KENYA’S EXPERIENCES IN FORMULATING AND IMPLEMENTING PLANS FOR EMERGENCE

STATUS REPORT

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SUBMITTED TO
UNited Nations Development Programme-Kenya Country Office

October 24, 2016
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<td>Airtel Money</td>
<td>A mobile-based money transfer service</td>
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<td>CCK</td>
<td>Communication Commission of Kenya</td>
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<td>COMESA</td>
<td>Common Market of Eastern and Southern Africa</td>
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<td>CPI</td>
<td>Consumer Price Index</td>
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<td>EAC</td>
<td>East African Community</td>
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<td>EACC</td>
<td>Ethics and Anti-Corruption Commission</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
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<td>KRA</td>
<td>Kenya Revenue Authority</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>M-Pesa</td>
<td>Mobile-based money transfer service</td>
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<tr>
<td>M-Shwari</td>
<td>Mobile phone based savings and loan product from a commercial bank</td>
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<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
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<td>MTP</td>
<td>Medium term plan</td>
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<td>Orange Money</td>
<td>A mobile-based money transfer service</td>
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<tr>
<td>PM&amp;E</td>
<td>Participatory Monitoring and Evaluation</td>
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<td>PETS</td>
<td>Public Expenditure Tracking Surveys</td>
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<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<tr>
<td>SME</td>
<td>Small &amp; Medium Enterprises</td>
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<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<tr>
<td>STEM</td>
<td>Science, Technology, Engineering, and Mathematics</td>
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<tr>
<td>TFP</td>
<td>Total Factor Productivity</td>
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<tr>
<td>TIVET</td>
<td>Tertiary, Industrial, and Vocational Education and Training</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>UNDP</td>
<td>United Nations Development Program</td>
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<tr>
<td>WDI</td>
<td>World Development Indicators (World Bank database)</td>
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<td>WEF</td>
<td>World Economic Forum</td>
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ACKNOWLEDGEMENT

The report was made possible by a successful partnership with the United Nations Development Programme. The team received guidance from Mr. Wilmot Reeves – UNDP Kenya – Economic Advisor and Mr. Julius Chokera – UNDP Kenya - National Economist.

The report benefited from the insights of several peer reviewers, including the academic staff at the University of Nairobi, Mr Nicholas Kipyego (UNDP) and other staff at United Nations Development Program - Nairobi. Ms. Beryl Atieno collected and organized most of the quantitative data used in this report.
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1.0 Introduction

Kenya’s economic gains over the past two decades are considered remarkable, making it one of the emerging African countries. A few other African countries, including Algeria, Botswana, Cape Verde, Ivory Coast, Ethiopia, Gabon, Equatorial Guinea, Morocco, Mauritius, Rwanda, Senegal, South Africa and Tanzania, have had equally promising economic development outlook. Overall, Sub-Saharan Africa remains the second-fastest-growing region in the world—5.6 percent growth rate on average over the past decade. The African continent is yet to fully emerge as an economic presence and a co-creator of global prosperity. Yet, as Africa begins to take its rightful place at the table of global prosperity, there is need for serious debates on the major and common factors driving economic success in these African countries. The individual countries have also undergone unique experiences in formulating and implementing domestic plans that inspired each country’s extraordinary growth and development performance.

In the last two years, the International Conference on the Emergence of Africa (ICEA) jointly with the United Nations Development Programme (UNDP), the World Bank and the African Development Bank (AfDB), mooted a peer review platform to stimulate debates on the conditions and experiences for the emergence of African countries. The debates are focused on the dynamics of structural transformation informed by the visionary and major reforms, implementation strategies, institutional frameworks, with outstanding achievements in key sectors. The 1st edition of the International Conference on the Emergence of Africa was held in 2015 in Abidjan, Cote D’Ivoire (UNDP, 2015).

This paper aims to analyse Kenya’s experiences in formulating and implementing plans for emergence. The objective is to provide input on the discussions at the 2nd edition of the International Conference on the Emergence of Africa which is scheduled to take place in March 2017. The conference is expected to: a) take stock of the conceptual approaches supporting the process at national level; b) review the national plans of emergence and their implementation; and c) document some African best practices. The rest of the paper is organized as follows: In Section two, we present an analysis of the conceptual framework supporting the national process for emergence. Section three focuses on the plan for emergence, presenting the proposed reforms
and major investments and their implementation level; trends of macroeconomic and sectoral indicators; trends in terms of accumulation of physical and human capital, and productivity; trends in terms of human development; and change observed in production and consumption patterns. In Section four, the focus is on the institutional framework for managing the national plan for emergence: review of the institutional organization at national level with regard to principles adopted during the ICEA-2015 on Developmental State; presentation of the implementation tools of the plan for emergence; and review of the participatory process. Section five provides evaluation of the implementation of the national plan, and finally Section six comprises a detailed case on the development of the digital economy in Kenya.

2.0 Analysis of the Conceptual Framework informing national process for Emergence

2.1 Competing Visions of the African Emergence?

In the modern economic growth models, the correlates such as physical capital, human capital and technology, are only proximate causes of economic growth and economic success (even if we convince ourselves that there is an element of causality in the correlations shown above). Only fundamental causes can have a big impact on economic growth by affecting parameters and policies that have a first-order influence on physical and human capital and technology. Therefore, an understanding of the mechanics of economic growth and emergence is essential for evaluating the transformative effects of different actions (Acemoglu, 2014).

It is not entirely satisfactory to explain the process of economic growth and take-off on cross-country differences with technology, physical capital and human capital, since there are, presumably, reasons why technology, physical capital and human capital differ across countries. In particular, if these factors are so important in generating large cross country income differences and causing the take-off into modern economic growth, why do certain societies fail to improve their technologies, invest more in physical capital, and accumulate more human capital? Human capital is only one of the most significant structural determinants for sustainable long-term growth. In line with the Solow Model, the endogenous growth model groups the determinants of growth broadly into three categories: structural policies and institutions, stabilization policies, and external conditions. Such structural and transformative policies and
institutions typically include a country’s business environment and financial sector, size of government, trade openness, and quality of public institutions and governance. Stabilization policies capture macroeconomic conditions, including inflation, output volatility, and the real exchange rate (Kenya, 2012).

Arguments for a New Paradigm of African Emergence raises fundamental questions on whether Africa is aspiring to a holistic development process that encompasses human development as a reflection of the real quality of life of Africans or is focusing on economic growth statistics that do not necessarily translate into more jobs for its citizens and better education and healthcare. Is Africa assessing its own emergence progress against benchmarks it has set for itself, or is its "rise" the received wisdom from global institutions and the ambassadors of global capital seeking new frontiers of profit? There is a case in Emerging Africa that Africa needs an endogenous growth model that is inside-out in its perspective, rather than the presently dominant one that is outside-in and globalization-centric. ¹

The required approach to creating the real emergence of Africa must be based on at least three things. The first is a philosophical approach to wealth creation and economic prosperity that prioritizes the role of individual and collective minds in economic and social progress. This context, requires the reinvention and re-engineering of the African mind. The second approach is the need for strategy and the active management of risk. The third is the role of governance, the rule of law, and institution-building.²

2.2 Convergence of thought on Drivers of Emergence

History offers a number of examples where economic growth was not followed by similar progress in human development but instead growth was achieved at the cost of greater inequality, higher unemployment, weakened democracy, loss of cultural identity, or overconsumption of natural resources needed by future generations. Despite this experience, economic growth can increase a nation’s total wealth, enhancing its potential for reducing

¹ http://allafrica.com/stories/201407280001.html
² http://allafrica.com/stories/201407280001.html
poverty and solving other social problems. A national process of emergence should therefore reinforce the linkages between “Economic Growth and Human Development” by undertaking the necessary plans and reforms to unlock the spillovers of growth for human development. The spillovers can translate into higher productivity with which countries use their productive resources—physical capital, human capital, and natural capital—this is widely recognized as the main indicator of the level of economic development.

