, rise in disposable incomes, rapid growth in tourism and hospitability sectors, and advancements in ICT that support e-conferences as a substitute for face-to-face meetings and conferences. Organization of M.I.C.E. events blends professional, business, cultural or academic objectives.

Kenya's M.I.C.E. sector represents only 0.2 per cent of the global M.I.C.E. market but takes a significant fourth position in Africa (after South Africa, Egypt and Morocco) based on number of international meetings held. At least 13,102 meetings are held annually in Kenya. Domestic meetings represent most meetings (49.9%) followed by Corporate/business meetings (17.9%), NGO/CBO meetings (10.8%) and international conferences (6.2%). All

Box 6.2: Lamu - The Island of Cultural Festivals

Lamu is known for its annual festivals that attract thousands of domestic and international visitors. Five festivals are held at different times of the year, namely: art festival, the Yoga festival, food festival, cultural festival, and maulidi festival.

The art festival, held around February brings together talented local and foreign participants to exhibit their woodcarving, painting, photography and weaving within the town square and galleries. During the festival, exhibitors and visitors are entertained by musicians from Lamu and other parts of the country.

The Yoga festival held in March blends the environment and culture to create an atmosphere of a perfect, stress-free destination that attracts yogis from Africa, Europe and other parts of the world. The four-day event offers meditating under the moon, dhow sails, fun competitions, Swahili dishes and a grand finale beach party with Lamu drummers and acrobats.

The food festival held in April is the gateway to Lamu cultural cuisines that combines both cultural and culinary activities with a food investor's forum.

The week-long annual Lamu Cultural Festival held every November showcases Lamu's cultural character and unique townscape. It is a celebration of both the past and the future, beliefs and traditions that are the heart and soul of the Lamu community. Several competitions and races are staged during the festival, including traditional Swahili poetry, Henna painting, Bao competition, Scuba diving, snorkeling, deep sea fishing and the annual dhow race, attracting both local and international fans.

The famous month-long Maulidi festival celebrated in the third month of the Muslim calendar is a joyous occasion attended by over 20,000 local and international visitors. It involves music, veneration and religious recitals that bring out the people's culture and tradition. The real Maulidi show stopper is the donkey race, bringing out importance of donkey transport in Lamu.

Visitors to the carnivals and water sports find it irresistible to visit the best museum in town housed in a grand Swahili warehouse on the waterfront; the old town (a UNESCO World Heritage site); the German Post Office Museum constructed in the late 1800s; the Siyu Fort built in 1810; the Lamu Fort which holds one of the best collections of Swahili poetry; Takwa ruins, dating back to 15th century; and Kiunga Marine Reserve; that make visits to Lamu intriguing, insightful and experiential.

Source: County Government of Lamu (2017)

M.I.C.E. venues in the country can accommodate an estimated total of 147,261 participants per day (close to 7,657,572 annually). At least 31.6 per cent of the participants are accommodated in hotels and generate over Ksh 3.6 billion in revenue annually for the hotel sub-sector. Per capita direct spending by international and domestic M.I.C.E. participants for events lasting 2-5 days is estimated at Ksh 388,617 and Ksh 70,970, respectively.

The total expenditure by M.I.C.E. participants is estimated at Ksh 32.5 billion annually with local and international participants accounting for 46.8 per cent and 53.2 per cent, respectively. M.I.C.E. activities also create at least 6,000 direct jobs in hotels, destination marketing organizations, learning institutions, other venues and service providers. The sub-sector's activities have strong backward and forward linkages with sectors such as manufacturing, agriculture, fishing and forestry; real estate, renting and leasing; and contribute about Ksh 26.4 billion (about 27.5%) to tourism revenue annually (KIPPRA, 2013).

Meeting facilities in the country are found in both establishments with or without boarding facilities. Both the Kenyatta International Convention Centre and the Bomas of Kenya, the largest convention centres, have optimum capacity of 4,000 each and state of art conference facilities. Domestic meetings command the largest share of delegates and occupancy rate annually (Table 6.4).

The country, however, lacks modern auditoriums that can accommodate 10,000 or more participants in a single meeting which limits the country's capacity to host larger international M.I.C.E. events. Investing in larger meeting facilities is crucial in enabling Kenya to transform into a hub for regional conventions which will generate higher tourism receipts and jobs. In addition, since 2013 following devolution of government, there is a growing market for one-to-three-day domestic conferences in the counties which builds the case for investing in M.I.C.E. facilities at county level.

To enhance Kenya's position as a major regional and global M.I.C.E. destination, some investment projects are in the pipeline, proposed for completion by year 2021, including:

- Development of the proposed Nairobi International Convention and Exhibition Centre (NAICEC). The facility to be built on PPP model will have a 15,000-capacity exhibition space, 10,000-delegate capacity conference centre, 5 luxurious hotels (2-star to 7-star) with a total capacity of 2,000 beds, presidential pavilions, VIP pavilions, fully furnished apartments, coffee shops and business centres, among others.
- Development of the proposed 3,000 capacity New Mombasa International Convention Centre.
- Development of New Kenyatta International Convention Centre Annex.

(c) *Other niche tourism products*

Development of tailored tourism products is imperative to meeting the needs and interests of targeted visitors in niche market segments. Such products need to integrate aspects of culture and heritage of the people living in the target locations, existing physical tourist attractions such as historical sites, museums, scenic view points, and a blend of activities to enable visitors to stay longer. For instance, visits to historical sites can be blended with nature trailing, Avitourism (birding tourism), photography, hiking, rock climbing, biking, slackpacking, river rafting and community-based adventure opportunities while health and wellness niche tourism products can blend visits to health spas, hot-springs and traditional medicine.

The government through the National Tourism Blueprint 2030, targets to market new niche tourism products developed around African safari, beach

Table 6.4: Conferences held in Kenya, 2014-2016

	2015		2016		2017	
	Domestic	International	Domestic	International	Domestic	International
No. of conferences	3,199	218	3,755	227	3,844	191
No. of delegates	465,116	71,620	532,674	101,599	623,749	64,167
% of total delegates	86.7	13.3	83.9	16.1	90.7	9.3
No. of delegate days	561,374	124,633	634,234	166,802	693,159	120,348
No. of delegate days available	6,168,945	6,168,945	6,859,714	6,859,714	7,090,986	7,090,986
Occupancy rate (%)	9.1	2.0	9.2	2.4	9.8	1.7

Data source: Kenya National Bureau of Statistics (Various), Economic Survey; Intern. = International

and marine, wildlife/nature, culture and heritage, business, adventure, sports, desert, and city themes to diversify product offering. Further, given Kenya's recognition in producing international athletics champions, there is a case for development of sports tourism. A strategy to showcase Kenya's sports prowess needs also to consider development of scuba diving, water sports, golf tourism and promotion of traditional sports and games blended with local cultural events. Development of niche tourism products needs concerted effort by both national and county governments' tourism agencies.

6.3 Investment Opportunities in Tourism

The tourism sector in Kenya is relatively less competitive compared to other tourist destinations in terms of the number of tourists, yield and diversity of experience. For instance, over the last seven years, the county has only managed a peak of 1.8 million tourist arrivals compared to some 8.3 million per year to South Africa which is grouped together with Kenya in terms of tourism destinations.

Out of the 26 parks and game reserves in Kenya, only 7 parks including Maasai Mara, Nakuru and Amboseli (accounting for more than 80% of the total number of visitors) are fully accessible to tourists. There is opportunity to develop and add value to the other parks with modern facilities and infrastructure. In addition, there is opportunity to invest in tourism circuits which lack accommodation facilities to enable tourists visit and enjoy their stay in various parts of the country.

Investment in tourism infrastructure includes development of hotels, restaurants and other hospitality facilities; development of roads to support access to tourism attraction sites; ICT and other enablers to support travel agents and tour operators; physical investments to support meetings, incentives, conventions and exhibition events; development of airports and airline services; development of shopping malls; and other passenger transportation services. Currently, many tourism facilities require rehabilitation and expansion to meet guest demands.

6.4 Priority Flagship Projects in Tourism

Implementation of most of the Kenya Vision 2030 tourism flagship projects has lagged owing to absence of a clear roadmap for their execution, and limited financial resources. The projects include The Cradle of Humankind aimed at creating a major tourism, conservation, heritage development product and economic hub around Lake Turkana basin; Development of Resort Cities in Diani, Kilifi, Lamu, Turkana and Isiolo to optimize the rich tourism potential and attract economic activities and investments within the regions; Developing M.I.C.E. sub-sector to attract more business travellers and high-end international hotel chains; and Premium Parks and Under-utilized Parks Initiatives aimed at raising the quality of parks to enhance visitor experience and increase hotel occupancy in facilities located in national parks.

Achievements made so far include completion of feasibility studies for the Isiolo and Lake Turkana resort cities; completion of a national M.I.C.E. development strategy; and rehabilitation of under-utilized parks. Following the unveiling of the National Tourism Blueprint 2030, new priority investments have emerged. The master plan categorizes implementation of the flagship investments by order of priority:

- **Very high priority:** Construction of a first-class hotel at Bomas of Kenya; Health Spas at Geothermal Sites; enhancing opportunities in National Parks;
- **High priority:** Development of Diani Resort City, Kilifi Resort City, and Nairobi Golf City;

- **Medium priority:** Development of Mombasa International Convention Centre; Development of a Marina in Shimoni; Community tourism projects in Laikipia, Magadi and Amboseli regions; Fishing resorts, and water sporting camps at Tana River and Lake Victoria; and resorts at Lake Victoria and Ruma National Park; and
- **Low priority:** Development of Isiolo Resort City

While implementation of the investment projects is to be considered by order of priority and depending on availability of funds and other resources, the blueprint does not provide timelines on when the projects are to be completed.

6.5 Sustainable Development in Tourism

6.5.1 Investment in safety and security

Safety and security are critical for sustainable development of the tourism sector. The national government, county governments and non-state actors have continued to invest in safety and security of tourists. For example, the government has established a specialized Tourist Police Unit to, among other things, provide security and ensure safety of tourists and investigate tourists related crimes and prosecute offenders.

The major tourism establishments in Kenya have invested in and installed security surveillance systems. In partnership with the private sector, the government from 2014 commenced a Ksh 15 billion project to install security surveillance system in major cities, dubbed "*The National Surveillance, Communication and Control System*". The first phase of the project involved building of a digital security system in Nairobi and Mombasa by installing 1,800 CCTV cameras to transmit real time data to a central point at the police headquarters (*Command and Control Centre*) and to connect 195 police stations in the two cities to high-speed Internet. In addition, the system has three (3) command and control centres, five (5) video conferencing facilities, 7,000 hand-held devices, 130 fixed desktop phones, 80 base stations and 600 vehicle-mounted systems (Government of Kenya, 2017). The project has seen reduction in crime in the two cities since security agents are able to monitor and deter crime in addition to storing data and information on crime. The project could be replicated in other cities.

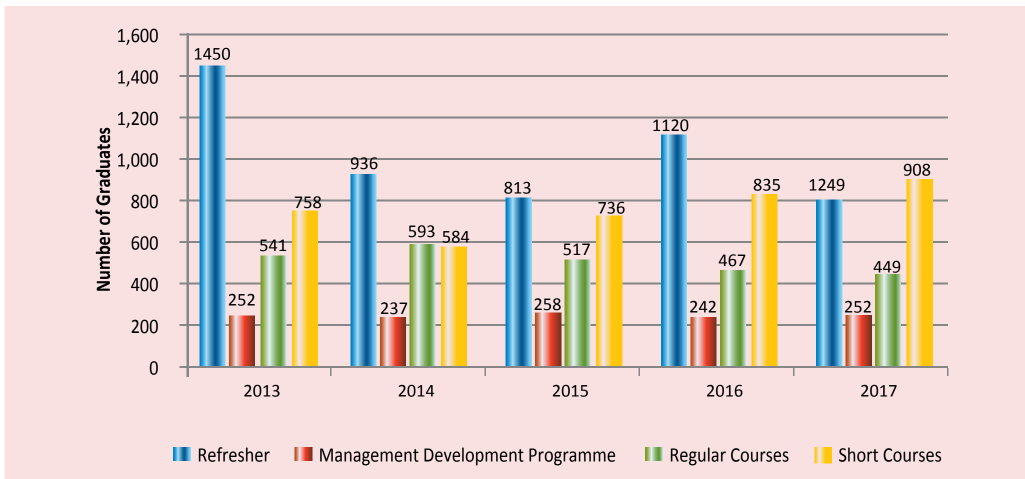
6.5.2 Investment in tourism human resources capacity

Competitively skilled and flexible human resources are critical for enhancing competitiveness in the tourism sector. Human resource development is required to strengthen the skills base of the tourism sector in Kenya and there needs to be priority placed on providing relevant training and capacity building in line with industry needs.

Among the identified challenges in the country's tourism sector is technical skills gaps among the industry workforce. This is attributable, to a large extent, on the disconnect between existing tourism training and the industry's evolving skills sets requirement; lack of proper regulatory framework for tourism and hospitality training; and dis-harmonized curriculum for tourism and hospitality training and accreditation among all training institutions providing such training. Draft regulations to govern 'Workforce Development and Training Accreditation' in tourism were developed but are yet to be finalized for adoption (KTF, 2017). In addition, the National Tourism Blueprint 2030 emphasizes the need to conduct a national tourism skills audit and a national tourism training institutions audit to rationalize the number of institutions that offer tourism training.

The Kenya Utalii College (KUC), the premier training institution for the hospitality sub-sector in the country, provides training to over 2,300 students in two degree programmes (in collaboration with the University of Nairobi), two diploma courses,

Figure 6.5: Number of Kenya Utalii College graduates, 2013-2017



Data Source: Kenya National Bureau of Statistics (Various), Economic Survey

five certificate courses and three industrial training courses. Majority of graduates from KUC are on refresher courses up to three (3) months (Figure 6.5). Apart from KUC, 25 local public and private universities offer nine (9) Certificate, 27 Diploma, 44 Bachelors, 11 Masters and 5 PhD tourism-related programmes.

To expand training for personnel in the tourism sector, the government is constructing the Ronald Ngala Utalii College at Kilifi County. The project is 60 per cent complete and scheduled for completion at the end of 2018. The college, financed through the Tourism Fund, will accommodate 3,000 students and will have state of the art learning equipment. On completion, it will narrow the gap in trained manpower required for the country and the East African region.

There is need to conduct an audit on personnel requirements for Kenya's hospitality sub-sector in terms of number of staff by cadre and skill to guide expansion of training facilities and programmes by both public and private sector entities.

6.5.3 Investment in tourism-related transport infrastructure

Investment in transport and communication facilitates movement and connectivity of people across regions. The commencement of scheduled passenger trips on the Standard Gauge Railway (SGR) in 2017 between Nairobi and Mombasa has made it faster and cheaper for domestic and international tourists to travel to the Kenyan coast for leisure and business. Efficiency in transportation of tourists within Kenya and further to Uganda will be enhanced once construction of the final phase of the SGR reaches Busia border.

The upgrading of JKIA to a Category One airport allowing for a direct flight to the US will boost long-haul tourist arrivals from the US which is Kenya's top source market. Kenya Airways will commence daily direct flights from Nairobi to New York from October 2018. This will expand trade and investment opportunities between the two countries and open Kenya as a regional hub for air travel, enabling travellers transiting to the US from over 40 African countries. Given that a few other African Airlines operate direct flights to the US, there is need to ensure that Kenya Airways remains competitive.

An artistic impression of a section of the Standard Gauge Railway passing through the Nairobi National Park

Enhanced air access and air travel is imperative in expanding intra-African trade and tourism. In January 2018, 23 out of 55 African Union member countries including Kenya, Rwanda and Ethiopia signed to adopt an open skies treaty dubbed the Single African Air Transport Market (SAATM) that guarantees a 25 per cent drop in air fares for 2.4 million travellers who fly within the region. Three EAC countries, Tanzania, Uganda and Burundi are yet to sign the treaty. The SAATM treaty will give the continent's big carriers—Ethiopian Airlines, Kenya Airways, RwandAir and South African Airlines, etc—access and multiple destinations to any city in the countries under the arrangement as part of African Union's move to improve connectivity and liberalize air transport markets in its member states. Implementation of the treaty will boost tourism traffic through JKIA (Nairobi) and Moi International Airport (Mombasa) and consequently drive up bookings for hotels and job creation. The International Air Transport Association (IATA) estimates that the SAATM will add US$ 1.3 billion to the continent's GDP every year of which Kenya will receive US$ 76.9 million annually and create 150,000 additional jobs.

Other infrastructure projects that will boost tourism include the construction of Isiolo airport which is nearing completion; construction of the Likoni channel in Mombasa, dubbed the *Mombasa Gate Bridge Project*, which will be a crucial link to the tourism facilities in the south coast; and the on-going construction of *Dongo Kundu* bypass that links the tourism establishments in the south coast, Nairobi-Mombasa highway, Mombasa SGR terminal at Miritini and the Moi International Airport Mombasa. Other proposed investment projects in 2017-2021 include production of the Kenyan Experience Film; Mama Ngina Modern waterfront facility; and refurbishment of the railway museum to world class status.

6.5.4 Investment in accommodation and hospitality

Investment in accommodation facilities determines performance of a tourist destination. As such,

the new major brands opening hotels in Kenya and targeting high value tourist segment will serve to attract more tourists (Appendix 6.2). For example, the expected 45 storey Hilton Hotel in Nairobi at 900 feet will serve as the highest viewing deck in Africa, providing easy view of Mt Kenya and Mt Kilimanjaro. There are also emerging accommodation alternatives such as home-stays, Air B-n-B, villas and serviced apartments posing huge competition to traditional hospitality products, which could explain why the share of bed-nights by non-residents has been declining over time (Table 6.5) despite increase in international tourist arrivals as noted earlier in Table 6.2.

The share of bed nights occupied by Kenyan residents has been growing as a result of aggressive domestic tourism campaigns such as *Tembea Kenya Online Campaign, Twende Ushago Campaign, Hello World Relay Instagram Campaigns*, and SMS campaigns by the Kenya Tourism Board. In 2017, domestic tourism accounted for 4.05 million bed nights achieving a growth of 15.9 per cent over the previous year and exceeding the MTP II target of 4.0 million bednights (Table 6.5). Investment in domestic tourism is imperative to cushion the tourism sector from ravages of global macroeconomic and terrorism-related shocks.

The National Tourism Blueprint 2030 targets gradual expansion of investments in tourism accommodation establishments from 5,940 to 7,500 (expansion by 26.3%); rooms from 59,400 to 99,700 (67.8%); and hotel beds from 178,200 to 299,000 (67.8%) between 2015 baseline year and 2030 (Government of Kenya, 2018a). This signifies an average annual expansion of 104; 2,687; and 8,053 annually in the establishments, respectively. The targets are high and require a clear strategy and adequate financial resources to implement.

6.6 Financing Options for Investments in Tourism in Kenya

Access to finance is a major constraint for tourism investments in Kenya. Funds are required for development of new tourism physical facilities, refurbishment of existing ones, product development and investment in support services such as tour operations, transport and booking. Available financing options for tourism investments can be broken down into three broad categories, namely: public, private or public/private.

Public financing

Public financing of tourism investments includes governments, national development banks, bilateral/international donors and multilateral development organizations. The mode of financing includes grants and concessional loans.

Table 6.5: Hotel bed nights occupancy, 2012-2017

	2012	2013	2014	2015	2016	2017
Bed nights occupied by Kenya residents ('000)	2,787.7	2,699.1	2,948.7	3,154.1	3,495.9	4,050.0
Total hotel bed nights occupied ('000)	6,860.8	6,596.7	6,281.6	5,878.6	6,448.5	7,174.2
Total bed nights available ('000)	18,849.6	18,292.2	19,877.2	20,187.2	21,258.5	22,987.1
Share of bed nights by Kenyan residents (%)	40.6	40.9	46.9	53.7	54.2	50.8
Share of bed nights by non-residents (%)	59.4	59.1	53.1	46.3	45.8	49.1
Overall hotel bed night occupancy rate (%)	36.4	36.1	31.6	29.1	30.3	31.2

Data Source: Kenya National Bureau of Statistics (Various), Economic Survey.

Allocation by the National Treasury

Funds allocated for marketing activities in the sector are not sufficient, therefore limiting the scope of promotional activities that may be conducted in tourism source markets. Each year, the government allocates funds to the Kenya Tourism Board to support destination marketing strategies. In 2016/17, the sector received Ksh 4.5 billion allocation, which was only 5.3 per cent of total tourism earnings in the previous year. The tourism industry players have advocated for an annual allocation of at least 10 per cent of total tourism earnings received during the previous year to support marketing and development of the sector. In the same year, Ksh 500 million was availed to the Tourism Finance Corporation (TFC) for subsidized lending to hoteliers to upgrade their properties.

Funds allocated to the TFC for on-lending are also not sufficient to finance large-scale tourism investments. Furthermore, with a loan book of close to Ksh 1 billion (OAG, 2016), the TFC lacks capacity to finance huge investments. For instance, according to KNTB 2030, construction of a large 100 room luxury hotel requires at least Ksh 1 billion while a limited service 100 room hotel would require Ksh 200 million. Mega projects such as a modern convention centre may require Ksh 1 billion to Ksh 50 billion depending on size. The cost of investment in monetary terms will depend on size and value (quality of finishing and star-rating in case of hotel) of the facility to be developed. It is therefore imperative to build the capacity of local institutions mandated with funding the tourism sector to provide long-term, affordable financing for small to large scale mega projects in tourism to increase the value and competitiveness of Kenya as a tourism destination.

County governments are not prioritizing investments in the tourism sector. Out of the development funds disbursed to counties in 2016/17, counties allocated only 4.3 per cent to tourism-related projects (Appendix 6.3). Of the funds allocated to tourism projects only Ksh 686.2 million (or 15.44%) was used in actual projects. This is equivalent to 0.67 per cent of the total development budget used in the counties. Majority of the investments have concentrated on construction or refurbishment of sports facilities.

Box 6.3: Tourism Finance Corporation

The mandate of the Tourism Finance Corporation (TFC) is to provide financial assistance to investors in the tourism sector, including SMEs and community-based enterprises for development, expansion and maintenance of tourism activities and services; provide for investment opportunities in the tourism sector; and to provide business advisory services to the tourism sector. The corporation establishes strategic partnerships and collaborations with National/ County Governments and other stakeholders to tap into existing potentials for tourism investments. The partnership is in form of equity investments, joint ventures and provision of business advisory services.

The TFC manages a revolving fund/an irredeemable seed fund on behalf of the government. The objective is to provide concession credit to entrepreneurs in the tourism sector. Loans provided include asset financing development loan, energy efficiency loan, expansion and refurbishment facility, working capital and equity financing. Apart from loan application fee that is non-refundable, a non-refundable loan appraisal fee and a commitment fee (1%) is charged. Legal, valuation and other charges are paid to the respective third party. Interest rate is 15 per cent for the Commercial Loan Programme and 14 per cent for the Revolving Fund Programme. Loans are paid over a maximum of 10 years, but loans for purchase of vehicles are paid in three years.

Source: http://www.tourismfinance.go.ke/

Tourism tax revenue

Tourism taxes provide significant government revenue that can be used for development of the sector. These include revenues from landing fees, departure taxes, VAT, park entrance fees and use of public utilities. Tourism Levy is paid to the Tourism Fund by establishments dealing in tourism activities and services at a rate of 2 per cent of turnover. Once collected by various agencies in the sector, the revenues are submitted/declared to the National Treasury (as Appropriation in Aid) then allocation

is made to each agency after netting out revenue collected.

Box 6.4: Tourism Fund

The Tourism Fund is a body corporate whose object and purpose is to finance the development of tourism products and services; finance the marketing of Kenya as a tourist destination through the Tourism Board; finance the activities of the Protection Service; finance the tourism research, tourism intelligence and the national tourism information management system; finance the activities of the Tourism Sector Safety, Communication and Crisis Management Centre to be established and managed by the Ministry; finance training and capacity development activities of the Kenya Utalii College and of such other tourism hospitality training institutions established under the Tourism Act; and mobilize resources to support tourism-related activities. The Tourism Fund collects levy paid by establishments dealing in tourism activities and services in Kenya at a rate of 2 per cent of turnover.

Source: http://www.tourismfund.co.ke

Reduction in taxes levied to the tourism sector can be an incentive for further investments. For instance, the 2016/17 budget proposed removal of VAT on park entrance fees imposed three years earlier to reduce the cost of visits to national parks thereby encouraging more visits to the parks. In addition, VAT on tour operator services was removed with the aim of reducing the cost of *safaris* and excursions for foreign visitors and stimulate growth in tourist arrivals while enhancing the competitiveness of the sector in the region.

Private financing

This option includes for-profit and not-for-profit organizations such as conservation organizations where funds come from non-governmental sources (individuals, foundations, companies, etc). The mode of financing can be commercial lending, securitization, private equity, venture capital, syndicated debt or public offerings.

On the commercial level, most lending institutions see tourism financing as being very risky given its seasonal nature and performance that is susceptible to domestic and international shocks. Despite this perceived shortcoming, commercial lending institutions can develop innovative financial products that can tap into the potential in the tourism sector; for instance, providing asset financing targeting niche tourism market segments with high returns.

Public private financing

In this model, funding mixes public and private investment and lending; for example, governments provide tax breaks, subsidies, guarantees, or infrastructure to secure targeted private investment. This mode of financing can be sovereign guarantees, tax incentives/subsidies, social and impact investing, community investing, diaspora investment, or microfinance. The Public-Private-Partnership model could be applied to the proposed mega tourism investment projects over the next years, such as the Nairobi International Convention and Exhibition Centre, and sports facilities/stadia at the counties.

6.7 Conclusions ad Policy Recommendations

- To make Kenya a competitive tourism destination, implementation of identified flagship projects remains a priority. It is important that an investment implementation plan is developed and aligned to MTP III targets for the sector. Appropriate packaging of the bankable projects could attract private sector participation to secure sufficient funding for the projects.

- There is need to promote Kenya as a safe tourist destination by continuously enhancing security within the country to improve foreign investor confidence. This includes expanding

security surveillance to all areas that attract tourists.

- There is need to develop and implement elaborate domestic and regional tourism strategies to cushion the performance of the sector from effects of travel advisories by key international source markets in the event of security concerns emanating from terrorist threats. This will require strategies to step up arrivals from African source markets, including promoting Visa-on-arrival to benefit from ratification of the SAATM open skies treaty. In addition, there is need to step up marketing efforts to emerging and traditional source markets to sustain the growth momentum witnessed over the previous three years and to achieve envisaged targets for the sector by 2030.

- Adequate financing is needed to undertake the necessary investments to grow and develop the sector. This requires rolling out innovative options for long-term financing of tourism-related investments including viable public/private or PPP options. There is also need to build capacity of existing public institutions (TFC and Tourism Fund) to provide affordable long-term funds for small, medium and large-scale investment projects in the sector. In addition, there is need for the financial sector to consider financial products tailored to the needs of the tourism industry.

- At county level, there is need to promote tourism in their localities. This means allocating adequate funding to develop M.I.C.E. facilities, conservation of culture, organizing cultural carnivals, sanitation and other niche tourism products unique to the counties. In addition, collaboration with the national government and other agencies in the sector is required to market tourism products that reach out to a wide range of potential tourists both locally and internationally.

- The quality of services provided in the sector is dependent on the capacity of human resources. Promoting tourism training and ensuring it is harmonized with the needs of the sector is important in addressing emerging needs. In this regard, it is important to take stock of emerging demands in the sector and relate these with the available training programmes to identify any gaps.

- Investing in development of new products will enable diversification from the traditional products. In doing so, there is potential in integrating cultural tourist experiences with other creative content and concepts to reach new target groups, improve destination image and competitiveness, and support the growth of the creative industries and creative exports. County governments have a role in developing cultural and creative tourism through collaboration with creative industry players.

Chapter 7

Promoting Food Security through Agricultural Investment

Agriculture dominates Kenya's economy and is inevitably the key to food security, rural development, and industrial transformation. Growth in agriculture is more effective at reducing poverty compared to growth in other sectors because of the high number of the population directly dependent on the sector. As such, the sector is critical to the achievement of Vision 2030 targets, in ensuring food security as outlined in the "Big Four" agenda, and in ensuring freedom from hunger as stipulated in Article 43(1) of the Constitution of Kenya. To achieve food security, more investments aimed at improving agricultural productivity by reducing post-harvest losses, and expanding irrigated land are essential. Moreover, there is need to put more emphasis on reducing the cost of seeds and fertilizer, and revamping extension services. At the national level, Kenyans should be encouraged to diversify household diets especially by exploiting the potential of fisheries and the blue economy to achieve the nutritional dimension of food security.

7.1 Status of Kenya's Food Security

Achieving food security for all citizens is a priority for the government and a key component of the agricultural development agenda. The Food and Nutrition Security Policy (FNSP) defines food security as a state when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Government of Kenya, 2011). The policy framework covers the four dimensions of food security, namely: availability, accessibility, stability, and meeting nutritional requirements. Food availability addresses the "supply side" of food security determined by food production, stock levels and net trade. Accessibility focuses on income, expenditure, markets and prices which influence household capacity to achieve food security, while utilization refers to the way the body makes the most of various nutrients in the food and determines one's nutritional status. The stability dimension addresses the movement of individuals into and out of food security conditions due to factors such as weather conditions, political instability, or economic factors (unemployment, rising food prices).

Government efforts on achieving food security have mainly focused on promoting own production, expanding food storage capacity, and importation to address food deficits. The food security balance

sheet of Kenya mainly comprises cereals, pulses, vegetables, fruits, meat, milk and fish. However, about 90 per cent of Kenya's population depends on maize as a staple food and as an income-generating commodity (Government of Kenya, 2011; Nyangito and Nyameino, 2002). The Global Hunger Index (GHI) for Kenya declined from 38.5 (alarming status) in 1992 to 21.9 (serious status) in 2016 thus reflecting government effort in tackling food insecurity. However, dietary diversity which is essential for achieving the nutritional dimension of food security has been low, leading to high prevalence of undernourishment of 19.1 per cent in 2015 which translates to over 10 million people. Low awareness on the importance of nutrition and dietetics among the population hampers the adoption of appropriate feeding habits.

While the Kenya food basket comprises cereals, starchy roots, sugar and sweeteners, pulses, vegetables, fruits, meat and fish, it is dominated by maize. Maize is grown on an estimated 1.4 million hectares which is more than 30 per cent of the arable land and is used both as a subsistence and commercial crop. More than two-thirds of the maize produced comes from small-scale producers on farms that are less than two hectares. Other important commodities include rice, potatoes, beans, tomatoes and bananas. The supply and utilization of the key food commodities is shown in Table 7.1.

From Table 7.1, Kenya experienced huge deficits in several food items with maize and rice recording the highest deficits. However, in 2017 the country was self-sufficient in potato production (despite high wastage) pointing to the potential of potatoes in the country's food basket and in agro-processing. Kenya's per capita maize consumption is estimated at 103 kg/person/year compared to 73 kg for Tanzania, 52 kg for Ethiopia and 31 kg for Uganda (Abate et al., 2017). This means that at the estimated population of 45 million in 2016, domestic maize production was short of demand with the deficit met through imports. Deficits are also observed in several other commodities in Kenya's food balance sheet, notably vegetable oils, sugar and sweeteners, vegetables and fruits. Deficits are much lower in animal products.

Increased maize supply deficits during 2017 is attributed to low production because of depressed rainfall in both the long and short seasons, the effects of Fall Armyworm in most maize growing areas such as Trans Nzoia, Uasin Gishu, Nandi and Nakuru counties, and reduced regional imports from EAC. Although Uganda and Tanzania are the main sources of Kenya's maize imports, the low supply in these countries in recent years has forced Kenya to source her maize from non-EAC sources despite the EAC Common External Tariff currently set at 50 per cent *ad varolem*. The ban on imports of genetically modified organisms (GMOs) continued to constrain the supply of maize from international sources.

Table 7.1: Domestic supply and utilization for selected commodities in Kenya's food basket, 000MT

Commodity	Production	Supply			Total	Deficit
		Waste	Food	Other		
Maize	3,186	514	2,639	2,055	5,208	-2,022
Rice	54	2	693	1	696	-642
Potatoes	1,500	150	1,231	106	1,487	13
Beans	846	132	750	-	882	-36
Tomatoes	283	31	279	-	310	-27
Bananas	742	111	632	-	743	-1

Source: Kenya National Bureau of Statistics (2018), Economic Survey. NB: (-) means data not available

These deficits led to escalation of prices by about 50 per cent above five-year averages thus eroding household purchasing power. In response, the government issued permits in mid-2017 for importation of 540,000 metric tonnes (MT) of maize for human consumption and advanced Ksh 6 billion under a subsidy programme on maize flour, regulating the price at Ksh 45 per

kilogramme to stabilize prices and improve access to the commodity.

Kenya's food security is exacerbated by high post-harvest losses. The average post-harvest losses for maize is 21 per cent mainly caused by inefficiencies in maize handling, improper storage, lack of knowledge on preservation and poor preservation technologies in the food value chains. On-farm storage accounts for 80 per cent of all post-harvest losses and mainly occurs within six months after harvesting due to insect pests, rodents and pathogens (KALRO, 2017). Poor post-harvest management practices are associated with rising aflatoxin thereby exposing consumers to health risk. The proportion of post-harvest losses for selected food commodities is shown in Table 7.2.

Post-harvest losses in milk are highest at farm level due to spillage, lack of market and rejection at market. Rejection at market is a result of poor handling and bad roads which delay delivery. The losses are higher during the wet season when production is high and roads are impassable. In some areas, it is possible to market only the morning milk and this creates a major constraint to increasing production as producer households are forced to consume the afternoon/evening milk themselves and part of it is wasted in some periods.

Low value addition in agriculture contributes to high post-harvest losses thus compounding food insecurity. Agro-processing lengthens the life of food products thereby stabilizing market prices and smoothening supply across seasons. However, agriculture is dominated by primary production with little on-farm and off-farm processing of agricultural produce or efforts to improve the quality and shelf life of produce by agricultural marketing cooperatives. This translates to low prices, fewer job opportunities and eventually low incomes for farmers and loss of a substantial part of their income to intermediaries and processors. The situation is particularly grave in the production of perishable produce such as milk and horticultural products.

Inadequate storage facilities explain the high post-harvest losses in Kenya. The National Cereals and Produce Board (NCPB) was established to provide commodity handling and other grain-related services, including maintenance of Strategic Food Reserves. The Board has established 110 silos and depots with a capacity of 1.84 million metric tonnes distributed across the country. Before it was liberalized in 1993, NCPB controlled maize

Table 7.2: Physical post-harvest loses in Kenya

	% Losses	Chain level	Causes
Maize	21-29	Storage	Insect feeding, 6 months
Beans	7.7	Storage	Insect feeding, 4 months
Tomatoes	1-10	On-farm	Pests, over-ripening, rotting
		Transportation	Squashing, over-ripening, rotting
Irish Potatoes	5	Harvesting	Damages
	15	Storage	Fresh weight losses, 4 months
	6.6-19.4	Storage	Sprouting, 4 months
	30	Storage	Greening and rotting
	3.7	Processing	Peeling
Mangos	17.9-31.8	Harvesting	Pests and diseases, immature harvesting
	1.6-2.9	Storage	Over-ripening, decay
	2.6-4.7	Transportation	
	3-5	Marketing	Glut and spoilage
Bananas	32	Transport	De-fingering, brushing, breakage, transit ripening
	4	Ripping	Squashing, over-ripening, rotting
Milk	4.5	On-farm	Spillage, spoilage
	6.4	Marketing	Spillage, spoilage
	1.7	Processing	Spillage
Meat	3	Trekking	Weight loss, death

Source: Mutungi and Affognon (2013)

marketing and transport and was legally empowered to purchase strategic grain reserves and famine relief stocks which often distorted market prices. Farmers delivered their maize at below-market prices recommended by NCPB and this undermined efficiency in production and market development, induced uncertainty, and curtailed the development of the maize value chain in production, processing, and marketing.

The maize value chain in Kenya is well developed and complex. Farm productivity is a major challenge due to the high cost and poor quality of farm inputs, especially seeds, chemicals and pesticides, fertilizer and farm labour. Land fragmentation in most maize growing areas has reduced average landholding to less than 1.0 hectares, meaning that even with major improvements in the value chain, farmers will not be able to produce surplus for them to be linked to markets without major increases in farm productivity. The marketing system is inefficient mainly because NCPB is not able to purchase all harvest and thereby giving room for middlemen to exploit the farmers. As a result, farmers fetch prices that are below the cost of production. For example, in 2017, the government allocated Ksh 7.1 billion to purchase 2.4 million bags of maize at Ksh 3,500 but due to delays in the release of funds, middlemen took advantage and bought the maize at Ksh 2,000.

Kenya heavily relies on imports from regional and international markets to supplement domestic maize production. However, supply from regional markets, although increasing, is affected by climate factors and non-tariff restrictions. Globally, maize is increasingly being used for non-food uses such as production of animal feeds and biofuels thus heightening uncertainty on reliance on imports to close the deficits. Thus, there is need for greater diversification of Kenya's food balance sheet to other staples.

Inadequate road infrastructure linking producers to consumers affects the smooth flow of food commodities from areas with surplus to those experiencing deficits. This is amplified by numerous road blocks particularly between counties which discourages investments and contributes to high prices paid by consumers.

7.2 Growth Targets in the Agriculture Sector

Agriculture has dominated Kenya's economy, accounting for 31.5 per cent of GDP valued at Ksh 2.44 trillion in 2017 and indirectly another 27.0 per cent through linkages with the manufacturing and service sectors. In addition, it contributed 48.0 per cent of the value of total exports, 13 per cent of wage employment and with about 29.0 per cent of those employed in the manufacturing sector engaged in agro-based industries (KNBS, 2018). For the sector to play its role in economic growth, food security, Sustainable Development Goals (SDGs), and form a base for industrial transformation, growth in the sector is expected to meet some targets in the Vision 2030, and the "Big Four" agenda (Table 7.3).

While the targets are aligned with Kenya's commitment under the AU Comprehensive Africa Agriculture Development Programme (CAADP), and the Malabo Declaration, most of them are yet to be realized. This is mainly due to delays in implementation of flagship projects meant to spur growth in the sector, such as implementation of fertilizer cost reduction, establishment of disease free zones, and expansion of irrigated area to reduce overreliance on rainfall. Further, devolution of agriculture to county governments in 2013 slowed down the growth momentum in the sector.

The "Big Four" agenda seeks to achieve 100 per cent food security by boosting domestic production in three main crop enterprises (maize, rice and potatoes) through measures which include increasing input use, expansion of irrigated area, and reduction of post-harvest losses. The selected food staples only cover cereals and starchy roots within the food balance sheet. Other targets include transforming the country's Strategic Food Reserves,

Table 7.3: Comparison of Vision 2030 agriculture targets verses actual achievements

	Status	Vision 2030	"Big Four" targets	
Target	**2016**	**2020**	**2017**	**2022**
GDP growth rate (%)	5.8	10.0		
Agriculture growth rate (%)	4.0	7.0		
Poverty rate (%)		25.0	36.1	
Food poverty rate (%)		30.0	32.0	0.0
Global Hunger Index (2017)[1]	21.0			10.0
Agriculture annual contribution to GDP (Ksh billions)	9.37	80.00		
Increasing annual production of staples foods*				
Maize (million bags)			41.9	67.0
Rice (MT)			125,000	400,000
Potatoes (million MT)			1.6	2.5
Direct employment			500,000	1,150,000
Reduction in post-harvest losses (%)			20	15
Large scale irrigated area ('000 Ha)		1,200	500	1,200
Value addition (% of agricultural production and exports)			16.0	50.0

Data Source: KNBS (2017; 2018), Economic Survey, and Government of Kenya (2018 b). NB: [1]Categories of global food index, 50< extremely alarming; alarming-35-49: serious-20-35, moderate -10-20, low 0-10; * are estimates based on current production

establishment of 1,000 SMEs on food processing, scaling up crop and livestock insurance, revamping extension services, and removing multiple taxes across counties in the agriculture value chain (Government of Kenya, 2018b). This will require, on average, annual investment of Ksh 41.54 billion in the sector. Achievement of the "Big Four" targets will require accelerated growth in the sector to a level above the 7.0 per cent Kenya Vision 2030 target while investments in value addition will be needed to reduce the high post-harvest losses and increase jobs.

7.3 Performance of the Agriculture Sector

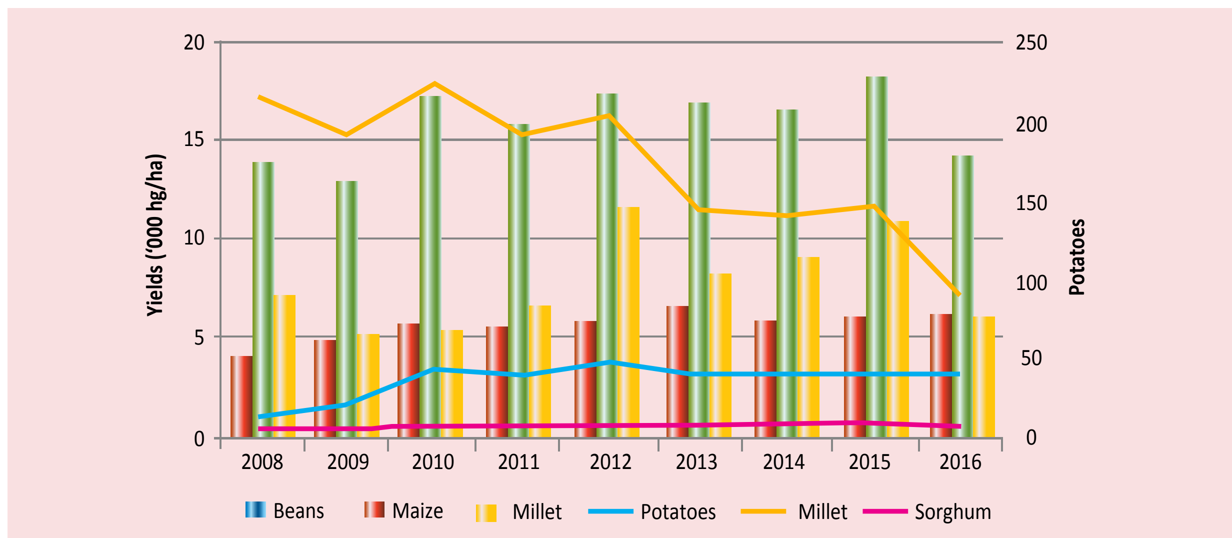
The agricultural sector is dominated by smallholder farmers owning less than 5 acres of land but produce 75 per cent of livestock, food crop and cash crop in the country, and 73 per cent of the total crop produced is sold in the domestic market (FAO, 2009; Ministry of Agriculture, 2010; KNBS, 2016). The remaining 27 per cent mainly comprising tea, coffee and pyrethrum is exported. Majority of rural and vulnerable population, including pastoralists, the landless and subsistence farmers derive their livelihood from agriculture. In terms of the value of marketed production, the sector comprises industrial crops (40%), livestock (30%), horticulture (26.0%), and cereals (4%) (KNBS, 2018). Fisheries and the blue economy, though relatively small combine with crops and livestock to directly influence the country's food security.

7.3.1 Production of main staple food

High yield gap in the food crops

Over-reliance on rainfall in the agricultural production system remains a key challenge as evidenced by the sharp drop in yields between 2015 and 2016 coinciding with the prolonged dry spell. Productivity for most crops is below potential. Between 2008 and 2016, yields in potatoes declined drastically from 214.8 hg/ha in 2008 to 91.5 hg/ha in 2016 while rice yields more than tripled from 13

Figure 7.1: Trends in yields for main food crops in Kenya, 2008-2016



Data Source: FAOSTAT (2017)

hg/ha in 2008 to 40.3 hg/ha in 2016 due to irrigated nature of rice production (Figure 7.1).

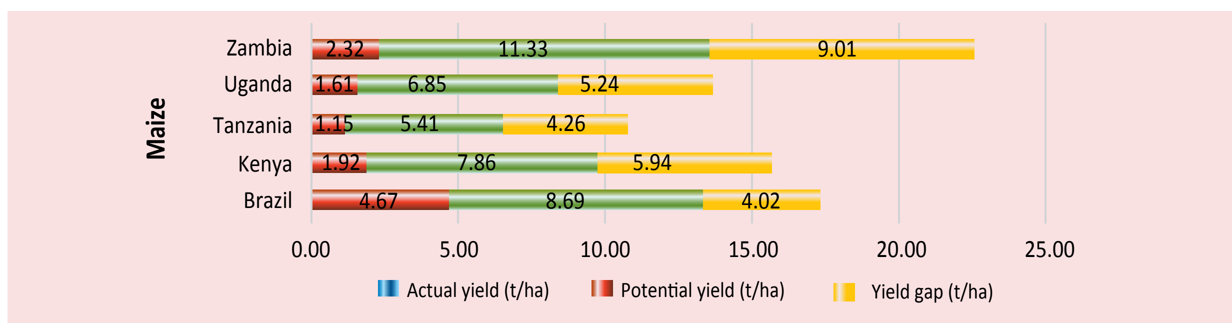
The volume of food crops is mainly attributed to the expansion of the land under production as opposed to improved yields. Further analysis of productivity for maize, sorghum and millet for selected countries reveals that Kenya has one of the highest yield gaps (Figure 7.2). This implies that the country can still increase her production with current acreage.

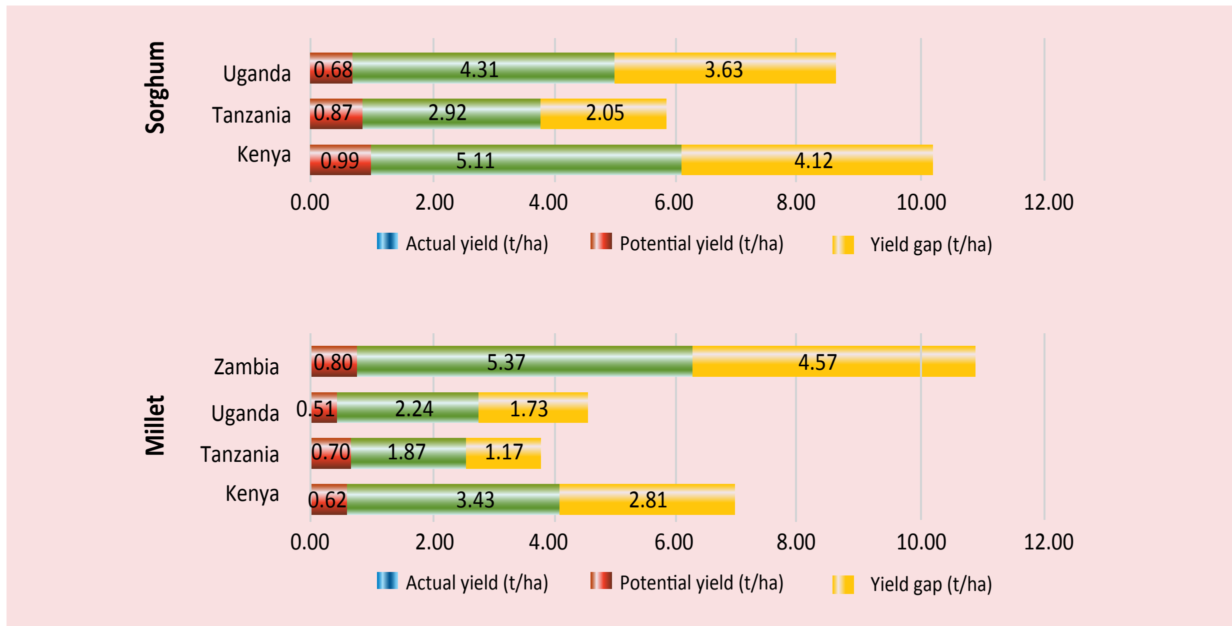
Other factors contributing to high yield gaps are high cost of farm inputs particularly fertilizer, seeds, and chemicals and continued use of outdated breeds. Therefore, interventions focused on reducing the cost of inputs will be central in strategies to transform agriculture.

Fertilizer is the most important input in crop production yet the level of its use remains low compared to other countries (Figure 7.3). Fertilizers that are commonly used in agriculture contain the three basic plant nutrients - nitrogen, phosphorus, and potassium. Kenya is one of the lowest users of fertilizer in Sub-Saharan Africa and the fact that fertilizer is imported makes it vulnerable to price fluctuation.

Countries with high fertilizer use tend to be food secure and are major players in world trade of food

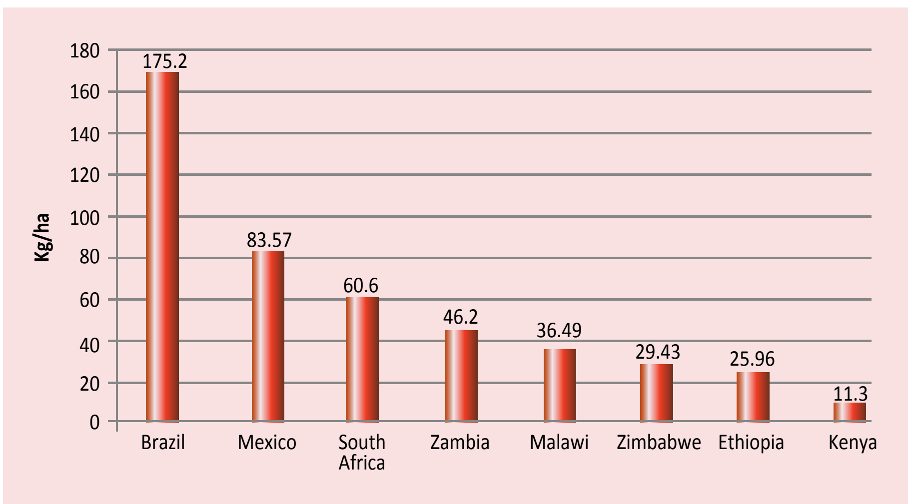
Figure 7.2: Comparison of yields gaps for selected commodities in Kenya





Data Source: Global Yield Gap and Water Productivity Atlas (2018)

Figure 7.3: Comparison of fertilizer application for selected countries



Data Source: FAOSTAT (2017)

commodities. Increasing fertilizer use was central in Malawi's Green Revolution and provides useful lessons for Kenya. To spur growth in the agricultural sector, the government aspires to make farm inputs affordable and accessible to all farmers across the country through a price stabilization plan. This is a three-pronged cost reduction strategy for fertilizer implemented through the National Accelerated Agricultural Inputs Programme (NAAIP). The objective of NAAIP is to improve access and affordability of farm inputs (fertilizer and seeds) by smallholder farmers and thus enhance food security at the household level and generate incomes from sales of surplus produce. A cumulative total of Ksh 5.17 billion was disbursed from the NAAIP benefiting over 530,000 small scale farmers although the market powers exerted by major global fertilizer producers continued to keep fertilizer prices high. This was achieved through improved coordination of bulk purchasing, provision of incentives for local blending of fertilizer, and exploration of long-term opportunities for domestic production of fertilizer. This strategy has increased mineral fertilizer application from an estimated 329,000 MT in 2001 to 671,781 MT in 2016 with a larger share (45%) of the imported

fertilizer being used in maize production and 16.5 per cent on tea.

The Government spends about Ksh 6 billion annually on imports of subsidized fertilizer for farmers. This has helped stabilize prices from Ksh 6,500 for planting granular fertilizers to about Ksh 3,000 for 50 kg bag while top dressing fertilizers dropped to about Ksh 1,800 per 50 kg bag over the same period. Similarly, productivity has improved over the same period across various agro-ecological zones. For instance, maize production has risen from 15 bags to 22 bags per acre against a global average of 44 bags per acre. Fertilizer application on beans almost doubled production from 4.8 bags to 8.5 bags per acre while wheat rose from 28.7 bags to 35.8 bags per acre. Despite these achievements, more is required to ensure the country achieves optimal fertilizer use.

High dependency on imports is a major challenge in boosting fertilizer use amid the market power exerted by major global fertilizer producers in a highly concentrated industry. A fertilizer blending plant established in Eldoret with an annual production capacity of 150,000 metric tonnes is expected to enhance fertilizer usage based on soil type. Despite these achievements, the cost of fertilizer is still high and inaccessible by many rural farmers. Transactional costs including county levies, transportation, and waiting time explain the low use of fertilizer in rural areas. Moreover, price volatility limits fertilizer use thus affecting optimization of the factors of production. High leakages and diversion of subsidized fertilizer from intended use requires critical analyses of the entire supply chain and productivity. Yields among smallholder farmers are still below intended output levels thus casting doubts on the effectiveness of the subsidy. Poor targeting, untimely delivery and linking the variety to soil requirements are other issues that require urgent policy attention.

High degradation of the country's water towers (18 towers are gazetted) contributes to declining agricultural productivity affecting both upstream and downstream users. Degradation is caused by deforestation, encroachment, illegal logging, frequent forest fires, differing inter-county priorities, human-wildlife conflict, weak enforcement of regulations, among others. This results in low flows in springs and rivers, reduced forest cover, and loss of biodiversity which plays a critical role in provision of ecological goods and services important for community livelihoods and well-being. Loss of forested area is manifested in crop failure, floods that destroy seedlings, and unpredictable planting seasons leading to low yields. The Kenya Water Towers Agency (KWTA) was established in 2012 to secure the country's water towers through planting of trees in areas that have been highly degraded, development of national water towers framework, and identification of alternative sources of livelihood for the communities neighbouring the water towers. These measures are yet to fully secure the water towers and illicit activities remain rampant.

Reducing reliance on rainfall through irrigation

Expanding the area under irrigation is an important strategy towards meeting Kenya's food security since irrigation is less vulnerable to climate change. Irrigation technology focuses on promoting intensification of production while opening new farms in ASALs. According to the Agricultural Sector Development Support Programme (ASDSP), intensified irrigation can increase agricultural productivity four-fold and, depending on the crops, incomes can be multiplied 10 times. However, the country's irrigation-based farming is still limited, accounting for only 4 per cent of total agriculture land of 2.9 million hectares. Irrigation accounts for 3 per cent of GDP and provides 18 per cent of the value of all agricultural produce, demonstrating its potential in increasing agricultural production and productivity (National Irrigation Board, 2018). Irrigated agriculture is carried out mainly in irrigation schemes and in large scale irrigation of crops such as rice and coffee. Under the Kenya Vision 2030, irrigation potential is estimated

at 1.2 million hectares of which only about 105,000 hectares is exploited. The potential for irrigation exists across the six catchment areas except Athi catchment which is nearly fully developed.

The National Expanded Irrigation Programme (NEIP) has developed a total of 66,538 acres (MTPIII). Under the ASAL project on food security, productivity per acreage increased from 15-20 bags in 2013 to 20-25 bags of maize in 2015.

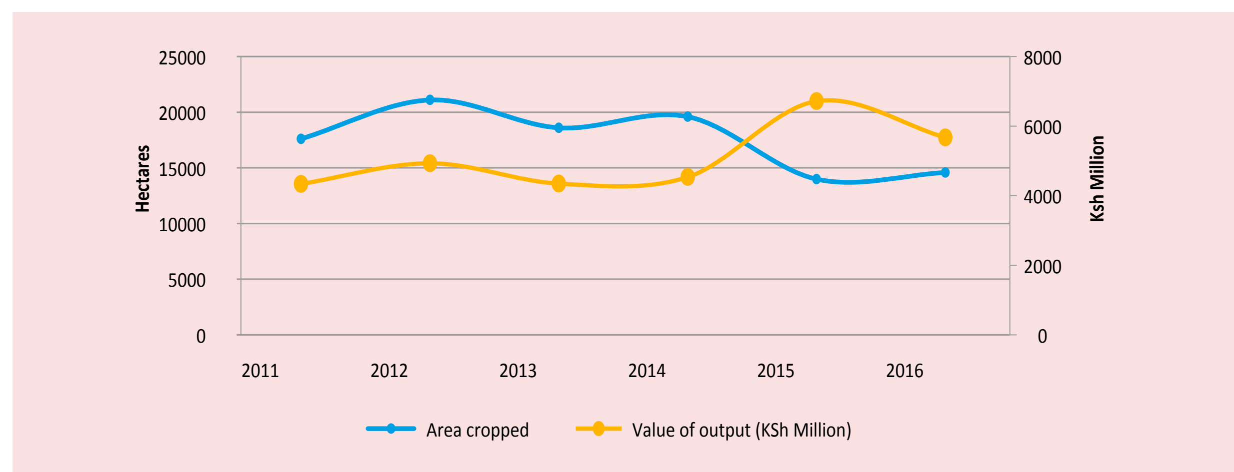
About 43 per cent of irrigated activities is under smallholder holder production while the rest is large scale production managed by the private sector. Large scale public irrigation schemes are managed under the National Irrigation Board (NIB) which manages seven (7) irrigation schemes - Mwea, Ahero, Bunyala and West Kano which produce rice, while Bura, Tana River and Pekerra produce maize. Besides rice and maize, there are other crops grown within these schemes including onions, tomatoes, watermelons, pulses, cotton, sorghum and other horticultural crops. Public schemes are not fully utilized and only cover about 43,000 acres against gazetted area of 70,626 acres, implying that there is room for expansion. Moreover, irrigated area has declined over time although the value of output has remained constant (Figure 7.4).

Opportunity for irrigation exists in ASALs where about 24 million hectares have potential to support livestock production and 9.2 million hectares for irrigated agriculture.

The Galana/Kulalu irrigation project was initiated to boost Kenya's food security but its success depends on effective implementation and improved productivity. The project targets 400,000 acres with 10,000 acres model farm in phase one. A total of Ksh 7.2 billion has been invested in 3,000 acres resulting in 132,980 bags of 50 kg maize equivalent to 31 bags (90kg) per acre. The second phase of 400,000 acres is expected to cost Ksh 400 billion. Besides NIB-managed schemes, over 87,000 acres of land has been irrigated by county governments, 30 per cent of which is in Turkana County while 56,846 acres are earmarked for irrigation across various counties at a cost of Ksh 20,449 million (Figure 7.5).

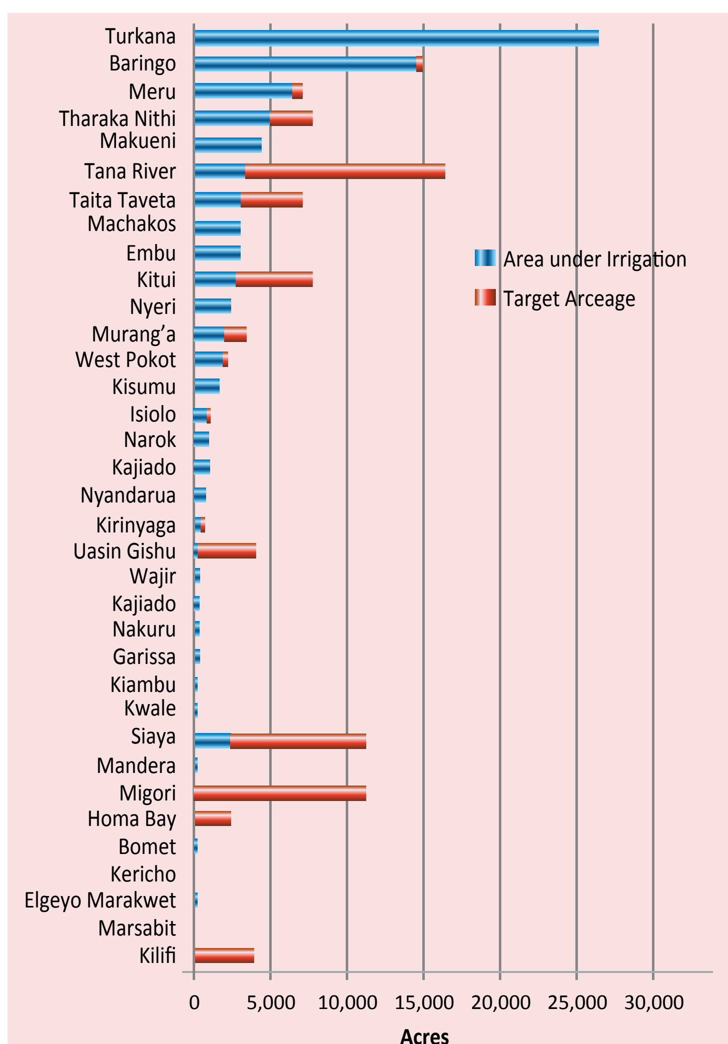
Water availability is a major constraint in Kenya's efforts to expanding large scale irrigation activities. This is because the country is water scarce with unequitable distribution of water resources across the water basins which will necessitate investments in inter-basin transfer to areas with irrigable land. In addition, only 30 per cent of the target irrigation area can be achieved with the available water resources

Figure 7.4: Trends in irrigated area and value of agricultural output in Kenya



Data Source: Kenya National Bureau of Statistics (2017), Economy Survey

Figure 7.5: Irrigated area and target by county government



Data Source: NIB (2018); NIB database: www.nib.or.ke/projects/irrigation-projects-per-county

The projected demand will lead to deficits across the catchment areas with highest deficits in Tana River (5.8 BCM per year) and Athi (4.1 BCM per year) and Ewaso Nyiro North catchment areas earmarked for additional irrigation. Thus, investments in large scale irrigation will require a careful appraisal taking into consideration the water constraint. Promoting small scale irrigation schemes would also be essential in meeting the country's food security target.

At small scale level, the government is promoting greenhouse agro-technology initiatives to build farmers resilience to climate change. Through the expanded national irrigation programme, these initiatives target organized groups and learning institutions across the country. So far, 105 greenhouses have been distributed across eight (8) counties (Figure 7.6), at an average unit cost of Ksh 150,000. These technologies are mainly used to grow high value crops that are important sources of household income. The programme could be expanded to cover counties particularly vulnerable to climate change.

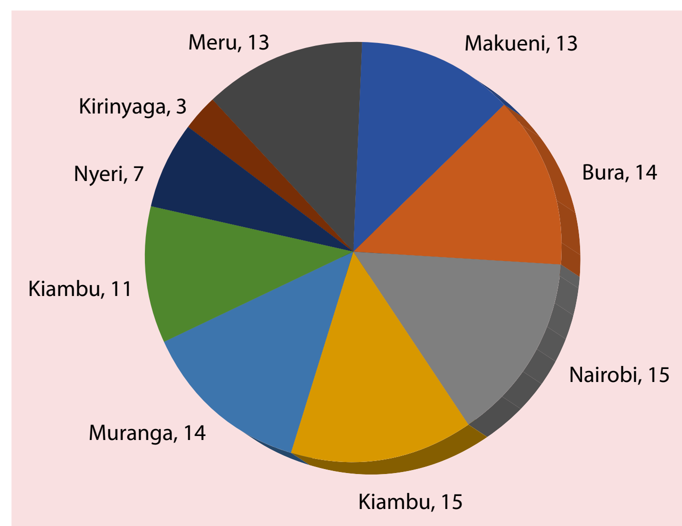
while the rest will require increasing the country's water storage. The National Water Master Plan 2030 puts the country's annual freshwater resources at 22 billion cubic metres (BCM) distributed in six catchment areas: Lake Victoria North (4.7 BCM), Lake Victoria South (4.9 BCM), Rift Valley (2.6 BCM), Athi River (1.5 BCM), Tana (6.5 BCM) and Ewaso Nyiro North (2.3 BCM). Compared to the 2010 baseline, demand for water in 2030 far outstrips availability with irrigation recording the highest demand (assuming the 1.2 million-hectare target is realized) followed by industrial, domestic and livestock usage (Table 7.4).

Table 7.4: Changes in water demand for key user (MCM/year)

	2010	2030	% change
Freshwater availability	22.56	26.64	18
Total demand	3.22	21.47	567
Industrial	0.13	0.28	124
Livestock	0.26	0.50	95
Domestic	1.19	2.56	116
Irrigation	1.60	18.05	1027%

Data source: Japan International Cooperation Agency (2013)

Figure 7.6: Distribution of expanded national irrigation programme greenhouses



Data Source: National Irrigation Board (2018), www.nib.or.ke/projects/irrigation-projects-per-county

In the "Big Four" agenda, putting additional 700,000 acres of land under irrigation is expected to contribute towards realizing the national food and nutrition security. Given that water and land are the two main constraints in achieving this goal calls for investments in areas with the highest potential as defined in the National Water Master Plan. This means establishing medium scale projects across the country's water catchments based on this respective water resource potential.

7.3.2 Performance in livestock production

Meat production

Meat is the most important livestock product and the main staple food in ASALs. In 2016, meat production increased both in quantity and value making the country sufficient in meat supply (Table 7.5). Kenya's pastoral areas supply close to two-thirds of Kenya's meat requirements with significant portion (20% to 25%) coming from livestock originating in neighbouring countries (Ethiopia, Somalia, Tanzania and Uganda), making Kenya a meat deficit country. Private ground ranches located in various counties mainly produce for export. Initiatives to promote rabbit meat have not been effective and its consumption has mainly been limited.

Implementation of the Vision 2030 flagship projects on Disease-Free Zones (DFZs) seeks to improve access of livestock products to local, regional and international markets. To this end, the government through the Department of Veterinary Services has over the years conducted campaigns on animal vaccination against foot and mouth diseases and other trade-related sensitive diseases. Additional measures are needed on the use of advanced reporting system using Digital Pen Technology to substantially improve the Department's capacity and speed up monitoring and reporting of disease incidences across the country. To be effective, these strategies need to be integrated with other variables such as pasture and water availability.

In 2016, a total of 13 zonal office blocks were under construction at the Coastal DFZ. Four (4) baseline surveys for target diseases were undertaken and four (4) strategies for target diseases developed. In addition, three (3) draft contingency plans for livestock diseases were developed. Despite these measures, the country continues to export live

Table 7.5: Kenya's meat production (MT) between 2015 and 2016

Products	2015		2016	
	Quantity (MT)	Value (Ksh millions)	Quantity (MT)	Value (Ksh millions)
Beef	489,064.73	179,662.61	528,989.94	206,670.58
Chevon	35,856.55	15,197.67	50,468.08	20,441.78
Mutton	26,692.19	10,979.03	27,900.97	11,401.80
Pork	9,715.00	3,597.48	10,767.50	3,767.85
Rabbit	1,060.10	403.20	940.96	380.35
Poultry	45,937.90	20,199.80	64,308.68	28,766.71
Camel	18,361.40	6,998.45	18,714.72	7,449.96
Total	**626,687.86**	**237,038.24**	**702,090.85**	**278,879.02**

Source: Kenya National Bureau of Statistics (2017), Statistical Abstract

animals mainly to the Middle-east while the goal of accessing the EU market with stringent regime for products is yet to be realized due to challenges confronting the Kenya Meat Commission (KMC), the country's biggest abattoir.

Box 7.1: Role of Kenya Meat Commission in the Meat Value Chain

The Kenya Meat Commission (KMC) was established in 1950 to accelerate meat exports and promote the country's meat industry through purchase and slaughter of livestock products in the local and export markets. At the height of its operations in the 1970s, KMC products and brands were household names in the East African, Middle East and EU countries (accounting for 66% of EU market). It had holding grounds that guaranteed consistent and sustained supply of meat at the required quality. However, under liberalized regime, KMC experienced major challenges leading to its closure. This happened at the backdrop of rapid urbanization and increasing purchasing power both at the domestic and global market. After six years, the government injected additional funds and revived the Commission which resulted to an increase of meat as KMC was used as an export-licensed facility by private exporters. Tanzania and the UAE are Kenya's most consistent markets for meat exports, although Qatar, Oman, Kuwait, Somalia and Egypt are growing as important export destinations. KMC still faces various challenges, including obsolete machinery and equipment, weak management, and lack of clarity of the value chain, thus hindering the much-desired transformation in the livestock sector.

Generally, livestock prices drop during droughts and peak during festive seasons. Meat has however maintained a consistent price, indicative of cartel-like behaviour at the terminal markets. Butchers and middlemen who act as the interface between livestock producers and consumers control the price of livestock at major domestic markets and by extension the volume of the national red meat consumption. Producer's share of income ranges from 47-52 per cent depending on the butchery outlet mainly due to high cost of transport as truck owners charge more for livestock than consumer goods. The long distance between livestock producing areas and major market outlets increases the transportation cost.

Dairy production

Kenya's annual milk production from all dairy species is estimated at about 3 billion litres of which 45 per cent is consumed at farm household level while the rest is sold for local consumption and exports. The production systems can be divided into two general categories, large-scale and small-scale. The differences between the two dairy systems are in their sizes of operation, level of management and use of inputs. Dairy cattle in smallholdings feed mainly from forage and very small quantities of concentrate but large-scale dairy farmers are highly commercial and well versed in dairy production with high-quality management.

Smallholder dairy farmers dominate the industry at the production level contributing more than 70 per cent of gross marketed production from farms. In general, smallholders each have 3 to 5 acres (1.2 to 2.0 ha) of land although some have slightly more than 20 acres (8 ha) and others less than 0.5 acre (0.2 ha) – and about two to five head of cattle yielding about 5 kg of milk per cow per day. Milk sales are low at less than 10 kg per day. The use of inputs is low but varies depending on community traditions and the level of market orientation.

According to the Kenya Dairy Board, there are 30 licensed large-scale processors in Kenya although five (5) are dominant. These are Brookside Dairy Ltd (38%), New Kenya Cooperative Creameries (23%), Githunguri Dairy Farmers Cooperative Society (14%), Sammer (4%) and Buzeki Dairy (4%). These processors have established cooling stations strategically within their targeted raw milk collection areas. Milk production trends for the large-scale producers is shown in Figure 7.7 (a) and (b).

Figure 7.7(a): Total annual milk consumption

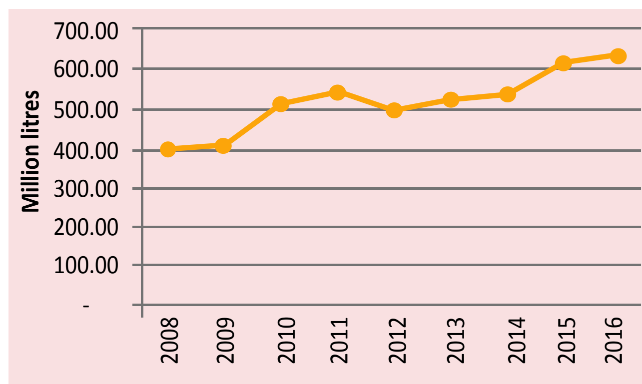
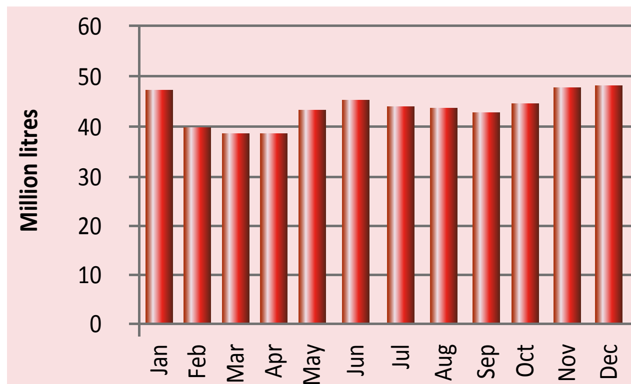


Figure 7.7(b): Average monthly consumption



Data Source: Kenya Dairy Board; www.kdb.co.ke/contact/milk-intake-2001-2016

Milk production fluctuates across the seasons because the yield depends on weather. During high production, the processors lack the capacity to absorb all the milk availed but the situation changes during dry spells when production diminishes and processors' production capacity remains idle. The period between February and April experiences the lowest production because of the effect of changes in weather on animal health.

Milk product safety is controlled through the food safety standards and regulations contained in two main laws—the Dairy Industry Act (CAP 336) and the Public Health Act (CAP 242)—neither of which is very effective. The negative environmental impacts of dairy production activities include loss of vegetation through overgrazing and pollution from industrial processing. Weakness in regulation of animal feeds has raised concerns on the health safety of dairy products in the market while increased milk hawking poses a major health risk.

More than half of the milk is marketed through traders, cooperatives, hotels and kiosks. An estimated 84 per cent of the milk produced is sold in raw form to consumers, providing instant cash or higher prices to farmers. This compromises product quality while offering direct competition to the dairy processing industry. Despite the government actively discouraging selling of 'hawked' milk, the activity continues to grow with grave consequences to the processing sector.

Dairy is faced with the problem of high costs of production due to its small-scale nature and a highly fragmented processing. In addition, poor infrastructure, especially roads and electricity, and lack of storage facilities lead to milk spoilage and loss at the farm. Despite recent investments by the major dairies and cooperatives, their capacity to convert excess milk into long life products remains low.

Despite these challenges, Kenya should take advantage of her relatively advanced dairy industry to grow her market share in Sub-Saharan Africa. Investment in the production of animal feeds, control of endemic diseases, and improved market linkage will be essential in transforming Kenya's livestock sector.

7.3.3 Fisheries and the blue economy

Fisheries and aquaculture account for a small portion of the country's GDP with less than 1 per cent over the past decade but supports over two (2) million people through fishing, boat building, equipment repair, fish processing, and other ancillary activities. Besides, fish is an important source of protein and foreign exchange earnings. Freshwater is the most important source of fish accounting for 91 per cent in 2016 although its contribution has reduced over time (Table 7.6). The reduction is due to several factors, among them over fishing, high pollution level, water hyacinth and unsustainable fishing

Table 7.6: Value of fish catches in Kenya (Ksh millions), 2013-2016

	2013	2014	2015	2016
Freshwater	19,984,330	20,940,907	18,983,000	16,836,000
Marine	921,391	1,072,278	1,360,289	1,271,763
Crustaceans	286,450	243,032	397,584	267,840
Molluscs	90,332	125,356	118,643	141,177
Total	21,282,503	22,381,573	20,859,516	18,516,780
% of freshwater	94%	94%	91%	91%

Data Source: KNBS (2017), Statistical Abstract(XX)

practices. Kenya has a maritime territory of 230,000 square kilometres and 200 nautical miles offshore, which is equivalent to 31 of the 47 counties. Kenya has the potential to produce 150,000–300,000 metric tonnes of fish annually, but only 9,000 metric tonnes are exploited.

The national fish production in 2016 by fish categories were as follows: inland fisheries 104,602 metric tonnes (81%), aquaculture production 14,942 tonnes (14%) and marine artisanal fish 9,095 tonnes (7%). Aquaculture production decreased from 24,096 metric tonnes in 2014 to 18,656 tonnes and 14,952 tonnes, respectively, in 2015 and 2016. The decline in production in this period was due to poor extension access and erratic rains.

Several factors limit the full realization of the fisheries and blue economy potential. These include inadequate supportive infrastructure such as cold storage, roads, fish port and electricity; environmental degradation due to invasive weeds such as water hyacinth; weak producer organizations; lack of collateral and access to credit facilities; ineffective marketing information; and lack of adequate and quality fish seed and feed.

To unlock the potential, the government included the blue economy as the seventh sector under the economic pillar of MTPIII and the Vision 2030 development agenda and enacted the Fisheries Management and Development Act 2016 as a regulatory and institutional framework for the development of the sector. The Act provides for the establishment of the Kenya Fisheries Advisory Council, Kenya Fisheries Service, and the Fish Marketing Authority although these are yet to become operational. Further, it provides for the establishment of the Fisheries Research and Development Fund and the Fish Levy Trust Fund to support fisheries management and implement obligations under international law concerning fisheries. In the freshwater fisheries, interventions are aimed at promoting cage culture to reverse the declining trend in Lake Victoria. Campaigns on fish consumption have been mounted to promote per capita fish consumption from 4.6 kg to African average of 10 kg.

Kenya's marine resource is under-exploited due to lack of capacity to access the marine resource in the Exclusive Economic Zones (EEZs). However, the government has procured a 55.6-meter-long Deep-Sea Research Vessel to improve surveillance of the EEZ and has commissioned the construction of an offshore patrol boat to deter illegal fishing activities. It has also banned foreign vessels from Kenya's EEZ.

Under the "Big Four" agenda, the government has also set to increase the volume of fish landed from 2,500 metric tonnes per year to 18,000 metric tonnes by revolutionizing commercialized feedlots for fish and provision of incentives for post-harvest management. In addition, fisheries, aquaculture and blue economy policies, infrastructure and capacities will be developed and implemented to accelerate growth in the sector. The targets are high and will require assessment of the level of fisheries resources, giving emphasis to marine fisheries. This will guide investment in areas such as public-private partnerships, product development, exchange of intellectual property, and financial and human resources development. It will also be important for the country to work towards meeting the requirements under the fisheries certification schemes to access niche markets.

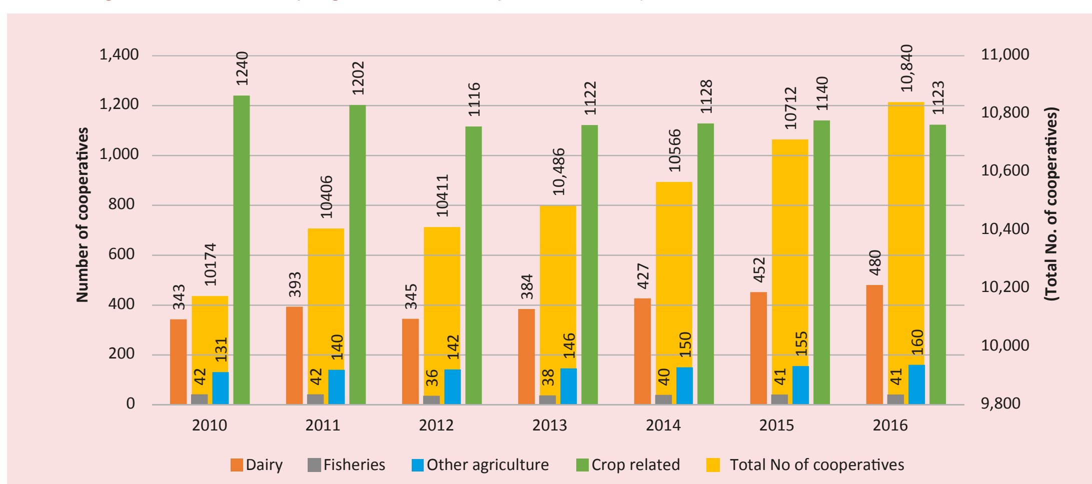
7.4 Role of Agricultural Cooperatives in Food Security

Cooperatives play a critical role in agriculture development, in marketing, farm supplies and services. However, a relatively small number of cooperatives are engaged in agriculture. Between 2010 and 2016, the total number of cooperatives increased from 10,174 to 10,840 representing 6.5 per cent increase with the number of agricultural cooperatives increasing from 1,756 to 1,804 (2.7% increase). Over 1,123 (60%) of agriculture cooperatives were involved in crop production with only 41 in fisheries (Figure 7.8). This leaves a huge gap considering the expected role of fisheries in the "Big Four" agenda. Income from agricultural cooperatives as a share of total revenue also declined from 20.2 per cent in 2010 to 12.4 per cent in 2016 with revenue from fisheries having recorded a steeper decline.

patterns in prices, and training in new technologies. Exposure to such activities is solely intended to increase the ability of farmers to optimize the use of their resources and ultimately increase crops yields. Strengthening extension services is therefore one of the critical change agents required to transform subsistence farming to modern and commercial agriculture as envisaged in the Vision 2030. This is critically important in promoting household food security, improving incomes and reducing poverty.

Several approaches are used in extension services, including demonstrations, farmer contact through agents, farmer field schools, radio and TV, Internet, and information education and communication (IEC) materials. Ideal extension services provide feedback mechanisms from the farmers to the research centres.

Figure 7.8: Share of agriculture and fisheries cooperatives and income, 2010-2016



Data Source: Kenya National Bureau of Statistics (2017), Statistical Abstract

7.5 Role of Extension Service in Agriculture

Agriculture extension services if properly designed and implemented improve agricultural productivity and food security. Extension services provide farmers with important information for decision making such as new seed varieties, management practices with respect to crop cultivation and marketing,

Kenya's extension system is a product of gradual evolution in extension management practices and the entry of the private sector, non-governmental organizations (NGOs) and civil society players in response to changes in economic policies. The changes have implications on how extension is managed, the approaches and methods applied, how key stakeholders are coordinated and linked, and on the most optimal way of financing extension service

in the country. Other extension service providers include NGOs, community-based and faith-based organizations. The entry of these players has helped fill the gap created by the reduced presence of public sector extension service.

For a long time, extension service was dominated by the public sector through respective departments of extension in the sector ministries. Until the late 1980s, public extension service was well staffed up to the sub-location level and adequately facilitated to perform its duties. However, following structural adjustment programmes, public extension services faced constraints due to declining human, capital and financial resources without a corresponding increase in private sector participation, uncoordinated pluralistic extension service delivery, and poor linkages with extension facilitating factors (mainly research, farmers).

Currently, extension services are offered through either or a mixture of three different models: (i) Model 1: free public extension services mostly to smallholder farmers engaged in growing staple foods and minor cash crops across all the agro-ecological zones; (ii) Model 2: partial cost-shared provision of extension services mostly within the public sector where limited commercialization has taken place; (iii) Model 3: fully commercialized and mostly involving the private sector (e.g. private companies and cooperatives) and quasi-public organizations mainly for specific commodities such as tea, coffee, sugar, pyrethrum, barley, tobacco, horticulture and dairy. Under this system, extension services are usually embedded in agricultural services.

The National Agricultural Sector Extension Policy (NASEP) 2012 was formulated to promote a sector-wide approach and address key sectoral issues in the delivery of extension services. The policy advocates demand-driven extension services and preparation of other players in the delivery of extension services. It recognizes the need to diversify, decentralize and strengthen the provision of extra services with a view to increasing sustainability and relevance to farms. The policy advocates for devolution of extension by empowering county and lower levels to participate in priority setting, designing projects and programmes, and allocating resources and by establishing a harmonized institutional framework for coordinating all extension programmes/ projects within the sector. The policy calls for the establishment of an independent regulatory body to register and license Extension Service Providers (ESPs) to develop guidelines, code of ethics and enforceable working standards for ESPs with respect to quality assurance and monitoring (Government of Kenya, 2012).

Despite strides made on the policy front, there are gaps in provision of extension as most counties have barely taken up extension services. Poor linkages and coordination has been noted in farmer's participation particularly in agricultural extension in the current devolved government system.

7.6 Investments in Agriculture Sector

7.6.1 Analysis of public expenditure in agriculture

Investment in agriculture is essential if the sector is to fulfil its function of contributing to economic development, poverty reduction and food security. Under the CAADP framework, countries are expected to invest at least 10 per cent of public expenditure in agriculture. In Kenya, the National Agriculture Investment Plan (NAIP) provides a roadmap to achieving the targets within the four pillars of sustainable land and water management, increasing market access, increasing food supply and reducing hunger, and promoting agricultural research and extension. The NAIP covered the period 2013–2017 and proposed a budget of Ksh 454 billion with the government expected to meet about 68 per cent of the funds, donors 31 per cent and the private sector 1 per cent (Table 7.7).

Table 7.7: Budget requirement for agriculture investment (Ksh millions)

Investment priorities (Ksh millions)	2012/13	2013/14	2014/15	2015/16	2016/17
Consolidated agricultural reforms	3,000	2,000	1,000	500	500
Fertilizer cost reduction	10,000	10,000	10,000	1,000	500
Accelerated agriculture inputs	3,000	3,000	3,000	3,000	3,000
Irrigation development	67,000	61,000	68,000	66,000	58,000
Agro-processing	1,000	1,000	1,000	1,000	1,000
Agriculture financial services	3,000	3,000	3,000	3,000	3,000
Livestock marketing	2,026	1,550	1,560	1,560	560
ASAL development	5,000	5,000	5,000	5,000	5,000
Establishment of Disease-Free Zones	760	880	812	870	774
Livestock insurance	2,000	2,200	2,400	2,500	2,500
Northern Kenya investment fund	2,000	2,000	-	-	-
Drought response	750	750	600	500	500
Fisheries development	10,600	10,500	8,700	8,500	8,300
Spatial planning	2,594	2,137	1,156	1,161	1,167
Total	**101,980**	**94,067**	**97,228**	**85,591**	**75,801**

Data Source: Government of Kenya (2013)

The budget for irrigation development is more than half the total budget pointing to the importance of irrigation in transforming agriculture. Analysis of expenditure for the period 2014-2017 shows gaps in funding of NAIP priority for all the years (Table 7.8). The average annual sector allocation for the "Big Four" MTEF budget cycle have marginally increased to Ksh 35,370 million from the 2014/15-2016/17 cycle (Ksh 34,489 million).

Following devolution, national expenditure in agriculture has declined while county governments have increased their spending. At national level, expenditure on agriculture as a share of total expenditure in 2016 was 0.8 per cent, a decline from 4.6 per cent in 2015. The reduction is due to the finalization of several draft policy processes initiated in 2013.