The endogenous growth model groups the determinants of growth broadly into three categories: structural policies and institutions, stabilization policies, and external conditions. Such structural and transformative policies and institutions typically include a country’s business environment and financial sector, size of government, trade openness, and quality of public institutions and governance. Stabilization policies capture macroeconomic conditions, including inflation, output volatility, and the real exchange rate (Kenya, 2012).

According to the *Human Development Report 1996*, published by the United Nations Development Program, “human development is the end—economic growth a means.” An illustration of the link between economic growth and human development is shown in Box 1.

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<th>Conditions for Enabling Economic Growth</th>
<th>Conditions for Enabling Human Development</th>
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<tr>
<td>• Qualified Labor</td>
<td>• Education services</td>
</tr>
<tr>
<td>• Technological Innovation</td>
<td>• Health services</td>
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<tr>
<td>• Sound Management</td>
<td>• Employment and Income opportunities</td>
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<td></td>
<td>• Democracy</td>
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<td>• Environmental protection</td>
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The experience of outperforming emerging countries brought stylized facts of huge capital accumulation, a shift in the quality of human capital with a transfer of majority of its human
capital to the industrial and services sectors as the underlying drivers. In that regard, the acceleration of industrialization, the transformation of its raw materials appear therefore as a precondition to a stronger and sustainable growth in Africa. Policies for economic, political and social transformation are essential. Institutional frameworks supportive of the transformation process are indispensable. Recognizing these facts, during the 1st edition of the International Conference on the Emergence of Africa held in 2015, it was noted that the African countries aspiring to emergence would also require to implement the following measures (UNDP, 2015):

a) Pursue and achieve strong, sustainable, diversified, high-value added, people centered economic growth that is technology and innovation driven.

b) Promote patterns of production and consumption consistent with the requirements of the transition to a green economy and strengthen the resilience and sustainability of the production system, and of the basic infrastructures including energy.

c) Accelerate regional integration through the creation of regional blocks that could eventually lead to the improvement of intra-regional trade and efficient access to global markets.

d) Strengthen the mobilization of domestic resources through an expansion of national to regional budget and the implementation of tax systems that encourage entrepreneurship and strengthen the private sector and set a resolute fight against illicit capital movements.

2.3 Conceptual Framework informing Kenya’s plan for Emergence

Kenya’s conceptual framework for emergence are anchored on the current Vision 2030, the Kenya Constitution 2010, and Devolution Policy 2015. Kenya Vision 2030 is a long-term development blueprint for the country. It is motivated by collective aspiration for a much better society than the one we have today, by the year 2030. The aim of Kenya Vision 2030 is “the globally competitive and prosperous country with a high quality of life by 2030.” It aims at transforming Kenya into “a newly-industrialising, middle income country providing a high quality of life to all its citizens in a clean and secure environment”. The Vision is anchored on three key pillars: Economic; Social; and Political Governance. The three pillars of Kenya Vision 2030 are anchored on the following foundations which are key to Kenya’s emergence: macroeconomic stability; continuity in governance reforms; enhanced equity and wealth creation opportunities for the poor; infrastructure; energy; science, technology and innovation
(STI); land reform; human resources development; security; and public sector reforms (Kenya, 2007).

The most significant feature of the Constitution of Kenya 2010 is the setting of the broad institutional framework and introduction of a devolved system of government, which is unique for Kenya and provides for one (1) national government and forty-seven (47) county governments. Kenya’s devolution is anchored on the principles of inclusiveness through public participation and accountability as well as resource allocation to facilitate provision and use of public services. The Constitution of Kenya 2010 also provides the basis for monitoring and evaluation as an important part of operationalizing government activities to ensure that transparency, integrity, and accountability principles are embraced in resource allocation and management at National and Devolved levels of Government (Kenya, 2010).

3.0 A Review of Kenya’s National Plan for Emergence

3.1 The proposed reforms and major investments
Since 1990, Kenya has undergone major policy reforms and investments. The reforms which set the stage for stronger, more inclusive and lasting economic growth, cut across different sectors of the economy. Public Sector Reforms in Kenya began with a review jointly conducted by the Government of Kenya and the development partners since the establishment of PSR&DS in November 2004. The reforms themed “Transforming Kenya” were set within the context of the Constitution of Kenya 2010. They have so focused on making systemic and systematic changes and broadly embedding new management practices focused on: citizen centred outcomes across the whole Public Sector; entrenching the renewed focus on Public Service values and ethics, as well as the Bill of Rights in line with the new Constitution. Recent milestones realised in the implementation of the reforms include: (i) Implementation of results-based initiatives to enhance Citizens’ satisfaction with Government Service Delivery; (ii) Promoting sustainable Public Sector Stakeholder Partnerships; (iii) Catalysing Synergy in Government functions and operations through participating in the on-going development of an Integrated Performance Management System; and (iv) Engendering a culture of Managing for Results in all MDAs and Counties.
A number of governance reforms have been implemented since 2003. They include reforms in the broad areas of: (i) prevention; (ii) investigation and recovery of corruptly acquired assets; (iii) strengthening the prosecutorial capacity; Public Expenditure and Financial Management Reforms in order to improve efficiency, enhance transparency and accountability under a coordinated strategy to revitalize Public Finance Management (PFM); Procurement Reforms by enhancing effectiveness of the Public Procurement Oversight Authority (PPOA).

Kenya had no single and clearly defined National Land Policy from independence until 2009. This, together with the existence of many land laws, some of which were incompatible, resulted in a complex land management and administration system. The land question has manifested itself in many ways such as fragmentation, breakdown in land administration, disparities in land ownership and poverty. The formulation of a comprehensive National Land Policy commenced in February 2004. The current land policy reforms thus currently provide an overall framework and define the key measures required to address the critical issues of land administration, access to land, land use planning, restitution of historical injustices, environmental degradation, conflicts, unplanned proliferation of informal urban settlements, outdated legal framework, institutional framework and information management. It also addresses constitutional issues, such as compulsory acquisition and development control as well as tenure. It recognizes the need for security of tenure for all Kenyans including all socio-economic groups, women, pastoral communities, informal settlement residents and other marginalized groups (Kenya, 2009).

For several decades, the agricultural sector in Kenya still operated under some outdated colonial legislation dating back to the 1930s, which became an impediment to the growth of the sector. The Vision 2030 for the agricultural sector is to be “innovative, commercially-oriented and modern farm and livestock sector”. The reforms are being implemented to improve productivity, value addition, avail more land for cultivation, and enhance access to existing and new markets. The mechanisms for overarching coordination of various Government departments that affect agricultural productivity are being implemented to reduce duplication of effort and inter-agency conflicts. The main priority was the enactment of the Consolidated Agricultural Reform Bill to provide the necessary legal framework for the changes.
The vision for the manufacturing sector is the development of “robust, diversified and competitive manufacturing”. This is to be achieved by focusing on three strategic thrusts: (i) Local production; (ii) Regional market expansion; and (iii) Global market niche. In order to harness the resources available in different parts of the country, region-specific industrial and manufacturing clusters will be promoted. There are also plans to develop at least five small- and medium-enterprise (SME) Industrial parks in key urban centres. With the objective of expanding access to more affordable financial services and products, the Kenya Government has focused reforms in the commercial justice system; improving the system of collateral registration for better access to justice and also encourage credit rating for financial institutions.