Investment in agriculture falls into ten broad categories (Table 7.9). Between 2014 and 2017, expenditure in agriculture support activities had the highest share (23%) of agriculture spending. The specific activities funded include nutrition, rural

Table 7.8: Analysis of expenditure in agriculture and expected budget under the "Big Four"

	MTEF Sector Expenditure			"Big Four" Proposed Budget		
	2014/15	2015/16	2016/17	2018/19	2019/20	2020/21
Agriculture	30,301	19,639	20,835	16,484	17,622	18,539
Livestock	3,111	3,078	4,452	11,002	11,689	12,183
Fisheries	5,263	5,163	9,609	3,917	4,208	4,408
Total Expenditure	**38,675**	**27,880**	**36,913**	**33,421**	**35,538**	**37,150**
NAIP budget	97,228	85,591	75,801			
Variation	58,553	57,711	38,888			

Data Source: Government of Kenya (2018a); Government of Kenya (2018b)

Table 7.9: Priority investment in agriculture related activities

(Ksh million)	2014/15	2015/16	2016/17
Variable inputs	47	33	4,623
Capital	6,328	1,052	261
On-farm services	1,746	148	68
Agricultural research	7,016	3,012	3,828
Technical assistance	8,146	3,422	4,851
Training	23,640	753	592
Extension/technology transfer	2,738	125	5,457
Inspection (veterinary/plant)	976	943	770
Infrastructure	2,588	0	30
Marketing	6,827	7,086	1,562
Agriculture-supportive policies	20,469	0	0
Others	1,028	31	13,080
Total	**81,552**	**16,604**	**35,123**

Data Source: KIPPRA, Monitoring African Food and Agriculture Policies (MAFAP), 2018

roads and regional development authorities (Kerio Valley Development Authority, Tana and Athi River Development Authority, Lake Basin Development Authority, Ewaso Nyiro South Development Authority, Ewaso Nyiro North Development Authority, and Coast Development Authority).

Agriculture training was the second highest accounting for 21 per cent of total investments. Expenditure under this category captures investments in various agricultural training colleges under the Ministry of Agriculture, Livestock and Fisheries and those in other institutions, including agriculture-related programmes in local universities.

Although the MAFAP data include expenditure in a support activity implemented in other sectors (health, education, roads, energy), the total investment falls short of required resources. There is also weak alignment between investment areas and NAIP priorities.

In 2016, total expenditure in agriculture at the national level was Ksh 34.9 billion, an increase from Ksh 27.9 billion in 2015. Expenditure in the crop sub-sector accounted for 60 per cent, livestock 27 per cent and the fisheries and blue economy 13 per cent. Development expenditure accounted for 73 per cent of total spending in 2015 and 66 per cent in 2014. The decline is due to reduced involvement in direct implementation by the national government as county governments take up more functions defined in the Fourth Schedule of the Constitution.

The share of fisheries and blue economy in the sector spending increased steady from 8 per cent in 2014 to 12.8 per cent in 2016 signifying the growing importance of the sub-sector particularly in aspects of blue economy in the country's overall development. Analysis of the budget allocation, expenditure and absorption rate in the sector programmes is presented in Table 7.10.

The average absorption rate for 2016 was 81 per cent, a decline from 88 per cent in 2015 and 86 per cent in 2014. This was mainly attributed to slow implementation of activities during the period preceding the 2017 elections. Completion rate was highest in the fisheries and blue economy sub-sector (97%) followed by agriculture policy (94%) and crop development (90%). The high absorption rate indicates the improved capacity of the sector to deliver food security-related programmes.

At the county level, agriculture expenditure as a share of total expenditure varies greatly across counties. In 2016, counties spent Ksh 10,124 million in agriculture out of a total of Ksh 106,587 million equivalent to 9 per cent. Makueni had the highest proportion (33%) followed by Baringo (26%) and Turkana (21%). Counties with the lowest share were Mombasa (0.3%), Vihiga (10.4%), Homa Bay (1.1%), Kajiado (1.3%), Garissa (1.4%) and Narok (1.5%).

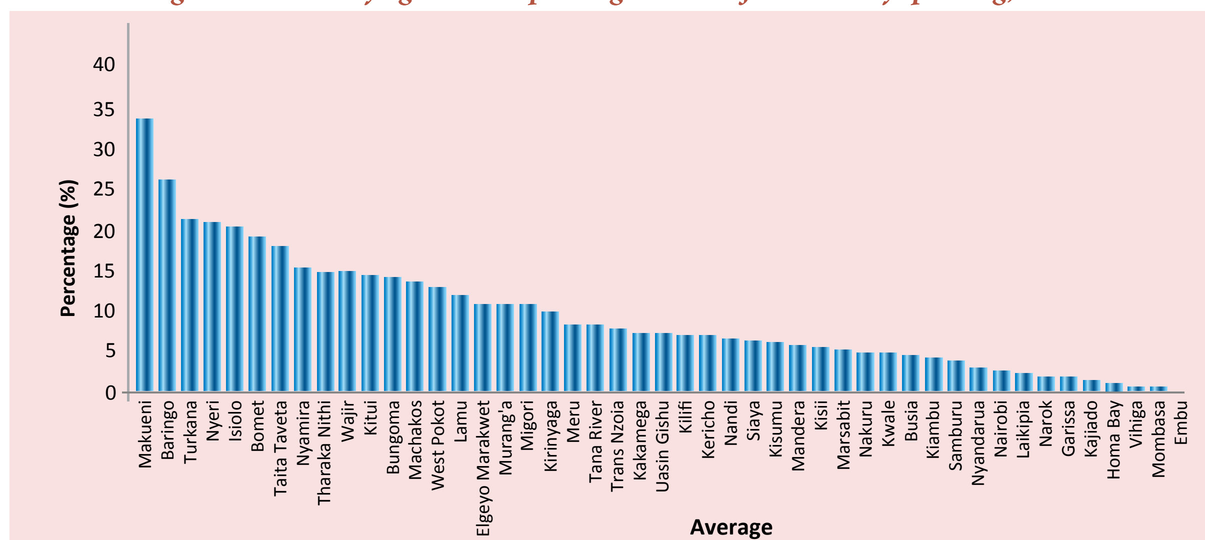
The expenditure levels by county government are worrying given that most functions in agriculture are devolved. Counties traditionally considered as the

Table 7.10: Budget allocation and expenditure in agriculture programmes

(Ksh. Million)	2014/15			2015/16			2016/17		
	Allocation	**Expenditure**	**Absorption (%)**	**Allocation**	**Expenditure**	**Absorption (%)**	**Allocation**	**Expenditure**	**Absorption (%)**
Agriculture policy reform	1,838	1,447	79	1,373	1,167	85	3,215	3,028	94
Crop development	16,560	14,833	90	9,255	7,310	79	19,450	17,554	90
Agribusiness development	4,769	4,663	98	5,978	5,666	95	412	253	61
Irrigation and drainage	15,897	9,358	59	5,496	5,496	100	-	-	-
Livestock resource management	5,534	5,263	95	6,080	5,162	85	15,315	9,609	63
Fisheries and blue economy	3,218	3,111	97	3,724	3,078	83	4,573	4,452	97
Total	**47,816**	**38,675**	**86**	**31,906**	**27,879**	**88**	**42,965**	**34,896**	**81**

Data Source: Government of Kenya (2018a). NB: (-) means data is not available

Figure 7.9: Country agriculture spending as share of total county spending, 2016



Source: Office of the Controller of Budget (2017)

country's 'food baskets' (Trans Nzoia, Uasin Gishu, Nakuru, Kisii, Nyandarua, Laikipia, Narok) have low agriculture spending. Agriculture investments at the county level are used in ten main activities. Extensions services, though an important service in agriculture development, is not among the priorities for the counties.

7.6.2 Credit to agriculture

Availing agricultural credit to smallholder farmers is essential to unlocking long-term sustainable gains in productivity and incomes (Hong and Hanson, 2016). Credit enables farmers to meet the high upfront costs of inputs such as quality seed and fertilizer, reduce use of poor quality seed, and

increase the quantity of fertilizer. Without access to credit, farmers may be unable to purchase or rent tools that increase efficiency and reduce labour costs. Additionally, without access to credit, a farmer might be compelled to sell any crop surplus immediately after harvest when prices are typically at a seasonal low.

Access to bank credit by farmers is still a major challenge even though Kenya has a relatively well-developed banking system. This is attributable to the perceived risk of lending to farmers. Farmers' lumpy and irregular income streams, poor productivity, outmoded agricultural practices, and seasonal crop cycles all pose unique challenges to financial service providers (DfID, 2004). In addition, complicated land laws and tenure systems limit the use of land as collateral making financing agriculture unattractive to the formal banking industry. Moreover, credit to agriculture was constrained by introduction of the capping of interest rates through the Banking (Amendment) Act 2016 which set limits on lending and deposit rates. Banks responded by tightening credit standards thus affecting loans to several sectors including agriculture. The main effect in agriculture was the rise in the average loan size by 51.7 per cent between October 2016 and June 2017. This constrained access to credit among small scale borrowers who dominate the sector.

Additionally, perceived corruption and political interference in the operations of state-owned banks and weakness in the court system in the past encouraged defaulting that led to high numbers of nonperforming loans (Government of Kenya, 2010). This development forced many banks to charge their customers (including farmers) prohibitively high interest rates to remain afloat. Limited competition in the banking industry despite the large number of banks has also meant that interest rates have remained high. The cost of bank credit and the limited number of banks in rural areas are some of the factors that make it difficult for farmers to access bank credit.

Consequently, commercial bank lending to agriculture in Kenya is very low, averaging 3 per cent of the banks' overall credit between 2013 and 2017 (Central Bank of Kenya, 2017a). The risky nature of rain-fed agriculture and lack of collateral by peasant farmers discourage commercial banks from providing loans to agriculture activities. However, with commercialization of the sector, the trend is slowly changing and the number of commercial banks and other financial institutions engaging in agriculture is increasing. Equity Bank was the only bank offering agricultural credit in the 2000s but has since been joined by Cooperative Bank, Kenya Commercial Bank, and Family Bank. There is also a growing number of microfinance institutions (SACCOs and community banks), financial NGOs and faith-based organizations involved in rural credit operations (Karugia et al., 2014). These institutions support projects tailored to donate funds to serve as loan guarantees for poor farmers or to provide crop or livestock insurance (Table 7.11).

Table 7.11: Agriculture advances as a share of non-life insurance, 2012-2016

	Agriculture (Ksh '000)	Total (Ksh '000)	%
2012	270,377	2,009,200	13.46
2013	307,460	1,855,047	16.57
2014	275,970	1,852,283	14.90
2015	298,894	1,454,986	20.54
2016	13,653	3,794,802	0.36

Source: Kenya National Bureau of Statistics (2017), Statistical Abstract

Most of loans in agriculture are in the livestock sub-sector because of relatively high commercialization and therefore low default rate. The Kenya Livestock Insurance Programme (KLIP) was piloted in 2015 in Wajir and Turkana counties covering 5,000 households. However, insurance uptake remains low because most producers are risk averse. The development of insurance policies meant to cushion producers against the vagaries of weather is yet to be exploited. Crop insurance products are very few but there is growing interest as producers are

increasingly facing the risk of climate variability. In 2016, 230,000 farmers in ten counties were assisted to purchase crop insurance products under the Crop Insurance Project.

The Agricultural Finance Corporation (AFC) established in 1963 provides agribusiness financial services to support agriculture development. AFC has five main products, namely: seasonal crop credit; general agribusiness loan; asset finance (machinery); livestock and fisheries loans; and horticulture and floriculture loans. Loans are accessed using title deeds as collateral, thus excluding other farmers.

Table 7.12: Approved Agriculture Finance Corporation loans, Ksh million, in 2013-2016

	2013	2014	2015	2016
Purchase of land	31	0	18	13
Dairy cattle	669	18	1,566	1,240
Steers	497	36	367	303
Sheep and pigs	1	24	90	71
Poultry and fish	42	109	267	253
Pasture management	378	7	0	1
Water and irrigation	0	55	2,582	15
Farm machinery	16	27	13	27
Farm building	43	15	5	4
Drugs and medicine	1,200	819	1,927	2,376
Total	**2,877**	**1,110**	**6,835**	**4,303**

Data Source: Kenya National Bureau of Statistics (2017), Statistical Abstract

According to Table 7.12, no single loan was advanced to interventions in fisheries and blue economy. The high default rate over the years limits the capacity of AFC to increase its scope and coverage.

7.7 Key Recommendations

The following measures will be critical in bringing about the desired transformation in agriculture towards meeting the country's food security.

- Bridging the huge yields gaps in agricultural commodities should be at the core of any strategies to growth and development of the agriculture sector. The national and county governments could devise measures to bring down the cost of farm inputs particularly seeds and fertilizer while ensuring appropriate quality. Such measures could include subsidies, research and quality assurance, and promotion of adoption of new breeds by farmers to replace outdated ones.

- High post-harvest losses and low value addition can be addressed in several ways, including through improved agriculture-related infrastructure particularly in rural areas to improve connectivity between producers and consumers. Such infrastructure should extend beyond supporting primary agricultural production to development of agro-processing industries to reduce post-harvest losses and increase value addition.

- Revamping the country's extension services will be a key priority in kick-starting the much-needed agricultural transformation towards achieving the "Big Four" targets in agriculture. Extension workers should be trained to broaden their scope beyond primary production to include areas such as agribusiness and value addition. The scope should be extended to cover all sub-sectors of agriculture while at the same time encouraging innovation.

- Building the country's capacity through human capacity development and procurement of appropriate fishing gear/technology will be essential in exploiting the country's vast marine resources. The initiatives that have been started in this direction should be scaled up.

- Given the country's water demand and declining irrigated area in the country's large irrigation schemes, there is need to focus more on smallholder irrigation projects rather than large schemes which require sophisticated

technologies and management skills. This will mean promoting community projects in various parts of the country, including in areas with fairly limited water resources to address food access and distribution challenges in all regions.

- Smooth and reliable domestic agricultural trade can foster agricultural investment by facilitating market access and increasing rates of return on investment. The roadblocks used to control the movement of agricultural products between counties and to collect charges and cess cause delays and affect food security. They result in heavy losses particularly of perishable products, stifle investment by reducing the profit margins for traders, and increase the cost of food. Regulations limiting domestic agricultural trade should therefore be avoided. This should be extended to the EAC region by minimizing arbitrary bans on food exports.

- Given that agriculture is devolved, county governments should prioritize the sector by increasing the share of investments in agriculture and agriculture-supporting services particularly rural access roads to improve mobility of food and inputs within and across counties.

National Produce and Cereals Board grain storage facilities on Outer Ring Road, Nairobi

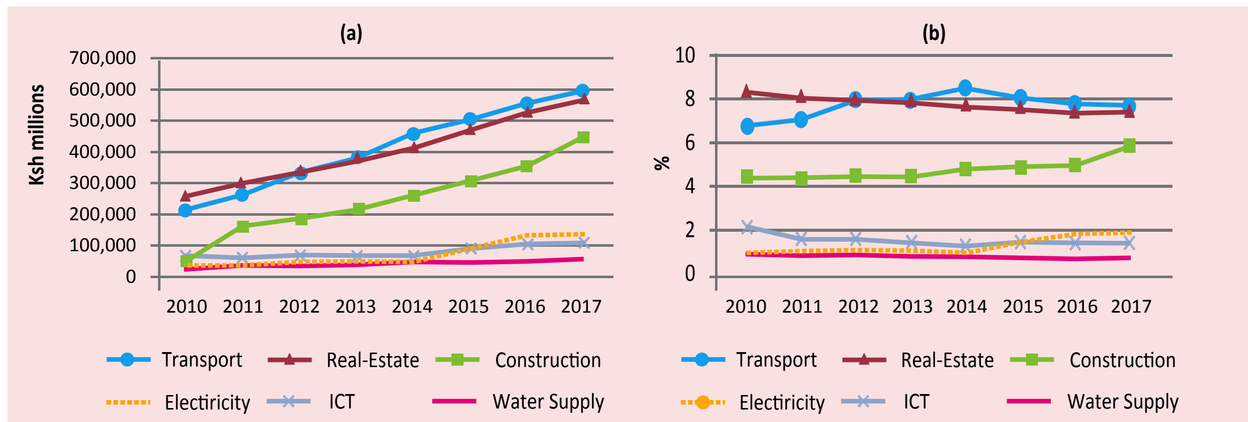
Chapter 8 Reengineering Infrastructure Investments to Boost Productivity

Infrastructure development is critical in building a foundation for strong economic growth and development. It expands the capacity to grow economic activity and enhances productivity. Kenya through Vision 2030 seeks to deploy cost-effective and world class infrastructure facilities. With continued government investment, the quality and adequacy of infrastructure services including transportation, energy, communication, housing, water and sanitation has improved but significant infrastructure gaps persist. Infrastructure development helps reduce the cost of doing business for firms, and enables scaling up of standards of living for consumers. In this context, the Government of Kenya in the "Big Four" agenda targets to make 500,000 new home owners by 2022 under the affordable housing programme in addition to completing the flagship projects under the Kenya Vision 2030. Heavy investments are required to successfully complete priority infrastructure projects on time. In this regard, a robust resource mobilization strategy is necessary to fully exploit opportunities available both locally and internationally. In addition, integrated investment planning will support in building synergy in infrastructure investment and avoid wastage. Furthermore, a high level of cooperation will be needed to support national and county governments in making their contribution.

8.1 Infrastructure Sector Performance

The infrastructure sector contributes Ksh 1.9 trillion to GDP which is about 24 per cent of GDP inclusive of transport (7.7%), real estate (7.4%), construction (5.8%), electricity (1.8%), ICT (1.4%) and water supply (0.7%) (Figure 8.1b). The sector plays a critical role in the economy not only as an enabler towards productivity of other sectors but as a core contributor to GDP. For instance, road services are particularly critical for agriculture, manufacturing and trade. Housing is key in social development through residential units and for business through commercial units. ICT has revitalized the financial sector besides enabling access to information by all sectors. Affordable electricity is significant in improving the country's competitiveness in manufacturing. Water infrastructure is important for irrigated agriculture and provision of adequate water for domestic and industry use.

Figure 8.1: Contribution of infrastructure sub-sectors to GDP



Source of Data: Kenya National Bureau of Statistics (2017), Statistical Abstract

In terms of employment, the infrastructure sector in 2017 contributed 15.5 per cent of total employment equivalent to about 410,500 formal jobs supplied by both the public and private sector (Table 8.1). Although the construction sub-sector ranks third in contribution to GDP (Figure 8.1a) it is the main contributor to formal employment among the infrastructure sub-sectors with almost 168,000 jobs in 2017 up from 116,000 in 2012 (Table 8.1). Most jobs in the transport sector are informal but an increase in formal employment would be expected in the sector because of the policy requiring all public service vehicles to form Savings and Credit Cooperative Societies (SACCOs) which includes registration of the crews attached to each vehicle.

The ICT sub-sector ranks second with over 117,100 jobs created in 2017 up from over 85,000 in 2012. The employment by electricity sub-sector grew from over 14,000 jobs to almost 19,000 jobs while real estate and water sector employment grew from 3,700 and 8,500 in 2012 to 4,200 and 14,500, respectively.

8.2 Developments in Housing Sector

In the context of the "Big Four" agenda, the government has prioritized access to affordable housing through accelerated supply of houses by

Table 8.1: Contribution of infrastructure sub-sectors to total employment in Kenya

	2012	2013	2014	2015	2016	2017
Transport	75,230	76,061	79,721	82,552	85,612	87,900
Real Estate	3,701	3,814	3,883	3,993	4,096	4,200
Construction	116,132	129,795	143,699	148,022	162,969	167,900
Electricity	14,253	14,569	15,280	16,925	17,306	18,900
ICT	85,726	92,437	99,163	105,633	110,604	117,100
Water Supply	8,473	9,436	10,416	11,561	12,702	14,500
Total (Infrastructure Sector)	303,515	326,112	352,162	368,686	393,289	410,500
Total (All Sectors)	2,155,752	2,283,066	2,370,184	2,477,955	2,554,320	2,656,600
Percentage of total employment	**14.1%**	**14.3%**	**14.9%**	**14.9%**	**15.4%**	**15.5%**

Source of Data: Kenya National Bureau of Statistics (2017), Statistical Abstract

spearheading the development of 500,000 units over the period 2018-2022 which translates to an average of 100,000 units per year. This could partly bridge the housing deficit in the country occasioned by slow pace of supply-side response to the annual demand for housing estimated at 250,000 units. About half of the households in Kenya (51.1%) live in buildings with floors of cement or tiles and 82 per cent have roofing with corrugated iron sheets while only 42.2 per cent have permanent houses (with walls made of bricks, stones, bricks and cement finish). In addition, about 59.5 per cent of households are in own-occupier houses while the rest are rented at a fee or in kind as reported in the Kenya Integrated Household Budget Survey 2015/2016 (KNBS, 2018).

Affordable housing requires optimal targeting for residential, commercial and industrial purposes as well as adequately providing for allied utilities such as energy, water, security and transport services. The increased demand for housing is attributable to rapid urbanization because of increased population, growing middle class population, devolution and infrastructure needs for the full realization of the Kenya Vision 2030. The achievement of the housing sector objectives has been hampered by distorted access to land, high cost of construction, high cost of credit, existence of rigid building laws and regulations, and the deterioration of housing stock due to lack of an efficient maintenance framework. Due to these constrains, the country has experienced expansive growth of slums and informal settlements.

The government has continued to implement housing programmes targeting commercial and residential needs. In the period 2014-2016 under housing and urban development, 822 housing units in Soweto Zone A (Kibra) were completed and 22 civil servant housing units in Kisumu. Under public works sub-sector, two (2) stalled buildings were completed and 153 new government buildings constructed. There were plans to construct over 8,000 units under the Civil Servants Housing Scheme and 30,000 housing units through the National Housing Corporation by 2017.

The private sector is also complementing government effort in bridging the housing deficit but the price of the properties is not affordable to many Kenyans. For example, the number of buildings completed for private ownership across various major urban areas was estimated at 13,567 in 2016 with value of investment amounting to over Ksh 90 billion. Over 85 per cent of these buildings were residential. Investment in buildings for private ownership rose from Ksh 12 billion in 2008 to Ksh 90 billion in 2016. Private sector involves the non-state actors who may include individual investors or corporate entities such as housing investment SACCOs, human settlement NGOs, among others.

By 2017, there were 1,980 housing/investment cooperatives with an asset base of Ksh 21 billion and offering about 10,000 housing loans with 10 per cent being actual registered mortgages. The share of cooperatives society financed housing is estimated to be as high as 90 per cent with banks providing the remainder of the finance. With a membership of 14 million, cooperative societies have a significant potential to bridge the existing housing gap.

Provision of key utilities is critical in ensuring affordable housing. Only 15 per cent of the population in urban areas are connected to sewerage systems. Therefore, the properties' plans could incorporate the component of utilities. For instance, in government-initiated property projects, a total of 36 km of sewer line was constructed over the period 2014-2016 against the target of 65 km. There are other components of the housing projects that require incorporation including access to water, electricity, security and ICT connectivity. For instance, in the period 2014-2016, the length of access roads constructed under housing was about 297.8 km against the target of about 309.6 km.

With a target of making 500,000 new home owners over the period 2018-2022, this translates to an average 275 new home owners per day against an average of about 20 new home owners achieved in the period 2014-16. The government, commercial banks, investment banks, SACCOs, pension

schemes, insurance companies, housing financing schemes and diaspora community will be expected to play a significant role in achieving the affordable housing agenda which will require between Ksh 300 billion to Ksh 700 billion to develop 100,000 units assuming an average price of unit for 1 to 3-bedroom houses valued at Ksh 3 million to Ksh 7 million, respectively. This price is inclusive of cost of building and profit margin but with improved incentive framework such as waiver on corporate tax, property registration fees, and subsidy, the cost could reduce significantly.

Housing finance options

Over the period 2015-2017, the government committed about Ksh 76 billion for housing and urban development but only Ksh 56 billion was used, translating to an absorption rate of 74 per cent. Over 80 per cent of this budget was allocated for development expenditure mainly to create an enabling environment through support of policy framework and construction of buildings for civil servants and others for selling.

Development of buildings by the private sector depends on savings for property development and borrowing especially through mortgages. Total value of mortgages advanced by banks were Ksh 220 billion in 2016 up from Ksh 203 billion in 2015 and Ksh 90 billion in 2011 (Table 8.2). The number of mortgage loans advanced dropped from 24,500 to 24,100 between 2015 and 2016. Nevertheless, the number of mortgage loans has been increasing substantially from 16,000 in 2011. The interest rate on mortgages reached its lowest in 2016 at about 13.5 per cent with the introduction of interest rate cap. However, borrowers paid over 25 per cent (in 2011 and 2012) and over 20 per cent between 2013 and 2015. With the target of 100,000 new home owners per year, banks will have to grow their mortgage portfolio to finance new demands.

Savings and Credit Cooperative Societies (SACCOs) through their schemes can advance mortgages at 12 per cent per annum which is lower than the commercial banks. Besides giving members loans for property development, SACCOs have an innovative model of buying land and sub-dividing for members who have contributed to the scheme thereby enhancing access to land and reducing the cost acquisition of land. The government in creating incentives for SACCOs has lowered the number of housing units entitled for the 15 per cent corporate tax relief from 400 to 100 as incentives to housing cooperatives, thus encouraging their contribution to growth and development of the housing sector.

Insurance companies invested over Ksh 73.2 billion in property investments which represented about 17.3 per cent of total investment valued at about Ksh 425.3 billion in 2016. This was an increase of investment in property by about 86.3 per cent from the level of investment the insurance companies registered in 2012 which was valued at Ksh 39.3 billion. The insurance policy may consider reviewing investment portfolio requirements to encourage insurance companies to invest more in property which would be a positive policy response to the affordable housing agenda. However, such a move should not compromise the stability of the industry especially with respect to ability to settle claims.

Table 8.2: Access to credit for property development

Source	2011	2012	2013	2014	2015	2016
Bank Mortgages (Ksh billions)	90.4	122.2	138.1	164	203.3	219.9
Mortgage Loans (No. '000)	16.0	19.2	19.9	22.0	24.5	24.1
Interest rates for mortgages (average %)	20.70	18.0	16.37	15.8	17.1	13.46
Interest rates for mortgages (highest %)	26.7	25	22.0	21.3	23.0	18.0
Interest rates for mortgages (lowest %)	13.0	11	8.5	8.0	11.9	10.5

Source: Central Bank of Kenya (2011-2016), Bank Supervisory Annual Reports

Pension schemes invest in housing sector through property development as investment channels for growing and safeguarding the schemes. For instance, the National Social Security Fund has properties developed for renting for commercial and residential purposes. The scheme invests almost 25 per cent of its investments in land, building and tenant purchase schemes. These investment channels earn the schemes rent and interest. Investments by private pension schemes are regulated by the Retirement Benefits Authority which could consider reviewing the policy framework governing investment channels to encourage more investment in property development and enhance the affordable housing agenda.

The National Housing Corporation (NHC) has a big role in providing stewardship in the housing sector. Its core mandate is to implement the government's housing policies and programmes to promote low-cost houses, stimulate growth and encourage research in the building industry. By 2012, NHC had developed 9,108 and 7,939 under tenant purchase and rental housing, respectively. NHC would be a viable channel for public funds targeting low cost housing due to its technical capacity and experience in implementing government housing schemes. However, it needs to review its cost model to lower the price of housing units. The Corporation has experience in working with citizens and county governments in building decent affordable houses through its various schemes such as Tenant Purchase, Outright Sale, Rural and Peri-Urban Housing Loans, and Rental Housing. It could also play a critical role in mobilizing resources for property development and facilitating innovations for affordable housing.

County governments also have a duty to enhance access to affordable housing. The challenge the county governments are facing is that they have inherited dilapidated properties which require a lot of finance to rehabilitate and sustain through continued maintenance. Some of the units were built in the early years of independence and need phase lift. In addition, the existing buildings under the management of county governments have under-utilized the land space.

In implementing the affordable housing programme, several challenges facing the housing sector need to be addressed.

- Affordable housing is commonly discussed as the relationship between income levels, cost of construction and cost of credit. Though the average interest rate on mortgages has been decreasing from 21.00 per cent in 2011 to about 13.46 per cent in 2016, this level of interest charged is still high.
- The cost of building materials and technology, and labour costs contribute significantly to the overall cost of housing. In addition, construction costs have been increasing in Kenya, starting with sharp appreciation of land which is fueled by land speculation and the increasing demand for land in major urban areas and cities. This can be controlled through a national land price index and register. In addition, proper urban planning helps harmonize housing for residential, commercial and industrial development and provides for requisite interdependencies to reduce costs associated with housing.
- There are limitations in access to land which include unavailability, uncertainty on security of land title deed, construction permit charges, land rates and speculative land ownership, thus hampering the performance of the housing sector. Land charges and fees related to land acquisition and processing increase the cost of property development. There have been innovations with respect to model of land ownership where different property developers can share a title deed, property development processing and unit cost of construction thereby reducing the cost of housing, for instance through the gated community model.

- Safety and affordability of buildings are twin components that occupiers ought to consider simultaneously. Safety in terms of number of buildings collapsing due to shoddy workmanship and non-adherence to building standards have led to massive losses to victims and relatives.
- Affordable housing relates average income levels of the population with average rental rates. Though the middle-income class is increasing in Kenya and their average pay is also increasing, rental rates are equally high together with cost of utilities such as water, electricity, transport and security making housing an expensive component in the household budget. High rental rates contribute to growth in slums as the residents seek affordable housing. It also leads to increase in rent-related conflicts between landlords and tenants.
- Registration of property faces several challenges among them high registration fees, long processes, and multiple institutions that must approve. There are also challenges of inadequate human capacity to serve applicants, amid allegations of erosion of integrity among government officials. There are uncertainties in the status of title deeds held by various property developers due to reported cases of land conflicts arising from double registration, thus more than one developer claiming to have title deed to similar land.

This notwithstanding, there are various opportunities existing in the housing sector which the country can exploit to advance the affordable housing agenda.

The government scrapped construction levy (0.5%) and environmental fees (0.1%) of project value as Environmental Impact Assessment - EIA fees to encourage property development by reducing the cost of construction and foster affordable housing. The construction levy which targeted properties with project value of over Ksh 5 million aimed at establishing a revolving fund for lending to small contractors to enable them grow and develop so that they can make more contribution in the construction sector. The environmental fees promote activities geared towards protection of the environment. There is need to review the policy action to ensure the intended objective is not compromised.

The government can increase access to affordable housing through a robust public service housing scheme. For example, it can establish land banks to allocate to property developers willing to develop housing projects for government officers and other targeted groups. This can be linked with government guarantorship for private sector credit, especially mortgages. Since the government will be the guarantor, the cost of credit will be expected to be significantly low because the risk of default will be low. This would reduce the cost of providing affordable housing since a proportion of housing allowance would be deducted for repayment of the mortgages.

House allowance for mortgage facilities would be a strong strategy for promoting home ownership. This can be championed under the banner of rent-for-mortgage to sensitize eligible employees to sign up for a scheme that will require that they substitute the amount they pay for rent with mortgage payment. This will require that employees will only receive a proportion of their house allowance and the rest be committed to payment of mortgage. This can be piloted with some willing civil servants, government agencies and private institutions although this will apply to a section of the employees since some are already locked in the mortgage market.

Diaspora remittances can enhance property development back at home. This model has been initiated in Kenya by the private sector and associations of Kenyans living abroad but the uptake is still low. More marketing is needed especially by the embassies in conjunction with associations of Kenyans living abroad. This will also increase remittances.

Mortgage facilities can be enhanced through capacity building especially among youthful employees to sensitize them on how they can capitalize on their age advantage to obtain mortgages. The youthful employees could be required to pay substantially low instalments over a long period of time. Similarly, the government can enter common understanding with financial institutions to support youthful employees and public and State officers to obtain mortgages at negotiated interest rates. This should be substantially low since the government will act as guarantor thus reducing the default risk which tends to increase interest rates.

8.3 Developments in Transport Sector

The transport sector comprises roads, air, rail and water sub-sectors and is the bedrock in movement of goods, services and people in an economy. Sectors such as agriculture, manufacturing and trade heavily depend on transport services for delivery of inputs and outputs and thus the need to invest proportionately to the demand of the services across the sub-sectors.

8.3.1 Road transport

The length of paved road network increased by 47 per cent with construction of about 2,188 km of new roads over the period 2013-2017, translating to an average of 438 km annually which was above the target of 1,612 km (322 km per year). As a result, the total road network which is paved increased from about 8 per cent to 12 per cent over the period 2013-2017 inclusive of both national and county network.

The proportion of road network which is in good and fair condition is estimated at about 44 per cent regardless of whether paved or not. Out of the total 161,451 km of the entire road network, 39,995 km (25%) are national roads while 121,456 km are county roads. Therefore, development of these roads is a concurrent responsibility for both national government institutions and county governments. A high level of cooperation is required and a more comprehensive monitoring and reporting framework to enhance documentation of the progress made by both levels of government with respect to quality of roads. To improve the road network in Kenya, substantive investments are required in addition to ensuring that there is adequate maintenance of the developed roads (Table 8.3).

In terms of budget allocation, the country spent over Ksh 336 billion during the period 2015-2017 on the road sub-sector which was 70 per cent of the allocated budget. Development expenditure accounted for about 74 per cent of the road sub-sector budget. Road expenditure was Ksh 64 billion, Ksh 112 billion and Ksh 160 billion in 2015, 2016 and 2017 against a budget of Ksh 139 billion, Ksh 132 billion and Ksh 212 billion, respectively.

Table 8.3: Road sub-sector infrastructure indicators

	Planned (km)					Achieved (km)				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Construction	221	283	200	374	534	269	260 (366)	471 (494)	463	725
Rehabilitation	300	379	200	152	44	238	227 (241)	174 (183)	122	138
Periodic maintenance		733	1,321	1,119			1,542	1,391	1,125	
Routine maintenance	73,214	66,900 (72,411)	40,000 (68,631)	50,000	35,074	58,963	58,620 (67,229)	56,981 (68,092)	29,258	49,874

Source of Data: Government of Kenya (2013-2017), Sector Reports. NB: Figures in parenthesis represent performance reported for the same year in other sector reports

Table 8.4: Planned road maintenance

Road Agency	Network Km	Planned for Maintenance (Km)								
		2009	2010	2011	2012	2013	2014	2015	2016	2017*
KeNHA	17,4712	-	-	-	-	13,456	11,992	9,294	13,140	13,835
KeRRA	126,353	-	-	-	-	44,645	37,820	36,074	28,243	25,129
KURA	13,044	-	-	-	-	1,849	1600	2,181	2,338	2,035
KWS	4,583	-	-	-	-	1,693	1,499	1,801	2,373	2,399
County		-	-	-	-	-	-	-	-	-
Total	161,452		73,780	66,530	62,890	61,030	52,911	49,350	46,094	43,398
Coverage (%)			46	41	39	38	33	30	29	**27**

Source of Data: Kenya Roads Board (2012-2017), Various reports

Road maintenance is an investment requirement since it reduces the rate of depreciation of the roads. When left unattended, the quality of roads deteriorates thus requiring frequent overhauling which is more expensive. Every year, over 40,000 km of road is planned for maintenance under funds managed by the Kenya Roads Board. This amount is shared among national institutions (KeNHA, KeRRA, KURA, KWS) and the county governments (Table 8.4). It covers less than 30 per cent of the entire road network that requires maintenance and is below the intended periodic and routine maintenance under the medium-term expenditure framework.

Road maintenance is largely funded through a Road Maintenance Levy Fund (RMLF) and agricultural cess. RMLF comprises the fuel levy fund and transit tolls. The fuel levy is Ksh 18 per litre of fuel. In 2017/18, receipts from this levy are estimated at about Ksh 60 billion. Transit toll is collected based on axle load and the estimated receipts for 2017/18 were Ksh 473 million. Agriculture cess funds are administered by the Kenya Rural Roads Authority (KeRRA) for maintenance of feeder roads that provide access to the coffee growing areas. The work plans for coffee cess funds are prepared by the Constituency Roads Committees in consultation with coffee stakeholders and submitted to KeRRA. The amount raised from these sources is only able to finance maintenance of 30 per cent of the road network.

The allocation for road maintenance is shared among the national institutions and county governments in predetermined proportions: KeNHA (40%), KeRRA (32%), KURA (15%), Kenya Wildlife Services (1%) and KRB (12%) with 10 per cent retained for reallocation to agencies on case-by-case basis and 2 per cent for its operations. In addition, 15 per cent is deducted from KeRRA and KURA for county governments. The largest amount of money

Table 8.5: Allocation for road maintenance (Ksh billions)

Road Agency	Actual Transfers for Road Maintenance								
	2009	2010	2011	2012	2013	2014	2015	2016	2017*
KeNHA	8.60	8.92	11.30	9.81	9.99	10.33	10.57	12.06	20.46
KeRRA	6.76	7.37	8.80	6.62	7.76	8.04	8.29	11.34	10.89
KURA	2.00	2.65	4.07	3.46	3.61	4.39	3.90	4.61	5.12
KWS	0.19	0.21	0.27	0.24	0.24	0.25	0.23	0.29	0.50
County								3.30	7.50
KRB	0.37	0.42	0.60		0.49	0.50	0.52	0.65	0.50
Ministry						2.94	2.83	0.14	
Total	**19.9**	**21.74**	**27.76**		**24.49**	**26.45**	**26.34**	**32.39**	**44.97**

Source of Data: Kenya Roads Board (2012-2017); * estimated allocation

Table 8.6: Status of national and county roads

Class	Paved	Unpaved	Total	% Paved
S	80.9	-	80.9	100
A	3,917.4	3,700.0	7,617.3	51
B	3,226.4	7,625.0	10,851.4	30
C	2,739.3	18,706.2	21,445.5	13
Sub-total (National Roads)	**9,964**	**30,031.2**	**39,995.1**	**25**
D	521.2	10,602.1	11,123.3	5
E	771.2	13,276.4	14,047.7	5
F	315.8	9,309.8	9,625.6	3
G	1,461.4	85,198.4	86,659.8	2
Sub-total (County Roads)	**3,069.6**	**118,386.7**	**121,456.4**	**3**
Sum-Total (Entire Road Network)	**13,033.6**	**148,417.9**	**161,451.5**	**8**

Source of Data: Kenya Roads Board (2016), Annual Report

is allocated for highways maintenance followed by maintenance of rural roads (Table 8.5).

The major policy concern in the roads sub-sector is the status of the roads which shows that less than 15 per cent of the entire road network is paved (Table 8.6). The situation is severe for county roads where only 3 per cent of the roads are paved; for national road network, the paved roads are 25 per cent. In addition, there should be proportionate allocation of resources between the national and county governments given not only the length of roads under their mandate but also the respective standard given the class of the roads.

The other concern is low absorption level of transferred funds together with late disbursements that delay attainment of the set targets. Other challenges include limited funds and backlog in maintenance; high project costs which is largely attributed to technology and materials used; delays in construction; vandalism; and road destruction costs largely due to non-compliance to axle load. The country needs to address these issues to enhance investment capacity and infrastructure productivity.

Absence of rapid mass transport and proper metropolitan planning has hampered productivity of the road sector in urban areas and cities. Infrastructure synergy can be attained by ensuring development of infrastructure based on seamless connectivity principle, and encouragement of alternative transport modes in urban areas. A combination of road and commuter rail transport is critical for mass movement of people in cities and big urban areas and shuttling within metropolis.

Roads are critical for enhancing productivity in agriculture and manufacturing especially by promoting access to markets. Farmers need to access markets for input and to sell their produce. In addition, the manufacturing sector needs to distribute products to various markets, thus they both need efficient and effective infrastructure. Poor quality of roads contributes to post-harvest losses in agricultural produce especially on perishable goods. Therefore, county governments have a significant role in ensuring county roads are passable, especially in supporting growth of the agricultural sector.

Good quality roads contribute to road safety and reduction in road accidents. Investment in road safety infrastructure should be integrated in road planning, construction and operations. The number of accidents reported annually reduced significantly from 11,000 to about 5,000 between 2008 and 2016. Similarly, the number of fatalities reduced from about 4,000 to slightly below 3,000 while those injured reduced from about 20,000 to about 10,000 in the same period. Though there has been improvement in road safety regulations and management, more needs to be done since these figures on frequency of accidents, level of fatalities and severity of injuries are high.

The government has undertaken various reforms and rolled out programmes to enhance safety. Some of them include reforms in the traffic police service in matters of service delivery and integrity. The operations of public service vehicles and motor cycle taxis (*boda boda*) have been targeted with efforts aimed at ensuring registration under SACCOs for collective responsibility, driver training, testing and licensing reforms, speed limit and speed governor interventions, drunk driving interventions, pedestrian safety projects, public education and implementation of ICT solutions. Deepening of road safety measures will require more funding to bridge the financing gap and this can be done through a robust resource mobilization strategy. Adequate road designs, improved road signage, regular capacity building among motorists, enhanced traffic police capacity, continued public awareness campaigns, use of ICT technology in monitoring, and safety warning signalling are other measures to enhance road safety and reduce accidents significantly.

Kenya's economy also depends on regional infrastructure which connects it with the neighbouring countries for trade and offers transit road services. Roads construction is one of the projects under the LAPSSET programme that seeks to link Kenya, Southern Sudan and Ethiopia and by extension the Central African Republic and Cameroon. This will link the Indian Ocean with the Atlantic Ocean thus enhancing cargo transit and transhipment. Further, Uganda, Rwanda and Burundi are connected to Mombasa through Malaba and Busia while Tanzania is connected to Kenya through Isebania and Nyatike. The roads that define these routes are therefore critical for regional economic integration and thus the need to continue integrating them in sector priorities.

8.3.2 Air transport

The air sub-sector is important especially for trade, tourism and horticulture sectors. The budget allocation for the sub-sector amounted to Ksh 33.8 billion over the period 2015-2017 of which 58 per cent was development expenditure. This may be because air transport institutions are able to generate enough revenue internally for their operations. However, the absorption rate for the air sub-sector was low (38%) in the same period.

Kenya provides a major proportion of regional air transport services. The country has a relatively developed air infrastructure comprising four (4) major international airports and four (4) other international airports, 23 regional airports and over 430 airstrips and over 24 and 34 scheduled international airlines and domestic airlines, respectively, operating on the Kenyan airspace (Table 8.7). In addition, international and domestic airlines with unscheduled flights are about 21 and 149, respectively. The country plans to upgrade three airstrips to airport status, to open various regions.

However, the airports and airstrips are not well connected with other transport infrastructure such as roads and railway. This limits the potential of air transport especially in tapping the tourism potential and enabling traders to reduce their travel time and cost. For instance, there are plans to ensure that the Standard Gauge Railway (SGR) is seamlessly connected with the Jomo Kenyatta International Airport.

To enhance competitiveness, Kenya needs to review the policy governing flight charges especially those components attributed to various levies in the sub-sector. The open sky policy has been boosted by the signing of the Single African Air Transport Market Treaty by 23 countries including Kenya, which will guarantee 25 per cent drop in respective charges. The same should apply to domestic flight charges to attract more demand and increase modal share of air transport. In addition, improved operational efficiency of the national carrier, Kenya Airways, is important in positioning the country to offer competitive air transport services internationally.

Table 8.7: Performance of air sub-sector, infrastructure development and services

	2010	2011	2012	2013	2014	2015
Aerodrome (airports, airstrips and heliports)		**472**	**450**	**450**	**463**	**463**
Airports (International)		8	8	8	8	8
Airports (Regional)		14	16	16	23	23
Airstrips/Heliports		450	426	426	432	432
Air Operators (Totals)	**237**	**241**	**295**	**351**	**313**	**317**
International Operators Scheduled	16	19	16	21	21	24
International Operators Unscheduled	54	51	22	23	22	21
Domestic Operators Scheduled	30	32	32	38	33	34
Domestic Operators Unscheduled	119	122	148	173	150	149
Others (Tour Charters, Flying Instruction, Aerial Work)	18	17	24	30	22	22
Demand for Air Transport						
Aircraft Registered (No.)		1,088	1,165	1,190	1,268	1,330
Aircrafts Landings and Take-off (000)		248	273	258	269	262
Passengers (millions)		8.1	8.9	8.4	8.5	8.9
Freight (Kg millions)		271	310	276	280	264
Revenue (Ksh billions)		7.5	8.5	11.2	13.5	12.9

Source: Kenya Airports Authority and Kenya Civil Aviation Authority (2015), Annual Reports

The admission for direct flight from Jomo Kenyatta International Airport (JKIA) to New York is a critical milestone in the aviation sector in Kenya as it is expected to have a positive impact on tourism and trade. The first direct flight to New York is in October 2018. There is need to continuously scale up aviation safety measures and standards, improve airport infrastructure, and build sufficient human capacity for the sector to improve and sustain its competitive edge.

8.3.3 Railway transport

The railway sub-sector is strategic especially in enhancing port efficiency and productivity to improve competitiveness of the country through connectivity to the inland and regional markets.

The share of cargo moved by metre gauge railway together with number of passengers has declined over time (Table 8.8) in addition to the railway being abandoned and dilapidated beyond repair in some parts.

Thus, the completion of the first phase of SGR in June 2017 was a major milestone towards linking

Table 8.8: Performance of the railway sub-sector

	2011	2012	2013	2014	2015	2016
Metre Gauge Railway (km)	2,704	2,706	2,706	2,706	2,706	2,706
Standard Gauge Railway (km)	-	-	-	-	-	472
Passengers ('000)	6,004	4,077	4,016	3,845	2,359	2,186
Cargo Handled in Tonnes (000)	1,646	1,444	1,264	1,559	1,625	1,479
Passenger Revenue (Ksh millions)	264	206	211	162	99	101
Cargo Revenue (Ksh millions)	4,983	5,525	4,638	6,148	6,218	5,561
Cargo Modal Share	8.25	6.59	5.67	6.27	6.08	5.40

Source of data: Kenya National Bureau of Statistics (2017), Statistical Abstract and Kenya Railways Corporation (2014, 2015), Annual Reports

Kenya regionally. Upon completion of SGR, the country will have increased railway network by 3,011 km. The plan is to connect the SGR after reaching Malaba to the Great Lakes Region. The second SGR is planned for along the LAPSSET corridor which includes Lamu–Isiolo–Nakodok (bordering South Sudan) which is 1,350 km long and Nairobi–Isiolo–Moyale (bordering Ethiopia) which is 700 km. This will enhance regional connectivity.

The entry of the SGR in the transport sector is thus expected to increase railway share on passengers and freight and enhance the quality of railway services. Already, the *Madaraka Express* (as the service is commonly known) is experiencing full booking and in advance. *Madaraka Express* transported 281,725 passengers in the period June-August 2017 and the performance in September-December 2017 is estimated to be over 300,000. The government plans to have at least 40 per cent of cargo being moved through SGR annually.

Connectivity of the SGR to industrial cities, in addition to opening the economy by connecting to emerging economic zones, will enhance port performance. As such, other SGR routes need to be considered in linking Naivasha-Nairobi-Mombasa route with industrial towns such as Nakuru, Thika and Eldoret and economic zones such as Kitale and Webuye. Feasibility of SGR extending from Nyamira to Migori and Isibania (Tanzania border) is likely to yield positive results for this will link Kenya with Mwanza. The metre gauge railway (MGR) also has potential to continue offering cargo service on transit cargo. However, it requires continued rehabilitation and maintenance to reduce depreciation of the infrastructure; it also requires rehabilitation of rolling stock (wagons) and enhanced service delivery.

Commuter railway services are expected to create an efficient and affordable mass rapid transit transport system for Nairobi city with modal synergy and seamless connectivity by integrating rail, road and air modes of transport. The Nairobi Commuter Rail Service development is part of Nairobi Metropolitan Transport Master Plan which aims to increase capacity of rail transport from 5 million passengers to 60 million passengers annually. The plan entails construction of modern stations and acquisition of modern rolling stock, upgrading track and signalling systems, development of a new line to JKIA, and new stations. Mombasa has also developed a master plan for commuter services.

8.3.4 Water transport

Maritime transport and logistics is key in tapping to opportunities in the blue economy, among other components such as fisheries and aquaculture; extractive industries; and culture, tourism, leisure and lifestyle. To exploit this potential, the government more than doubled budget allocation from Ksh 1.1 billion in 2015 to Ksh 2.7 billion in 2017. The absorption rate was 59 per cent with development expenditure accounting for over 80 per cent of total budget.

The water transport sub-sector involves the management and development of maritime and ports infrastructure and services with respect to the safety, security and environmental issues of maritime and cargo handling at the ports. The key indicators showing performance of the port are the amount of cargo, number of containers handled at the port and number of ships docking, all of which have shown increasing trend over time. The productivity and strategic positioning of the country are key in the development of the water transport business. The major infrastructure in the sub-sector is the port handling facilities such as berths and jetties, sheds/stacking ground and handling equipment. The sub-sector also extends with inland ports at Nairobi (Embakasi) and Kisumu.

The performance of Mombasa port has improved significantly. Over 1 million containers were handled as from 2014 onwards, with 2017 registering 1.19 million containers (Table 8.9). The port grew from 16 million Dead Weight

Table 8.9: Mombasa port traffic

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Throughput (000 DWT)	16,415	19,062	18,934	19,953	21,920	22,307	24,875	26,732	27,364	30,345
Container Traffic (TEUs)	615,377	618,816	695,600	770,804	903,463	894,000	1,012,002	1,076,118	1,091,371	1,189,957
Vessels Worked				1,169	1,193	1,332	1,378	1,396	1,273	1,452

Source: Kenya Ports Authority (2017)

Tonnes (DWT) in 2008 to over 30 million DWT in 2017 (Table 8.9). However, imports dominate the demand-side for port services with 87 per cent of the total throughput. This is expected to change with the agenda on manufacturing, agro-processing and mining. An increase in connectivity to industrial zones is expected to increase the share of exports on cargo handled at the port. The exports can also increase significantly once the SGR connects to various economic zones across the country.

In 2016, Kenya Ports Authority (KPA) completed container handling facilities (20th and 21st berths) which have capacity to handle additional 550,000 TEUs (Twenty-foot Equivalent Units) annually. Plans are underway to expand the facilities for additional 450,000 TEUs by 2019. The investment areas for the ports sector include the LAPPSET project, second container handling terminal at Mombasa; Kisumu port; the development of smaller ports such as Shimoni; and enhancement of capacity in inland port and container depots. The berth occupancy shows that there is limited space available for cargo handling especially at the container terminal (Table 8.10) thus the need for expansion given that Kenya expects increased activity going forward. There are plans to convert four (4) berths (11-14) from handling conventional cargo to handling containerized cargo. To decongest Mombasa port to enhance its operational efficiency and competitiveness, the country needs to renovate and expand capacity of inland ports, including Nairobi, Naivasha, Eldoret and Kisumu. The Lamu port will also be able to handle specialized cargo especially of ships that require deeper berths. Port efficiency will also improve with decongestion expected from the completion of Mombasa-Malaba SGR, expansion of Mombasa-Nairobi Road and realization of LAPSSET projects.

Maritime transport investments also include acquisition and operation of water vessels (ships, ferries and boats) used for regular passenger services but also for security patrols. There are 21 shipping lines, 42 shipping agents and 36 cargo

Table 8.10: Maritime and ports infrastructure

	2011	2012	2013	2014	2015	2016	2017
Berths	19	19	19	19	19	21	21
Berth Occupancy (%): (General Cargo Berths)	63.9	60.9	61.4	64.4	63.5	52.9	71.6
Berth Occupancy (%): Mombasa Container Terminal	94.5	75.7	82.7	93.0	91.4	73.3	75.0
Berth Occupancy (%): Shimanzi Oil Terminal	81.8	80.1	77.5	75.7	79.2	82.7	78.1
Berth Occupancy (%): Kipevu Oil Terminal	84.5	80.2	83.5	79.4	86.0	86.6	88.4
Berth Occupancy (%): Mbaraki Wharf	76.2	79.3	56.0	62.2	55.8	40.9	53.4

Source of Data: Kenya Ports Authority (2012-2017), Annual Reports

consolidators approved to offer maritime services along the Kenyan coastline. The country runs a national ferry service specifically to ferry people and vehicles across the Likoni channel connecting the mainland and Mombasa Island. The plans to build a bridge in Likoni to connect Mombasa Island and mainland will ease movement of people and goods and eliminate costs incurred for ferry services, and address safety risks. The bridge will relieve the ferry services to now offer services such as linking Mombasa (Miritini) with Mombasa town, Malindi, Kilifi and Lamu, and open alternative routes.

8.4 Developments in the Energy Sector

The focus in the energy sector remains on electricity and petroleum especially due to the significant role the two sources of energy play in industrialization, mechanized agriculture and transport services, besides powering domestic needs. The focus of the sector is on expanding generation capacity, diversifying sources of electricity, enhancing transmission efficiency, extension of distribution network, and encouraging increased consumption through reduced tariffs. Developments in the oil sub-sector are also highlighted.

8.4.1 Performance in electricity

The demand for electric power continued to rise significantly driven by population growth, increased connections in urban and rural areas, and growth in economic activities. In response, generation of electricity grew to 10,205 GWh in 2017 up from 6,385 GWh in 2008. The country's overall consumption of electricity, being the difference between total consumption and system losses, ranged from 5,300 GWh in 2008 to 8,300 GWh in 2017 (Table 8.11), of which over 70 per cent, was used for commercial and industrial purposes. The number of connections has also increased since 2008 from 1 million to over 6 million, with 1 million under the Rural Electrification Programme (REP).

The increased supply has also seen system losses ranging between 16 and 19 per cent annually. For

Table 8.11: Electricity consumption

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Consumption (GWh)	KPLC	5,036	5,155	5,318	5,785	5,991	6,144	6,751	7,090	7,330	7,701
	REP	240	250	279	307	308	406	454	525	537	549
	Exports	46	27	27	31	42	30	39	40	45	22
	Losses	1,062	1,057	1,068	1,180	1,329	1,507	1,596	1,625	1,904	1,933
	Total	6,385	6,489	6,692	7,303	7,670	8,087	8,840	9,280	9,816	10,205
	Losses (%)	16.6	16.3	16.0	16.2	17.3	18.6	18.1	17.5	19.4	18.9
KPLC (Consumption by Type of Customer) (GWh)	Domestic	1,255	1,254	1,290	1,424	1,520	1,670	1,803	1,866	2,007	2,138
	Small Commercial	590	823	823	904	993	998	1,109	1,143	1,153	1,201
	Commercial and Industrial	3014	3,020	3,153	3,401	3,419	3,440	3,818	4,030	4,104	4,266
	Off-peak	74	43	36	38	43	18	1	15	26	41
	Street Lighting	13	15	16	18	16	18	20	35	40	55
	Total	5,036	5,155	5,318	5,785	5,991	6,144	6,751	7,090	7,330	7,701
Number of Customers	KPLC (000)	899	1,062	1,213	1,444	1,656	1,877	2,239	2,909	3,918	4,912
	REP (000)	161	205	251	309	383	454	529	703	972	1,270
	Total (000)	1,060	1,267	1,464	1,753	2,039	2,331	2,768	3,612	4,890	6,182

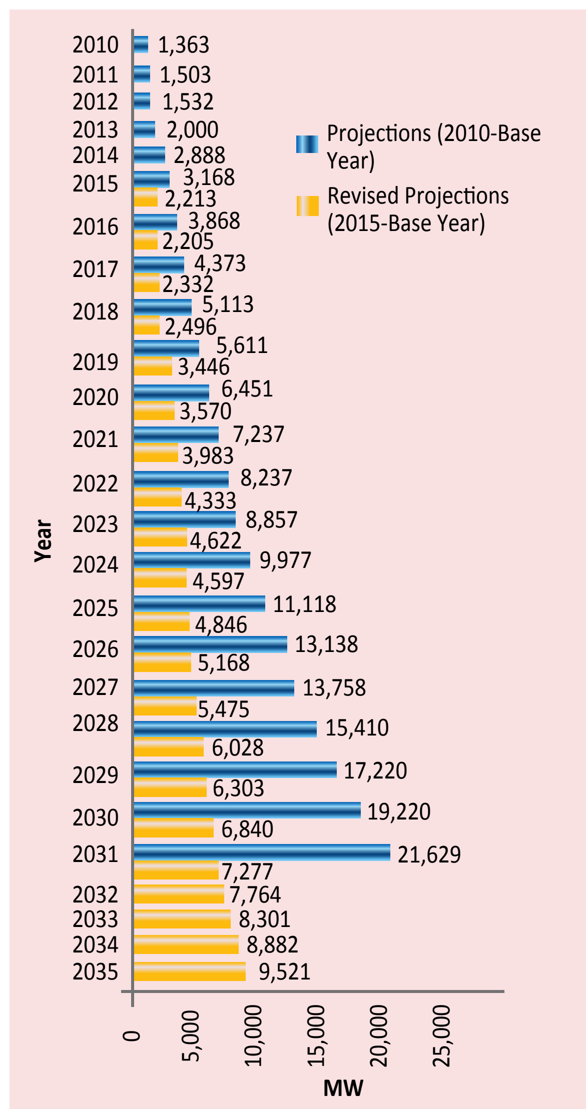
Source: Kenya Power and Lighting Company (2008-2017) and Energy Regulatory Commission (2012-2016), Annual Reports

instance, the losses increased to 1,933 GWh in 2017 compared to 1,062 GWh in 2008. Such losses reduce available power for supply besides having incurred costs in production. There are efforts to address these losses especially by investing in system management tools to ensure energy balancing.

To serve the growing market of electricity consumers, the country has continued to invest in installation of requisite capacity for electricity generation. Installed capacity has increased by 80 per cent, rising from 1,310 MW in 2008 to 2,334 MW in 2017 against the system peak demand which reached 1,656 MW in 2017 up from 1,044 MW in 2008 (Table 8.12). The installed capacity is, however, 35 per cent of the sector target for 2018 projected at 6,700 MW or 5,113 MW as a minimum. The power development master plan 2016 has revised downwards the target for installed capacity by 2030 to 6,840 MW based on the economic performance in 2015 (Figure 8.2). However, demand for electricity is expected to increase significantly with increased momentum to transform the manufacturing sector and the on-going initiatives to enhance productivity of SMEs. In addition, the plans to introduce electric SGR will need regular and adequate supply of electricity which means that the country requires to invest more to install requisite generation capacity.

Investments in electricity generation need to strike a good balance of energy mix taking into consideration the potential demand, cost of production, cleanness and efficiency of the type of

Figure 8.2: Projected least cost generation plan and power development master plan



Source of Data: Ministry of Energy and Petroleum (2016) and Energy Regulatory Commission (2013)

Table 8.12: Capacity of electricity generation

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Installed Capacity (MW)	1,310	1,361	1,473	1,593	1,691	1,765	1,885	2,299	2,341	2,334
Effective Capacity (MW)	1,267	1,310	1,416	1,479	1,636	1,653	1,805	2,228	2,270	2,257
System Peak Demand (MW)	1,044	1,072	1,107	1,194	1,236	1,354	1,468	1,512	1,586	1,656

Source: Kenya Power and Lighting Company (2008-2017) and Energy Regulatory Commission (Various), Annual Reports

Table 8.13: Installed capacity and generation of power by type

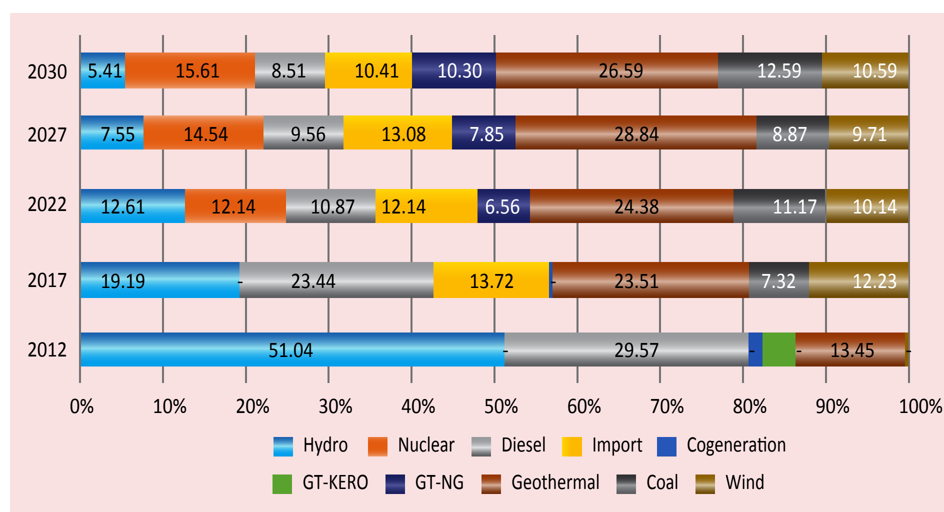
Installed Capacity (MW)										
Type of power	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Hydro	719.0	730.0	728.0	763.2	788.4	812.3	818.3	820.7	820.7	824.00
Thermal	418.9	421.5	469.2	660.5	660.6	714.4	751.3	833.8	837.0	805.02
Geothermal	128.0	158.0	189.0	198.0	209.5	241.8	573.4	627.0	632.0	652.00
Co-generation	2.0	2.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.16
Wind								25.0	25.0	26.00
Solar									0.569	0.55
Total	**1,267.9**	**1,311.5**	**1,412.2**	**1,647.7**	**1,684.5**	**1,794.5**	**2,169.0**	**2,307.5**	**2,341.8**	**2,334.00**
Electricity Generation (million KWh)										
Type of power	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Hydro				3,427	3,450	4,298	3,944	3,310	3,787	3,341
Geothermal				1,454	1,498	1,599	2,008	4,060	4,608	4,451
Thermal				2,343	2,622	2,134	2,786	1,792	1,297	2,165
Others				18	15	14	17	38	57	64
Total				**7,242**	**7,585**	**8,045**	**8,755**	**9,200**	**9,749**	**10,021**

Source: Kenya Power and Lighting Company (2008-2017) and Energy Regulatory Commission (2012-2016), Annual Reports

energy. Kenya has predominantly relied on hydro and thermal power but by 2014 a shift was realized when more geothermal capacity was installed, thus changing the energy mix significantly (Table 8.13). In terms of electricity generation, hydro power has been the dominant source followed by thermal, but since 2015 the largest portion of electricity was geothermal. Hydro power is vulnerable to drought conditions which in the past have necessitated power rationing and use of thermal energy, exposing the economy to high electricity tariffs.

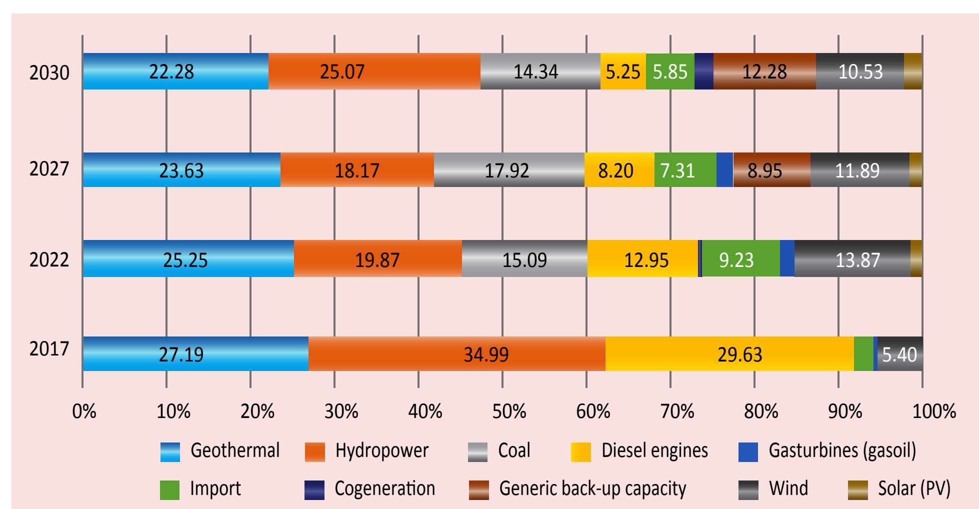
Kenya endeavours to ensure least cost power generation dominated by geothermal, nuclear, coal and wind by 2030 with shares at 26 per cent, 15 per cent, 12 per cent, 10 per cent, respectively, using 2010 as the base year for the projections (Figure 8.3). By 2030, the installed capacity for electricity generation from hydro is expected to have reduced from 51 per cent to 5 per cent and diesel from 26 per cent to 8 per cent, which is a strategic move towards not only reducing cost of production but cushioning the economy from drought-driven power shortages and rationing. Figure 8.4 scales down the electricity development plan based on the performance of the sector by 2015. This shows that geothermal, hydro

Figure 8.3: Electricity installed capacity mix using 2010 as base year (%)



Source of Data: Energy Regulatory Commission (2011), Least Cost Power Generation Plan

Figure 8.4: Electricity installed capacity mix using 2015 as base year (%)



Source of Data: Ministry of Energy and Petroleum (2016), Power Generation and Transmission Master Plan

and coal will be the dominant sources of electricity, with diesel power expected to reduce significantly.

Investments in electricity generation are undertaken by the public and private sector. However, the share of private sector in electricity generation is small, ranging between 20 and 32 per cent (Table 8.14). Under the public sector, electricity generation is done by the Kenya Generating Company Limited (KenGen) and Rural Electrification Programme (REP) while Independent Power Producers (IPPs), and Emergency Power Producers (EPP) represent the private sector (Table 8.14). The balance of the electricity used in Kenya is imported from Uganda, Tanzania and Ethiopia.

Only a 5 per cent margin lies between effective capacity to installed capacity for both private and private sectors. The private sector seems to operate slightly closer to its installed capacity than the public sector. The share of private sector in installed and effective capacity has increased from 23 in 2008 to about 30 per cent (Table 8.15). In terms of market equilibrium, the electricity market has been at surplus capacity over the period 2008-2016, which ranged between 20 and 34 per cent on installed capacity and 17 to 32 per cent on effective capacity. This is because of the variability in the peak demand for electricity (Table 8.15). This shows that the country has not only planned for flexible response to demand through excess capacity but also managing installation to avoid incidences of idle installed capacity.

Table 8.14: Generation of power by type of producer, MW

Type	Producer	2011	2012	2013	2014	2015	2016	2017
Public	KenGen	5,040	5,409	5,968	5,931	6,943	7,724	7,513
	REP	21	23	27	31	36	41	41
	Subtotal	5,061	5,432	5,995	5,962	6,979	7,765	7,554
Private	IPP	1,945	1,820	1,788	2,698	2,160	1,934	2,466
	EPP	267	381	261	94	63	50	0.8
	Sub-total	2,212	2,201	2,049	2,792	2,223	1,984	2,467
Others	Imports	31	37	42	87	79	67	184
Total		7,303	7,670	8,087	8,840	9,280	9,816	10,205
Share of Generation (%)	Public	69.6	71.2	74.5	68.1	75.8	79.6	75.4
	Private	30.4	28.8	25.5	31.9	24.2	20.4	24.6

Source of Data: Kenya Power and Lighting Company (2012-2017) and Energy Regulatory Commission (2012-2015), Annual Reports

Kenya has also started plans to install capacity to generate electricity from nuclear energy and coal. The Kenya Nuclear Energy Board (KNEB) was established to oversee the process. The construction of the coal plant in Lamu will

Table 8.15: Installed and effective capacity, by type of producer, MW

Type	Producer		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Public	KenGen	*i*	1,006	1,019	1,054	1177	1,210	1,238	1,339	1,596	1,601	1,610
		e	970	975	999	1065	1,161	1,134	1,268	1,534	1,539	1,550
	REP	*i*	9.0	11.7	11.7	9.1	10.1	16.0	19.0	19.0	19.0	27.0
		e	7.9	10.2	10.2	7.8	8.5	11.6	15.0	15.0	15.0	18.0
Private	IPP	*i*	145	204	347	347	351	391	497	654	691	696
		e	143	204	347	347	347	387	492	649	686	691
	EPP	*i*	150	150	60	60	120	120	30	30	30	0
		e	146	146	60	60	120	120	30	30	30	0
Total	**All**	*i*	1,310	1,361	1,473	1593.1	1,691	1,766	1,885	2,299	2,341	2,334
		e	1,267	1,310	1,416	1479.8	1,636	1,653	1,805	2,228	2,270	2,256
Market Share (%)	Public	*i*	77	74	72	74	72	71	72	70	69	70
	Public	*e*	77	74	71	72	71	69	71	70	68	70
	Private	*i*	23	26	28	26	28	29	28	30	31	30
	Private	*e*	23	26	29	28	29	31	29	30	32	30
Utilization e/i ratio	Public	%	96.3	95.6	94.7	90.4	95.9	91.4	94.5	95.9	95.9	95.8
	Private	%	98.0	98.9	100.0	100.0	99.2	99.2	99.1	99.3	99.3	99.3
Market Equilibrium	Peak Demand	MW	1,044	1,072	1,107	1,194	1,236	1,354	1,468	1,512	1,586	1,656
	Surplus Capacity	i	20.3	21.2	24.8	25.1	26.9	23.3	22.1	34.2	32.3	29.0
		e	17.6	18.2	21.8	19.3	24.4	18.1	18.7	32.1	30.1	26.6

Source of Data: Kenya Power and Lighting Company (2008-2017) and Energy Regulatory Commission (2012-2015), Annual Reports, NB: i = installed capacity, e=effective capacity. NB: Installed capacity is the maximum potential of the systems while effective capacity is the capacity being utilized. Usually there is a margin recommended to cater for plant outages.

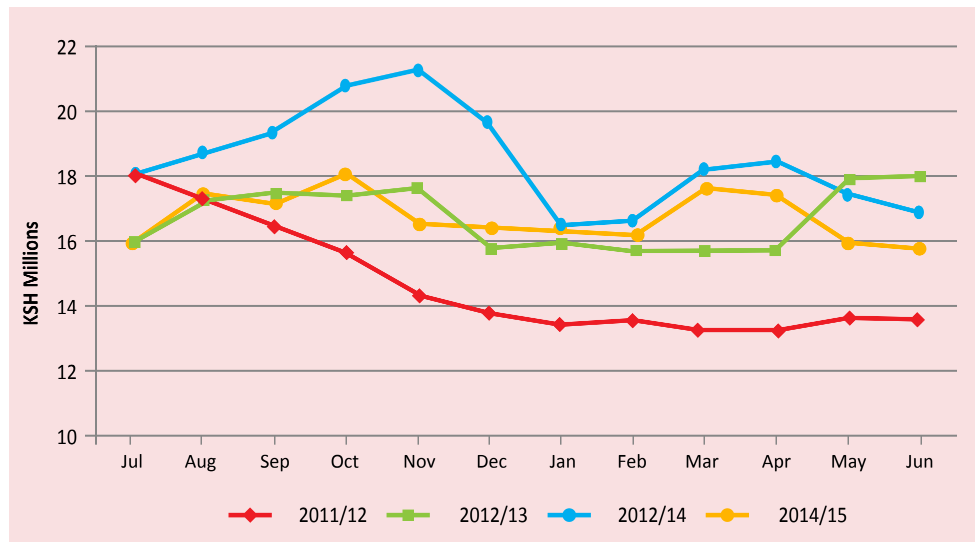
add 1,050 MW capacity into the installed capacity of the country. This project is under the LAPSSET programme and is being implemented through the PPP framework. The parties involved signed a Ksh 206 billion agreement to finance the coal project which is said to apply clean energy technology.

The retail price for electricity has been declining. However, at Ksh/kWh 13.26 as of June 2015, the industry competitive level of Ksh/kWh 6 is yet to be achieved (Figure 8.5). The retail tariff comprises a base of Ksh/kWh 10.31 and adjustments based on Fuel Cost Charged (FCC), Foreign Exchange Rates Fluctuation Adjustment (FERFA), Water Resource Management Authority (WARMA) levy and Inflation Adjustments. These are instruments used for cushioning regulated operators against fluctuations in the concerned parameters that are beyond their control. Electricity tariffs are expected to be lower going forward with government policy to invest in least cost sources such as geothermal, hydro, coal and wind. The government plans to reduce purchase of electricity from independent producers who use thermal energy. In addition, the proposal to have lower tariffs during off-peak, such as at night to encourage the 24-hour economy objective, is a positive move, but it will still be desirable to have a flat-rate tariff for different types of customers.

Besides electricity tariffs, the reliability and quality of electricity is key. Frequent power outages result in economic losses in terms of reduced production, business losses and time lapses. To reduce outages, continued investment in maintenance of the infrastructure is key besides enhancing capacity of response units. For instance, such efforts led to reduction of the average number of outages per month by 28 per cent in 2017, being a reduction from 27,274 to 19,588 outages.

The country has continued to commit substantive funds to the development of electricity infrastructure to a tune of almost Ksh 339 billion for the period 2015-2017. However, absorption rate was low (47%), slowing down the rate of growth of the energy sub-sector. To deliver on energy targets, utilization of allocated funds is a priority, besides request for more funding.

Figure 8.5: Electricity retail tariff (Ksh/kWh)

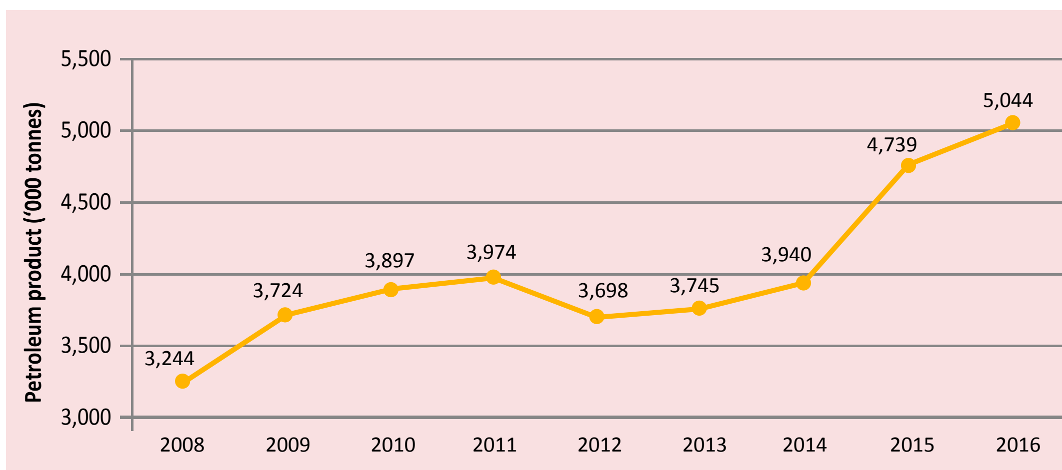


Source of Data: Energy Regulatory Commission (2016), Annual Report

8.4.2 Performance in petroleum fuel

Kenya is a net importer of petroleum products with consumption at 5 million tonnes in 2016 up from 3 million tonnes in 2008 (Figure 8.6). The exploration for oil and gas in Kenya has been ongoing for decades but it was not until 2012 when the first commercially viable oil discovery was made in the Tertiary rift, followed by significant gas discoveries in offshore Lamu basin. Prospects of Kenya becoming one of the main exporters of crude oil in the region are high. To realize this, the country needs to install requisite infrastructure for extraction and transportation. It is also strategic and more beneficial if the country puts in place refinery plans to process the oil instead of exporting it as crude. Tullow Kenya estimates the stock of oil at the fields in Kenya to be over 4 billion barrels. The company seeks to invest capital expenditure of about US$ 2.9 billion over the period 2018-2022 of which US$

Figure 8.6: Demand for petroleum product ('000 tonnes)



Source of Data: Energy Regulatory Commission (2012-2016) Annual Reports, and Kenya National Bureau of Statistics (Various), Statistical Abstracts.

1.8 billion will be on upstream investment and US$ 1.1 billion for the pipeline.

The country will gain from exploration and exportation of oil if stakeholders' expectations, interests and resources are well managed. This will require proper management and balancing of investment and supply of labour across all sectors of the economy, and more specifically the counties with oil deposits, with deliberate efforts to avoid the Dutch disease. Combined efforts in the EAC region to develop a single refinery can help the countries share the cost of installation and produce oil products in large scale to reap the economies of scale.

The public budget for oil and gas exploration was about Ksh 6.4 billion for the period 2015-2017 but only Ksh 3.5 billion was used, representing 55 per cent absorption rate. This was only 2 per cent of the energy budget. Oil exploration is an upstream activity involving heavy machinery and high level technology. Due to the uncertainties in the exploration and the risk of sinking funds, the public sector only invests in activities that create an enabling environment to encourage the private sector in the exploration.

8.5 Developments in Information and Communication Technology Sector

The level of connectivity to information and communication services (ICT) has grown in Kenya with penetration of mobile telephony, internet and mobile money estimated at 89 per cent, 85 per cent and 62 per cent of Kenyans, respectively, for the year 2017 up from 75 per cent, 36 per cent and 49 per cent in 2012 (Table 8.16). The digital signal covered 78 per cent of the Kenyan population as at the end of June 2017. This positions Kenya to tap the dividend of ICT especially in financial inclusion, access to information especially in agriculture, and improved

Table 8.16: Performance in ICT sector

		2012	2013	2014	2015	2016	2017
Penetration rate (%)	Mobile telephony	75.00	75.06	77.14	83.98	90.00	88.70
	Data and Internet services	35.53	48.29	53.37	69.01	85.00	85.30
	Mobile money	49.38	60.44	64.87	64.52	59.52	61.70
	Broadband	1.84	3.44	7.39	12.39	24.59	34.20
	Digital signal						78
Subscriptions (million)	Mobile telephony					39.70	40.20
	Data and Internet	7.74	12.43	14.03	19.92	26.88	29.60
	Mobile money	19.51	24.84	27.11	27.74	26.30	28.00
	Broadband	0.73	1.40	3.09	5.33	10.87	15.40
	FTA-TV set top boxes						0.73
	Pay-TV set top boxes						3.79

Source of Data: Communications Authority of Kenya (2012-2017), Annual Reports

learning environment through digital platforms, among others.

In terms of critical investments in ICT, there was an increase in mobile cellular network coverage enabling more Kenyans to have access to mobile telephony using the digital signals. The transceivers deployed for the provision of 2G and 3G increased from about 83,000 to 123,000 with the 4G transceivers entering the market. The number of deployed transceivers on Fixed Wireless Access (FWA) systems which provide access to communication services such as the Internet and broadcasting decreased from 2,585 to 2,082 between 2012 and 2016 (Table 8.17). This decrease is mainly attributed to availability of competing technology in the unprotected bands and the preference for the fiber optic. The country's migration to the digital platform has witnessed rapid growth in the TV broadcast industry with over 66 TV stations on Free to Air platform and 178 FM stations by 2017. Kenya has also invested 6,000 Km of a National Optic Fibre Network (NOFN) which was laid to all the 47 counties by 2016. Installation of equipment to tap the NOFN had been completed in 29 counties while installation works was in progress in nine (9) counties by 2016. This is expected to enhance access through availability and reduce the cost across the country.

Table 8.17: ICT investments

		2012	2013	2014	2015	2016	2017
Mobile Cellular Services	2G	71,884	80,894	84,631	89,994	92,562	-
	3G	11,053	12,775	15,381	19,300	30,818	-
Fixed Wireless Access Services		2,585	2,504	2,423	2,169	2,082	-
Mobile Revenue (Ksh billions)		116.6	133.5	140.2	172.5	214.8	241.0
Mobile Investments (Ksh billions)		34.6	33.8	30.4	32.1	52.2	40.9

Source of Data: Communications Authority (2012-2017), Annual Reports

Digital literacy is the future competency for ease of access to information and for communication. The government commissioned key infrastructure programmes involving assembling of laptops for primary schools in collaboration with the University of Nairobi, and Jomo Kenyatta University of Agriculture and Technology (JKUAT). The Kenya Institute of Curriculum Development (KICD) has also set the pace for digital learning by developing relevant curriculum, standards and materials. This will enhance Kenya's positioning as a regional hub for digital skills by laying a foundation for young learners and walk them through their educational journey within a digital platform. It also offers a platform for development of talent for innovations in ICT.

The tariffs charged for ICT services are high, which limits usage even though there is increase in connectivity. There is need, therefore, for innovative cost cutting models to offer affordable services, expand sales and still make profit. High charges are witnessed especially in calling rates per minute which range from Ksh 2 to Ksh 4, on average, with some providers charging this only on off-net services. Charges on data bundles per minute are also high across all networks.

The level of competition in the ICT sector is low, thus undermining the country's objective to provide affordable infrastructure services. This cuts across all forms of ICT including mobile telephony, broadcasting in digital platform, and provision of internet services. This is besides the government effort to provide requisite infrastructure to support the private sector to provide affordable services. The completion of Konza city is expected to promote ICT innovation and improve ICT penetration and services.

Sewerage facilities at the Ruiru-Juja Water and Sewerage Company

8.6 Developments in Water and Sanitation Services

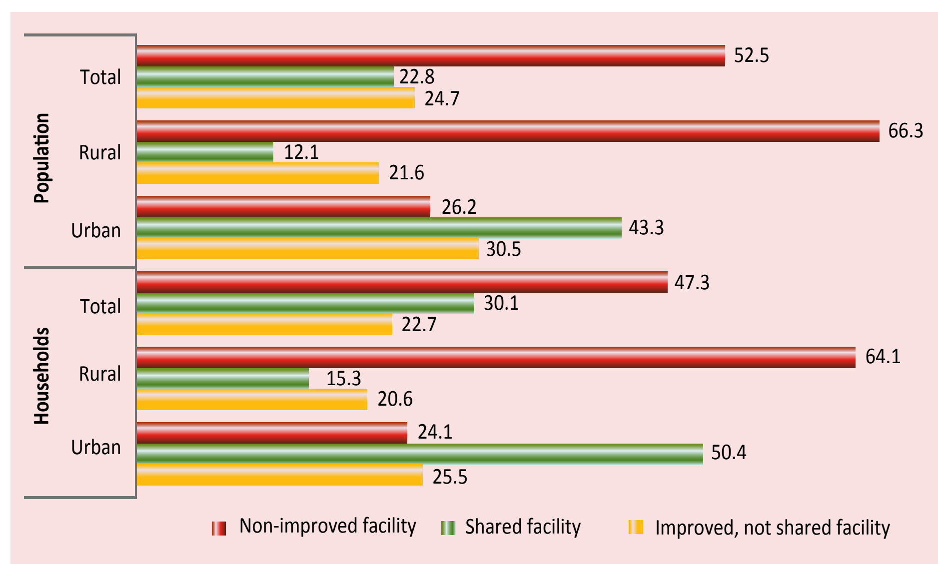
Water and sanitation is integral to realization of the "Big Four" agenda. In addition to supporting agriculture and manufacturing, water supply for housing and health services is essential. Similarly, sanitation is essential to public health. As a concurrent function, water services require high level cooperation between the national and county governments to effectively deliver on respective mandates and functions. The National government is largely responsible for water resource management while county governments are expected to manage water service delivery. These two components require infrastructure for water conservation, production, harvesting, storage and distribution which both levels of government continue to finance.

The country requires more investment in water harvesting and storage infrastructure and water exploration and mapping to increase water availability. Freshwater availability per capita as at 2016 was estimated at 647 M^3 which places Kenya under category of countries with absolute water scarcity, thus exposed to higher risk of water crises and water-related conflicts. The total water demand by 2030 will be about 21 billion M^3 with threshold storage capacity of about 3.4 billion M^3. The country has 26 large dams and over 3,800 small dams whose total storage is about 0.18 billion M^3. The Vision 2030 water storage flagship projects include the construction of 24 medium-sized dams with a storage capacity of 2 billion M^3, and two multipurpose dams with a storage capacity of 2.4 billion M^3.

- About 72.5 per cent of the Kenyan population accesses water from an improved water source which are either piped water, borehole with pump, protected well, protected spring, rainwater collector or bottled water (KNBS 2018, KIHBS 2015/16). The population accessing improved water and sewerage services within the service area of the water utilities are 60 per cent and 15 per cent, respectively, which

is largely the case of population living in urban areas. This is against the target of universal access to improved water and sanitation services championed by the Vision 2030 and the SDGs and the 40 per cent target for sewerage envisioned in the water service sector strategy. Further, the Constitution of Kenya provides that access to safe water for drinking and in adequate amounts is a human right, thus low access can be considered as exposing the underserved population to health risks and lowering human dignity. There are only 28 towns with sewerage system in Kenya which demonstrates that huge investments are required to ensure universal access to water and sanitation services.