Given the important role of efficient and cost effective infrastructure in facilitating a vibrant and competitive private sector, the goal of infrastructure reforms was “to provide cost-effective world-class infrastructure facilities and services in support of Vision 2030”. The GoK undertook a road sector institutional reform study in 1995 as a result of which Kenya Roads Board was established in 1999 through an Act of Parliament. The reforms in the infrastructure sector also targeted the strengthening of the institutional framework for infrastructure development and accelerating the speed of completion. The reforms also targeted initiatives aimed at attracting funding to infrastructure by the implementation of Public Private Partnership (PPP) (mainly in the energy sector) and access to new sources of funding such as issuance of sovereign bonds and continued flotation of domestic long-term infrastructure bonds (Kenya, 2006, 2012). The flagship projects under the reform programme, which have been completed include the Thika-Nairobi Highway Project, Eastern and Southern Bypasses, and rehabilitation of Airports. Still on-going are The Lamu Port construction, The Standard Gauge Railway from Mombasa to Nairobi, and development of a new transport corridor to Southern Sudan and Ethiopia.

3.2 Trends in macro-economic and sectoral indicators

Kenya has performed relatively well in the last decade in terms of economic growth. The growth performance is currently above the averages for the global and Sub-Saharan Africa. As shown in Figure 3.1 below, between 1990 and 2000, economic growth was more erratic and generally lagging behind the rest of the world. Following the earlier decades of per capita income
stagnation in the period 1980-2000 (see figure 3.11 for illustration), the market reforms that began in the year 2000 gradually released the economy’s potential. GDP growth accelerated steadily from below 1 percent in 2002 to 7 percent in 2007. This trend was however interrupted by the post-election violence in 2008. The Government continued with implementation of sound macroeconomic policies which resulted in robust macroeconomic fundamentals. The economy picked up to 8.4 percent in 2010 then immediately slowed to 5 to 6 percent afterward. In the period 2009 to 2015, Kenya’s growth patterns have generally been above those of Sub-Saharan Africa and the averages for the World.

![Figure 3.1 Kenya -Trends in Annual GDP Growth (%), 1990-2015](source: Data from World Bank Open Source, accessed in October 2016)

The Vision 2030 acknowledges that prior to the year 2000 if the Kenyan economy had grown as fast as its peers in Sub-Saharan Africa (SSA), by 2014 the average Kenyan’s income would have been 15 percent higher than it is today (Kenya, 2012a). Although Kenya has experienced steady economic growth over the last decade, this growth has not been sufficiently inclusive as evidenced by persistent high levels of poverty and regional disparities, limited access to basic services, inequality and unemployment, with youth, women and other vulnerable groups particularly hard-hit (AfDB, 2014).

**Sectoral Performance**
The trends for sectoral contribution to overall growth are presented in Figure 3.2. The growth in GDP in the last decade is mainly attributed to significantly improved performance in key sectors of the economy such as agriculture, real estate and financial and insurance, and also transport and storage. Growth attributable to manufacturing and wholesale and retail trade has gradually declined and stagnated over the last two decades.

Despite its continued dominance in the Kenyan economy, the agricultural sector continually suffers weather shocks, which causes the sector’s share in GDP to fluctuate. There are some subsectors within agriculture and manufacturing, such as horticulture and food production, that have nevertheless prospered, but the overall trajectory for the two sectors has been disappointing. Kenya is ahead of other countries in the Sub-Saharan region in terms of industrialization, even though manufacturing currently contributes only 14% to its GDP. Trends in both manufacturing and agricultural value added show these to be declining since 1980s (see Figure 3.3). This dismal performance can be linked to the fact that the major primary exports such as tea and coffee, have not had value addition due to little or no processing. The manufacturing sector showed promise...
briefly during the implementation of the import substitution strategy prior to 1980s. The decline in manufacturing export performance, is owed partly to the high cost of inputs used in production. Energy alone, according the Kenyan Economic Outlook (Deloitte, 2016) accounts for over 40% of the costs inherent to manufacturing.

![Figure 3.3: Kenya - Trends in Manufacturing and Agriculture Value Added (Annual % Growth)](image)

Comparison with similar economies reveals several distinctions about Kenya’s growth model. Modern services are behind the acceleration of growth in Kenya. Expansion in the services such as financial intermediation and mobile communications have stimulated demand for other services such as trade. Between 2006 and 2015, 72 percent of the increase in GDP came from services. Expansion in modern services, is partly owed to innovative solutions such as M-Pesa (mobile money)— stimulating demand for traditional services such as trade (The World Bank, 2016). The share of these services in total gross value added increased from 15.3 to 19.2 percent between 2006 and 2015. Wholesale and retail trade has flourished, boosted by job market entrants who find this to be the easiest way to generate income outside farming. Road transport has achieved one of the fastest growth—supported by the increase in the number of vehicles and rising regional trade (Kenya, 2016).

3.3 Trends in terms of accumulation of physical and human capital, and productivity

Against the backdrop of overwhelming evidence on the link between physical capital development and growth, there have been reforms in different infrastructural sectors, such as
roads and rail transport, energy, water and sanitation, and Information technology (ICT). The reforms have inspired significant strides in Kenya’s physical capital, especially in recent years. Coming from significant rehabilitation backlog, the roads subsector has been the victim of inadequate allocation and execution of budgets (AICD, 2011). The last five years have however seen major roads rehabilitation and expansion of both bitumen and gravel roads (see figure 3.4) in Kenya. The country’s skeletal railway sector which has also been facing decay due to lack of financing, is currently undergoing major reconstruction (Kenya Roads Board, n.d.).

Source: Kenya, Republic of, Various Economic Surveys

Kenya’s power sector capacity has also been enhanced rapidly in the last decade, leading to significant expansion in the generating capacity (see figures 3.5 and 3.6). Total installed electricity capacity currently stand at 2,333.6 MW, from 1177.1 MW in 2006. Total electricity generation has expanded from 5,895 GWh in 2006 to 9,514.6 GWh in 2015. The power sector has seen vast institutional reforms the last two in recent years, geared towards improving power supply and distribution, along with lowering costs. In the last two years, the number of customers connected under the Rural Electrification Programme (REP) rose by 33.0 per cent to stand at 703,190 customers as at July 2015, up from 528,552 as at July 2014. In 2015, Rural Electrification Authority financed electricity supply to a total of 21,487 public primary schools, 17,809 on grid and 3,678 on solar. (Kenya, 2016). Kenya Government has also radicalized water sector reforms in 1999 in an effort to improve water supply and management of the sector.
Kenya’s ICT sector has, since 2000, outperformed other major capital (infrastructural) sectors of the economy (Peake, 2013). Currently (as seen in Figure 3.7), the growth of capital services provided by ICT and much higher than other non-ICT capital in Kenya.

Source: Kenya, Republic of, Various Economic Surveys

Kenya has to contend with issues of high rates of unemployment, and rapid population growth. These are linked to predominance of a youthful population, which is estimated to stand at 67 percent, and compounded by the existence of structural inflexibilities in the labour market. The labour and employment sector is plagued by the weak institutional frameworks on which efforts to intervene in the labour market are based (MTP-2, 2013). Another challenge faced by the country is the skills mismatch and lack of access to adequate training for mid-level technicians and artisans that would contribute to the development of infrastructure. The AfDB (2014) estimates a gap of 9000 technicians, 30,000 engineers, and 90,000 artisans. The skill gap is exacerbated by poor institutions that often fail to match the supply and demand for skills. This results in a mismatching of the private sector requirements to technical and vocational education and training (TVET).

Labour productivity in Kenya remains low in comparison to that of other high-performing economies, South Africa and Morocco, in Africa (see Table 1). According to Ngui and Kimuyu (2016), growth in labour productivity has been erratic, dropping drastically in some recent years, for example in 2012. Labour productivity is highest in the mobile money services, and apparently lowest in the manufacturing sector.

| Table 3.1: Kenya -Annual Changes (Growth) in Average Labour Productivity |
|-----------------------------|---------|---------|---------|---------|---------|
|                             | 2011    | 2012    | 2013    | 2014    | 2015    |
| Mobile Money Transfer       | 0.09    | -0.13   | -0.13   | 0.12    | 0.15    |
| Agriculture, Forestry and Fishing | 0.03     | 0.01    | 0.04    | 0.06    | 0.05    |
| Manufacturing               | 0.04    | -0.01   | 0.02    | 0.003   | 0.01    |
| Wholesale, Retail Trade & Repairs | 0.03   | 0.03    | 0.01    | 0.04    | 0.01    |
| Information and Communication | 0.18    | -0.04   | 0.05    | 0.07    | 0.01    |

Source: Ngui and Kimuyu (2016)

The labour quantity growth in Kenya has been fluctuating for the last decade (see figure 3.8), but at the same time growth labour quality has been stagnant over the years.
Between 1990 and 2015, a contribution of growth productivity in Kenya is most attributed to capital services by ICT assets; the contribution of labour quantity has been declining; while that of labour quality has increased marginally (see figure 3.9). Over the same period, labour productivity for Kenya has stagnated and was lowest when compared to Ethiopia, Morocco and South Africa (see Figure 3.10). These trends have significant implications for the skills, rather than the quantities of labour being available in the market.

Productivity Centre of Kenya was established in September, 2002 by tripartite partners comprising Government (MLSSS), Employers (Federation of Kenya Employer) and Workers (Central Organization of Trade Union (COTU)) as company limited by guarantee. Its establishment was born out of the 7th National Development Plan framework (1997-2001) which emphasized the need for productivity gain used in wage negotiation, subsequent wage guidelines promulgations and social partners need to embrace and inculcate a productivity culture in the national psyche. Recently, the Centre was re-established as government department with the former Ministry of Labour. It is the National Productivity Organization (NPO) mandated for promoting productivity practices in Kenya in order to enhance the nation’s competitiveness.

3.4 Trends in terms of Human Development

Kenya has had a slow but steady improvement in the human development performance averaging 1.70 percent annually over the last decade. In the period 1990-2000, the growth of human development was negative, averaging -0.58 percent annually. Kenya’s global human development ranking declines when the inequality adjustments are considered. The inequality adjusted human development index places Kenya among one the most unequal countries in the world (UNDP, 2014). With an overall loss of 31.3 percent, the major gaps exist in income inequality which contributes to the loss by 36 percent, followed by life expectancy at 31.5 percent (life expectancy is on the rise in the last decade, see Annex figure 3(b)), and finally education at 26 percent. The primary cause of income inequality is poverty which is prevalent among a large segment of the population. Access to social services remains low, health expenditure

as percentage of total and public spending to GDP are gradually increasing (see Annex figure 3(d) and 3(e)), but per capita health expenditure remains low compared to the SSA and World average (see Annex figure 3(a)).

Kenya currently ranks position 145 as a low human development country due to gender inequality (UNDP, 2015), implying that gender disparities are still inherent in the social, political, and economic spheres. A good majority of women are in informal employment within the agricultural sector, supplying up to 70% of labour within the agricultural sector (Wanjala and Were, 2009). Gender disparities are also evident in the education sector. Maternal mortality stands at 362 deaths for every 100,000 live births (KDHS, 2014), which, while it is an improvement from the 488 reported in 2011, is still dismal in comparison to the MDG target of 147 for every 100,000 live births. The AfDB (2014) attributes this to the high prevalence of malaria and HIV and AIDS, poor access to functional health facilities, high fertility, and the high cost of maternal healthcare. Maternal mortality is declining over the last decade (see Annex figure 3(c)). One of the more radical moves in dealing with maternal mortality was the introduction of free maternal healthcare services in public health facilities in the year 2014. The Ministry of Health (2016) reports that deliveries in public health facilities have increased tremendously as a result of this policy, as there was a 61 percent increase in the number of deliveries in public institutions within one year of policy implementation. The rise is attributed to the affordability of maternity health care services. In a different move, the government undertook a reform that would see to it covering every Kenyan’s cost who visited a level 1 public healthcare centre. The government reimburses deliveries healthcare facilities providing free healthcare services on reported deliveries.

3.5 Change observed in production and consumption patterns
Kenya output growth, hinges on production in the agricultural, manufacturing and real estate sectors, the three major contributors to Kenya’s GDP, which renders it the 9th largest economy on the continent. Even so, there are valid concerns around the stagnant nature of manufacturing sector (see figures 3.2 and 3.3) as a contributor to the country’s GDP. Looking at the expenditure side, consumption has contributed the most to GDP growth. Kenya’s economic growth is consumption-led (see figure 3.12) compared to other components of GDP such as
investment, highlighting the orientation of the production structure of the Kenyan economy. Household consumption expenditure increased 65 times between 1964 and 2015, while the global equivalent increased 25 times between 1970 and 2015 (World Bank, 2016). Like in most African countries, food has dominated aggregate household expenditures in Kenya and the expenditure shares have remained fairly stable over time (AfDB, 2012; Republic of Kenya, various years). Rising private consumption has been the main contributor to growth, propelled by the growing middle class, booming informality in services, increasing credit to households, and income from abroad.

The rapid growth in household consumption in Kenya is characteristic of the developing countries, and is fueled by population and economic growth, expanding labour force, growing middle class and urbanization. Notably, household consumption contributed an average of 4.23% to Kenya’s GDP between 2007 and 2012, compared to 2.47% and -2.48% of investment and net exports, respectively, in the same period. The key area for concern is the savings rate. The ratio of domestic savings to GDP increased from 7.28% in 2000 to 10.2% in 2005, but has fallen steadily since to 2.9% in 2012. The financial sector has steadily deepened since 2000, but this growth is not translating into any increase in gross savings (see figures 3.12 &3.14) (Upadhyaya and Johnson, 2015).
4.0 Institutional Framework for Managing the National plan for Emergence

4.1 Review of the institutional organization at the national level with principles adopted during the ICEA-2015 on Developmental State

The precise composition of the attributes associated with developmental states is still a subject of academic debate. For the purpose of this review, the state has a key role in the emergence process in which (developmental state) (UNDP, 2015):

“A state has a clear and shared vision translated into operational development actions; Is able to promote structural reforms for the benefit of its population. Such a state has strong national institutions equipped with capacity and resources that ensure their sustainability and efficiency; and the state could plan for the medium and long term development and be able to direct investment to sectors, programs and projects that will achieve the realization of the main objectives and the identified sectoral priorities and materialize the vision that was set for emergence.”
This state *state-structure* side of the definition of the developmental state emphasizes *capacity* to implement economic policies sagaciously and effectively. Such a capacity is determined by various other institutional, technical, administrative and political organs of the government. Undergirding all these is the *autonomy* of the state from social forces so that it can use these capacities to devise long-term economic policies unencumbered by claims of myopic private interests (Mkandawire, 2016).