Figure 8.7: Sanitation coverage (%)



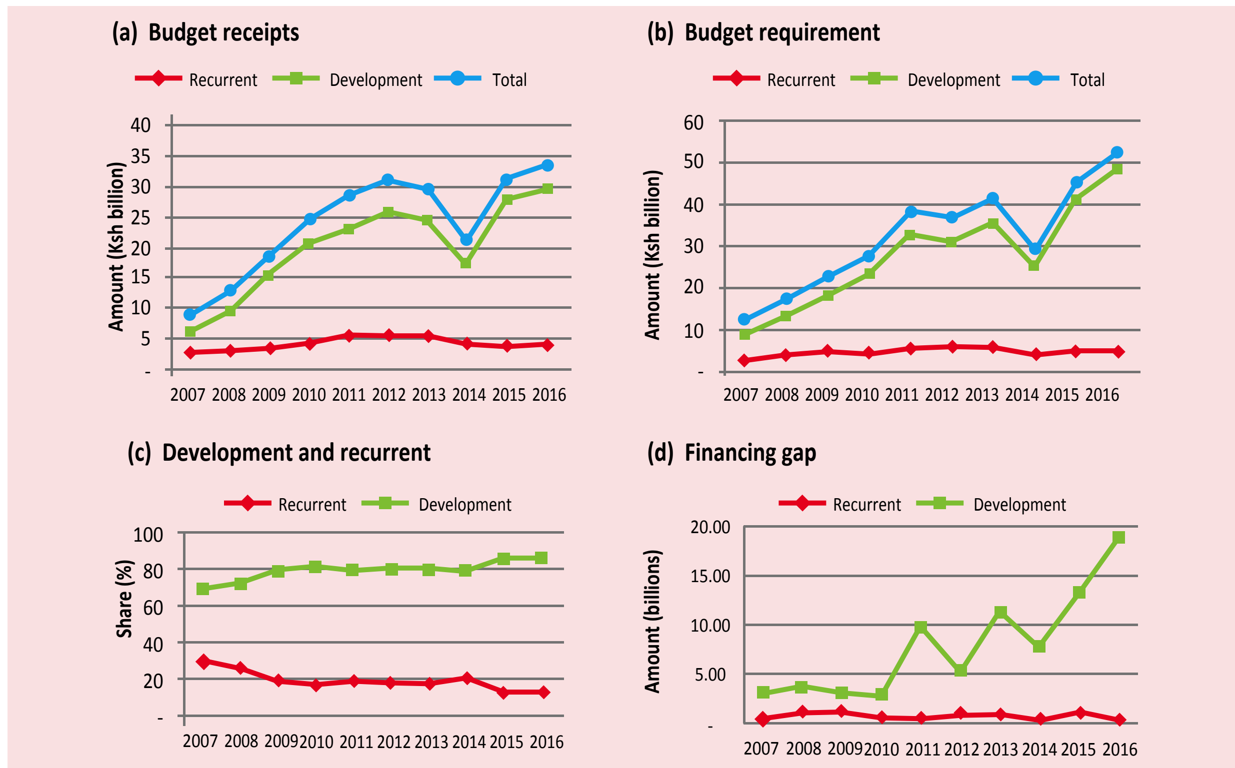
Source of Data: Kenya National Bureau of Statistics (2014), Kenya Demographic and Health Survey

- Urban areas population has better access to improved sanitation services than the rural areas (Figure 8.7). The population living in informal settlements in urban areas has low access to improved sanitation services, worse off than the rural areas. Improved sanitation comprises flush/pour flush toilet connected to piped sewer system, septic tank or pit latrine, ventilated improved pit latrine, pit latrine with slab or composting toilet, regardless of whether shared or not. The households accessing improved sanitation services, inclusive of rural and urban areas, are estimated at 52.8 per cent, translating to 47.5 per cent of the total population (Figure 8.7). The situation is worse for rural areas where only 35.9 per cent of the total number of households access improved sanitation services, equivalent to 33.8 per cent of the total rural population. The urban population accessing improved sanitation services are 73.8 per cent, comprising 75.9 per cent of households.

- County governments are principally expected to provide leadership in matters sanitation and especially in the development of sewer system and pubic sanitation blocks. Only a few county headquarters have sewerage systems, even though several of them have identified sewerage system development in their plans. In addition, counties are in-charge of garbage collection which is an integral component of sanitation and hygiene, an area where a lot more effort is expected to ensure the environment is conducive for residents and business.

- A large component of water sector finances (over 80%) goes to development expenditure and the share of recurrent expenditure has been declining (Figure 8.8c). Over the years, investment in the water sector has increased from about Ksh 5 billion to over Ksh 30 billion annually (Figure 8.8a) in the period 2007-2016 and annual financing gap similarly increased

Figure 8.8: Water sector investment financing

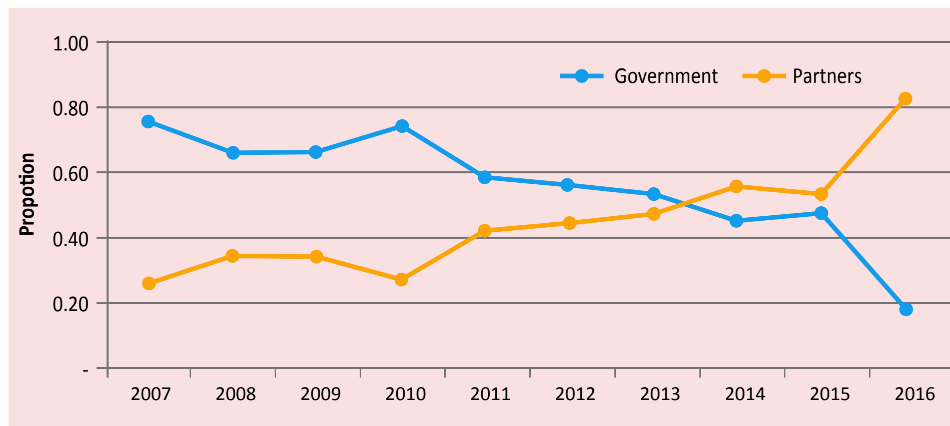


Source: Ministry of Water and Irrigation (2010-2016), Annual Sector Reports

from about Ksh 10 billion to about Ksh 20 billion in the same period (Figure 8.8d). The financing gap on development expenditure was high and widening over time.

- Public investment on water and sanitation is funded by the government and development partners whose share of financing requirement show interesting variance. The government used to contribute more before 2013 and the contribution of development partners has been increasing while that of the government has been declining over the period 2010-2016 (Figure 8.9). In 2016, development partners contributed about 80 per cent of water expenditure. There are also funds which are given by development partners directly to communities and local non-governmental organizations supporting water activities but are rarely captured in sector

Figure 8.9: Share of government and development partners in water financing



Source of Data: Ministry of Water and Irrigation (2010-2016), Annual Sector Reports

reports and this leads to under estimation of investments in the sector. There is need for a comprehensive reporting framework to capture all activities in the sector.

The country has inadequate availability of water and water towers are witnessing high degradation. This calls for increased investment in groundwater mapping and rainwater harvesting. Limited water availability is exacerbated by decreasing quality of surface and ground water and degradation of the water towers through human activities and encroachment, but the government has renewed commitment to conservation of the water towers through a plan to improve coordination of conservation activities and improving forest cover. The country experiences two seasons of heavy rains which can enhance water availability if rainwater is well harvested and stored.

Water utilities continued to experience high non-revenue water. This does not only deny the water utilities revenue to finance infrastructure maintenance and support operations but also reduces water consumption per capita and leads to water rationing. It limits credit worthiness of the water utilities which is a major hindrance to accessing finances for investments.

Water resource endowment is not evenly distributed across the country and this requires well managed inter-basin and inter-county water supply. The National and County governments are therefore required to enhance cooperation in facilitating water sharing across counties and basins for the country to benefit from a balanced role of water in socio-economic development across the country.

Research and innovation in more cost-effective technology can play a critical role in improving water availability, quality, harvesting, production and distribution. For instance, improvements in research on desalination technologies that are cost-effective can help especially the coastal areas and northern parts of the country.

The country has not exhausted available opportunities for resource mobilization for water and sanitation. There are many development partners who have been supporting and are willing to continue supporting the water and sanitation sector. The sector needs to work out a framework to provide incentives to mobilize more resources. There are also emerging sources of finances such as climate financing that the sector can exploit. The sector needs an integrated investment plan to guide investments by all players, both national government, county governments, development partners and communities.

Sewerage coverage of 15 per cent is below the target of 40 per cent. Such coverage exposes the population to various health risks. Garbage collection infrastructure is inadequate besides the challenges in management of waste. Collaborative effort among county governments, national government institutions, development partners and the communities can enhance investments in sewerage.

8.7 Revitalizing Infrastructure Investment and Financing

There is a huge financing gap that the country is required to address in implementing infrastructure projects to enhance productivity and spur growth. Total budget requirement over the period 2019-2021 amounted to about Ksh 1.3 trillion but the country is only able to allocate about Ksh 500 billion (Table 8.18). Cumulative financing gap for the three years amounts to about Ksh 2.5 trillion. County governments have also planned for infrastructure projects that will contribute to the stock of infrastructure and enhance its quality. This cuts across various sectors on infrastructure and is in line with the devolved infrastructure functions.

There is also a backlog of investment projects which affect effective delivery of future plans by over-stretching the existing technical capacity, and this is largely occasioned by delayed disbursement and

Table 8.18: Financing infrastructure investments, 2019-2021 (Ksh billions)

	2019			2020			2021		
	Requirement	Allocation	Gap	Requirement	Allocation	Gap	Requirement	Allocation	Gap
Administration, Planning, Policy and Support Services	226.9	59.3	-167.5	200.1	60.1	-140.0	117.1	60.1	-57.0
Infrastructure (Roads)	295.3	187.4	-107.9	332.7	191.2	-141.5	266.3	194.8	-71.4
Railway	226.9	59.3	-167.5	200.1	60.1	-140.0	117.1	60.1	-57.0
Maritime and Shipping	31.9	14.7	-17.3	32.5	15.9	-16.6	31.8	16.0	-15.8
Air Transport	14.9	11.8	-3.2	13.9	12.6	-1.3	13.7	12.6	-1.1
Housing and Public Works	71.8	22.0	-49.8	359.2	23.3	-335.9	464.3	23.9	-440.4
ICT, Broadcasting and Telecommunication	72.8	35.6	-37.3	64.8	34.5	-30.3	53.9	31.6	-22.3
Energy	250.9	74.8	-176.1	123.0	76.9	-46.0	85.5	77.1	-8.4
Petroleum	8.4	3.0	-5.4	8.9	4.8	-4.1	9.4	4.9	-4.5
Water	116.7	35.4	-3.7	136.5	35.6	-100.9	112.9	36.3	-76.7
Total	**1,316.5**	**503.2**	**-735.7**	**1,471.5**	**515.0**	**-956.6**	**1,272.0**	**517.4**	**-754.6**

Source of Data: Government of Kenya (2017), MTEF Sector Reports

procurement challenges. For instance, in the period 2014-2016, financing of infrastructure investments experienced a financing gap of about Ksh 60 billion, Ksh 90 billion and Ksh 11 billion for roads, rail and air transport infrastructure, respectively (Table 8.19). Such a gap leads to the sector performing below the targeted outputs. At county level, there has been progress in improving the quality of roads but they experience similar challenges leading to the financing gap.

The financing gaps are attributed to failure to meet revenue collection targets, delays in disbursement, and occurrence of project risks which delay implementation. Low levels of absorption have also been witnessed across sectors. This diminishes the bargaining power of the sector for more funding from the National Treasury. Some of the challenges behind low absorption are delayed disbursement, social resistance by communities, litigations on tendering processes, and the long procurement procedures. There is need for relevant institutions to

Table 8.19: Financing of investments (Ksh millions), 2014-2016

Infrastructure	Year	Approved	Actual	Financing Gap
Roads	2014	100,128	92,021	8,107
	2015	134,209	99,433	34,776
	2016	126,484	109,941	16,543
Rail	2014	7,194	5,562	1,632
	2015	159,783	153,733	6,050
	2016	146,778	61,932	84,846
Air	2014	9,867	3,810	6,057
	2015	2,348	2,254	94
	2016	11,776	6,095	5,681

Source of Data: Government of Kenya (2017), MTEF Sector Reports

innovatively source for funds to fund infrastructure projects.

The application of traditional sources of government revenue to fund infrastructure investments will remain key in guaranteeing certainty in infrastructure financing. Such sources include tax revenues (taxes on income, property, goods and services, international trade and transactions, etc), non-tax revenues (operating and service income, income from public enterprises investments, sale of assets, grants, aids, etc), borrowing from both domestic sources (treasury bills, notes and bonds to the public), foreign sources (obtained through loans secured from foreign financial institutions or flotation of government securities in international market), and withdrawals from available cash balances.

Though progress has been made by the government to pursue alternative sources of infrastructure financing, more efforts are required. Such sources include public-private partnership (PPP) framework especially in energy, transport, and housing sectors; infrastructure bonds for roads, energy and water sectors; and annuity-based financing programmes for roads. The full potential of the PPP framework has not been utilized especially due to the procedures, threshold requirements, and risk sharing among the stakeholders. However, there are emerging and innovative sources of financing public infrastructure projects. For instance, ring-fencing projects with commercial financing has been applied by Romania and Switzerland for water utilities. However, this is yet to be successful in Kenya. Infrastructure utility with balance sheet, and viability gap funding has also been applied in India, Chile and South Korea. The latest available option is the green and climate funds as envisioned in the Green Climate Fund and Carbon Trading Market.

In addition, other key sources of finances for infrastructure development include private sector investments by borrowing from capital markets, commercial banks, and savings and credit cooperative societies. Some sectors such as housing also benefit from pension schemes and investments by insurance companies which invest in property development.

Government institutions will be required to increase internally-generated funds to complement the allocated funds. Government commercial institutions must enhance efficiency and competitiveness to increase their earnings, failure to which their indebtedness will exacerbate the financing gap since they may require bail outs.

County governments lack sufficient financial resources to finance mega infrastructural projects required at the county level, especially road networks. This is due to weak resource mobilization strategies with limited diversification and optimization of the sources of financing, including limited uptake of opportunities under public-private partnerships (PPPs). The revenue raised by county governments from various levies is also low for major infrastructure projects. The counties also have limited capacity to borrow and have not developed appropriate capacity to enter into public-private partnerships (PPPs). Thus, county governments may be unable to mobilize enough funds to finance their infrastructure requirements.

Some sectors do not have an investment plan that combines national government and county government investment plans. This limits effort in resource mobilization and targeting and the ability to optimize on benefits of integrated planning, coordination and implementation of projects across the country. It shrinks the synergies that are expected between the two levels of government. Weak coordination has also led to financial leakages and low efficiency in infrastructure development in terms of value for money. The infrastructure sub-sectors need to enhance coordination and monitoring framework especially in planning and management of not only financial resources but also stock of infrastructure.

There is limited due diligence in planning and monitoring of infrastructure projects leading to

different investors, government agencies and other players not being able to provide the correct financial needs for projects. This leads to escalation of costs thus creating huge gaps when the actual work starts. During implementation of infrastructure projects, weak monitoring and reporting framework exposes the projects to wastage of funds and reduces value for money in infrastructure development.

Project costing is a big concern in optimizing value for money. One source of cost escalation emanates from debt financing which requires a balanced mix of commercial and concessional loans. Unlike concessional loans, commercial loans attract higher interest rates, shorter payment period and sometime shorter grace period. In addition, insurance cost and foreign exchange contingencies may be accrued to loans. Direct project costs mainly comprising capital costs increase due to import duty and level of technology applied, though exemptions are applied on some projects, while labour costs are affected by policies such as those requiring a certain proportion of local content especially on employment of local labour force. Land speculation, environment protection, resettlement of project affected entities and alteration of project design are typical obstacles. In addition is the failure to honour project lead times and manipulation of compensation plans which tend to inflate project costs. Relevant authorities need to be engaged to investigate such cases.

Inadequate project appraisal may result in over or under-estimation of costs. Furthermore, infrastructure project appraisal tends to largely concentrate on actual construction costs. Although manuals and standard unit rates exist to guide project costing, they lack dynamisms leading to delays in project implementation and increasing costs. For example, estimates are often adjusted during procurement process necessitated by higher costs by bidding contractors. Least estimated in project costing is social and environmental costs, leaving room for cost escalation. Social costs manifest through speculation in land acquisition and resettlement of persons and relocation of social amenities such as markets, schools, hospitals

Administrative Police housing development along the Eastern Bypass at Utawala

and churches. Environmental estimates capture environmental restoration, conservation and sustainability costs.

There is limited uptake of new and innovative ideas on sources of financing especially those which are unsolicited, besides the Procurement Act providing mechanisms for engagement on such requests. This has been attributed to complacency among government institutions. Change of such attitude can encourage the private sector to come up with innovative ways of financing infrastructure projects as long as provisions in the Public Finance Management Act, PPP Act, Public Procurement and Asset Disposal Act, and the Public Officers Ethics Act are not violated, among other relevant legal and policy provisions.

Inter-governmental and inter-institutional challenges which include duplication of roles among the multiple bodies both at the national and county levels lead to low productivity, effectiveness and efficiency in infrastructure development as they seem to have same mandates which inevitably lead to conflicts and duplicated efforts thus reducing the expected outcome. This invariably strains the relations between the two levels of government and the concerned national institutions, which delays the implementation of agreed projects. This is also witnessed at regional level where member States may not always have a common position on infrastructure opportunities. Therefore, integrated investment planning can harmonize and synergize the efforts of various infrastructure development institutions and other regional development authorities.

Inadequate technical capacity needs to be addressed to improve planning and management of projects and match the increasing demand for infrastructure development. There are capacity challenges in developing and structuring projects that can attract funding from financial institutions such as banks. Inadequate project planning and management, and project design also affects productivity of investments. This manifests in limited integrated planning, consultations and public participation. Technical capacity is overwhelmed with piling backlog of infrastructure due to delays which increase the number of projects rolled over to next financial year for they will require more supervision and technical input. Some institutions are faced with aging workforce especially in technical skills.

Social resistance, limited public participation and stakeholder consultation lead to project delays especially when such stakeholders ask pertinent questions regarding their welfare and rights. Some of the questions are related to environment, land, revenue sharing, community benefits, employment and relocations. These increase project risks and scare away potential partners since social acceptance is an indicator for higher likelihood of consumers of the infrastructure service to be willing to pay for infrastructure services.

Limited strategic interest from investors and regional partners in critical infrastructure hinders efforts to raise finance for infrastructure development. This is attributed to low returns on investments in some infrastructure and limited political goodwill from some member States of the regional blocs. Different financiers have different investment interests which skew the availability of their funds across sectors. Securing and sustaining interest and commitment by member States for regional infrastructure requires intensive consultations and high-level goodwill.

8.8 Conclusions and Policy Recommendations

- There is need to build momentum towards delivering requisite infrastructure to boost the role of the infrastructure sector in the economy. All sub-sectors are lagging against the Vision 2030 targets. This has ripple effects on sectors with linkages with infrastructure sector such as agriculture, manufacturing, trade, tourism, financial sector, business process outsourcing, health, and education and training.

- As the country builds its infrastructure stock through new constructions, it is important to continue investing in maintenance; this reduces the rate of depreciation of infrastructure and reduces the cost of infrastructure over time.

- Cost effectiveness needs to be a prime principle in development of infrastructure otherwise high costs will limit accessibility. The infrastructure should not only be available but also affordable. The planners need to explore and innovate on cost cutting measures through due diligence, prudent costing and adoption of least cost technologies.

- Robust resource mobilization strategy together with an integrated investment plan needs to be put in place in all sub-sectors. This will require functional stakeholder mapping, consultation and balance of risk allocation. Integrated planning will synergize infrastructure investments and avoid wastages, and destruction of already developed infrastructure to pave way for allied infrastructure. It will require integrated investment profiles with complete information to help investors make decisions. This is also a sign of commitment and good planning which motivates investors.

- Capacity building in project planning and management is key. Among the issues to be addressed are demarcation of stakeholder roles such as the financier (investor) and project developers to ensure seamless progress of the projects. This should also seek to reduce the turnaround time to investments.

- Before a project is signed by the National Treasury, issues of land acquisition, way leaves, community compensation, among others, need to be sorted out to enable their quick implementation.

- Cordial relations and high level of cooperation between the national and county governments, as well as member States in the regional bloc will enhance infrastructure development and infrastructure productivity and service delivery. County governments have demonstrated capacity to contribute to the stock of infrastructure and enhance quality of existing infrastructure and with stronger working relationships with the already established national government institutions. Deepening of economic integration in the region is critical for regional infrastructure and maximizing usage.

- The external borrowing framework for counties could be expedited to enable the counties to engage donors directly, but with the National Treasury doing the final approval.

- Adequate risk mitigation strategies would address existing and emerging constraints and challenges that derail the agenda of infrastructure development. Some of the key risks that require improved risk mitigation strategies are procurement, social opposition from stakeholders and the public, balancing stakeholder interests and public good, inter-governmental and institutional relations, cost of inflation, among others. Institutions will need to create strong risk mitigation systems to prevent infrastructure projects from delays or abandonment.

- Though the planning practices are periodical, ranging from annual, medium term to long term visions, there is need for such plans to continue accommodating emerging infrastructure needs. This calls for review of existing plans, routes and networks of infrastructure to ensure inclusive and comprehensive integration of the

Chapter 9

Investments in Human Capital Development

Investments in socio-economic sectors focus on human capital development and protection of the poor and vulnerable which is fundamental for sustainable inclusive and equitable growth. The health sector has seen increased uptake of healthcare services and improved health outcomes. In achieving universal healthcare, the government is expanding health insurance coverage through the National Health Insurance Fund (NHIF) to reduce out-of-pocket payments. However, to sufficiently meet the financing needs of the sector, the role of private sector in health insurance is important in enhancing insurance uptake especially in the informal sector. In addition, providing adequately for various programmes is important in delivering the required health services. Moreover, finding solutions to the frequent health workers' unrests is essential in delivering health services and achievement of key health indicators. In the education sector, the reforms undertaken have increased enrolment and completion rates at various levels, including technical training. However, adequate student capitation is required to reduce the burden on parents. Finally, while social protection programmes have increased coverage to ensure the targeted beneficiaries are reached, there is need to ensure efficient use of resources, coordination among the various actors, and adequate funding to secure the gains made.

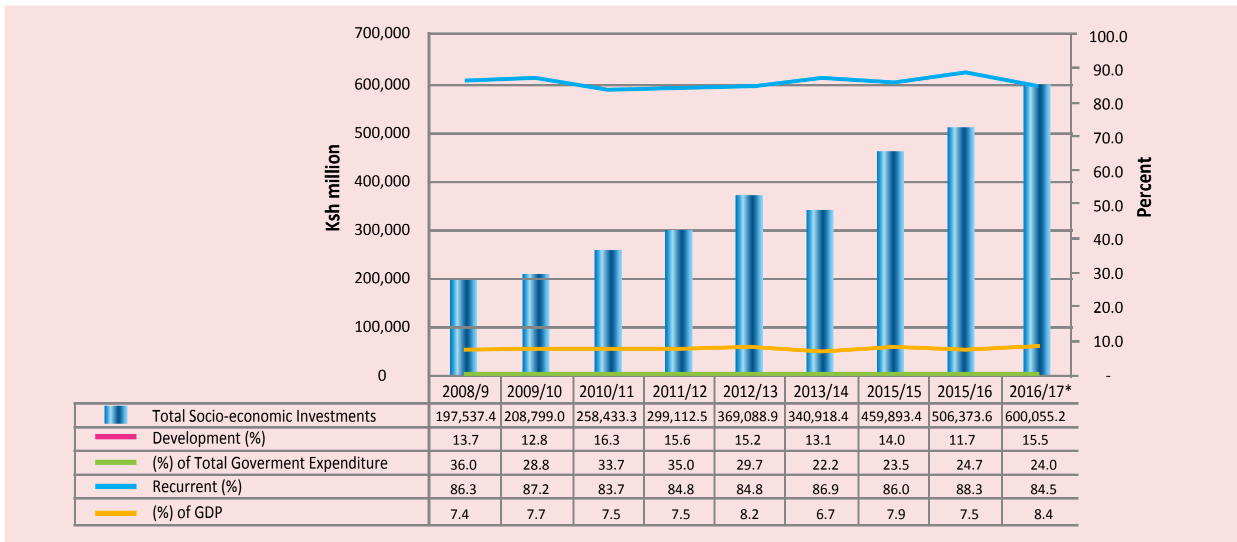
economic and industrial zones in the economy and allowing for plans beyond 2030.

- Operational efficiency in infrastructure and improved service delivery are instrumental in boosting infrastructure services. Expansion of infrastructure and adoption of appropriate technology can ensure that the sectors enjoy economies of scale as well as promote service quality assurance.

9.1 Investment in Key Social Sectors

Investing in human capital will boost the manpower required to drive the Kenya Vision 2030 and the priorities in the "Big Four" agenda. The socio-economic sectors which comprise education, health, social protection, gender and youth affairs receive a significant proportion of government expenditure allocations even with the devolved functions. In the periods 2008/09 and

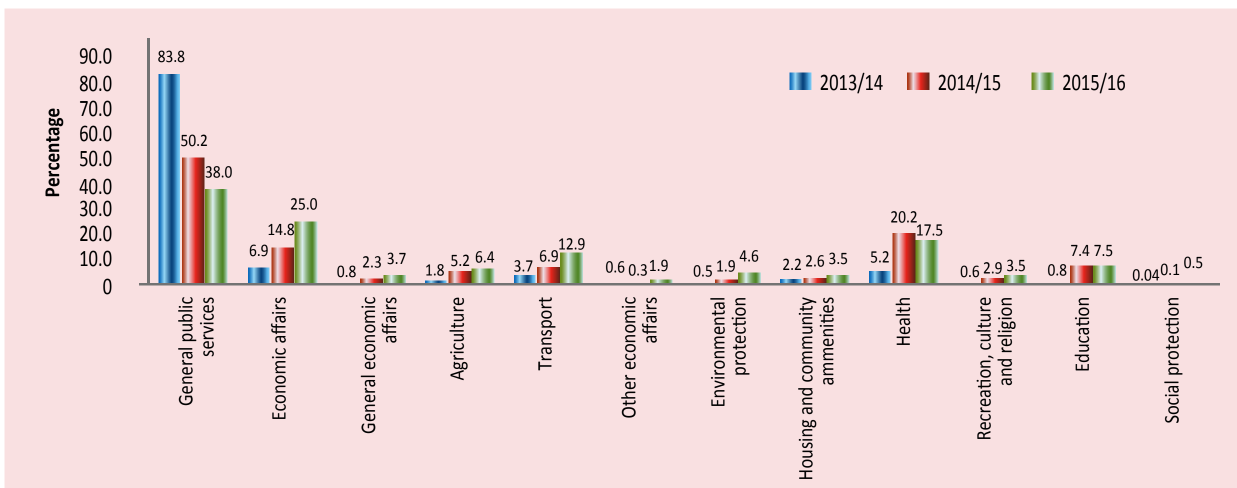
Figure 9.1: Government expenditures in socio-economic sectors, 2008/9-2016/17



	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2015/15	2015/16	2016/17*
Total Socio-economic Investments	197,537.4	208,799.0	258,433.3	299,112.5	369,088.9	340,918.4	459,893.4	506,373.6	600,055.2
Development (%)	13.7	12.8	16.3	15.6	15.2	13.1	14.0	11.7	15.5
(%) of Total Goverment Expenditure	36.0	28.8	33.7	35.0	29.7	22.2	23.5	24.7	24.0
Recurrent (%)	86.3	87.2	83.7	84.8	84.8	86.9	86.0	88.3	84.5
(%) of GDP	7.4	7.7	7.5	7.5	8.2	6.7	7.9	7.5	8.4

Source: Kenya National Bureau of Statistics (Various), Economic Survey

Figure 9.2: County expenditures in socio-economic sectors, 2013/14-2016/17



Source: Kenya National Bureau of Statistics (Various), Economic Survey

2016/17, the sector consistently allocated more than 12 per cent of its total budget to development spending with total investment increasing from Ksh 197 billion in 2008/09 to Ksh 600 billion in 2016/17 (Figure 9.1 and Appendix 9.1).

At county level, the socio-economic sector budgetary allocations increased to 30.6 per cent in 2016/17 from 6.6 per cent in 2013/14, with health and education sub-sectors receiving the largest proportion of these investments (Figure 9.2). The development spending across counties ranged between 13 and 25 per cent of total health budget with most of the health development spending going to construction of new facilities, acquisition of medical equipment, and purchase of medical supplies while in education it went to Early

Childhood Development Education (ECDE) and TVET institutions.

9.2 Investment in Universal Healthcare

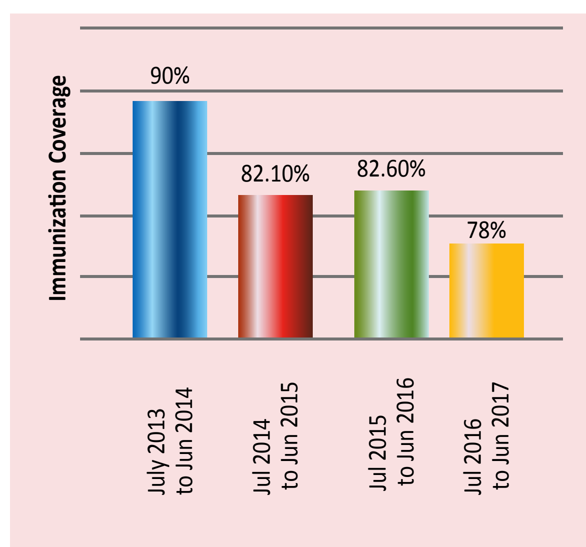
The government has been implementing various programmes and projects aimed at attaining universal healthcare as enshrined in the Constitution and the target set under the "Big Four" agenda of universal healthcare by 2022. The programmes include the *Linda Mama* (formerly the Free Maternity), the Health Insurance Subsidy Programme (HISP), and the Health Insurance for the Elderly and People with Severe Disabilities (E&PWSD) programme, and the recently launched health insurance for all high school students.

9.2.1 Health Outcomes

Over the years, Kenya has seen significant improvement in various health outcomes and uptake of healthcare services. For example, the Kenya Demographic and Health Survey (KDHS) 2014 shows that crude birth rate declined by 8 percentage points from 38.9 in 2003 to 30.5 in 2014 (Table 9.1). The decline in crude death rates was more modest, having recorded a decline of one percentage point from 11.5 in 2003 to 10.4 in 2014. In addition, infant and Under-5 mortality rates reduced to 39 and 52 deaths per 1,000 deaths. The improvements in under-5 health outcomes can partly be attributed to the fact that, over the same period, the proportion of births that were attended to by a skilled health provider increased from 44 per cent to 62 per cent. Other high impact interventions included new-born care, immunization coverage, early and exclusive breastfeeding, hand washing with soap and water, and appropriate management of common childhood illnesses including oral rehydration therapy and zinc for diarrhoea treatment by health providers. Although there was a significant improvement in maternal mortality, a lot more is required to get to the target by 2030.

Immunization services have been adversely affected by the numerous industrial actions by health workers. The fully immunized child coverage has been fluctuating around 83 in 2013/14 to 71 in 2014/15 to 68.5 in 2015/16 and 71.7 in 2016/17. Data by county from the DHIS-2 further shows that 34 out of 47 counties had full immunization coverage levels in 2016/17 lower than in 2013/14. Children below one year fully immunized in Kenya dropped from 90 per cent in 2013/14 to 78 per cent in 2016/17 (Figure 9.3).

Figure 9.3: Full immunization coverage for 2013/14–2016/17



Source: Ministry of Health (2017)

Proper care during pregnancy and delivery is important for the health of both the mother and child. According to the KIPPRA Assessment of Healthcare Delivery in Kenya under Devolved System (KIPPRA 2018), antenatal care (ANC) from a skilled provider was 99 per cent in some counties with only six (6) counties with less than 90 per cent coverage. The percentage of women making four or more ANC visits ranges from a low of 18 per cent to 73 per cent. In other counties, less than 50 per cent of women attend the recommended number of ANC visits.

Contraceptive usage shows that the Contraceptive Prevalence Rate (CPR) is 58 per cent against a target of 66 per cent by 2030. Across the country, most of the counties with high fertility have low usage of contraceptives. The percentage using contraceptives in Mandera is 1.9 per cent, Wajir 2.3 per cent, Garissa 5.5 per cent, Turkana 10.3 per cent, Marsabit 11.7 per cent and West Pokot 14.2 per cent compared to Makueni 80.3 per cent, Kirinyaga 80.0 per cent, Meru 78.0 per cent, Kiambu 74.0 per cent and Nyeri 73.0 per cent (Ministry of Health, 2017).

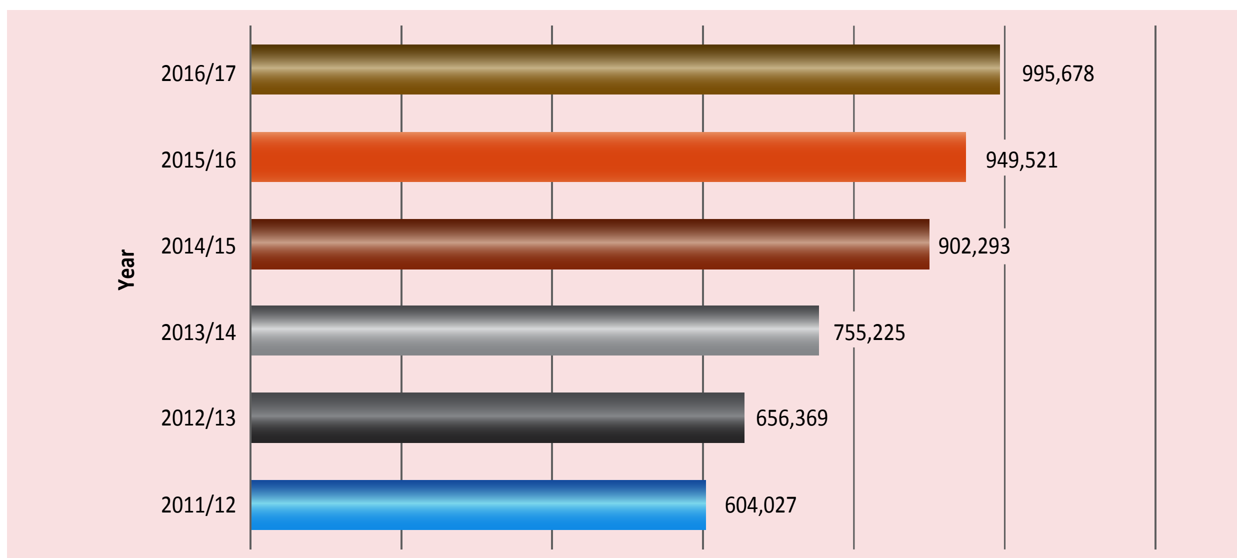
To reduce HIV prevalence, the MTP II targeted to reduce HIV prevalence from 5.6 per cent in 2012 to 5.0 per cent and 4.0 per cent in 2015 and 2017, respectively. About 46 per cent of all new HIV infections are among young people aged 15-24 years with two thirds among girls and young women. Women are more vulnerable to HIV infections compared to men in Kenya with the national prevalence at 7.0 per cent for women and 4.7 per cent for men as per the 2016 county HIV profiles. The

Table 9.1: General health status indicators

Indicators	2003	2009	2014	Target by 2030
Crude birth rate	38.9	34.8	30.5	-
Crude death rate	11.5	10.4	10.4	-
Total fertility rate	4.98	4.80	3.90	-
Infant mortality rate	77	52	39	Reduce by 1/3 (by 2030)
Maternal mortality rate	414	488	362	70 (by 2030)
Under-5 mortality rate	115	74	52	25 (by 2030)
Neonatal mortality	33	31	21	12 (by 2030)
Proportion of births attended by a skilled health personnel	41.6	43.0	62.0	-
Contraceptive Prevalence Rate (CPR)	38.3	46.0	58.0	-
Children 12-23 fully vaccinated	51.5	77.0	79.0	-
Exclusive breastfeeding in the first 6 months	-	-	61%	50% (By 2025)
HIV prevalence rate	6.7%	-	6.3%	5.9 % (as of December 2016)-
Life expectancy at birth	-	58.0	58.0	-

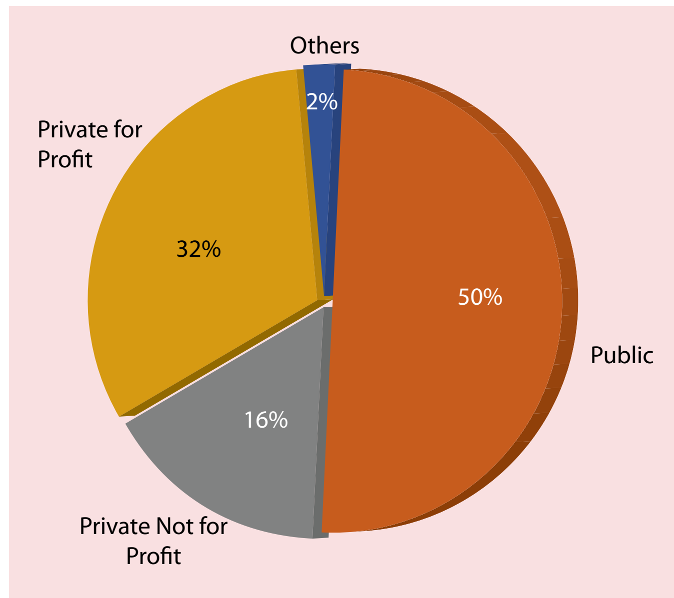
Source of Data: Kenya Demographic and Health Survey - KDHS (2014)

Figure 9.4: Number of adults and children on ART



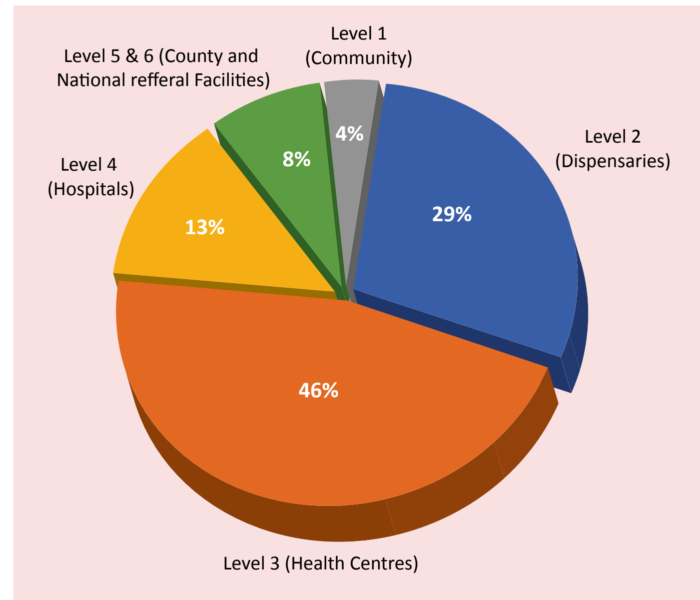
Source: Ministry of Health (2018)

Figure 9.5: Investment in health facilities by managing authority



Source: Ministry of Health (2017)

Figure 9.6: Investments in the health system



Source: Ministry of Health (2017)

epidemic is geographically diverse, ranging from high prevalence of 26 per cent to a low of 0.4 per cent. The country has recorded a 66.0 reduction in mother to child transmission of HIV from 14.0 in 2013 to 6.3 in 2016. Currently, 1.6 million people are living with HIV in Kenya out of whom 1 million are on life saving ARVs. So far, about 400,000 lives have been saved due to ARVs (Ministry of Health, 2017).

Kenya has made great strides in Tuberculosis control. The country has achieved and even surpassed the WHO global targets of 70 case detection and 85 treatment success rate. In terms of TB/HIV, the testing rate in 2016 was 96 per cent of all TB cases being tested for HIV out of which 31 per cent were HIV positive and 95 per cent of them were put on ART.

9.2.2 Health sector facilities

Adequate health infrastructure is key in delivery of quality health services. From Figures 9.5 and 9.6, public health facilities comprise the largest proportion (50%) of facilities in the country followed by private for profit (32%) and private not for profit (16%).

With the devolved system of government, healthcare infrastructure has seen unprecedented expansion and improvements with an increase in the number of health facilities from about 9,000 before devolution to 10,000, increasing the national average facility density from 1.9 to 2.2 health facilities per 10,000 population. About 80 per cent of these facilities are at Levels 1-3 and focused on primary healthcare, including community health facilities, dispensaries and health centres. At county level, the World Health Organization (WHO) recommends 15 health centres per 30,000 people and 45 dispensaries per 10,000 people. Among the counties where the WHO target is surpassed include Kericho, Homa Bay, Murang'a, Kajiado, Elgeyo Marakwet, Nairobi and TaitaTaveta. Those that are far below the target include Nakuru, Bungoma, Kilifi, Meru, Siaya, Trans Nzoia and Turkana as at 2016 (Ministry of Health, 2017).

Kenya has two referral facilities, Kenyatta National Hospital (KNH) and Moi Teaching and Referral

Hospital (MTRH). These two provide curative and rehabilitative services in the country and specific specialized diagnosis and treatment such as renal and other complications of non-communicable diseases. The facilities have various investments targeted to adequately equip them to cater for non-communicable diseases. These include the construction and equipping of phase I of the Cancer Centre of Excellence and acquisition of the 6MV Linear Accelerator at KNH. The construction and equipping of Surgical Day Care Centre was 75 per cent complete as at June 2017. In addition, the upgrade of KNH's Renal Unit and establishment of the East Africa Kidney Institute was initiated. The construction of the Shoe4Africa Children's Hospital and Chandaria Cancer and Chronic Disease Centre (CCCDC), and the expansion of the General ICU were completed at MTRH. The Renal Centre was also equipped, while equipping of the Neurosurgery Centre is still ongoing. Besides, 3 out of 58 E-health hubs were established at KNH, MTRH and Machakos County Referral Hospitals.

9.2.3 Medical equipment

According to the Health Sector Report 2018/19, as of 2017 the 98 public hospitals across all counties had been equipped with modern diagnostic and treatment equipment and installed 100 new digital x-ray systems, 50 digital mammography units, 96 digital ultrasound units, 95 digital sterilization equipment, 99 ICU/HDU beds, 162 digital anaesthetic machines and 20 new MRI machines. However, the resource allocations for managing this equipment were not made, leaving hospitals with very advanced equipment and little or no knowledge of how the machines operate.

On average, the Health Assessment Survey 2017 by KIPPRA shows that more than 86 per cent of all health facilities in the country had functional basic equipment, with private and urban facilities, including urban public facilities doing best. The basic equipment included minimum equipment expected of a health facility (weighing scale for

Kenyatta National Hospital, the largest referral hospital in Kenya

(adult, child and or infant), stethoscope and thermometer). The report further shows that among the pieces of equipment, the refrigerator, adult and infant weighing scales were the least widely available and the thermometer and stethoscope the most widely available. It is important to note that less than half of the health facilities did not have a functioning refrigerator which is essential for storage of vaccines. This could undermine the gains in immunization coverage. Urban and faith-based mission health facilities led in having a refrigerator compared to other facilities with 67 per cent and 75 per cent, respectively.

9.2.4 Human resource in the health sector

Kenya has significant shortfalls in its health workforce relative to cadre norms, and the mal-distribution of health human resources worsens ratios in many counties. Despite the increase in registered medical personnel by an annual average of 8 per cent between 2013 and 2016, shortfalls exist. As indicated in Appendix 9.2, Kenya had 0.25 medical officers per 10,000 people compared to the WHO norm of 3.0 medical officers per 10,000 people. Overall, the shortage of general practitioners in 2015 was 3,801 while the respective shortfalls in clinical officers and nurses stood at 6,696 and 40,468. There were about 14 health workers per 100,000 population at the community level, and 13.5 health workers per 100,000 people at the primary care level. County hospitals and national hospitals had 12,300 and 7,700 workers, respectively. The effects of these shortfalls are exacerbated by the fact that some personnel are in administrative positions.