Notwithstanding the above critiques, government ministries and state corporations have become a strong entity in Kenya and very useful engines to promote development. The State Corporations Act Chapter 446 of the Laws of Kenya is an Act of parliament making provision for the establishment of, control and regulation of state corporations. The Kenya government forms state corporations to meet both commercial and social goals. They exist for various reasons including: to correct market failure, to exploit social and political objectives, provide education, health, redistribute income or develop marginal areas. By 1995 there were 240 parastatals. There have been key areas for reforms in the public corporations sector leading to gradual reduction of parastatals to 119 and ministries to 18 by 2016. When compared to similar economies, Kenya still has an over-abundance of state corporations many of which are a drain on public resources; more to the point, they have been the locus of corruption that thrives in public monopolies, especially when coupled with lax oversight, management and fiduciary control procedures (Njiru, 2008).

The main economic activities of parastatals in Kenya are spread as follows:

*Table 4.1: Developmental State Cooperation by main economic activities in Kenya*

<table>
<thead>
<tr>
<th>Economic activity</th>
<th>Percentage of parastatals in 1995</th>
<th>Percentage of parastatals in 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>240</td>
<td>119</td>
</tr>
<tr>
<td>Manufacturing and mining</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Transport, electricity and other services</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source Swamy (1994) and Kenya, (2016c)
In June 2003 the government revealed its economic recovery strategy for wealth and employment creation. The strategies have since June 2005, been implementing actions requiring increased accountability by state corporations. Although to a lesser extent, state Corporations in Kenya have continued to experience a myriad of problems, including corruption, nepotism, and mismanagement. The impacts of the state corporations have remained sub-optimal for a number of reasons (World Bank, 2004; Njiru, 2008; and Ethics and Anti-Corruption Commission, 2013):

- Continued politicization and poor corporate governance – boards of parastatals are still appointed by politically powerful.
- There are weak supervisory mechanisms – the role of the state corporation advisory committee is just advisory, yet it could play a more powerful role as a monitor and evaluator of performance.
- The structure of financing and financial management – many state corporations are allocated funds through line ministries thus ending up being chronically underfunded. They are allowed to borrow funds but many have not repaid their loans. Expenditure controls are weak.
- Prosecution of chief executives for abuse of office and misappropriation of funds is usually not carried out.

By Sector Analysis of the Role of State Corporations – the General Economic Services Sector currently has 28 corporations as listed in Annex Table 4(a). The General Economic Services Sector consists of five inter-related sub-sectors; Tourism and Wildlife; Trade and Industry; Labour and Human Resource Development; Gender, Sports Culture and Social Services; and Youth Affairs. The sector is mandated to create and facilitate a sustainable infrastructure environment for socioeconomic service delivery, human resource utilization, tourism, trade and industrial development in order to achieve a desired national economic growth and development. This sector thus formulates, coordinates and implements socio-economic policies, strategies and programs geared towards achieving sustainable development and growth.

4.2 Presentation of the Implementation tools of the plan for emergence

The Kenya Vision 2030 is the country’s main document outlining the plan for emergence. Towards this, there are 9 key implementation tools identified as the bases for the economic,
social and political pillars. They include public sector reforms, land reforms, enhancing financing and efficiency of infrastructure delivery, agricultural sector reforms, improving the manufacturing sector, human resources development, improving security, enhancing equity and wealth creation opportunities for the poor, marginalized and vulnerable groups and enhancing good governance.

The strategies outlined towards public sector reforms include redefining the purpose of government institutions in order to come up with a definite mandate for institutions in the public sector and the mechanisms via which they deliver services; building the capacity of civil servants to boost service delivery and performance; efficient and effective sharing of information, and the dissemination of knowledge on reforms in the public sector; engagement by stakeholders for the maximization of results towards achieving emergence; and enhancing performance management. Land disputes would be addressed through strengthening of the weak legislative framework around the handling of land-related cases; and issues of the land information system where, currently, the management of land records is done manually, thus slowing down land transactions. A digital platform is expected to be able to speed up transactions around land and minimize corruption.

Efficiency of infrastructure delivery would be addressed by developing a light rail for Nairobi and its suburbs, stretching 15.6 kilometres, from the central business district to the Jomo Kenyatta International Airport; Development of a new transport corridor to Southern Sudan and Ethiopia, comprising of a road network, railway line, oil refinery, oil pipeline and refinery, a port at Lamu, and resort cities; Rehabilitation and maintenance of airstrips and airport expansion and modernisation, especially those that serve tourists and act as commercial sites; and The Nairobi city integrated close circuit television system to provide 24-hour close circuit television surveillance of the city.

Towards addressing the key challenges in the agricultural sector, the following key implementation tools are identified: Investment in the reduction of the cost of fertilizer to promote fertilizer adoption in smallholder farming, towards raising productivity; The creation of Disease-Free Zones, geared towards boosting the performance of livestock farming; Building a
Land registry, one that is easily accessible to the public, to make registration of land and updating information easier; and The Arid and Semi-Arid Lands development schemes to raise crop yields and promote the use of agricultural lands in dry regions. Currently, there are 1 million acres under irrigation in the Galana Kalalu Food Security Project in the Tana River and Kilifi Counties.

The key tools towards addressing manufacturing support include: The development of industrial and manufacturing zones, leveraging the suitability of different regions to specific manufacturing and industrial activities, based on regional resource endowments; developing SME parks and some special economic zones are set to be developed.

Human resource development tools include: The consolidation of human resource data on a national human resources database to fortify the management and coordination of human resources. The commencement of a national productivity centre to assess the productivity level of human resources across sectors and monitor growth in productivity; The incorporation of Science, Technology, and Innovation (STI) in the education curricula to make it adaptable and usable as an integral part of education in Kenya, coupled with the introduction of an incentive structure to support the use of STI throughout the innovation ecosystem; The construction of 560 new secondary schools, along with the expansion and rehabilitation of existing schools to raise primary-secondary school transition rates; Introduction of open and distant learning (i.e. through e-learning), and raising access to university education among the financially unstable.

The government intends to address the security challenges using the following tools: The improvement of the police: population ratio; and establishing an institutional mechanism that will keep the police accountable to the rule of law. Further, there will be a depoliticization of security institutions. In addition, the government has planned to deploy increased ICT-based surveillance to intensify crime prevention and investigation; intensify the training of security personnel; improve the living and working standards of staff in Kenya’s security forces; and improving border surveillance to curb the proliferation of small arms into the country.
Implementation tools towards reducing inequality and poverty: Raising average annual incomes per person to the rapidly industrializing country- consistent salary of USD 3,000, up from the current USD 600; addressing unemployment especially amongst the youth and women; Eliminating disparities while rewarding talent and investment risks in a manner that is deemed socially just and therefore not politically destabilizing; With special attention to Arid and Semi-Arid Districts, areas of extreme poverty yet having high potential for agriculture, and urban slums, there should be policies that are aimed towards minimizing differences in access to social services and income opportunities; Weighting the disbursement of devolved funds in favour of disadvantaged communities.

In addressing governance issues, the government has planned to deepen anti-corruption reforms to address the prevention of corrupt dealings, undertake investigations into and recovery of corruptly acquired assets, and strengthen systems in place to prosecute offenders; In addition, it has planned to introduce reforms to manage public expenditure and financial management to raise efficiency and transparency in this area; enhance the effectiveness of Public Procurement Oversight Authority on public finances and make accessible fiscal information to enhance transparency; enforcement of administrative actions to reduce corruption in public sector, including conducting anti-corruption awareness; Introduction of performance contracts; reduce administrative barriers to trade; and privatization and/or restructuring of state-owned enterprises to enhance accountability and efficiency.

4.3 Review of the participatory process
Participation is a “national value” in Kenya. In 2010, Kenya promulgated a new constitution that expressly obligates both the national and county governments to institutionalize citizen participation in their decision making and development processes. The Constitution states that there must be participation in the management, in the law making and other businesses of Parliament (Article 118) and county assemblies (Article 196), and there must be openness and accountability in public financial matters, including public participation (Article 201). It is also an aspect of the sovereignty of the people, which is stressed in the first words of Article 1. The article came against a background of little evidence on how citizen participation in the past that had influenced local service delivery was seen as a major research concern.
The public can also support mechanisms of social accountability in government by participating in Local referendum, town hall meetings, and visiting development project sites. The Public Financial Management (PFM) Act 2012 provides for public participation in public financial management and in particular: the formulation of the County Fiscal Strategy Papers (CFSP), County Budget Estimates; and County Integrated Development Plans (CIDP). Citizen participation is present in all spheres of public policy including elections and appointments; legislation; policy formulation, planning and development; resources mobilization and use; project identification, privatization, planning and implementation; and the alignment of county financial and institutional resources to agreed policy objectives and programs.

Participatory Monitoring and Evaluation (PM&E) offers both state and non-state actors a host of opportunities for improving the development performance and also in building the management capacity of local partners and citizens. PM&E is therefore a critical process for the implementation of by government. It follows from this that public participation is in part about aligning the needs and demands of the public more closely with the choices of government officials. This suggests that public participation must occur at the formulation and approval stages of the budget, when priorities are being set. At this stage, public participation can enhance decision making by bringing information about public needs to the attention of policymakers as they prioritize their spending. This can lead to more equitable distribution of resources.

Public participation is also about building the legitimacy and credibility of government. By engaging robustly with citizens, government officials can ensure support for their programs and build confidence in the competence of the administration. This in turn can encourage citizens to pay taxes, investors to commit funds, and donors to top up existing sources of revenue. If we think of public participation as a tool for building legitimacy and credibility, this implies that effective participation will require transparency and an effective feedback loop in which citizens’ demands are responded to and reasons are given for incorporating or not incorporating them.
5.0 An Evaluation of the Implementation of the National Plan

Against challenging internal and external background, the Kenyan authorities embarked on ambitious reforms programme, guided by an overall development strategy — Vision 2030. The reforms discussed earlier covered: Public Sector Reforms; Land Reforms; Financing and Efficiency of Infrastructure Delivery; Agricultural Sector Reforms; Manufacturing; Human resources development; Security; Enhanced equity and wealth creation opportunities for the poor; Science, technology and innovation (STI); and Governance.

5.1 Public Sector Reforms

As part of the reforms, Kenya has established and is enforcing performance contracts. The contracts have included international benchmarking and short- and medium-term targets for public sector companies, such as airports, ports, railways and utilities. The Kenyan Performance Contract System is somewhat unique. Evaluation of performance contracting is performed by independent reviewers comprised of ex-permanent secretaries, academicians, ex-senior executives of SOEs and other private sector experts. Unlike in most developing countries, the Kenyan system applies to all Government departments and agencies, as well as municipalities and not only to State-owned enterprises (SOEs) (United Nations, 2013). In spite of this coverage, the compliance with the performance requirements have in recent years not always been in tandem with the quality of service and satisfaction of beneficiaries. This is perhaps because the effectiveness of performance contracting is heavily distinguished by the amount of political support it receives. When the first results became available in 2006, President Kibaki announced publicly the top and worst performers, which played a big role in the system’s success. A number of governance reforms have been implemented since 2003 mainly to: (i) reduce corruption, improve efficiency and ensure effective service delivery in public sector; and (ii) create enabling environment for increased private sector participation in growth and poverty reduction (Kenya, 2012). Initiatives have also been taken to reduce discretionary powers and improve the delivery of public services. Positive examples include the introduction of clear guidelines and rules in the areas of taxation, land and immigration, as well as the establishment of performance contracts for public administration. These are already resulting in efficiency

5.2 Implementation of Agricultural Sector and Land Reforms

Kenya has not met the Comprehensive Africa Agriculture Development Program (CAADP) goal of allocating 10% of the national budget to the agriculture sector. By April 2008, the reform efforts had led to the promulgation of the Agricultural Sector Umbrella Bill. It provided for the consolidation of all agricultural legislation and reduced the 41 different regulatory institutions within the sector to just 12. That bill, however, was tabled in the Kenyan Parliament in early 2009. In 2012, the Kenyan Parliamentary Committee on Agriculture amended the legislation, splitting it into four bills. To date, Kenya has not dealt directly with regulatory issues. The challenges associated with implementing multiple planning exercises have in some cases delayed progress toward the actual implementation of measures to address food security (Kimenyi et al, 2015). More than ten years after inception, almost no progress had been made in the strategy for revitalizing agriculture (SRA) in Kenya. The SRA experience highlights both the potential and the limitations of competitive politics in promoting reform and the collective-action challenge that can confront reform of agriculture-sector institutions (Poulton and Kanyinga, 2014). Kenya’s less successful implementation of agricultural development policies is centred on a more elitist scheme which has focused on ‘progressive farmers’ and disregarded the majority (Routley, 2012).

The land sector reforms have proved to be one of the most difficult in terms of implementation. Many of the key elements of the new laws and policy frameworks are yet to be operationalized. Following an IPR recommendation, the Commission is charged with setting aside land for investment, which will benefit local communities and their economies. One challenge of land reform in Kenya has been the poor state of land records, the absence of computerization and, consequently, title insecurity. Progress in the digitization of land registration has been painfully slow. The Land Ministry is working on the Integrated Land Rent Information System (ILRIS). Approximately 25 per cent of national and 90 per cent of Nairobi land rents have been computerized. The ILRIS system was developed in-house and designed with the new Commission in mind. This important project and the upcoming initiative for land registration are however facing challenges such as poor record storage, a shortage of skilled ICT personnel and
continued funding needs. (United Nations, 2013). The new Law has given way to the creation of
a National Land Commission, which will manage public land on behalf of national and county
authorities. It will evaluate all parcels of public land for capability and classify them by potential
use. The Commission will also be mandated with developing guidelines for public land
management by all public agencies and will be responsible for allocating land. The regulations
detailing allocation criteria, however, have not yet been published (United Nations, 2013).

5.3 Justice and Security
Reforms of the judiciary have been initiated and work is in progress to put in place a credible,
public, and transparent process for scrutinizing the appointments of all senior public officers
(Kenya, 2012). During the early part of the MTP, the following initiatives were to be undertaken
under the political pillar: (i) the establishment of a permanent Commission on National
Cohesion; (ii) establishment of the Commission on Post-Election Violence; (iii) establishment of
an Independent Truth, Justice and Reconciliation Commission (TJRC); and (iv) the
establishment of the Public Complaints Standing Committee. All of these have been fully
implemented and the recommendations of the various commissions have been implemented
(Kenya, 2012).