Most counties have been investing to expand health service delivery by building new primary health centres and other infrastructure. However, this has been done without an equivalent increase in human resources for health. Due to inadequate deployment framework, unengaged trained health professionals coexist with under-resourced facilities. Shortages are experienced across technical specialized staff including health technologists, surgical staff, doctors and health engineers.

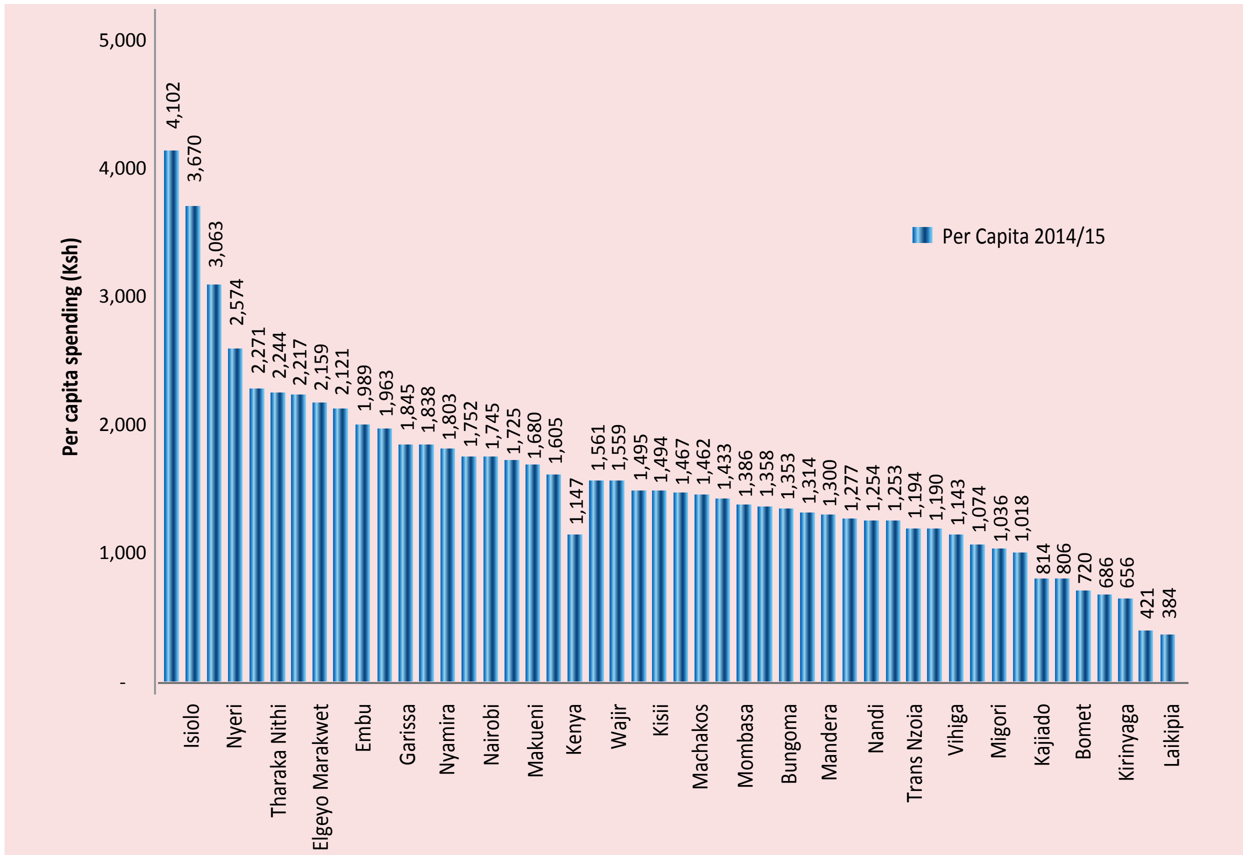
In addition to the health workforce deficiencies across cadres, Kenya's health sector has experienced recurrent unrest among health workers. The unrests have been blamed on numerous factors including unfavourable employment conditions and dissatisfaction with remuneration. A major explanation of the ongoing unrest is aptly captured in the respective Collective Bargaining Agreements (CBAs) of different cadres of the health workers. The Health Assessment Study 2017 by KIPPRA established that few or no patients visited public health facilities during the strike because they knew health workers had withdrawn their services.

9.2.5 Financing healthcare

The government is a major financier of healthcare in Kenya. The Total Health Expenditure (THE) comprising of government, donor and private/household resources increased in absolute value from Ksh 234 billion in 2012/2013 to Ksh 345.7 billion in 2015/16 with the government contributing 32.1 per cent and 37 per cent, respectively. The private sector contribution increased from 32 per cent to 40 per cent while donor contribution declined from 25.5 per cent to 23 per cent, respectively.

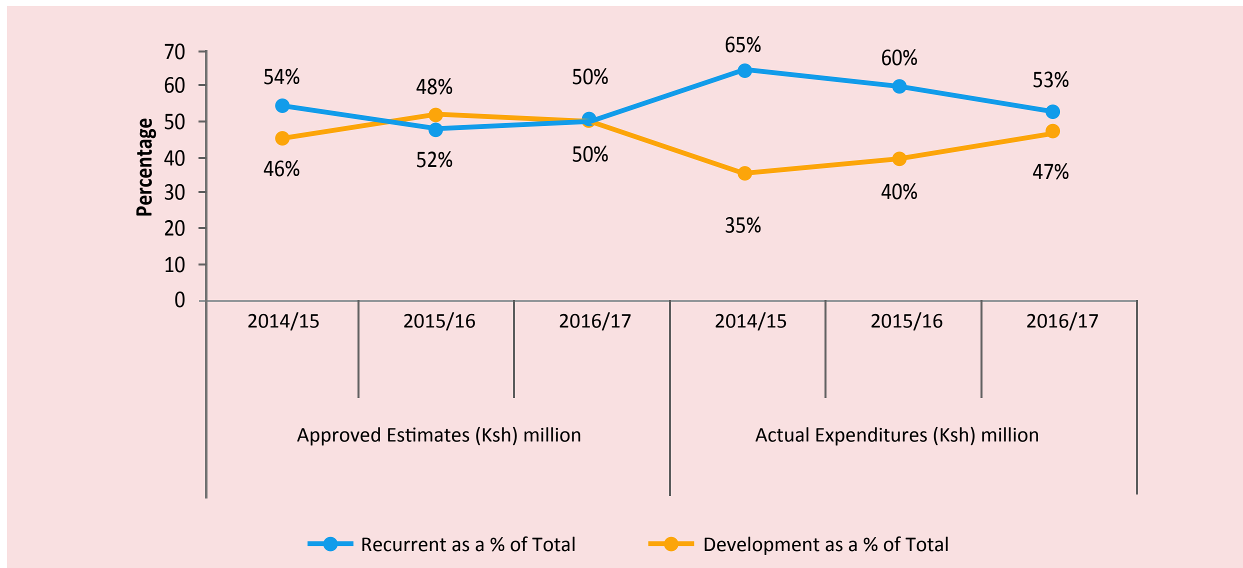
Analysis of per capita health expenditure in the country was Ksh 1,147 in 2014/15. The per capita spending fell short of the WHO target of US$ 64 (Ksh 6,400). At the county level, health per capita expenditure ranged from a high of Ksh 4,102 for Isiolo to a low of Ksh 384 for Laikipia County (Figure 9.7). Laikipia, Kirinyaga, Bomet, Kajiado, Migori, and Vihiga lead the counties that fall below the mean while isiolo, Nyeri, Tharaka Nithi, Elgeyo Marakwet, Embu, Garissa and Nyamira lead the counties that are above the mean average per capita expenditure on health (Ministry of Health, 2017).

Figure 9.7: Per capita expenditure on health by county, 2014/15 (Ksh)



Source: Ministry of Health (2017), Health Management Information Systems (HMIS)

Figure 9.8: Recurrent versus development expenditure for 2014/15–2016/17



Source: Ministry of Health (2017)

9.2.6 Expenditure on health programmes

While the national government allocated 7 per cent of the budget to the health sector, recurrent expenditures have been decreasing in the last three years from 65 per cent in 2014/15 to 60 per cent in 2015/16 to 53 per cent in 2016/17 (Figure 9.8). This could be explained by the increase in development spending on key capital equipment on renal, MRI and other specialized equipment in the Intensive Care Units (ICUs) and High Dependency Units (HDUs). In 2017/18, over half of the budget of the Ministry of Health, Ksh 31.4 billion (53% of total budget) was allocated for development largely focusing on the rehabilitation of healthcare infrastructure while the rest was spent on recurrent expenditure, including paying salaries for health workers.

The total budget allocated by county governments to health increased from 13 per cent of the total county budgets in 2013/14 to about 25 per cent in 2015/16. The national budget increased from Ksh 36 billion to Ksh 60 billion between 2013/14 and 2016/17, an increase of about 67 per cent. This is a clear demonstration of the priority that healthcare is gaining at both national and county levels.

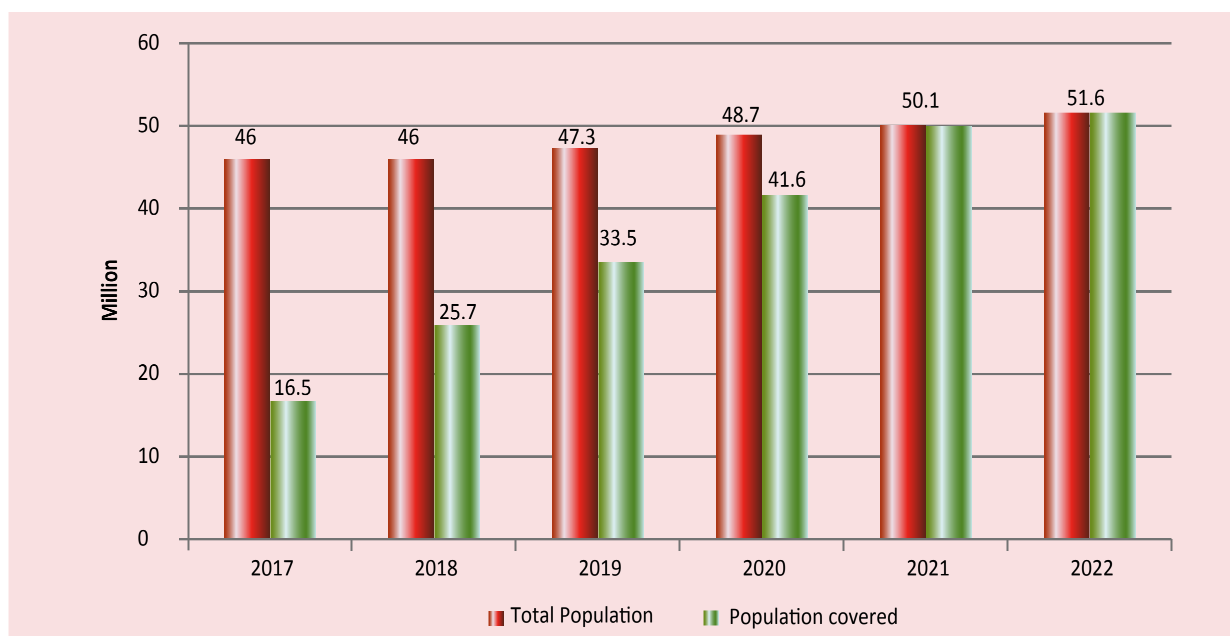
9.2.7 Health insurance

Social health insurance has been recognized in the Kenya Vision 2030 as one of the pillars for Kenya to achieve Universal Health Coverage (UHC). National Health Insurance Fund (NHIF) is a major source of health financing in Kenya accounting for 88.4 per cent of all insurance covered patients. This notwithstanding, the penetration rate of insurance coverage remains low.

Through the NHIF, the government aims to reduce the 26 per cent out of pocket to 12 per cent by the year 2022 by increasing insurance coverage cover. The fund has various levels of coverage including comprehensive coverage in state hospitals and limited co-payment coverage at private facilities with premiums determined by income and topping out at Ksh 1,700 per month.

Currently, NHIF covers 16.5 million people and is expected to attain a 100 per cent coverage by 2022. There was significant growth in membership of 68

Figure 9.9: Projected population growth and NHIF coverage by 2022



Source: Ministry of Health (2017)

Table 9.2: Total principal members registered per sector, 2012/13 - 2016/17

Classification	2012/13	2013/14	2014/15	2015/16	2016/2017
Public sector	795,768	826,545	865,649	926,414	972,239
Micro-insurance	1,228,015	1,606,179	1,989,420	2,235,892	2,608,832
Private sector	2,008,010	2,237,515	2,455,900	2,689,753	2,898,174
Sponsored programme	27,340	43,423	164,211	284,197	325,612
Total membership	4,059,133	4,713,662	5,475,180	6,136,256	6,804,857
% growth		16%	16%	12%	11%
NHIF income and expenditure					
Receipts	12,054.90	13,629.10	15,826.20	28,477.90	31,010.10
Benefits					
		5,522,805	5,883,677	7,319,525	10,621,553
		-	-	1,529,851	3,885,908
		-	-	899,411	7,608,440
		3,878,558	4,324,103	4,810,349	4,006,217
Total benefits	8,236.20	9,401.10	10,891.10	10,248.80	26,122.10
Contributions net of benefits	3,818.70	4,228.00	4,935.10	18,229.10	4,888

Source: Ministry of Health (2017)

The National Health Insurance Fund (NHIF) headquarters in Nairobi

per cent in the period 2012/13 to 2016/17. However, this varied between the formal and informal sector, with the formal sector witnessing a growth of 48 per cent while the informal sector (whose incomes are low and erratic hence might default on payment) has grown by 112 per cent over the same period. This increase is attributed to new benefits the fund introduced in the last five years. By 2016/17, the membership for compulsory health insurance for all salaried employees stood at 6.8 million, with a high proportion in the private sector-sponsored programmes (Figure 9.2).

For example, currently the programmes funded by NHIF under the outpatient and inpatient conditions included the health *Linda Mama* (maternal health) programme and insurance coverage for the elderly and persons with severe disabilities. Already, there are plans by the government as part of the universal healthcare coverage to have all secondary school students admitted in public schools insured by the NHIF in the next financial year.

Table 9.3: Analysis of resource requirements, and analysis by programmes

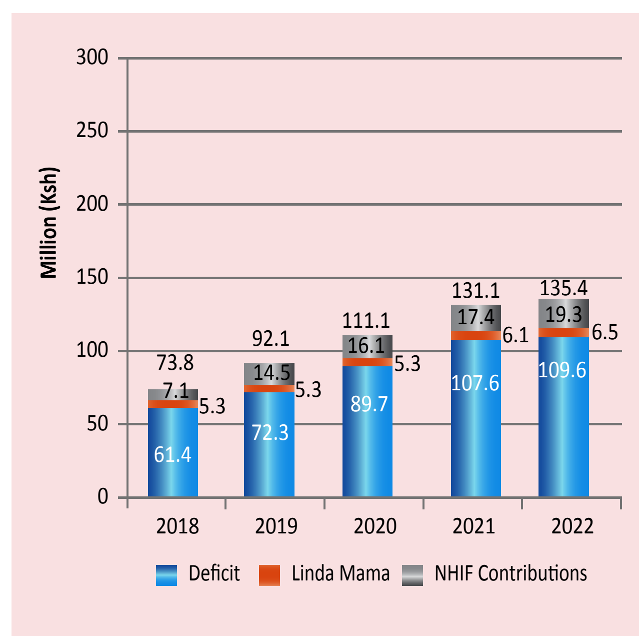
	Allocation	Requirement (Ksh million)	Allocation (Ksh million)	Gap (Ksh million)
	2017/18	2018/19	2018/19	2018/19
Preventive, Promotive and RMNCAH	14,111	23,811	10,447	-13,364
National Referral and Specialized Service	23,792	44,563	27,622	-16,941
Health Research and Development	5,840	7,032	5,998	-1,034
General Administration and Support Services	7,726	12,516	10,469	-2,047
Health Policy, Standards and Regulations	10,231	27,932	16,764	-11,168
Total	**61,701**	**115,855**	**71,300**	**-44,555**

Source: Ministry of Health (2017)

9.2.8 Financing gap

Despite the increased budgetary allocations, there are financing gaps that need to be addressed to ensure adequate service delivery. For example, considering the budgetary allocation and the resource requirements by the Ministry of Health, the key programmes show less allocations compared to the demands. The financial resource gap is wider under the national referral and specialized services programme. This means the interventions for non-communicable disease may not be fully funded. Similarly, preventive, promotive and reproductive health has the second highest gap in funding. The implication for this is that even as interventions are made to achieve universal health, the issues of water and hygiene need to be addressed to prevent outbreaks and recurrent diseases. Health policy,

Figure 9.10: Financial outlay in achieving universal healthcare



Source of Data: Ministry of Health (2017)

standards and regulations programme under which the Ministry sets norms and adherence in the health sector has the third highest resource requirements gap compared to other programmes.

In addition to the gap in resource requirements, Kenya will need to finance the universal health coverage under the "Big Four" agenda. Figure 9.10 shows NHIF contributions by those covered by the scheme, the *Linda Mama* contributions by the national government, the deficit that is required to achieve the universal health coverage as population increases, and the total resource requirements per year for the next five years. The increasing population is placing a lot of demand for health services and therefore the sector. As the population increases, so will the resource requirements and hence the financial deficit. In 2018, the resource requirement for universal healthcare coverage is Ksh 73.8 billion of which Ksh 61.4 billion will be from NHIF contributions, Ksh 5.5 billion from the *Linda Mama* programme and the deficit is Ksh 7.1 billion. The deficit is expected to grow to Ksh 19.3 billion in 2022 driven by the growth in population against those insured by NHIF.

9.2.9 Challenges and emerging issues

- Attracting and retaining workers in hardship areas has been a challenge that the sector had to deal with way before devolution. Further, health workers were reluctant to relocate to rural and/or hardship areas with limited amenities such as housing, transport, water and electricity compared to urban areas that attract more health professionals.

- Industrial unrest among health workers arising from general working conditions and issues of welfare brought out in negotiations of the Collective Bargaining Agreements (CBAs) affected health services such as immunization.

- Increase in non-communicable diseases (NCDs) such as hypertension, heart disease, diabetes and cancer strain the health system and household budgets. In 2015, NCDs accounted for 31 per cent of deaths in the country with 56.1 per cent being considered premature (people under the age of 70 years old). More than half of in-patient admissions and 40 per cent of hospital deaths in the country are due to NCDs.

- The weak link between physical infrastructure expansion and provision of human resources, and health supplies and equipment has been noticeable; most counties are expanding healthcare infrastructure without an equivalent increase in human resources for health.

- With the burden on public services at an all-time high, measured by admissions and outpatient visits, more needs to be done in funding to achieve financing of universal healthcare. Low health insurance coverage and uptake and high out of pocket spending by households leads to an increase in poverty.

- For Kenya to push its standard of care towards developed nations and tap on the proposed medical tourism destination in the region, significant investments will be needed in the sector.

- There is need to strengthen supply chain management system in counties, establish a mechanism to improve quality of care in all public hospitals and promote implementation of universal health coverage in all counties.

9.3 Education and Skills Development

In 2017/18, the government invested approximately Ksh 415.3 billion or about 14.95 per cent of its budget outlays on education and training. This investment goes towards enhancing free primary education, subsidized secondary education, and loan for students in higher institutions of learning besides the direct capitation for universities. Investments in the education sector aim to provide

quality education and training, and research and innovations.

The government has continued undertaking reforms to reduce the burden on households in accessing education at all levels. In 2017/18, the key reforms implemented included waiver on exam fees; free primary education; free day secondary education; and budget support to technical training institutes, universities and to the Higher Education Loans Board (HELB). The focus in free day secondary education is to achieve 100 per cent transition from primary school to secondary school from the current estimated transition level of 75 per cent.

9.3.1 Performance of the education sector

Early Childhood Education Development (ECDE) in Kenya serves the critical purpose of preparing young children for primary education. The county governments and parents are responsible for planning, developing and managing different childhood programmes.

The number of ECDE centres increased from 40,219 in 2014 to 40,775 in 2015 to 41,248 in 2016 and further to 41,779 in 2017 (Table 9.4). Enrolment increased from 3,019 in 2014, to 3,167 in 2015 and 3,199 in 2016 representing Gross Enrolment Rate (GER) of 76.3 per cent, 76.5 per cent, 76.6 per cent and 77.1 per cent, respectively. These increases are attributed to the expansion of ECDE centres and employment of more teachers by county governments. Net Enrolment Rate (NER) increased from 71.8 per cent in 2014 to 74.6 per cent in 2015 to 74.9 per cent in 2016 and further to 76.9 per cent in 2017.

The number of primary schools increased from 29,460 in 2014 to 31,333 in 2015 to 33,202 in 2016

Table 9.4: Free primary education schools, enrolment and completion rates, 2014/15–2017/18

	2014/15	2015/16	2016/17	2017/18
Early Childhood Development Education (ECDE)				
ECDE centres	40,219	40,775	41,248	41,779
Gross Enrolment Rate (%)	76.3	76.5	76.6	77.1
Net Enrolment Rate (%)	71.8	74.6	74.9	76.9
Primary Education				
Free primary education schools	21,302	21,676	21,953	22,264
Enrolment to public primary schools	8,876,458	8,903,974	8,879,685	-
Enrolment in public/private primary schools	9.97	10.1	10.3	10.4
Gross Enrolment Rate (%)	103.5	103.6	104.1	104.0
Primary Completion Rate (%)	79.3	82.7	83.5	84.0
Secondary Education				
Free Day Secondary Education (Ksh millions)	28.03	30.7	32.95	35.0
Number of students (millions)	2.17	2.35	2.6	2.7
Number of secondary schools receiving FDSE funds	7,598	-	8,452	8,452
Capitation per student (Ksh)	10,265	12,870	12,870	22,870
Number of secondary school (private and public)	8,734	9,440	9,942	10,655
Gross Enrolment Rate (%)	58.7	63.3	66.7	68.5

Kenya National Bureau of Statistics (2018), Economic Survey; Ministry of Education (2017). NB: (-) means data not available

and further to 35,442 in 2017. The Free Primary Education (FPE) programme that came into effect in 2002 supports the procurement of teaching and learning materials and general operations in beneficiary public primary schools. The number of schools receiving FPE support grew from 21,302 in 2014/15 to 21,953 in 2016/17 representing a 3 per cent growth of the number of schools receiving free primary education funds from the national government. With the proportion of public schools greater than private schools, FPE grants end up supporting close to 90 per cent of the population in primary schools.

Since the introduction of Free Primary Education, enrolment has consistently surpassed the Gross Enrolment Rate and been increasing every year. In 2017, the primary GER declined marginally to 104.0 per cent while the NER increased marginally to 91.2 per cent. Primary Completion Rate (PCR) increased from 79.3 per cent in 2014 to 82.7 per cent in 2015 and further to 83.5 per cent in 2016 and 84.0 in 2017. Primary to secondary transition rate also increased from 76.1 per cent to 81.3 per cent to 84.0 per cent in the same period. The FPE efforts were sustained by the move by the government to pay examination fees for all Kenya Certificate of Primary Education (KCPE) candidates in public primary schools from 2015/16 financial year and for all primary schools from the 2016/17 financial year. The government also moved to deliver school books to schools in early 2018 to attain the 1:1 learner to textbook ratio, thus availing to students important instructional materials that are needed in public schools. This means that schools will no longer receive capitation funds for buying textbooks.

The introduction of FDSE in 2008 has enabled schools to provide adequate learning materials to students and sustained the operations of schools. FDSE capitation was 12,870 between 2015 and 2017 and was adjusted in January 2018 to Ksh 22,240. This capitation covers teaching and learning materials and operations and maintenance while parents cover boarding fees and lunch for day schools. Additional reforms include targeting 100 per cent transition rate from primary to secondary school which started in January 2018.

The number of secondary schools increased from 8,734 schools in 2014 (7,686 public and 1,048 private) to 9,440 in 2015 (8,297 and 1,043 private) and further to 9,966 in 2016 (8,609 public and 1,357 private) due to increase in transition rate from primary to secondary. The GER increased from 58.7 per cent in 2014 (60.9 male and 55.5 female) to 63.3 per cent in 2015 (67.1% male and 32.9% female) and further to 66.7 per cent in 2016 and 68.5 per cent in 2017. Thus, FDSE programme is spurring access to secondary education.

The demand for higher education in both public and private universities has been increasing for the last three years. The number of universities , both public and private, increased from 53 in 2014 to 59 in 2017. This expansion has led to an increased enrolment of students pursuing university education in both public and private universities to stand at 628,369 in 2016/17 from 421,152 in 2014/2015. The growth in the number of public universities has been due to the need to take university education to counties that previously did not have institutions of higher learning.

In an effort to make technical training institutions focus and specialize on specific technical courses, the government has invested in centres of excellence such as Egerton University Centre of Excellence on Sustainable Agriculture and Agribusiness Management (CESAAK), Jaramogi Odinga Oginga University of Science and Technology Sustainable use of Insects as Food and Feed (INSEFOODS) and Moi University Centre of Excellence in Phytochemicals Textiles and Renewable Energy (PTRE). Training equipment and infrastructure to support centres of excellence is a key investment opportunity.

Total enrolment in registered TVET institutions increased by 35.8 per cent from 202,556 in 2016 to 275,139 in 2017 due to registration of more TVET institutions. The number of public Technical Vocational Education and Training (TVET) institutions rose from 755 in 2014 to 1,962 in 2017 (Table 9.11) and is set to sharply rise given the on-going construction and establishment of 217 new Technical Training Institutes (TTIs) to ensure that there is at least one TTI in each constituency. There has also been huge increase in enrolment attributed to new TVET institutions, rebranding of TVET institutions, and change in attitude among communities on enrolment to these centres. The enactment of the TVET Act 2013 has further streamlined the accreditation and registration of TVET institutions and trainers in ensuring quality of TVET graduates.

Table 9.5: Number of universities and public TVET institutions, 2014-2016

Category	2014	2015	2016	2017
Total Number of Universities (Private + Public)	53	53	58	59
Public Youth Polytechnics	701	816	816	1,186
Public Technical and Vocational Colleges	51	55	62	91
Private Technical and Vocational Colleges			382	627
National Polytechnics	3	3	11	11
Total public TVET institutions	755	874	1,300	1,962

Source: Kenya National Bureau of Statistics (2018), Economic Survey

9.3.2 Financing of education

Public spending on education increased substantially in 2017/18 due to funding of Free Primary Education (FPE) and Free Day Secondary Education (FDSE). Overall, education expenditure increased by 296 per cent from Ksh 140.3 billion in 2008/9 to Ksh 415.3 billion in 2017/18. However, in relative terms, the proportion of education spending as a percentage of total government outlays declined from 25.60 per cent in 2008/9 to 14.95 per cent in 2017/18. Analysis by *functional* classification of the recurrent budget indicates that most investments in education go to primary education (43%) followed by secondary and university education. However, the largest period change was the 1,846 per cent change for early childhood education whose modest share consequently rose from 0.2 in 2008/09 per cent to 1.4 per cent in 2015/16. The increase in ECDE allocation can be attributed to the fact that the ECDE function was devolved to counties who in return have managed to commit substantial resources for the sector. Total development expenditure by the Ministry increased by 43.9 per cent from Ksh 20.9 billion in 2016/17 to Ksh 30.0 billion in 2017/18. The growth in development expenditure by the government is mainly attributed to the funding of vocational and technical training and the Teachers Service Commission in hiring teachers and meeting the CBAs signed with the teachers union.

During the 2014/15 financial year, Ksh 13 million was allocated to ECDE at the national level. This was used in facilitating the development of the pre-primary education policy. During the period 2015/16, counties allocated Ksh 27 billion to education up from Ksh 1.2 billion in 2013/14. The county spending covers pre-primary education and village polytechnics. Total spending on primary education increased from Ksh 108 billion in 2013/14 to Ksh 130 billion in 2015/16.

Teacher management costs increased from Ksh 154 billion in 2013/14 to 180.9 billion in 2015/16, Ksh 190.9 million in 2016/17 to a further Ksh 201.8 million in 2017/18. This expenditure covers personnel emoluments for teachers in public primary, secondary and tertiary institutions. TIVET spending increased from Ksh 2.25 billion in 2013/14 to Ksh 2.3 billion in 2015/16, Ksh 2.47 billion in 2016/17 and further to Ksh 2.53 billion in 2017/18 while university education spending

increased from Ksh 37.9 billion in 2013/14 to Ksh 39.5 billion in 2015/16, Ksh 46.3 billion in 2016/17 to Ksh 96.0 billion in 2017/18. The huge increase in 2017/18 was largely because the national budget included Appropriations in Aid proceeds from university parallel degree programmes.

Development expenditure in the education sector increased from Ksh 13.9 billion in 2013/14 to 14.6 billion in 2015/16 and Ksh 30.0 billion in 2017/18. This expenditure covers mostly infrastructure developments. TIVET development spending reduced from Ksh 2.06 billion in 2013/14 to Ksh 1.8 billion in 2015/16 then increased to Ksh 4.74 billion in 2016/17 and Ksh 16.4 billion in 2017/18 while university education development spending increased from Ksh 3.08 billion in 2013/14 to Ksh 5.0 billion in 2015/16, Ksh 7.9 billion in 2016/17 and reduced to Ksh 5.4 billion in 2017/18. As of January 2018, the government scrapped the Ksh 9,374 school fees for each student in public secondary school paving way for free day secondary education. The amounts disbursed under the programme increased from Ksh 28.03 billion benefiting 2.17 million students when the programme was introduced in 2014/15 to Ksh 32.95 billion benefiting 2.6 million students enrolled in public secondary schools in 2016/17. At the same time the capitation per student increased from 12,870 in 2014/15 to 22,240 in 2018.

The University Bill of 2014 seeks to guarantee establishment of a public university in each county as a centre of research and to develop education levels. Budget support to technical training institutes, universities and to the Higher Education Loans Board is one of the measures the government has been taking to reduce financial burden to poor households and university students that have qualified to purse different fields of higher learning. The undergraduate students' loan has benefited over 600,000 students since inception in 1995. During the 2016/17 financial year, the student funded per year increased from 167,861 students in 2014/15, utilizing a total of Ksh 6.828 billion to 212,243 students at a total cost of Ksh 8.596 billion in 2016/2017.

The Higher Education loans Board (HELB) awards bursaries to extremely needy undergraduate students who benefit from loans for direct entry. Orphans, students from single families and others who come from poor backgrounds are given priority for the bursaries. Those awarded scholarships are postgraduate students pursuing their masters or doctoral studies. The award is based on academic merit. The number of students receiving scholarships increased from 74 in 2013/2014, 75 in 2014/15 to 83 in 2015/16. The number of students receiving bursary funds increased from 10,711 in 2013/14 to 15,174 in 2014/2015. A total of 15,171 students received bursary funds in 2015/16**.** The amount disbursed increased from Ksh 70.2 million in 2013/14 to Ksh 91.08 million in 2014/2015. In 2015/16, a total of Ksh 92 million was disbursed as bursary. The loans for Direct Entry Students (DES) are for students joining public or private universities within the East African Community directly from high school either through Kenyan Universities and Colleges Central Placement Service (KUCCPS) or as self-sponsored. Amounts awarded range between 35,000 minimum and Ksh 60,000 maximum based on the level of need.

HELB also disbursed loans and bursaries to TVET institutions to encourage students who did not qualify to join universities. The number of students funded with bursary increased from 7,015 in 2014/15 to 25,152 in 2016/17. The amount disbursed as bursary increased from Ksh 52 million to Ksh 120.78 million in 2016/2017. The amount disbursed as loan increased from Ksh 260.12 million, benefiting 10,148 students in 2014/2015 to Ksh 650.7 million benefiting 25,152 students in 2016/17. The adequacy of the amount disbursed by HELB reveals that the Board needs to review the terms and conditions to make loans easily accessible to needy and deserving students.

9.3.3 Other developments

In 2013/2014, Kenya started a major curriculum reform process to align the curriculum with the goals and aspirations of the Kenya Vision 2030 and to emphasize national values; integration of science and innovation; and adoption of ICT technologies. The piloting of the new curriculum is ongoing after it was implemented in early 2018. The curriculum is designed to focus on competencies, problem solving and promotion of values among the learners. The implementation of the curriculum will also entail capacity building for teachers and upgrading of school and learning environments for learners.

Table 9.6: Registered employers, employees, contributions and benefits, 2013-2017

	2013	2014	2015	2016	2017
Registered Employers '000	92.1	93.3	96.0	98.1	134.2
Registered Employees '000					
Male	2,955.0	2,975.4	2,698.7	2,862.4	2,898.2
Female	1,001.3	1,005.1	948.8	1,002.0	1,050.0
Total	**3,956.3**	**3,980.5**	**3,647.5**	**3,864.4**	**3,948.2**
Annual Contributions (Ksh millions)	6,571.6	6,587.9	9,209.9	9,486.2	9,491.4
Annual Benefits Paid (Ksh Millions)	2,844.6	2,881.3	3,999.2	4,839.0	4,856.3

Source: Kenya National Bureau of Statistics (2018), Economic Survey

Skills development system in the country has historically been following a curriculum-based, time-bound approach rather than demand-driven approach leading to a severe mismatch between the labour force skills and economy/industry needs. The majority of courses are designed, delivered and assessed on a centralized standard curriculum and certification is based on completion of courses and passing examinations rather than demonstration of competency. This weak linkage between the training institutions and industry hampers appropriate skills training.

9.3.4 Challenges and Emerging Issues

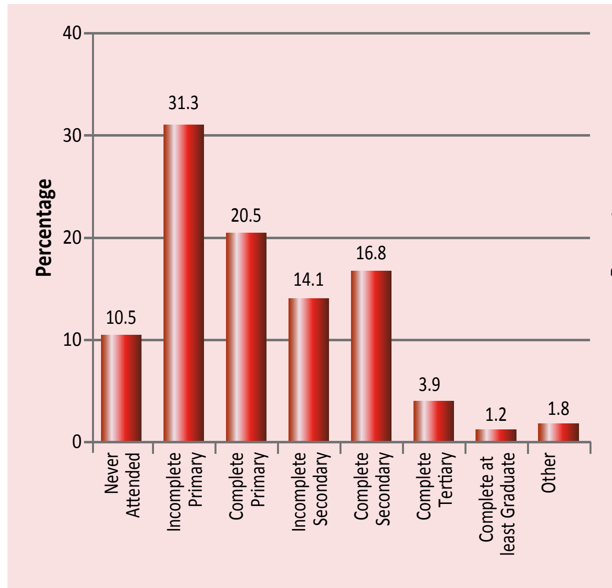
The on-going curriculum reforms are expected to improve quality and relevance of education and training at all levels of education for the country to realize the required manpower. Secondly, the increasing role of county governments in education and training has gained momentum with the Commission for Revenue Allocation (CRA) proposing conditional allocations for rehabilitation of primary and secondary schools. The recruitment of teachers for ECDE is another role that county governments have taken up and will require concerted collaboration with the Ministry of Education and the Teachers Service Commission to ensure effective management of ECDE teachers. Lastly, frequent teacher unrest as a result of issues brought out in Collective Bargaining Agreements (CBAs) between the government and the teacher trade unions needs to be addressed. A competent and well-motivated staff will go a long way in improving service delivery.

9.4 Social Protection Investments

Social protection has been implemented in Kenya in many different forms for many decades, including various programmes created in response to emergencies. The establishment of the National Social Security Fund (NSSF) and the National Hospital Insurance Fund (NHIF) in 1965 and 1966, respectively, was part of the government's efforts to cushion workers against future vulnerabilities.

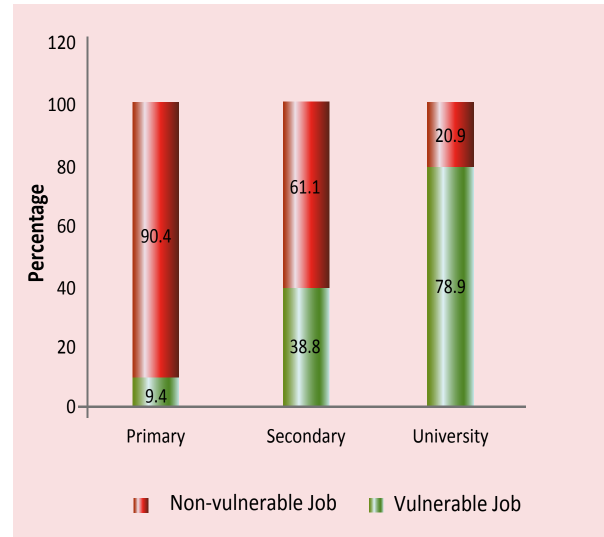
The NSSF provides basic financial security benefits to Kenyans in both formal and informal sectors upon retirement. Over the years, membership has steadily grown and the Fund had a cumulative registered membership of 3.95 million in 2017 (Table 9.6). The Fund attributes this growth to an increase in the working urban population. The current active membership accounts are 887,421

Figure 9.11: Highest level of education attainment by youths, 15-35 years



Source: Kenya National Bureau of Statistics (2009), Kenya Demographic and Health Survey

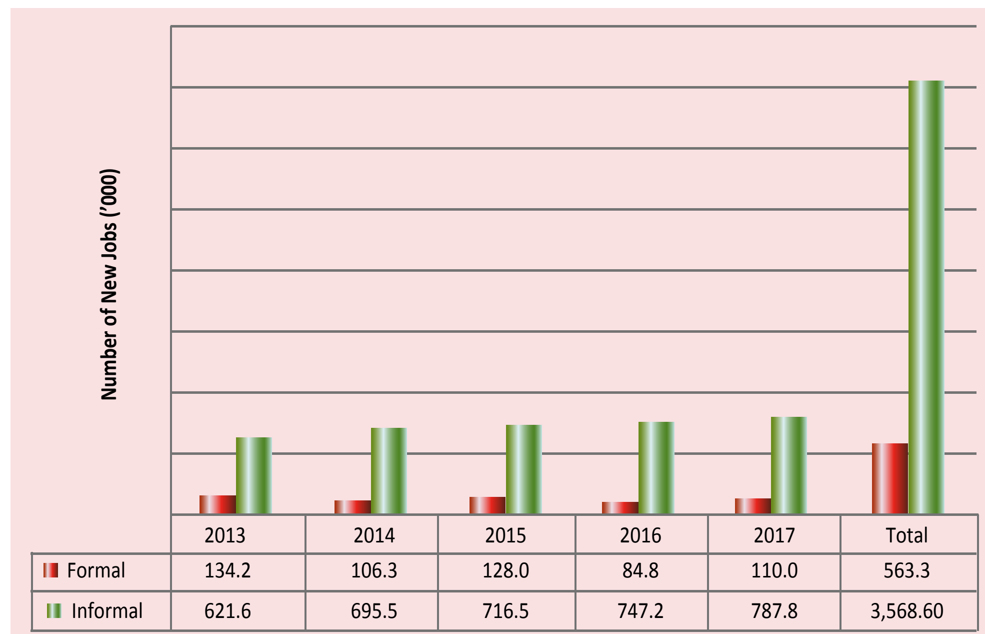
Figure 9.12: Highest level of education attainment by type of employment, 15-35 years



Source: Kenya Demographic and Health Survey (2009)

which is about 25 per cent of registered members. NSSF currently draws its membership from workers in the formal sector of the economy. The scheme is financed entirely by the employer/employee monthly contributions set at 5 per cent of wages based on a ceiling of Ksh 4,000 per month. The types of contributions payable to the Fund include standard contributions in respect of regular workers at Ksh 200 (employer) and Ksh 200 (employee), and special contributions in respect of casual workers at 5 per cent of the employers' total wages bill, and voluntary contributions payable in respect of self-employed persons. Voluntary contributions range from a minimum of Ksh 200 to a maximum of Ksh 4,800 per year. The financial resource of NSSF is totally dependent on its members and is not funded by the government.

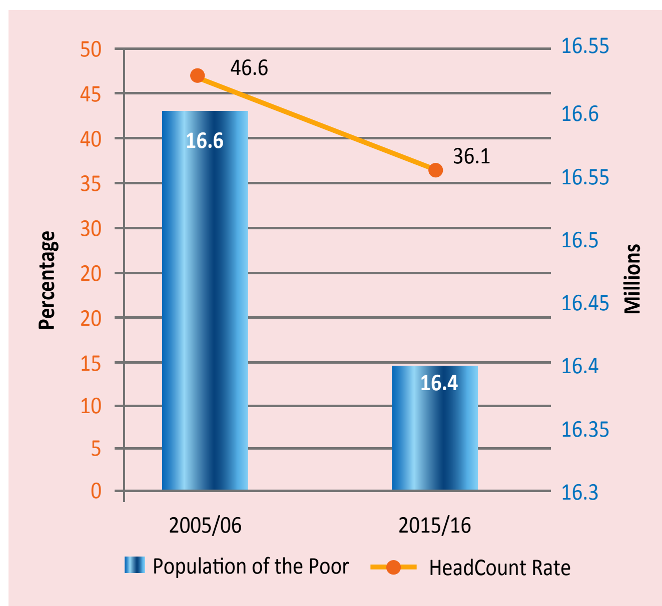
Figure 9.13: Number of new jobs created in formal and informal sectors, 2013-2017



	2013	2014	2015	2016	2017	Total
Formal	134.2	106.3	128.0	84.8	110.0	563.3
Informal	621.6	695.5	716.5	747.2	787.8	3,568.60

Source: Kenya National Bureau of Statistics (2018), Economic Survey

Figure 9.14: Population of the poor and headcount poverty

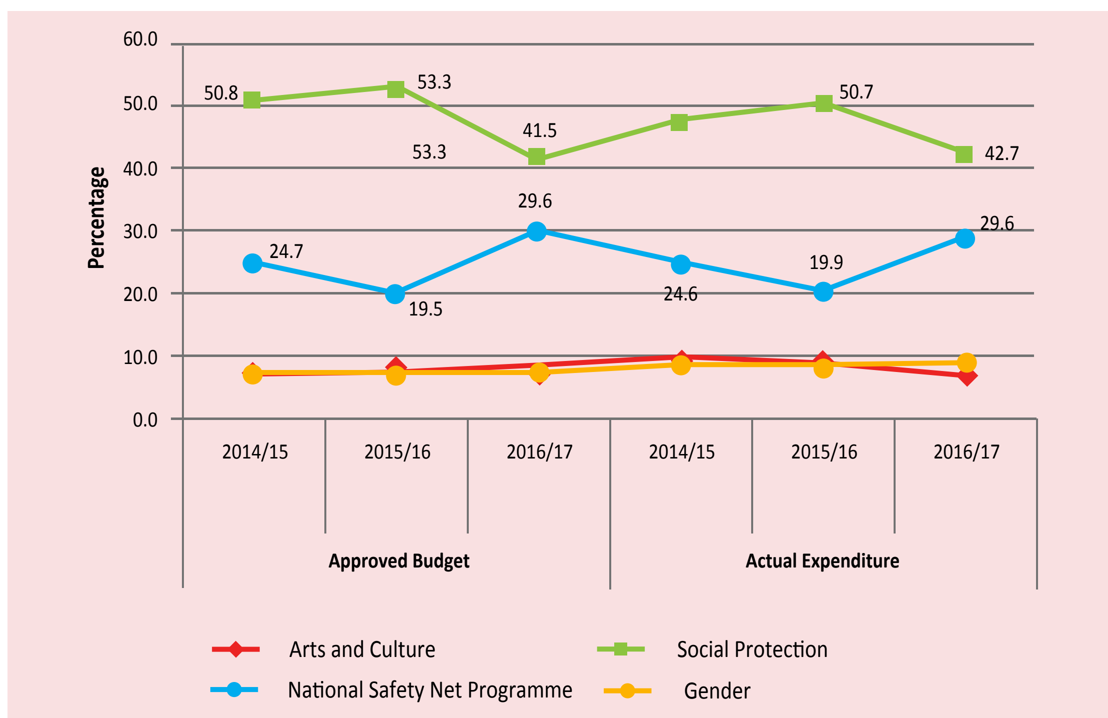


Source: Kenya National Bureau of Statistics and KIBS (2018)

The vulnerability of many Kenyans to the risks of unemployment, disease and climate change make it crucial for the government to put in place measures to promote sustained economic development and the development of human and social capital. For example, the vulnerability of low education attainment is observed in the labour market, with a limited proportion of workers in formal wage sector having attained secondary education and above. The concern with low educational attainment and vulnerability is highlighted in Figure 9.12 where 62 per cent of the youths (ages 15 to 35) had below secondary level education, 14 per cent some secondary education which only 16.8 per cent completed, and only one per cent university education.

In the last five years (2013-2017), an average of 826,400 new jobs per year were created compared to an average of 660,000 new jobs created between 2008 and 2012, 86 per cent of which were in the informal sector - considered vulnerable employment (Figure 9.13). The implication is that the rate of job creation in the formal sector almost mirrors the rate of growth of the economy with subdued economic growth rate leading to a greater expansion in informal sector employment.

Figure 9.15: Programme share under the social interventions programmes



Source of data: Government of Kenya (2018), Social Protection Sector Report 2017

The 2010 Constitution of Kenya committed to help uplift the welfare of the poor people. Between 2009 and 2016, several poverty investment interventions took place to cushion the poor from falling into deeper poverty (KIHBS, 2015/16). The welfare of Kenyans improved over the period with overall headcount poverty declining across the country since 2005/06. The proportion of the poor dropped from 46.6 per cent in 2005/06 to 36.1 per cent in 2015/16 (Figure 9.14). In 2015/16, the poorest counties were Turkana 74.4 per cent, Mandera 77.6 per cent, Samburu 75.8 per cent and Busia 69.9 per cent. Counties that reported the least poverty rates were Nairobi 16.7 per cent, Nyeri 19.3 per cent, Meru 19.4 per cent and Kirinyaga 20.0 per cent. The total number of the poor declined from 16.6 million in 2005/06 to 16.4 million in 2015/16 even though the entire total population increased by 10 million over the period.

Some of the interventions that have been used to cushion household investments in the basic education programmes in the country include cash transfers to the elderly and orphans and vulnerable children, the devolved funds for the youth and women, and access to government procurement.

Government interventions in the social protection sub-sector have been receiving a significant share of budget allocations (Figure 9.15). These interventions include the Uwezo Fund, Women Enterprise Fund, Youth Enterprise Fund, Inua Jamii, and the National Affirmative Action. There has been a sharp increase in the National Safety Net Programme in the last two years to combat famine, and school feeding programmes in the country. It is expected that the social protection programmes will receive additional funding in the coming subsequent years as the government implements the health insurance for the elderly, and the Linda Mama programmes.

9.4.2 Challenges

While implementing social protection programmes, different initiatives are addressed through different sectors of the economy. The programmes are therefore fragmented with a high probability of duplication. The different sectors select their priority areas, increasing the probability of exclusion of beneficiaries who could be very vulnerable and extremely deserving. The implementation sites are at many times directed by the donor or funding organizations thus the resources may not be proportionately invested both geographically and by sector. This notwithstanding, other challenges faced during the implementation of social protection programmes include:

- Lack of adequate coordination and information sharing between public agencies and other actors, therefore leading to duplication of activities. There is need for a comprehensive framework to guide the harmonization and coordination of different actors engaged in social protection.
- Inadequate funding for most of the activities by the national government, leading to delay in start-time for some of the products. Most funds for social protection are from development partners. Funding from development partners has historically been allocated entirely for safety net, majority of which has gone to relief and recovery programmes.
- Poor implementation of social protection policies, which often leave out the intended recipients. Further, identification of the targeted/intended recipients has been a challenge in implementation.
- Social protection initiatives are not publicized to the citizens, therefore learning and information is limited to the institutions undertaking specific programmes.

9.9 Conclusions and Policy Recommendations

Universal healthcare

- More resources are required for maternity services countrywide through the *Linda Mama* programme. In addition, investments in medical equipment and diagnostics equipment will also support the health sector in delivery of services but this needs to go together with provision of adequate human resources.
- There is need to increase budgetary allocation from the current 7 per cent to at least 10 per cent by legislating an amendment of the Public Finance Management Act to ring-fence health funds to facilities.
- The government needs to pursue modalities to attain industrial harmony with the various healthcare worker unions. Further, counties need to recognize the importance of community health workers (CHWs) in promoting preventive healthcare and fostering universal healthcare coverage.

Education and skills development

- Public-private partnerships could be promoted to guide how the private and public sector interact in promoting education in the country.
- Increased capitation grants for Free Day Secondary Education will help cushion more poor households from additional costs. The current set up of the programme is not sustainable given the grants available per student.
- Focus on skills and competencies in basic education is needed. Also appropriate placement into tertiary, technical and university education levels could be faciliated to ensure that students get admission to courses they desire.

Investments in Social protection

Despite the opportunities and challenges, Kenya should embrace the following:

- There is need for a comprehensive framework to guide the different actors engaged in social protection.
- Social protection initiatives should be publicized to the citizens, so that learning and information is accessible to the institutions undertaking specific programmes.
- The identification and registration of the targeted recipients should be carried out before any implementation of the social protection policies. Further, a follow up of the recipients should be carried out to determine the effectiveness of interventions by the government.
- Investing in integrated ICT, including biometric identification, and development of databases of beneficiaries will enhance delivery of social protection.

Chapter 10

Institutional Framework Defining Environment for Investment

The quality of institutional framework is critical in promoting investment growth. The government has initiated various reforms to address constraints to growth of investments but the reform momentum needs to be maintained to continuously improve competitiveness especially in management of public investments. In an effort to address regional balance, the government has used various channels to enhance investments at regional level but a coordination framework is required between the national and county governments in view of the devolved system of government. While Kenya is actively involved in regional integration projects within the EAC, cooperation among members in implementing cross-border investments is necessary.

10.1 Legal, Policy and Institutional Framework

An effective and efficient legal, policy and institutional framework contributes significantly in improving the business environment within which individuals, firms and governments interact to generate income and wealth in an economy. In Kenya, the government has prioritized investment retention and in doing so, policy dialogue is maintained with investors to ensure that interventions focus on priorities in the business environment. As such, through a public consultation process, investors are given an opportunity to offer feedback to all bills passed by Parliament and County Assemblies. In addition, the private sector is represented in various sector working groups where they contribute to various public policy issues. The government is also encouraging investments in sectors with high potential to create employment, generate foreign exchange, and create forward and backward linkages with rural areas. Furthermore, the government is facilitating foreign and domestic private entities to establish own business enterprises and engage in remunerative activity without any limitations.

Kenya's competitiveness has been improving, reflecting the momentum maintained in implementation of structural reforms. For example, the Global Competitiveness Index score increased from 3.75 to 3.98 in the period 2012/13 and 2017/18, respectively, with notable achievements made in judicial independence, property rights and

intellectual property protection and transparency in government policy making (Table 10.1 and Appendix 10.1). However, more efforts are required to position Kenya at the top of global performance. The country ranks among the top five in Sub-Saharan Africa but is facing competition from Rwanda (in the Eastern Africa region) which scores higher in all sub-indices (Table 10.1). Among the key issues to focus on is increased efficiency in public service delivery and strengthening institutions of governance to build trust of investors. A multi-faceted approach is required given the several factors that determine and enhance country competitiveness.

The business environment in Kenya has also improved and the country has moved up 21 places to position 92 out of the 190 countries surveyed on business regulatory reforms in 2017. Kenya was among the countries with significant improvement witnessed in: starting a business, access to electricity, registering property, protecting minority investors, and resolving insolvency. This is attributed to a legislative framework encapsulated in the new Companies Act 2015 and Insolvency Act 2015. In addition, efforts towards achieving universal access to electricity through the Last Mile Connectivity programme have improved access to electricity by start-up businesses and enhanced the

Table 10.1: Select Sub-Saharan Africa 2012/2013 - 2017/2018 Global Competitiveness Index and the World Bank Doing Business Index 2012-2017

Country	GCI Scores 2012/13	GCI Scores 2017/18	Doing Business Index 2012 (rank/183)	Doing Business Index 2017	Top three problematic factors for doing business in 2012/13	Top three problematic factors for doing business in 2017/18
Kenya	3.75	3.98	109/183	61.22 %	Corruption, Inflation, Tax Rates	Corruption; Access to Financing; Tax Rates
Eastern African Countries						
Rwanda	4.24	4.35	45/183	69.81%	Access to financing, inadequately educated workforce; Tax rates	Access to Financing; Tax rates; Inadequately educated workforce
Uganda	3.53	3.70	123/183	57.77%	Corruption, Access to financing; Inflation	Tax rates; Corruption; Access to financing
Tanzania	3.60	3.71	127/183	54.48%	Corruption, Access to financing; Inadequate supply of infrastructure	Access to financing; Tax rates; Inadequate supply of infrastructure
Ethiopia	3.55	3.78	111/183	47.25%	Corruption; Access to financing; Inefficient government bureaucracy	Foreign currency regulations; Corruption; Access to financing
Middle income countries in SSA						
Mauritius	4.35	4.52	23/183	72.27%	Inefficient government bureaucracy; Access to financing; Inadequate supply of infrastructure	Inefficient government bureaucracy; Insufficient capacity to innovate; Inadequately educated workforce
South Africa	4.37	4.32	35/183	65.20%	Inadequately educated workforce; Restrictive labour regulations; Inefficient government bureaucracy	Corruption; Crime and theft; Government instability/coups
Botswana	4.06	4.30	54/183	65.55%	Poor work ethic in national labour force; Access to financing; Inadequately educated workforce	Poor work ethic in national labour force; Access to financing; Corruption
Namibia	3.88	3.99	78/183	58.82%	Inadequately educated workforce; Access to financing; Corruption	Access to financing; Inadequately educated workforce; Inefficient government bureaucracy

Source: World Bank (2018), Global Competitiveness Report 2017/2018

reliability of electricity by investing in distribution lines and transformers. Kenya has also made efforts to reduce construction costs by eliminating clearance fees from the National Environment Management Authority (NEMA) and the National Construction Authority (NCA) which was pegged at 0.5 per cent of the value of any commercial or residential building whose value exceeded Ksh 5 million. The implementation of an online platform, *iTax*, for filing and paying corporate income tax and the standard levies has improved the country's attraction to foreign investors. Kenya's KRA *iTax* system is fully operational and over 2 million users filled their returns using the system in 2017. Kenya's implementation of Business Registration Services Act provides a one-stop-shop for registration of businesses, and this is a milestone in improving the ease of doing business.

Notwithstanding these achievements, several challenges impede Kenya's progress in enhancing its competitiveness and ease of doing business. Key among the most problematic factors for doing business by the private sector remains corruption, access to financing and inadequate supply of infrastructure (Table 10.1). For government entities, low absorption of development expenditure is blamed on the lengthy procurement processes and weak public project management while at the same time poor packaging of bankable projects is attributed to limited uptake through PPPs.

On fighting graft, it is the mandate of the Ethics and Anti-Corruption Commission (EACC) to combat and prevent corruption and economic crimes in Kenya through law enforcement, preventive measures, public education and promotion of standards and practices of integrity, ethics and anti-corruption. However, some analysts have argued that EACC has focused more on public education and promotion of sound ethical values and neglected law enforcement and prevention of corruption as stipulated in the Ethics and Anti-Corruption Commission Act 2011, and Leadership and Integrity Act 2012. The Bribery Act 2016 targets private firms that engage in graft within the country while doing business with the government and the private sector. This law hopes to bring on board the private sector in fighting corruption. However, there are laws that criminalize corruption, such as the Public Officer Ethics Act of 2003, the Anti-Corruption and Economic Crimes Act of 2003, and the Leadership and Integrity Act 2012 mainly in the public sector whose implementation has been slow. Whether the Anti-bribery Act 2016 will be fully implemented may be the next challenge.

On access to financing, the Kenya Banking Amendment Bill 2015 was assented to on 24th August 2016 to cap high lending rates that banks were charging borrowers and to make access to credit easier especially for SMEs. Lower lending rates ensure that firms can afford to fund their investments and smoothen their operations. Further, lower interest rates allow consumers to smoothen their consumption, thus sustaining a demand for the growing output.

As noted in Chapter Two of this report, the continued decline in private sector credit growth is a pointer to challenges in achieving the intended objective of interest rate capping.

10.2 Role of Regional Development Authorities in Investments

The need to have an effective coordination mechanism to promote balanced regional development necessitated the establishment of Regional Development Authorities (RDAs). A multi-faceted and multi-sectoral/integrated approach was preferred for sustainable utilization of resources in achieving rapid regional economic growth. Such approach revolves around formulating and implementing equity-oriented policies and programmes, and formulation and implementation of integrated regional development frameworks that are tailored to specific needs of a given region.

This saw six regional development authorities in Kenya established under various Acts of Parliament to boost investments in rural areas by running multi-sectoral programmes ranging from agriculture, power generation, among other activities. They include: Kerio Valley Development Authority (KVDA) established under Cap 441 of the laws of Kenya; Lake Basin Development Authority (LBDA), Cap 442; Tana River and Athi River Development Authority (TARDA), Cap 443; Ewaso Nyiro South River Basin Development Authority (ENSDA), Cap 447; Ewaso Nyiro North River Basin Development Authority (ENNDA), Cap 448; and the Coast Development Authority (CDA), Cap 449 of the laws of Kenya. Regional authorities have a big potential of attracting foreign investors in rural areas and contributing to wealth creation through employment.

All the 47 counties are covered by at least one of the RDAs especially through the shared resources (Appendix 10.3) and, therefore, a proper coordination mechanism among neighbouring counties is required. Moreover, with reference to Schedule Four of the Constitution, it appears that the work that RDAs have undertaken falls into both the national and county governments. For example, the national government is responsible for "protection of the environment and natural resources with a view to establishing a sustainable system of development" while counties ought to handle implementation of national policies on the environment and "planning and development" and "public works and services" including water resources. These complexities demand the creation of a general policy on how to restructure RDAs in the spirit of devolution.

Further, in addition to the projects implemented by RDAs being aligned to realization of the goals of the Kenya Vision 2030, they stand to make significant contribution to the achievement of the "Big Four" agenda. The key focus is on increasing food security in the country through the development of 2.24 million hectares of irrigated land; improving environment through conservation and management of 15,734 square kilometers; improving water storage and supplies for domestic, livestock, fisheries and industrial use by 15.746 million cubic of water; increasing multipurpose water storage reservoirs with capacity of 8.1 billion cubic of water for various uses such as hydropower generation and flood control; and increasing power generation by 650 MW to the national power grid.

RDAs are funded by the national government to the tune of 0.142 per cent of the total national government budget in the 2016/2017 financial year (Appendix 10.4). Most of their expenditures are allocated towards development programmes. The budgetary allocations differ across the RDAs, mainly reflecting the projects each was implementing. For example, in the 2012/2013 financial year, ENNDA was the highest funded RDA having been allocated Ksh 814 million of which over 90 per cent was spent on development projects. This was because ENNDA was implementing projects on water resource development and management, participatory catchment conservation, capacity building, and project coordination. The Ewaso Nyiro North Natural Resource Conservation Project (ENNNRCP) being implemented by the Authority through funding from the African Development Bank (ADB) and the Kenyan Government aims at alleviating poverty in the Ewaso Nyiro North Project area through enhanced resources conservation with specific focus on improving the availability of water for livestock and domestic consumption and environmental conservation. In the 2016/2017 financial year, LBDA received the highest funding from the national government of Ksh 1,709 billion of which over 90 per cent was spent on development projects. LBDA was then implementing agriculture and livestock development, dairy development, apiculture development, coffee farming within the region, and aquaculture development projects.

Several challenges confront the operations of the RDAs. RDAs have not had a permanent home; they have been transferred from one ministry to another

and, along the way, their mandates have been reviewed. For example, some mandates were taken up by water, agriculture and environment ministries. Some projects started by RDAs were also transferred to ministries; for example, the Turkwel power plant which was started by KVDA has been taken up by the Ministry of Energy, same for TARDA, a power generation project. Other challenges confronting the RDAs include the lack of clear institutional and policy frameworks to enable them to meet their objectives.

Despite the transfer of the functions by the Transition Authority through Legal Notice Number 137 to 182 of 2013, regional authorities continue to carry out functions that were devolved to county governments contrary to the provisions of the Fourth Schedule of the Constitution. The functions include integrated planning coordination and implementation of programmes and projects such as irrigation of food and cash crops, hydro-electric power generation, supply of clean water, development of fisheries, conservation of the country's water towers, job creation at the grassroots level, and development in rural areas.

10.3 County Level Coordination of Investments

County governments are forming trading blocs to hasten economic development of rural communities in Kenya. In Western Kenya region, thirteen (13) governors have initiated the Lake Region Economic Blueprint while another nine (9) governors have established the Mount Kenya and Aberdares Counties Trade and Investment Bloc aimed at encouraging inter-trade in the bloc. Six (6) governors have launched a socio-economic hub called *Jumuiya ya Kaunti za Pwani* and are focusing on various challenges facing the region, including resuscitating tourism, education and fighting insecurity. Similarly, seven (7) counterparts have signed an agreement to work together to improve trade, investments and tourism under the North Rift Economic Bloc. Mount Kenya and Aberdares Counties Trade and Investment Bloc is yet to be operationalized

Although these regional blocs have been holding investment forums, very little progress has been made in realized investments. Some counties, though, have experienced some benefits. In Murang'a County, the county government invested in creating modern value addition factories to tap into the robust agricultural activities in the area favoured by good climate. Makueni County has established a milk processing plant and a soft drink company to make juices, hence boosting the local economy. Makers of soft drinks are now buying fruits directly from the farmers both in Murang'a and Makueni counties. New Zealand based Olivado Company which in involved in the manufacture of edible oils has incentivized Murang'a County farmers with free trainings, high quality seeds, and higher prices for their produce. Despite these developments, most counties do not yet have a clear robust framework for resource mobilization to enable them fund investment projects within these regional economic blocs.

Investment programmes in county governments need to be aligned to the national development agenda while focusing on potentials in the county. In addition, to provide an enabling environment, counties could develop policy and legislation frameworks that address issues of concern to the investors. For example, in a bid to raise more revenue, counties imposed various measures that tended to compromise the investment environment. Furthermore, instead of spending up to 80 per cent of their budgets on recurrent expenditure, counties need to prioritize development expenditures that contribute in reducing the cost of doing business.

The counties are also facing a challenge of balancing investment between urban and rural areas. Most counties remain predominantly rural with less incentive to investments. Some also lack adequate legal framework to guide in foreign investor engagements. National-county

Table 10.2: Regional economic blocs and their proposed projects

Economic Bloc	Jurisdiction – Counties Covered	Current/Proposed Projects
North Rift Economic Bloc (NOREB)	Eight counties, namely: Uasin Gishu, Nandi, Trans Nzoia, Baringo, Turkana, West Pokot, Samburu and Elgeyo Marakwet	Their key areas of joint investment include tourism, business and infrastructure
Frontier Counties Development Council (FCDC)	The eight counties who form FCDC are Mandera, Turkana, Wajir, Garissa, Isiolo, Marsabit, Tana River and Lamu	Mandated to promote, coordinate and facilitate the active and extensive participation of all sectors to effect the socio-economic development of its member counties through a holistic and integrated approach
Lake Region Economic Bloc (LREB)[2]	Made up of thirteen counties namely Bungoma, Busia, Homa Bay, Kakamega, Kisii, Kisumu, Migori, Nyamira, Siaya, Vihiga, Bomet, Trans Nzoia and Kericho	They have identified seven strategic intervention areas, namely: Agriculture, Tourism, Education, Health, ICT, Financial Services and Infrastructure as key areas of joint investments
Jumuiya ya Kaunti za Pwani (JKP)	Member counties are Mombasa, Taita Taveta, Tana River, Kilifi, Kwale and Lamu counties	They have identified Education, Agriculture, Blue Economy, ICT, Infrastructure, Mining and Tourism as game changer joint investment projects
Mount Kenya and Aberdares Counties Trade and Investment Bloc	Nyeri, Kirinyaga, Meru, Tharaka Nithi, Kiambu, Murang'a, Nyandarua, Isiolo	Agriculture and agri-business, industrialization, healthcare, tourism, water

Source: http://cog.go.ke/cog–Secretariat/regional–economic–blocs

government dialogue is necessary to clarify the roles and address discontents that would heighten uncertainty on investments.

The Inter-governmental Relations Technical Committee (IGTRC) was established as a framework for consultation and cooperation between the National and County Governments and amongst county governments. This forum should be at the forefront in defusing unnecessary tensions between the national government and county governments. The constitution envisages a relationship of mutuality and independence to ensure that there is no interruption in service delivery to citizens.

10.4 Role of National Government Constituencies Development Fund in Boosting Investments

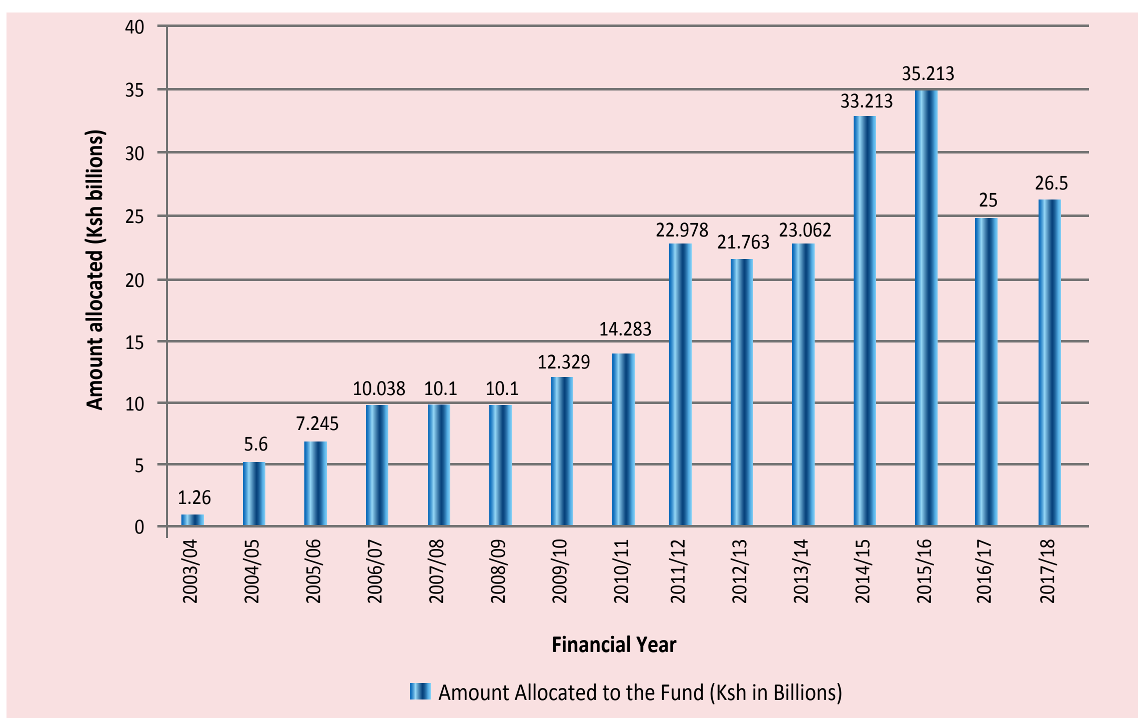
The Constituencies Development Fund (CDF) was first established through the Constituencies Development Fund Act of 2003 with the primary objective of addressing poverty at grassroots level. With the new Constitution, the Act was replaced by the National Government Constituencies Development Fund Act 2015 (NG-CDF) and a NG-CDF Board was established to ensure proper coordination and governance of the Fund. The Board has various functions derived from the NG-CDF Act 2015 that are geared towards accelerating investment at the county/constituency levels. Most of the investment projects of NG-CDF mainly fall under the social pillar but also translate to the achievement of the economic and political pillar and the enablers of the Kenya Vision 2030. With the National Government Constituencies Development Fund Act 2015 (NG-CDF), health, water and road projects were no longer to get money from the Constituency Development Fund but exclusively support projects under the functions of the national government, including schools and security-related projects such as police stations and police posts as well as bursaries.

As part of ensuring timely and efficient disbursement of funds to all constituencies, the government has over the last 13 years allocated Ksh 231.9 billion as at 2016/17 financial year to fund development programmes that include business investments at the constituencies. The allocation has been increasing steadily from Ksh 1.3 billion in 2003/04 to Ksh 26.5 billion in 2017/18 as shown in Figure 10.1. During the 2016/2017 financial year the amount allocated to the Constituency Development Fund was 1.01 per cent of the annual budget. These allocations facilitate implementation of investment programmes and projets aimed at improving the socio-economic well-being of communities at grassroots.

Over the years, due to timely and efficient disbursement of funds, CDF has attempted to achieve the following:

- Support small scale businesses at constituency level in encouraging rural investment/local investment in various sectors in the economy while helping to reduce the rural to urban migration in search of better opportunities in urban areas.
- CDF funds have also been used in developing infrastructure that has helped to upgrade the conditions of schools, hospitals and even roads in all constituencies in the country. Improvement in rural roads has been instrumental in making swift movement of goods and services.
- The Fund has also been used to develop skills of citizens across the country through bursaries to students both at secondary and tertiary level. This has helped improve the quality of education and aided in supporting free primary education by supporting infrastructure such as tuition blocks, laboratories, administration blocks and other facilities.
- Rural electrification has also been given a boost by CDF. The Fund has helped bring electricity to rural shopping centres and homes. With

Figure 10.1: Annual allocation of funds, 2003/04-2017/18



Source: NG-CDF -Kenya (2017), available at https://www.ngcdf.go.ke/

power in rural communities, there has been a spike in economic activities such as projects in agriculture, entrepreneurs in dairy farming, bee keeping, and even Jua Kali artisans, art crafts and other community projects, which have created employment opportunities.

The management of CDF funds at constituency level faces challenges that scale down potential achievements. Problems of wastage and misuse of funds are a major concern as reported in various reports of the Auditor General. This may undermine the achievements made by the Fund. Lack of structured priorities in terms of prioritization of projects, including feasibility studies and sustainability must be addressed as a means of stemming losses that undermine the noble goal of the CDF.

10.5 Investments at Regional Level

The Government of Kenya has made a commitment to support regional efforts aimed at creating an enabling environment to boost investment growth. Various initiatives have been taken at regional level, including development of regional infrastructure projects such as roads, railways and airports; one-stop-border posts; and regulatory and legislative reforms to ease cross border trade and investments especially in the EAC region. While substantive progress has been made, increased cooperation is required for timely implementation of the proposed projects.

So far, with the enactment of the East African Community One-Stop-Border Posts Act 2016, seven (7) One-Stop Border Posts (OSBPs) are already in operation: OSBPs of Mutukula (Uganda/Tanzania), Mirama Hill/Kagitumba (Uganda/Rwanda) and Rusumo (Rwanda/Tanzania), Lungalunga/HoroHoro (Kenya/Tanzania), Taveta/Holili (Kenya/Tanzania), Namanga (Tanzania/Kenya), Malaba (Kenya/Uganda) and Busia (Kenya/Uganda). These serve to expedite movement, release and clearance of goods and persons across borders by streamlining border procedures, automation of the border processes, and simplification of trade documents.

In addition, two regional projects, namely the Lamu Port-South Sudan-Ethiopia-Transport (*LAPSSET*) and Northern Corridor Integration Projects (NCIP) have commenced. The Northern Corridor is the transport corridor linking the landlocked countries of Uganda, Rwanda, South Sudan and Burundi to Kenya's maritime Port of Mombasa while the Lamu Port-South Sudan-Ethiopia-Transport (*LAPSSET*) regional corridor links the landlocked countries to Lamu. The dubbed 'Coalition of the Willing' (CoW) whose membership includes Kenya, Rwanda, Uganda and South Sudan has spearheaded efforts to hasten the pace in implementing the Northern Corridor projects. Already, there is an East African Community e-identity card in use by citizens from the East African region. Kenya, Uganda and Rwanda have also been allowing their respective national identity cards as official travel documents to enable free movement of citizens across the borders. Other achievements include the signing of a Single Customs Territory, and efforts to ease movement of goods across the concerned countries.

Focusing on cross border investments is vital in the EAC common market development as it would help mobilize sources familiar to the EAC economic terrain. To facilitate this, EAC member States need to harmonize their investment laws to attract cross-border investments and FDI. In addition, development of a common investment policy to guide investment from a regional perspective is necessary. This will serve to improve the cost of doing business and the investment climate in the region.

10.6 Conclusions and Policy Recommendations

- Maintaining momentum in implementation of institutional and structural reforms to enhance competitiveness is necessary in supporting

the growth momentum. Competitiveness is influenced by various factors and, therefore, a multi-faceted approach is required to address all the aspects. In addition, consistent monitoring of the implementation will allow timely interventions.

- While regional balance is a key agenda of the Kenya Vision 2030, having an elaborate coordination framework for the various initiatives is necessary especially with the devolved system of government. Under Schedule Four of the Constitution, some functions under these initiatives have been devolved and some flagship projects cut across various counties.

- Promoting cooperation among the EAC members will facilitate timely implementation of the planned regional projects aimed at improving the investment climate. At the same time, harmonization of investment codes and regimes will allow exploitation of opportunities to promote industrialization and investments for sustainable economic development.

- The initiative by county governments to have regional economic blocs can facilitate coordination of investments across counties. However, it requires a clear framework to focus the attention of investors and spell out the sources of funding any joint projects. At the same time, these efforts need to be aligned with the County Integrated Development Plans (CIDPs) to ensure that they contribute to the county development agenda.

- There is need to develop a framework for promoting inter-county infrastructure development to ease movement of goods and services. This should go in tandem with counties mapping out special economic zones within their regional economic blocs and strengthening inter-county value chains.

Chapter 11

Conclusions and Policy Recommendations

11.1 Conclusions

Kenya's economy maintained resilience with a stable macroeconomic environment despite the prolonged electioneering period and continued drought effects. Fiscal stability and debt sustainability were maintained even amidst increased development expenditures. Moreover, the current account balance narrowed while foreign remittances increased. Overall balance of payment also improved, resulting in increased foreign reserves that remained above the statutory requirement.

In 2017, the economy expanded by 4.9 per cent compared to 5.9 per cent in 2016. Despite the agricultural sector growth rate slowing to 1.7 per cent in the period, it accounted for 31.5 per cent of GDP making it a crucial sector in driving economic growth and addressing food security. The manufacturing sector grew by 0.2 per cent compared to 2.7 per cent in a similar period in 2016, resulting to a continued decline in its contribution to GDP.

Furthermore, investment growth was lower than the envisaged 30 per cent of GDP needed to deliver 10 per cent economic growth, and also lower than the targets set in MTPII. Further, the interest rate cap introduced to improve access to loans saw continued slowing of private sector credit as banks adopted different business models to manage risk premiums. Furthermore, while implementation of the flagship projects continued, there were lags in completion of some of them.

The third Medium Term Plan (MTP III) projects an annual growth rate of 7 per cent economic growth rate in the period 2018-2022 with a focus on the "Big Four" agenda which aims to ensure the realized growth is inclusive and uplifts social welfare. Although downside risks to medium term growth exist, the growth momentum will be sustained with timely and appropriate policy interventions.

Growth of the manufacturing sector has slowed, resulting in a declining contribution to GDP. The sector though remains a key channel in economic diversification, enhancing productivity of agricultural sector with value addition, and addressing development challenges through job creation. To achieve the targeted 15 per cent contribution to GDP, the sector needs to double its current size and this demands significant investment. For the targeted products in the sector to drive the "Big Four" agenda, their production should increase by 2-3 fold to deliver on their targets especially in job creation.

Improving industrial competitiveness is critical in strengthening the manufacturing sector. Kenya's industrial competitiveness has stagnated with low

capacity to produce competitive manufactures and especially for the export market. Although Kenya ranks higher than EAC members, she lags the aspirator countries. With the focus on agro-processing, textiles, blue economy and leather sub-sectors, the manufacturing sector needs to build a more complex product structure by enhancing capability in shifting to higher technology products.

Trade plays an important role in economic transformation by driving up productivity, exchange of new ideas and innovations, increasing access to more varieties of products through distribution process, and employment creation. As such, its growth and development is critical in stimulating investments and supporting delivery of the "Big Four" agenda. While domestic wholesale and retail trade has gained a good penetration rate, the prevailing multiple charges, fees and levies by national and county governments on traders raise the cost of doing business and discourage investments in other productive sectors of the economy. Furthermore, delay in completing targeted flagship projects has seen shortage of appropriate retail markets, thus constraining the efficiency, effectiveness and growth of distribution of goods and services domestically.

At the international trade level, trade deficit has widened with increased importation of products which could otherwise be locally produced to support domestic manufacturing including in textiles and leather industries. Supporting expansion of Special Economic Zones and strengthening the Buy Kenya Build Kenya initiative are pertinent in encouraging the use of local materials, value addition and diversification of production. Further, Kenya's active participation in regional economic integration, and implementation of various trade facilitation programmes has been instrumental in improving business and supporting access to regional and international markets. However, there is still weak integration of domestic firms and SMEs in particular in regional value chains.

Foreign Direct Investments (FDIs) have been declining in the recent past partly due to high cost of doing business. There is need to strengthen coordination between various national and county government agencies for effective promotional activities to reverse the trend. Besides, the investment policy should be re-aligned with the digital development strategies to enable domestic firms to reap the benefits of digitalization and easier access to global markets.

Tourism sustained its recovery as the government implemented initiatives including those targeted to reduce security risk which results in issuance of travel advisories. The sector has in addition attracted new investors especially in building accommodation facilities, although hotel occupancy of non-residential has declined with growing preference for alternative accommodation facilities. While various flagship projects identified to promote growth and development of the sector are yet to be completed, there are numerous investment opportunities for large scale PPP projects in development of tourism-related infrastructure at both national and county levels including airstrips, airports, M.I.C.E. facilities, accommodation and sports facilities. Furthermore, county governments are yet to fully exploit opportunities in cultural and creative tourism.

Agriculture dominates Kenya's economy and is inevitably the key to food security, rural development, and a base for industrial transformation. Huge strides have been made towards achieving food security but more efforts are required in improving agricultural productivity including enhancing value addition, reducing post-harvest losses, promoting irrigated agriculture, reducing cost of agriculture production, and providing extension services to improve production methods. In addition, enhancing the performance of key institutions supporting the agricultural sector such as NCPB, KMC, AFC and KDB and removal of roadblocks erected at boundaries of the counties will contribute to improved food security. Further, increasing dietary diversity including through

exploiting fully the potential of fisheries and blue economy will see progress made in achieving the nutritional dimension of food security. To achieve these, public expenditure at both county and national levels should be sustained at CAADP target of 10 per cent.

Investments in the health sector have seen increased uptake of healthcare services and improved health outcomes but a lot more is required especially in meeting the targets for maternal mortality and sustaining HIV/AIDS among adolescents and youth. The number of health facilities has increased with the devolved system of government but without accompanied growth in health workers. Equipping some of the facilities with required medical personnel has been a challenge while weak management of health human resources has seen existence of gaps with unengaged health workers upon completion of training programmes. With the emerging challenges of non-communicable diseases (NCDs), a lot of collaboration between the national and county governments is required to adequately and appropriately equip health facilities with relevant specialized human resources and medical commodities and equipment. As the country pushes the universal healthcare agenda, enhancing coverage of social health insurance is critical in reducing the out-of-pocket expenditures. However, NHIF is not capable of adequately covering health spending and, therefore, innovative health insurance products to cover especially those in the informal sector are required in enhancing the penetration rate. In addition, enhanced access requires improved service delivery and, therefore, closing the financing gaps for various programmes is important. Moreover, a solution is required to ensure there are no workers unrest in the sector. Similarly, more attention is needed in preventive healthcare.

The 2010 Constitution of Kenya provides for free and compulsory basic education. In achieving this, the education sector has over time seen significant reforms ranging from the recent curriculum review, introduction of Free Primary and Free Day Secondary Education, revitalizing of technical training institutions, and on-going efforts to establish centres of excellence in each county. This has seen increased enrolment and completion rates at all levels from ECDE to secondary school level. Similarly, the TVET and universities have also witnessed increased enrolments. In addition, the number of schooling facilities has increased. While the FPE and FSDE are aimed at relieving the burden on parents, financing development budget for schools is a challenge and so is the adequacy of capitation in meeting learning costs per student. Frequent workers' unrest is also distorting the school calendar and the completion of programmes as planned.

In its efforts to uplift the welfare of the poor, the government has continued improving the social protection programmes to make them more targeted. However, there is need to improve the coordination of the various actors to ensure that there is efficient utilization of resources. There is also need to provide adequate funding, and maintain the momentum to ensure that the achievements made are secured. There is also need to create awareness to the public on the various initiatives.

Infrastructure development is a foundation for strong economic growth and development. It expands the capacity to grow economic activity and enhances productivity with connectivity to essential infrastructure services. With continued government investment, the quality and adequacy of infrastructure services has improved especially in transport, energy, communication, housing, water and sanitation. However, significant infrastructure gaps persist. In the "Big Four" agenda, the government targets to make 500,000 new home owners by 2022 under the affordable housing programme in addition to completing the flagship projects under the Kenya Vision 2030. With the heavy investments required to successfully complete the projects, a robust resource mobilization strategy is necessary to fully exploit opportunities available both locally and internationally. Integrated

investment planning is necessary to build synergy in infrastructure investments, reduce costs, and avoid wastages. Furthermore, a high level of cooperation is necessary to support the national and county governments in making their contribution.

The quality of institutional framework matters in promoting investment growth. The government has initiated various reforms to address constraints to growth of private investment and the reform momentum needs to be maintained to continuously improve competitiveness, including strengthening management of public investment. At the EAC level, cooperation among member States in implementing cross-border investments is necessary for their success.

11.2 Policy Recommendations

Maintaining macroeconomic stability is a priority in attaining envisaged double digit economic growth. This emphasizes the need to embrace a growth-enhancing fiscal policy while keeping the fiscal consolidation path. Furthermore, enhancing debt management will keep debt on a sustainable path. A supportive monetary policy and financial stability are necessary in securing market confidence.

To adequately finance the envisaged investment levels, enhanced mobilization of domestic resources is paramount. This entails exploiting available opportunities to raise fiscal revenue, fostering private sector savings by deepening financial sector development, and offering alternatives sources of finance by strengthening existing development finance institutions. In addition, strengthening institutional and coordination framework between national agencies and county governments is necessary for effective promotion and targeting of foreign direct investments, which is a non-debt financing channel.

To ensure industrialization process supports growth of exports, greater coordination in implementing the industrialization strategy and the National Trade Policy will be required to exploit opportunities in value addition for traditional exports and frontier products. Kenya needs to strategize and exploit the market potential in the recently concluded CFTA which has a combined population of 1.2 billion persons and a GDP of US$ 3.4 trillion. There is also need to review and rationalize the incentive packages extended to firms in SEZs *vis-à-vis* those operating outside the zones to avoid unfair competition in the domestic market.

To promote Kenya as a competitive tourism destination, implementation of identified flagship projects remains a priority. There is need to develop new products, including cultural and creative tourism across the counties, promoting visa-on-arrival to benefit from ratification of the SAATM open-skies treaty, harmonizing tourism training with the emerging needs of the sector, rolling out innovative options for long-term financing of tourism-related investments including viable PPP options, and building capacity for existing public institutions to develop the sector.

Agriculture as the mainstay of the Kenyan economy is key in achieving food security. As such, enhancing agricultural productivity is a priority. This can be achieved by promoting irrigated-agriculture, bringing down the cost of farm inputs particularly seeds and fertilizer, revamping extension services, and improving agriculture-related infrastructure particularly in rural areas to improve connectivity between producers and consumers. Further, adoption of climate smart agriculture will reduce vulnerability of agriculture to climate risks while strengthening institutions involved in the food value chain will boost production and reduce post-harvest loses. As a devolved sector, a coordinated approach at national and county level is required for successful implementation of priority projects.

To double the current contribution of the manufacturing sector, accelerated growth in investments in all the targeted sub-sectors of agro-processing, textiles, leather and the blue economy

are required. This requires fast-tracking completion of targeted Special Economic Zones (SEZs) and effective coordination at national and county level to facilitate identification of appropriate spaces for construction and expansion of SEZs across all counties. Further, to enhance industrial competitiveness, there is need to keep pace with innovation and technological advancement by building the necessary capabilities especially with technical training.

For sustainable growth and development of SMEs, fostering sub-contracting with large firms is critical in enhancing access to technology, finance, and innovations. Further, mainstreaming relevant trade facilitation activities into SME policies can support participation in regional and international value chains. Besides, effective implementation of existing procurement laws and regulation with respect to use of local resources and special considerations to women and youth can foster growth of SMEs. Effective implementation of the counterfeit policy is required to reduce the influx of substandard products and shield domestic firms from unfair competition. Further, strengthening such institutions as KIE, KIRDI and KIPI is necessary to enhance the competitiveness of SMEs and help them to continue playing a significant role in the manufacturing sector.

In attaining universal healthcare, not only is coverage of NHIF important but also collaborating with the private sector to enhance health insurance penetration rate especially in the informal sector. This is critical in reducing the out-of-pocket payments. Further, to ensure the required health services are provided, investing in health infrastructure and human resources is critical in achieving the WHO standards. It is also important to have a mechanism that promotes amicable solutions to health workers' unrests.

In the education sector, the Free Primary Education and the Free Day Secondary Education capitation covers teaching and learning materials, and operations and maintenance while parents cover boarding fees and lunch for day schools. The capitation is not adequate and often leaves parents to incur additional costs. Moreover, capitation grants to schools should be efficiently used by school head teachers to achieve the necessary pupil learning material ratio in all counties.