There has been a significant transformation in policing to improve security: increasing the
number of police officers in both services, bringing in new technology into policing, and new
developments in local policing through community policing initiatives. However, a major
problem with the reform process is that none of the strategies employed so far have aimed at
critically transforming or altering the fundamental principles of policing in Kenya. Large public
resources have been devoted to modernising the service and much progress has been made, such
as the creation of the National Police Service, the National Police Service Commission, and other
oversight bodies including the Internal Affairs Unit and the Independent Policing Oversight
Authority (Kenya, 2015b). Kenya’s criminal justice system remains impoverished. Crime is still
under-reported and, when reported, is often poorly investigated by the police. The country’s
court process is still very slow and inadequate and its prisons are dilapidated and overcrowded.
Nearly 50 per cent of detainees in prisons are awaiting trial. The criminal justice system is now a
problem rather than the solution to law and order. Corruption is still a problem, and ethics and
integrity management initiatives – including sting operations to catch officers engaged in bribery – have not proven successful. The police are consistently ranked the most corrupt institution in Kenya (Saferworld, 2015).

5.4 Investment and Business Environment
Kenya is yet to move to a path of expanding manufacturing production and exports. The share of manufacturing value added to GDP and the share of manufacturing exports to total merchandise exports in Kenya are higher than in the SSA peers, but lower than in the high-growth economies and peer countries in the rest of the world. The share of this sector in Kenya’s GDP has remained unchanged over the past decade (Kenya, 2012). Efforts to attract FDI in manufacturing, services and agro-processing have been limited and institutional weaknesses related to investment promotion still need to be addressed (United Nations, 2013). It is revealing that Kenya does well in sectors where networks are somewhat easier to establish, as in banking and telecom, but struggles with the more intensive network capabilities needed for modern manufacturing. So far, the most notable progress has been achieved in areas such as competition policy, tax administration and labour legislation. For instance, further to the adoption of a modern Competition Act in 2011, Kenya now has a competition authority. The entire body of laws regulating labour conditions has been reviewed and aligned with modern practice and International Labour Organization (ILO) standards. However, the process to permit foreign work remains a bottleneck to attracting foreign talent (United Nations, 2013). The implementation record to enhance infrastructure is mixed. The information and communication technology (ICT) sector has improved due notably to increased private sector involvement, whereas energy costs, cost of labour and ports congestion have remained top concerns for investors. Likewise, road infrastructure has improved but progress has been slow (United Nations, 2013).

5.5 Enhanced equity and wealth creation opportunities for the poor
Kenya’s Equalisation Fund, created in Article 204 of the Constitution (2010), is an important opportunity for the country to contribute to redressing ethno-regional economic inequalities. Three years after the County governments were established and the equalization fund granted budgetary allocations, the regulations for utilization of the Fund are yet to be finalized so that critical developmental needs in the counties identified to benefit from the fund can be addressed.
The coverage of its social insurance schemes and safety net programmes has tended to be low and their effectiveness limited (Kenya, 2012c).
5.6 Science, technology and innovation (STI)
Views that East Asian, and recently the Chinese Economic Miracle lessons could produce development elsewhere if “understood as an invitation to indigenous innovation”. It was the ability of East Asia’s developmental states to reinvent rather than copy that was vital to their success and possibly a key ‘transferable lesson’ (Evans, 1998). Adaptation and innovation should then be the hallmark of any emerging developmental state (Routley, 2012). According to Ndemo (2015), serious coordination gaps continue to undermine innovations in Kenya. These include a lack both of central coordination of R&D and of advocacy for multidisciplinary research. Even within the government, research is undertaken largely in silos, leading to capacity underutilization. This lack of coordination means that SMEs do not have the R&D support necessary to bring new products to market. The situation is further complicated by the fact that technical, industrial, and vocational education training institutions (TIVETs) are declining, as some have been converted into universities. Even though there is now, a policy initiative to create a TIVET Authority and build new institutions, at the operational level, there is continued disconnect between industry and research institutions and this is undermining innovation.

5.7 Human resources development
The strengthening of human capital has been among the priorities of the Government over the past years. Over the past 20 years, tertiary education in Kenya has been reduced to almost nothing. Most TIVET colleges were converted to universities without building new institutions. The education system needs to place more emphasis on science, technology, engineering, and mathematics (STEM) disciplines and to build a network for manufacturing. In Kenya the policy framework of 2009 has created a Technical Education and Vocational Training Authority to coordinate tertiary education in the country. A National Observatory for science, technology, and innovation is to be created to enhance sharing of knowledge, policy formulation and policy implementation. Unfortunately, this multiplicity of new institutions may, in the end, be Kenya’s greatest barrier to innovation: other countries have tried this model and failed (Ndemo, 2015). More efforts have been made to improve vocational training and to provide students at different levels of education with the skills required by the economy.
5.8 Reforms in the Road Infrastructure Sector

The Government rolled out road sector reforms based on the Kenya Vision 2030. These reforms had the sole objective of providing good and sustainable road infrastructure that would support Kenya’s National Development Strategy in achieving the Kenya Vision 2030. By 1993, the Road Maintenance Levy Fund (RMLF) was implemented for provision of needed and stable financing. In 1999, the Kenya Roads Board Act, was enacted to provide ownership structure. In 2007, the Kenya Roads Act, 2007 was enacted leading to establishment of three road authorities i.e. Kenya National Highways Authority (KeNHA), Kenya Rural Roads Authority (KeRRA), and Kenya Urban Roads Authority (KURA). Although the creation of ownership, clarification of responsibilities, creation of stable financing for the sector and introduction of professional management in the sector had to be established and satisfied to guarantee functionality and sustainability (Ong’uti, 2015), financing challenges remain to be addressed.
6.0 Development of the Digital Economy

6.1 Policy and Institutional Framework for ICT sector Development

The last decade has witnessed remarkable developments in the global digital economy, creating new opportunities for economic growth and development. There is a growing overlap between the digital revolution and the structure of many economies today (Meltzer, 2016). In this section, we focus on the evolution of digital economy in Kenya as the thematic topic of this study. The digital revolution in Kenya, is historical, buoyed by landmark reforms in development policy. The review of the ICT Policy in March 2006 was inspired by first, the need to align the quest with the New Constitutional dispensation in Kenya and Vision 2030 that sought to transform our country into a leading information and knowledge hub of the region. The review invoked a pro-active policy and regulatory framework that not only was in sync with contemporary technological realities and dynamics, but also subsequently guided the orderly development of the ICT sector in such a way as to ensure maximum developmental impact for the benefit of all Kenyans (Kenya, 2016b).

Initially, the policy aimed at attracting investors in the ICT sector. The Government developed and implemented the Kenya Communications (Amendment) Act, 2009, and the Kenya Information and Communications Regulations Act, 2010. These legislations led to improved competition and broad choices of ICT services (Kenya, 2013b). The Ministry of ICT has provided strategic leadership in the implementation of this policy in consultation with other stakeholders. The Government’s role in the sector includes, inter alia: strengthening existing institutions and assigning appropriate ICT priority areas to champion and deliver on the objectives of the policy; Developing, coordinating and implementing both the ICT policy and the monitoring and evaluation (M&E) framework across all sectors of the economy to ensure that the implementation of ICT programmes and projects is effective to support the social and economic sectors of the economy; and providing of an enabling environment for investment in the ICT sector.