For social protection, there is need to have in place an effective monitoring and evaluation framework to enhance coordination of actors, and ensure adequacy, efficiency and effectiveness of social protection in the country. Past experiences have shown that adequate funding which is coordinated has secured achievements to the intended beneficiaries. Further, there is need to create an awareness platform on the various initiatives and programmes for the public especially those in the hard to reach areas.

The momentum for infrastructure development should be maintained to adequately expand the capacity for growth of economic activity. With the significant amount of financing required, a robust resource mobilization strategy together with an integrated investment plan need to be put in place in all sub-sectors. Capacity building in project planning and management is also key, as well as investing in maintenance to sustain quality of infrastructure services and reduce the cost of building infrastructure over time.

In achieving affordable housing, it is critical to improve data management to facilitate in mapping out the role played by the various players in the sector including the targeted beneficiaries. In addition, there is need to adopt housing technology that preserves the environment while reducing construction costs, creation of land banks, and improving on the regulatory processes. Further, promoting public private partnerships and having in place incentives to support commercial banks, SACCOs, pension schemes, insurance and diaspora remittances is crucial in mobilizing resources to finance affordable housing.

As the country continues to install adequate power generation capacity to meet demand, adoption of least cost power generation technologies and energy mix will ensure that electricity tariffs are competitive to support manufacturing and other economic activities and reduce the cost of living. Management of stakeholder expectation with respect to oil prospects, exploration, production and commercial potential will ensure economic stability and enhance social cohesion.

Improvements in water resource management and conservation of the water towers will ensure sustainable access to water, together with increased investment in water harvesting, storage and distribution (connectivity). In addition, an incentive mechanism for private sector investment in sewerage system is required given that this sector is less attractive to investors due to its low returns on investment.

Investments in digital literacy and promotion of innovations will unlock the huge potential in ICT, thus the need to fast-track implementation of Konza city. More investments should be encouraged in mobile telephony, internet broadcasting and communication services to enhance the contribution of the ICT sector to the economy. Reduction of various charges/tariffs will improve the environment for doing business.

Promoting private sector investment is a priority in achieving strong inclusive growth. This entails maintaining the reform agenda in creating an enabling environment to secure market confidence, improving on ease of doing business and reducing the cost of doing business. More importantly, is focusing on promoting a conducive business environment at county level by identifying specific factors characterizing each county. This requires enhanced coordination of policies and rationalization of the regulatory framework at national and county levels.

Promoting cooperation among the EAC members States will facilitate timely implementation of the planned regional projects aimed at improving the investment climate. At the same time, harmonization of investment codes and regimes will allow exploitation of opportunities to promote industrialization and investments for sustainable economic development.

Finally, there is need to strengthen government investment promotion agencies by staffing them with experienced private sector professionals.

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Appendices

Appendix 4.1: Competitive industrial performance for selected countries

Index/Countries	Uganda	Rwanda	Tanzania	South Africa	India	China	South Korea
Competitive Industrial Performance index	126 (0.005)	136 (0.003)	120 (0.007)	43 (0.079)	42 (0.079)	5 (0.389)	4 (0.393)
Capacity to produce and export manufactures							
Manufacturing value added per capita	132 (0.003)	139 (0.001)	135 (0.003)	65 (0.067)	109 (0.014)	43 (0.131)	9 (0.499)
Manufacturing export per capita	133 (0.000)	131 (0.001)	128 (0.001)	65 (0.032)	111 (0.006)	58 (0.044)	17 (0.302)
Technological deepening and upgrading							
Share of manufacturing value added in GDP	104 (0.270)	129 (0.149)	113 (0.196)	31 (0.019)	59 (0.377)	1 (1.00)	3 (0.878)
Share of medium and high-tech activities in total manufacturing value added	106 (0.134)	125 (0.080)	114 (0.103)	63 (0.300)	33 (0.493)	27 (0.511)	4 (0.782)
Industrialization intensity	116 (0.202)	135 (0.111)	128 (0.150)	62 (0.338)	36 (0.435)	4 (0.756)	1 (0.830)
Share of medium and high tech-activities in total manufacturing export	107 (0.156)	123 (0.084)	113 (0.120)	48 (0.491)	78 (0.322)	25 (0.611)	7 (0.772)
Share of manufacturing exports to total exports	104 (0.407)	80 (0.658)	103 (0.425)	77 (0.719)	43 (0.868)	2 (0.992)	1 (1.00)
Industrial export quality	114 (0.282)	94 (0.371)	117 (0.272)	55 (0.605)	58 (0.595)	11 (0.802)	2 (0.886)
World impact							
Share of world manufacturing value added	95 (0.001)	132 (0.000)	89 (0.001)	31 (0.019)	9 (0.102)	1 (1.000)	5 (0.134)
Share in world manufacturing export	119 (0.000)	127 (0.000)	97 (0.001)	37 (0.028)	14 (0.119)	1 (1.000)	5 (0.247)

Source: UNIDO (2017)

Appendix 4.2: KIE approved industrial projects and loans, 2012-2017

Year		Food products	Beverages	Animal feeds	Food products n.e.c.	Manufacture of textiles	Wearing apparel	Leather and related products	Machinery and equipment	Repair and installation of machinery and equipment	Other sectors	Total
2012	Projects	48	-	-	-	3	24	-	19	-	15	109
	Ksh 000	30,330	-	-	-	3,000	7,922	-	7,656	-	19,595	68,503
	Ksh 000/ project	632	-	-	-	1,000	330	-	403	-	1,306	628
2013	Projects	83	3	-	-	4	46	2	53	2	64	257
	Ksh 000	36,545	1,747	-	-	1,360	18,319	550	20,085	350	25,895	104,501
	Ksh 000/ project	440	582	-	-	340	398	275	379	175	405	407
2014	Projects	193	3	2	2	3	139	1	105	-	95	543
	Ksh 000	64,855	6,791	1,500	3,327	1,900	29,891	840	35,005	-	50,209	194,316
	Ksh 000/ project	336	2,264	750	1,664	633	215	840	333	-	529	358
2015	Projects	75	8	2	12	37	1	2	53	-	43	233
	Ksh 000	28,092	230	3,500	4,370	12,813	500	1,000	25,295	-	45,049	120,849
	Ksh 000/ project	375	29	1,750	364	346	500	500	477	-	1,048	519
2016	Projects	107	2	-	1	65	1	2	81	1	65	325
	Ksh 000	66,133	690	-	70	19,958	1,700	5,350	39,260	325	31,807	165,292
	Ksh 000/ project	618	345	-	70	307	1,700	2,675	485	325	489	509
2017	Projects	93	-	-	-	42	1	11	66	8	59	280
	Ksh 000	53,391	-	-	-	19,200	1,500	765	32,669	8,300	65,130	180,955
	Ksh 000/ project	574	-	-	-	457	1500	70	495	1038	1,104	

Source: KNBS, Statistical Abstract 2017 & Economic survey 2018

Appendix 4.3: Business environment indicators 2013

Corruption -Indicator	Kenya	Sub-Saharan Africa
Bribery incidence (per cent of firms experiencing at least one bribe payment request)	26.4	24.0
Bribery depth (% of public transactions where a gift or informal payment was requested)	16.7	18.3
Per cent of firms expected to give gifts in meetings with tax officials	17.4	18.0
Per cent of firms expected to give gifts to secure government contract	33.4	35.6
Value of gift expected to secure a government contract (% of contract value)	2.3	2.7
Per cent of firms expected to give gifts to get an operating license	15.6	18.0
Per cent of firms expected to give gifts to get an import license	17.0	17.3
Per cent of firms expected to give gifts to get a construction permit	34.6	26.2
Per cent of firms expected to give gifts to get an electrical connection	17.6	23.6
Per cent of firms expected to give gifts to get a water connection	30.9	24.5
Per cent of firms expected to give gifts to public officials "to get things done"	28.2	27.5
Per cent of firms identifying corruption as a major constraint	21.3	41.6
Per cent of firms identifying the courts system as a major constraint	30.3	18.7
Crime -Indicator		
If there were losses, average losses due to theft and vandalism (% of annual sales)	5.0	7.8
Products shipped to supply domestic markets that were lost due to theft (% of product value)*	1.8	1.6
Per cent of firms identifying crime, theft and disorder as a major constraint	21.2	22.6

Source: Enterprise Surveys (http://www.enterprisesurveys.org), The World Bank.

Appendix 6.1: Completed and upcoming hotels, 2013-2017

Name	Star Rating	No. of Rooms	Location	Status
Lazizi Premier	4	144	Nairobi	Opened
Alba		51	Meru	Opened
Alba		83	Nairobi	Opened
Azure Hotel Royal Orchid	5	165	Nairobi	Opened
Azure Mara Haven	3.5	30	Mara	Opened
Golden Tulip Westlands	3.5	94	Nairobi	Opened
Concord Hotel and Suite	4.5	86	Nairobi	Opened
Sarova Woodlands	4	145	Nakuru	Opened
Trademark		215	Nairobi	Opened
Acacia Premier	4	93	Kisumu	Opened
Amber	4	109	Nairobi	Opened
Four Points Sheraton Hurlingham	4	96	Nairobi	Opened
Best Western Creekside	4	100	Mombasa	Opened
Dusit D2	5	101	Nairobi	Opened
Villa Rosa Kempinski	5	200	Nairobi	Opened
Radisson Blu	5	271	Nairobi	Opened
Park Inn Westlands	3.5	140	Nairobi	Opened
Park Inn Arboretum		144	Nairobi	Opened
Tune Hotels	3	280	Nairobi	Opened
Pride Inn Paradise Shanzu	4	300	Mombasa	Opened
Hyatt House / Hyatt Place	3	221	Nairobi	Opened
Leopard Point Luxury Beach Resort & Spa	5	15	Malindi	Opened
Loisaba Tented Camp	5	12	Loisaba	Opened
Four Points Nairobi Airport	4	172	Nairobi	Opened
Double Tree by Hilton	4	109	Nairobi	Opened
Total No. of Hotel Rooms		3,376		
Upcoming Hotel Chains				
Movenpick			Nairobi	Upcoming
Pullman			Nairobi	Upcoming
Accor Hotels			Nairobi	Upcoming
Marriott	5	365	Nairobi	Upcoming (2020)
Hilton – The Pinnacle Towers	5	255	Nairobi	Upcoming (2020)

Source: Presidential Delivery Unit (2017)

Appendix 6.2: Trend in market shares for key source markets (%)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017
UK	17.44	15.86	16.05	15.06	13.73	13.61	13.06	10.97	11.10
USA	10.73	9.84	9.45	10.00	10.60	11.00	11.09	11.06	11.80
Uganda	3.12	3.10	3.38	4.49	4.35	3.67	3.86	5.81	6.40
India	3.87	4.35	4.67	4.96	5.54	6.38	6.62	7.31	6.20
China	2.16	2.60	2.96	3.34	3.40	3.85	3.96	5.45	5.50
Germany	6.76	5.75	5.43	5.25	5.92	5.66	5.06	4.95	
Italy	6.99	8.01	7.62	6.67	7.34	5.93	4.44	4.10	
South Africa	3.38	3.02	3.03	3.30	3.34	3.01	4.05	4.09	
Scandinavia	3.27	3.35	3.30	3.79	3.52	3.72	3.35	3.26	
France	4.19	4.57	3.81	2.78	2.27	2.20	2.22	2.33	
Canada	2.44	2.34	2.43	2.36	2.31	2.52	2.24	2.22	
Oceania	1.91	2.01	2.29	2.51	2.77	2.38	2.05	2.20	
UAE	1.26	1.36	1.67	3.28	3.13	2.88	5.43	2.10	
Tanzania	3.01	2.76	2.71	2.70	2.62	2.49	2.36	2.07	
Nigeria	1.18	1.25	1.33	1.22	1.27	1.54	1.87	2.05	
Netherlands	2.55	2.99	2.34	2.09	2.08	2.32	2.07	1.88	
Ethiopia	1.25	1.18	1.07	1.00	1.06	1.24	1.46	1.75	
Rwanda	1.07	1.03	1.08	1.11	1.22	1.32	1.49	1.33	
South Sudan Rep.	1.69	1.63	1.75	1.17	0.64	0.31	1.40	1.30	
Spain	1.35	1.34	1.31	1.25	1.20	1.34	1.03	1.25	
Japan	1.07	0.99	1.00	1.14	1.06	1.03	0.86	1.07	
Burundi	0.84	0.69	0.62	0.62	0.66	0.72	0.87	0.95	
Switzerland	1.68	1.42	1.31	1.20	1.30	1.13	1.14	0.82	
Israel	0.13	0.36	0.30	0.29	0.31	0.33	0.30	0.32	
Brazil	0.11	0.14	0.14	0.15	0.18	0.16	0.16	0.16	
All Other Countries	16.56	18.06	18.95	18.30	18.18	19.25	17.56	19.20	59.00
Total (Air & Sea)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Data Source: Kenya Tourism Board (2017)

Appendix 6.3: Allocation of county development budget to projects, 2016/17

Department	2016/17 Development Expenditure (Ksh million)	Per cent
Administration (e.g. construction of office blocks)	5,619.12	5.45
Agriculture, Fisheries and Livestock	7,169.39	6.95
County Assembly	2,365.46	2.29
Finance and Economic Planning	6,126.80	5.94
Education, Youths, Gender, Sports, ICT, Special Programme and Social Services	11,759.28	11.40
Tourism, Trade, Industry & Commerce	4,442.95	4.31
Land, Physical Planning, Housing and Urban Development	3,839.15	3.72
Road, Transport and Public Works	33,691.78	32.66
Water, Environment and Natural Resources	13,938.38	13.51
Health	14,215.71	13.78
Total	103,168.02	100.00

Data Source: Office of the Controller of Budget (2017)

Appendix 9.1: National government investment in socio-economic sectors, 2008/9-2016/17 (Ksh million)

	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17*	*Per cent*	*% Change 2008/09-2016/17*
Recurrent											
Education	126,090.7	138,845.0	159,686.7	186,328.5	233,102.9	237,214.8	261,546.1	280,322.8	318,179.4	*79.0*	*1.52*
Health	27,689.4	23,097.1	33,184.8	42,952.6	54,811.0	19,829.9	20,828.4	25,214.8	34,144.0	*8.5*	*0.23*
Social Protection	999.6	1,137.3	1,817.2	1,780.9	1,560.2	7,770.1	7,894.1	8,732.0	15,448.8	*3.8*	*14.45*
Correctional Services	9,522.5	9,357.9	13,769.4	13,494.0	15,146.8	13,376.7	16,059.6	16,724.2	18,897.0	*4.7*	*0.98*
Gender Affairs	1,640.2	2,432.1	73.1	86.5	190.1	221.4	177.0	268.5	876.1	*0.2*	*(0.47)*
Sports Development, Art and Culture	1,496.4	1,757.7	1,763.9	1,728.6	1,705.0	3,441.9	2,632.6	4,361.9	6,395.6	*1.6*	*3.27*
Public Services and Youth Affairs	2,958.3	5,414.8	6,102.6	5,980.6	6,410.3	3,539.6	3,886.6	7,195.9	8,727.0	*2.2*	*1.95*
Sub Total	170,397.1	182,041.9	216,397.7	252,351.6	312,926.4	285,394.5	313,024.4	342,820.0	402,668.0	*100.0*	*1.36*
Development											
Education	13,788.1	14,084.9	19,313.3	21,131.6	27,019.5	13,997.8	22,618.8	14,608.4	24,168.9	*6.0*	*0.75*
Health	6,947.1	3,722.8	15,226.5	20,245.8	21,217.0	14,373.8	18,007.9	17,152.3	35,083.2	*8.7*	*4.05*
Social Protection	399.7	266.3	1,067.0	746.9	1,080.8	4,364.0	6,062.6	13,774.4	14,455.3	*3.6*	*35.17*
Correctional Services	1,139.0	1,283.9	1,485.8	1,040.1	1,783.2	542.8	419.9	596.0	525.0	*0.1*	*(0.54)*
Gender Affairs	1,421.4	2,005.5	299.3	346.0	210.2	135.4	209.8	539.2	3,442.2	*0.9*	*1.42*
Sports Development, Art and Culture	331.6	421.9	631.0	441.7	571.7	901.3	1,172.6	2,221.5	2,506.3	*0.6*	*6.56*
Public Services and Youth Affairs	3,113.4	4,971.8	4,012.7	2,808.9	4,280.0	10,491.3	15,727.4	10,140.5	12,684.9	*3.2*	*3.07*
Sub Total	27,140.3	26,757.1	42,035.6	46,760.9	56,162.5	44,806.4	64,218.9	59,032.2	92,865.9	*100.0*	*2.42*
Total											

	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17*	*Per cent*	*% Change 2008/09-2016/17*
Education	139,878.8	152,929.9	179,000.0	207,460.1	260,122.4	251,212.6	284,164.9	294,931.2	342,348.3	*85.0*	*1.45*
Health	34,636.5	26,819.9	48,411.3	63,198.3	76,028.0	34,203.8	38,836.2	42,367.1	69,227.3	*17.2*	*1.00*
Social Protection	28,089.1	1,403.6	2,884.2	2,527.8	2,641.0	12,134.1	13,956.7	22,506.4	29,904.1	*7.4*	*0.06*
Correctional Services	2,138.6	10,641.8	15,255.2	14,534.1	16,930.0	13,919.5	16,479.5	17,320.2	19,422.0	*4.8*	*8.08*
Gender Affairs	10,943.9	4,437.6	372.4	432.5	400.4	356.8	386.8	807.7	4,318.3	*1.1*	*(0.61)*
Sports Development, Art and Culture	1,971.8	2,179.6	2,394.9	2,170.3	2,276.7	4,343.2	3,805.2	6,583.3	8,901.9	*2.2*	*3.51*
Public Services and Youth Affairs	4,609.8	10,386.6	10,115.3	8,789.4	10,690.4	14,030.9	19,614.0	17,336.4	21,412.0	*5.3*	*3.64*
Total	**197,537.4**	**208,799.0**	**258,433.3**	**299,112.5**	**369,088.9**	**330,200.9**	**377,243.3**	**401,852.2**	**495,533.8**	***100.0***	***1.51***
Recurrent (%)	**86.3**	**87.2**	**83.7**	**84.4**	**84.8**	**86.4**	**83.0**	**85.3**	**81.3**		***(0.06)***
Development (%)	**13.7**	**12.8**	**16.3**	**15.6**	**15.2**	**13.6**	**17.0**	**14.7**	**18.7**		***0.36***

Source: GoK (Various) Sector Reports

Appendix 9.2: Number of health staff by cadre and level of care relative to norms

Staff cadres	Numbers by level of care				Numbers by owner				
	Community	Primary Care	County Hospital	National Hospitals	Public	Faith Based	Total	Total per 10,000 population	Norms per 10,000 people*
Specialists (Medical/ Public Health)		1	149	327	477	251	728	0.18	
Medical Officers		55	342	206	603	402	1,005	0.25	3.0
Dentists		7	79	68	154	61	215	0.05	0.1
Dental Technologies		1	50	49	100	34	134	0.03	
Community Oral Health Officers		13	86	16	115	19	134	0.03	0.4
Clinical Officer (spec)		65	583	273	921	165	1,086	0.27	3.0
Clinical Officers (Gen)		332	770	144	1,246	389	1,635	0.41	3.7
BSN Nursing Officers	1	58	323	1,689	2,071	1,273	3,344	0.84	0.1
Registered Nurses	5	1,192	2,122	1,779	5,098	2,162	7,260	1.82	2.6
Enrolled Nurses	18	4,840	3,797	1,251	9,906	2,397	12,303	3.08	5.4
Public health Officers	149	930	384	83	1,546	172	1,718	0.43	1.0
Public Health Technicians	289	1,255	180	34	1,758	59	1,817	0.45	0.6
Pharmacists		27	170	80	277	52	329	0.08	0.2
Pharm. Technologist		49	154	108	311	194	505	0.13	0.7
Lab Technologist		292	567	380	1,239	407	1,646	0.41	0.3
Lap Technician		354	273	106	733	412	1,145	0.29	1.3
Orthopaedic technologists		8	72	48	128	40	168	0.04	0.1
Nutritionists		106	217	130	453	110	563	0.14	0.5
Radiographers	1	29	194	153	377	97	474	0.12	0.2
Physiotherapists		55	268	189	512	111	623	0.16	0.4
Occupational therapists		20	149	110	279	52	331	0.08	0.2
Plaster technicians		10	112	70	192	28	220	0.06	0
Health record and information officers		110	164	135	409	91	500	0.13	0.9
Health record and information technicians		63	175	105	343	104	447	0.11	0
Trained community health workers	19,949	3,096	570	34	16,649	1,389	18,038	4.51	27.5
Social health workers	300	16	56	77	449	55	504	0.13	0.8

Staff cadres	Numbers by level of care				Numbers by owner				
	Community	Primary Care	County Hospital	National Hospitals	Public	Faith Based	Total	Total per 10,000 population	Norms per 10,000 people*
Community health extension workers	483	512	107	10	1,112	53	1,165	0.29	
Medical engineering technologist	12	10	113	67	202	37	239	0.06	0.1
Medical engineering technicians		49	135	51	235	21	256	0.06	0.2
Mortuary attendants					258		258	0.06	0.2
Patient attendants					1,902		1,902	0.48	1.8
Drivers					2,158		2,158	0.54	1.6
Clerks					671		671	0.17	2.0
Cleaners					511		511	0.13	2.7
Security					365		365	0.09	2.2
Accountants					271		271	0.07	0.9
Administrators					513		513	0.13	1.0
Cooks					535		535	0.13	1.5
Secretaries					1,796		1,796	0.45	0.8
Casuals					673		673	0.17	0.6
Total	**21,207**	**13,555**	**12,361**	**7,772**	**57,548**	**10,637**	**68,185**	**17.06**	

Source: Ministry of Health (Various), Sector Reports

Appendix 9.3: County investment in socio-economic sectors, 2008/9-2016/17 (Ksh millions)

	2013/14	2014/15	2015/16*	Per cent (%)
General Public Services	135,187.0	136,218.2	137,177.6	*50.2*
Economic affairs	11,086.6	40,167.2	90,126.6	*14.8*
General economic affairs	1,312.9	6,286.5	13,299.8	*2.3*
Agriculture	2,876.5	14,199.6	23,101.9	*5.2*
Transport	5,930.1	18,854.7	46,734.4	*6.9*
Other economic affairs	967.2	826.4	6,990.5	*0.3*
Environmental protection	873.7	5,277.2	16,559.9	*1.9*
Housing and community amenities	*3,532.6*	*6,997.4*	*12,747.8*	*2.6*
Health	*8,492.2*	*54,671.7*	*63,122.2*	*20.2*
Recreation, culture and religion	*924.6*	*7,849.3*	*12,571.1*	*2.9*
Education	*1,228.7*	*19,952.4*	*27,153.5*	*7.4*
Social protection	*72.0*	*176.7*	*1,674.6*	*0.1*
Total	**161,397.5**	**271,310.0**	**361,133.2**	***100.0***
Socio economic sectors (%)	***6.6***	***30.5***	***28.9***	***30.6***

Source: Government of Kenya (Various), Sector Reports

Appendix 9.4: Educational institutions, public and private, 2012-2016

Category		2012	2013	2014	2015	2016	% Change 2012-2016
Schools	Pre-primary						
	Public	24,654	24,702	24,768	24,862	25,175	2.1
	Private	15,104	15,443	15,451	15,913	16,073	6.4
	Sub total	***39,758***	***40,145***	***40,219***	***40,775***	***41,248***	**3.7**
	% Pre Primary Private	***38.0***	***38.5***	***38.4***	***39.0***	***39.0***	**2.6**
	Primary						
	Public	20,307	21,205	21,718	22,414	22,937	13.0
	Private	6,242	6,821	7,742	8,919	10,263	64.4
	Sub total	***26,549***	***28,026***	***29,460***	***31,333***	***33,200***	**25.1**
	% Primary Private	***23.5***	***24.3***	***26.3***	***28.5***	***30.9***	**31.5**
	Secondary						
	Public	6,188	6,807	7,680	8,297	8,592	38.8
	Private	986	1,027	1,067	1,143	1,350	36.9
	Sub total	***7,174***	***7,834***	***8,747***	***9,440***	***9,942***	**38.6**
	% Secondary Private	***13.7***	***13.1***	***12.2***	***12.1***	***13.6***	**-1.2**
Teacher Training Colleges	Pre-primary						
	Public	20	22	25	25	26	30.0
	Private	105	109	115	118	121	15.2
	Sub total	125	131	140	143	147	17.6
	Primary						
	Public	21	22	24	24	28	33.3
	Private	97	101	101	101	105	8.2
	Sub total	118	123	125	125	133	12.7
	Secondary	2	2	2	3	3	50.0
	Sub Total	**245**	**256**	**267**	**271**	**283**	**15.5**
	% Colleges Private	***82.4***	***82.0***	***80.9***	***80.8***	***79.9***	**-3.1**
TVET Institutions	Public Youth Polytechnics	647	701	701	816	816	26.1

Category		2012	2013	2014	2015	2016	% Change 2012-2016
	Private Youth Polytechnics					29	
	Public Technical and Vocational Colleges	49	49	51	55	62	26.5
	Private Technical and Vocational Colleges					382	
	National Polytechnics	3	3	3	3	11	266.7
	Polytechnic University Colleges	2					-100.0
	Sub Total	**701**	**753**	**755**	**874**	**1300**	**85.4**
	% TVET Private	***0***	***0***	***0***	***0***	***31.6***	
Universities	Public	8	22	22	23	30	275.0
	Private	27	30	31	30	28	3.7
	Sub total	**35**	**52**	**53**	**53**	**58**	65.7
	% Universities Private	***77.1***	***57.7***	***58.5***	***56.6***	***48.3***	***-37.4***
Grand Total		**74,462**	**77,066**	**79,501**	**82,746**	**86,031**	**15.5**

Source: GoK (Various), Sector Reports

Appendix 9.5: Total national government development investments in health facilities, 2013-2017 (in Ksh millions)

	Managed Equipment Services (Ksh millions)	Free Maternity Services Programme (Ksh millions)	Free Primary Health Care (Ksh millions)			Managed Equipment Services (Ksh millions)	Free Maternity Services Programme (Ksh millions)	Free Primary Health Care (Ksh millions)
Baringo	810	167.3	6.9		Mandera	810	125.3	7.2
Bomet	810	178.3	8.9		Marsabit	810	55	3
Bungoma	810	4846	18.6		Meru	810	349.2	15.1
Busia	810	237.2	5.6		Migori	810	366.4	10.7
Elgeyo Marakwet	810	192.8	4.6		Muranga	810	226	11
Embu	1,440	145.4	5.7		Nairobi	1,860	796.2	34.9
Garissa	1,140	142	4.4		Nakuru	1,140	581	19.8
Homa Bay	380	319	11.3		Nandi	810	181	9
Isiolo	810	56.5	1.6		Narok	760	161.7	10.5
Kajiado	810	144.8	8.5		Nyamira	860	199.8	7
Kakamega	1,140	553.3	19		Nyandarua	810	111.5	6.9
Kericho	810	267.2	9.4		Nyeri	760	204.8	8
Kiambu	1,140	699.9	18.8		Samburu	810	40.5	2.8
Kilifi	810	414	13.7		Siaya	302.8	0	9.9
Kirinyaga	520	152.8	6.1		Taita Taveta	810	108.6	3.5
Kisii	1,140	463.6	14.5		Tana River	0	760	48.5
Kisumu	1,140	328.7	11.3		Tharaka Nithi	810	88.6	4.1
Kitui	810	175.1	11.3		Trans Nzoia	810	198.4	10.1
Kwale	1,140	241.7	8		Turkana	810	78	10.6
Laikipia	810	161.5	4.9		Uasin Gishu	1,100	93.8	11
Lamu	810	41.7	1.3		Vihiga	810	148.4	6.3
Machakos	1,140	277	12		Wajir	810	125.5	4.6
Makueni	810	228.3	9.8		West pokot	810	126.7	6.3

Source: Presidential Delivery Unit (2018)

Appendix 9.6: National government investment in education at the counties

	Revitalizing Technical Institutions	FDSE	National Schools Upgrade	Digital Literacy Programme	FPE
Kisumu	1,190	2300	25	36.66	248.7
Machakos	115	3100	50	50	992
Nandi	161.3	1700	50	41	776
Muranga	423.7	3300	50	28.28	671
Meru	788.5	3000	75	42.42	1000
Narok	156.9	908	50	34.74	899
Nakuru	227.3	3400	0	40.68	1400
Lamu	114.6	193	50	5.16	97
Kericho	210.9	1900	50	23.16	360
Kilifi	0	0	0	0	0
Kirinyanga	160.6	0	50	11.82	1400
Kisii	109.14	3800	50	45.72	1100
Makueni	115.3	3200	50	52.98	987
Mandera	100.5	406	50	11.22	348
Marsabit	157.4	205	50	8.22	171
Migori	223	2100	50	35.94	1000
Kiambu	216.3	3700	0	28.8	836
Kitui	115.1	2700	50	71.64	1200
Nairobi	1100	2200	25	12.24	764
Nyandarua	164.4	1600	50	20.22	483
Nyamira	106.4	1700	50	20.34	393
West Pokot	156	733	50	28.14	675
Wajir	148.6	341	0	12	245

	Revitalizing Technical Institutions	FDSE	National Schools Upgrade	Digital Literacy Programme	FPE
Vihiga	169.9	1900	0	22.26	606
Uasin Gishu	0	0	0	0	0
Trans Nzoia	162	0	50	19.68	834
Tharaka Nithi	176.5	1300	25	24.54	362
Tana River	179.4	204	50	9.54	198
Taita Taveta	106.5	696	50	11.46	234
Siaya	104.8	2300	50	38.4	881
Samburu	165.6	192	50	8.7	192
Nyeri	163.7	0	2300	50	23.52
Laikipia	153.9	956	50	15.9	325
Kwale	174.8	899	50	21.48	626
Kakamega	224.4	4000	50	51.12	1900
Kajiado	170.2	649	50	22.38	478
Isiolo	101.8	138	50	6.78	131
Homa Bay	157.4	2600	50	51.96	1100
Garissa	154.1	309	50	9.24	202
Embu	113.6	1500	50	22.56	428
Elgeyo Marakwet	195	1000	50	21.78	421
Busia	267.7	1500	50	25.14	891
Bungoma	168.6	3700	50	42.44	1800
Bomet	213.3	1900	50	49.94	915
Turkana	175.8	387	50	20.34	542
Baringo	153.2	1200	25	37.5	537

Source: Presidential Delivery Unit (2018)

Appendix 9.7: National government social welfare development projects in counties, 2013-17

	Uwezo Fund (millions)	Women Enterprise Fund (millions)	National government affirmative action (millions)	Inua jamii (millions)	Youth Enterprise Fund (millions)		Uwezo Fund (millions)	Women Enterprise Fund (millions)	National government affirmative action (millions)	Inua jamii (millions)	Youth Enterprise Fund (millions)
Baringo	109	96	106	19	916	Mandera	128	32.25	96	2430	38
Bomet	104	137	80	733	110	Marsabit	48	40	64	1830	32
Bungoma	159	3389	144	1350	114	Meru	167	306	144	1100	141
Busia	140	147	112	1250	109	Migori	143	147	128	1420	110
Elgeyo Marakwet	79	54	64	595	105	Muranga	146	320	112	1100	119
Embu	68	205	64	633	112	Nairobi	325	454	272	1500	333
Garissa	110	53	96	731	97	Nakuru	243	463	176	1250	124
Homa bay	152	302	128	1400	113	Nandi	108	156	96	748	108
Isiolo	34	50	32	415	8	Narok	109	86	96	780	120
Kajiado	94	139	80	549	121	Nyamira	73	57	64	557	105
Kakamega	235	375	192	1770	145	Nyandarua	97	232	80	674	113
Kericho	104	155	96	823	115	Nyeri	117	518	96	791	117
Kiambu	244	517	192	1330	183	Samburu	47	34	48	641	36
Kilifi	145	217	112	1520	106	Siaya	125	116	96	1030	110
Kirinyaga	75	191	64	532	116	Taita Taveta	67	142	64	494	66
Kisii	172	192	144	1400	114	Tana River	53	31	48	472	38
Kisumu	147	227	112	1400	119	Tharaka Nithi	58	117	48	500	112
Kitui	165	224	128	1300	120	Trans Nzoia	98	162	80	724	111
Kwale	96	116	64	866	102	Turkana	110	53	96	34800	38
Laikipia	62	55	48	433	100	Uasin Gishu	111	157	96	687	102
Lamu	22	17	32	228	17	Vihiga	92	159	80	944	113
Machakos	153	181	115	1260	127	Wajir	112	73	96	1960	39
Makueni	137	116	96	949	114	West Pokot	76	15	64	548	55

Source: Presidential Delivery Unit (2018)

Appendix 10.1: Kenya's performance in institutions pillar sub-indices 2011-2018, Global Competitiveness Index (GCI)

	Sub-Index	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
	Overall Index		3.7	3.8	3.9	3.9	3.9	4.0
1	Property Rights	3.7	3.6	3.9	4.2	4.2	3.6	4.6
2	Intellectual Property protection	2.9	3.1	3.4	3.7	3.7	4.4	4.4
3	Diversion of Public Funds	2.6	2.8	3.0	3.0	2.9	4.0	3.2
4	Public trust in Politicians	2.0	2.4	2.7	3.0	3.0	3.1	2.7
5	Irregular payments and bribes	2.9	3.0	3.2	3.2	2.9	2.9	3.4
6	Judicial independence	2.9	3.4	4.0	4.1	4.1	3.0	4.2
7	Favouritism in decisions of government officials	2.5	2.5	2.8	3.0	2.8	4.0	2.9
8	Efficiency of government spending	2.8	3.1	3.3	3.3	3.3	2.7	3.2
9	Burden of government regulation	3.0	3.4	3.6	3.6	3.7	3.3	4.0
10	Efficiency of legal framework in settling disputes	3.5	3.7	3.9	4.1	4.0	3.9	4.0
11	Efficiency of legal framework in challenging regulations	3.4	3.7	3.7	3.8	4.0	3.9	3.7
12	Transparency of government policymaking	3.8	3.8	3.9	4.1	4.2	3.8	4.5
13	Business costs of terrorism	4.0	3.8	3.6	3.0	2.5	4.3	3.0
14	Business costs of crime and violence	3.5	3.5	3.4	3.0	2.7	2.6	3.1
15	Organized crime	3.8	4.2	4.1	3.7	3.3	2.8	3.0
16	Reliability of police services	3.2	3.4	3.7	3.9	3.9	3.3	4.1
17	Ethical behaviour of firms	3.4	3.6	3.8	3.9	3.7	3.9	3.9
18	Strength of auditing and reporting standards	4.7	4.4	4.4	4.7	4.5	3.8	4.4
19	Efficacy of corporate boards	4.3	4.4	4.5	4.8	4.9	4.3	5.0
20	Protection of minority shareholders' interests	4.1	3.9	4.0	4.3	4.2	5.1	4.2
21	Strength of investor protection	5.0	5.0	5.0	5.0	4.6	4.1	5.3

Source: World Bank (2017), World Economic Forum (2017)

Appendix 10.2: The most problematic factors for doing business in Kenya (2008-2018)

	Factor	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
1	Corruption	17.0	23.3	17.3	21.2	20.8	21.1	20.0	19.7	17.8	19.1
2	Access to financing	15.6	11.4	12.1	13.5	9.0	15.7	18.1	12.9	11.5	15.5
3	Inadequate supply of infrastructure	14.8	12.6	5.3	11.0	8.1	8.3	9.9	9.7	8.1	9.3
4	Tax rates	9.7	10.1	7.3	10.1	11.0	13.8	9.9	11.2	13.7	13.7
5	Crime and theft	7.5	8.0	3.3	10.3	9.3	6.9	10.3	7.4	5.8	6.1
6	Inefficient government bureaucracy	7.5	7.5	10.8	6.6	5.6	8.4	8.2	7.9	9.8	5.4
7	Policy Instability	6.4	3.1	0.8	3.8	4.4	2.0	3.5	3.1	7.3	4.0
8	Tax regulations	5.5	4.2	8.9	1.9	2.3	2.3	3.3	5.1	3.9	4.4
9	Inflation	5.3	8.3	7.6	7.6	13.9	9.2	6.8	7.5	6.1	7.3
10	Government Instability/coups	5.1	2.4	1.3	3.7	2.1	0.5	0.9	1.2	0.9	2.0
11	Poor work ethic in national labor force	2.4	3.0	6.0	1.5	3.3	3.6	1.4	2.8	3.3	2.9
12	Inadequately educated workforce	1.4	0.7	12.3	1.5	2.4	2.8	1.3	1.9	2.1	2.3
13	Foreign currency regulations	0.9	1.1	3.0	2.7	2.9	1.4	0.9	2.1	1.3	2.4
14	Restrictive labor regulations	0.7	3.4	2.1	3.3	1.4	0.3	2.9	2.4	2.8	1.5
15	Poor public health	0.5	0.9	2.0	1.5	1.4	0.4	1.0	1.3	1.7	0.8

Source: World Bank (2017), World Economic Forum

(Scores are in %)

Appendix 10.3: Regional authorities and a sample of their investment projects

RDA	Jurisdiction–Counties covered	Rationale	Current/Proposed projects
Coast Development Authority (CDA)	Coast region consisting of Kwale, Malindi, Mombasa, Lamu, Tana River, Kilifi and Taita Taveta counties, and the lower parts of Garissa County	Integrated Regional Planning for sustainable utilization and management of coastal resources. Development of local capacities to sustain the continuation and maintenance of integrated communal projects. Exploration, Promotion, and Conservation (including surveillance) of Marine resources within Exclusive Economic Zones and other coastal resources for sustainable development.; Sourcing for Innovations and Research findings for implementation of pilot/ demonstration projects for the purpose of dissemination of the technology; Promotion of Private Sector involvement in commercial activities and community development within its area of jurisdiction; and	• Sustainable Fisheries Management and Biodiversity Conservation of Deep-sea living Marine Resources and Ecosystems in the Areas beyond National Jurisdiction. • Oil and Gas exploration and development. • Transboundary Marine Protected Area between Kenya & the United Republic of Tanzania. • Northern Mozambique Channel initiative (NMC). • The Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonisation and Institutional Reforms (WIO LME SAPPHIRE)
Tana Arthi River Development Authority (TARDA)	Tharaka Nithi, Embu, Tana River, Garissa, Machakos, Makueni, Machakos, Kitui, Narok[3]	to enhance equitable socio-economic development through sustainable utilization and management of resources in the Tana and Athi Rivers Basins. Focuses on environmental protection, natural resource management, sustainable development and socio-economic wellbeing of the people[4]	Masinga dam resort Tana delta irrigation Kitui honey processing Emali project Kiambere farm Kibwezi farm The High Grand Falls Munyu dam Upperhill project
Lake Basin Development Authority (LBDA)	Kakamega, Busia, Bungoma, Trans-Nzoia, Migori, Kisumu, Siaya, Homa Bay, Nandi, Bomet, Kisii, Nyamira, Vihiga, Uasin Gishu, Narok, West Pokot, Turkana,	empowered to undertake overall integrated planning, co-ordination and implementation of programs in the basin through mobilization of resources and assets in pursuit of improving livelihoods and development in the lake basin region	Lake Basin Development Company Lake basin mall Nandi dam Magwagwa Multipurpose Hydro Power Project
Ewaso Ng'iro North Development Authority (ENNDA)	Narok, Nyeri, Laikipia, Samburu, Marsabit, Meru, Nakuru, Kajiado, Narok and Nyandarua[5]	to plan and coordinate the implementations of developments projects in the Ewaso N'giro River Basin and catchment areas and for connected purposes	No information available
Ewaso Ng'iro South Development Authority (ENSDA)	Garissa, Wajir, Marabit, Laikipia, Mandera, Isiolo, and Samburu[6]	to plan and coordinate the implementations of developments projects in the Ewaso N'giro River Basin and catchment areas and for connected purposes	No information available

RDA	Jurisdiction–Counties covered	Rationale	Current/Proposed projects
Kerio Valley Development Authority (KVDA)	Uasin Gishu, Nakuru, Samburu, Baringo, Elgeyo Markwet, Wet Pokot and Turkana[7]	To plan, initiate, co-ordinate and monitor implementation of programs and projects that transcend administrative boundaries within KVDA's area of operation. To maintain a liaison between the institutions (KVDA), Government, Private sector and other agencies on matters of development in the area in view of limiting duplication of activities and ensuring best use of Technical, Financial, Human and Natural resources[8].	KVDA-honey Livestock Multiplication KVDA pasture (nyasi ni mali initiative)

Appendix 10.4: Budgetary allocations of regional development agencies (Ksh millions) 2012/2013-2016/2017

Regional Development Authorities	Details	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
TARDA	Current	147,573,000	147,573,000	136,808,000	136,808,000	191,000,000
	Development	139,075,000	164,500,000	228,400,000	226,006,000	325,000,000
	Total Allocation	**286,648,000**	**312,073,000**	**365,208,000**	**362,814,000**	**516,000,000**
ENNDA	Current	45,879,281	45,879,281	58,879,281	58,879,281	118,879,281
	Development	768,461,308	772,200,000	336,600,000	258,069,000	80,000,000
	Total Allocation	**814,340,589**	**818,079,281**	**395,479,281**	**316,948,281**	**198,879,281**
LBDA	Current	130,685,712	130,721,712	130,721,717	118,431,959	135,711,717
	Development	264,042,295	254,000,000	326,375,168	210,592,500	1,573,250,000
	Total Allocation	**394,728,007**	**384,721,712**	**457,096,885**	**329,024,459**	**1,708,961,717**
KVDA	Current	106,906,896	112,906,896	112,906,896	102,141,586	118,675,184
	Development	153,397,254	219,131,851	277,000,000	134,655,000	126,000,000
	Total Allocation	**260,304,150**	**332,038,747**	**389,906,896**	**236,796,586**	**244,675,184**
ENSDA	Current	44,011,429	44,011,429	56,012,471	50,287,649	191,491,291
	Development	187,796,581	189,568,191	227,400,000	255,441,000	484,500,000
	Total Allocation	**231,808,010**	**233,579,620**	**283,412,471**	**305,728,649**	**675,991,291**
CDA	Current	53,113,918	55,942,460	57,942,460	56,971,230	67,942,460
	Development	185,170,000	185,000,000	104,000,000	90,360,000	100,000,000
	Total Allocation	**238,283,918**	**240,942,460**	**161,942,460**	**147,331,230**	**167,942,460**
Total Allocations as % of total national budget		**0.154**	**0.142**	**0.117**	**0.085**	**0.142**

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