The other major players in the ICT sector include: The National Communications Secretariat (NCS) which is the Communications Policy Advisory Secretariat, established through the Kenya
Communications Act of 1998 will continue to be the policy advisory arm of the Government on all matters pertaining to the ICT sector; Communications Authority of Kenya (CAK), the Sector Regulator, established through the Kenya Information and Communications (Amendment) Act, 2013, playing its role as the converged regulatory body for the sector in accordance with the relevant provisions of the Constitution of Kenya, 2010; Information and Communications Technology Authority of Kenya (ICTA), playing its broad mandate of fostering the development of ICTs in Kenya and developing and enforcing ICT standards for the Government. The authority is also tasked with enhancing the supervision of the Government electronic communications.

There are also representations of Communications and Multimedia Appeals Tribunal, Postal Corporation of Kenya, Media Council of Kenya, Development Partners, Civil Society, Investors and Operators, Consumers and Users, and ICT Professional Bodies. Disputes arising between parties in the ICT sector are heard and settled by the Communications and Multimedia Appeals Tribunal, which was reconstituted through the Kenya Communications (Amendment) Act, 2013. There is also Postal Corporation of Kenya, which is a Public Commercial Enterprise operating under the PCK Act of Parliament 1998. The Media Council of Kenya established through the Media Council Act, 2013 plays its role of promoting and protecting the freedom and independence of the media, prescribing standards of media practitioners and media enterprises; while Development partners will play a complementary role towards realization of development of the goals and objectives of this policy.

Within the ICT policy framework, there are plans by the Government to establish a National Cyber Security Agency to serve as an institution that will be vested with the responsibility of overseeing and protecting the country against advanced internet based crimes. Currently, there is policy interest to develop ICT Parks and Digital Villages in order to induce supply of low cost ICT goods and services and facilitate growth as well as establishment of BPOs. Furthermore, policy frameworks have also emphasized development of scientific and technological infrastructure, enhanced research and development as well as technical and entrepreneurial skills over the medium term (Kenya, 2012).
6.2 Milestones in the implementation of Kenya’s digital transformation

Kenya has made great strides in the ICT sector, especially in the 2000s when unprecedented reforms were implemented. Initially, the policy concentrated on speeding up the building of high-speed, mobile, secure and ubiquitous new generation of information technology infrastructure, developing modern internet industrial system, implementing the national big data strategy and enhancing cyber security (Kenya, 2016b). Digital migration from analogue started with the formation of the Taskforce in 2007 that developed an elaborate framework for the migration process and laid the strategy on the roll-out of the DTTV signal across the country. A Digital Transition Committee (DTC) was established to manage and oversee the migration following recommendations of the Taskforce.

Delays were caused by litigation challenges as litigation instituted by COFEK and three media houses around issues such as the following: a) the need for consumer education, b) a contentious issuance of the BSD license to Pan African Network Growth, and c) the date of analogue switch-off, which was considered untimely. On 17 June 2015, all analogue TV frequencies ceased to be recognized and have been deleted from the MIFR. Consultations, support and cooperation of all stakeholders were crucial for achieving successful migration. In 2015, a State Department of ICT and Innovation under the Ministry of Information, Communications and Technology was established.

The Government has developed a tier-2 Government Data Centre (GDC) infrastructure to ensure security of Government data and applications. Bandwidth support to government offices was increased from 80 to 100 MB of broadband Internet capacity. This has improved the quality and reliability of the Government’s communication system. Several ministries have developed online systems geared towards improving service delivery. They include the re-engineered Integrated Financial Management Information System (IFMIS); County Revenue Collection System; application of public service jobs online; status tracking of national Identity Cards and passports; and public examination.
There have been a number of Flagship projects in support of digital revolution: The laying of the undersea Fiber Optic Cable from Mombasa to Fujairah in UAE linking Kenya to the global fiber optic submarine system was completed in 2009 (Republic of Kenya, 2012). The National Optic Fibre Backbone Infrastructure (NOFBI) is a government owned connectivity project that aims at laying fibre cables in all major towns in Kenya. The country is currently connected to the international broadband highway through the SEACOM, TEAMS, EASSY, and LION cables. All major towns in the country are now connected through the (NOFBI and Government Common Core Network (GCCN).

Aligned to the above developments have been: The Konza Techno City to drive growth of the Techno-City and light assembly manufacturing. The establishment of Konza Techno City has attracted the likes of IBM, Microsoft, and Google to Kenya, where the burgeoning tech sector has been dubbed the “Silicon Savannah”. The i-Hub incubator has led to the development of more than 150 businesses (The McKinsey Global Institute, 2013). School Laptop Project: with a goal of providing teaching and learning tools for pupils in primary schools in Kenya in order to transform education and help to create a knowledge society (Kenya ICT Board, The Connected Summit 2016). The Global E-Schools and Communities initiative (GESCI), founded by the UN, has worked in Kenya since its inception in 2004. GESCI in partnership with THE MASTERCARD FOUNDATION and the Ministry of Education, Science and Technology, supported the African Digital Schools Initiative (ADSI) programme in 2016-2020. There is planned National Payment Gateway: a national payment gateway project will be implemented to facilitate secure online payments by supporting multiple financial institutions to carry out electronic transactions and simplify the processing of payments (Kenya ICT Board, The Connected Summit 2016).

There are efforts to support ICT-based innovations: *Presidential Digital Talent Program* - Transformation of the Digital Service Delivery utilizing youth and innovation; *Digital Literacy Program* - Mainstreaming ICT technologies in basic education and enhancing learning through the use of digital technologies; and Enterprise Kenya - To nurture and catalyze ICT innovations in the country and provide support across the innovation value chain (Waema and Katua, 2014). There are also planned projects to automate the tea auction in Mombasa as well as establish an
electronic animal monitoring system that is able to track livestock ownership for security reasons (Kenya, The Connected Summit 2016).

6.3 Levels of Access to ICT Services

A World Bank study found that a 10% increase in broadband penetration resulted in a 1.38% increase in growth in developing countries and a 1.21% increase in growth in developed countries (Qiang and Rossotto 2009). As shown in figure 6.1, Kenya’s internet users per 100 people are way above the Sub-Saharan Africa average. They have increased phenomenally, surpassing the World average in the last three years. Trends in secure internet servers are shown in figures 6.2 and 6.3. The ICT penetration rate in Kenya has continued to improve for all categories except that of the fixed line. The internet penetration stood at 54.2 per cent in 2015. The improvement in the uptake of ICT is currently attributed to the affordability of mobile phones in the market; cheaper internet bundles offered by mobile operators and finalization of phase one of laying the fiber optic cables across the country (Kenya, 2016b). By 2015, the number of licensed Internet Service Providers (ISPs) was 221; Total wireless internet subscriptions were 23.8 million with the terrestrial mobile data subscribers having the largest share. Total wired internet subscriptions were 115,111 with fixed fiber optic data accounting for

Source: Data from World Bank Open Source, accessed in October 2016
96.7 per cent of the total wired subscriptions; Fixed fiber optic were 111,354 subscriptions (Kenya, 2016b).
Figure 6.2: Kenya - Trends in Secure internet servers per 1 million people

Figure 6.3: Kenya - Trends in Secure internet servers, 2001-2015

Source: Data from World Bank Open Source, accessed in October 2016
By 2015, Total broadband penetration increased to 16.4 per cent (see annex figures 6(a) and 6(b) for the trends); the bits per second per capita (Bps/person) increased by 66.9 per cent to 20,293.0 (Kenya, 2016b). Available bandwidth capacity increased by 83.0 per cent from 847,523 megabits per second (mbps) in 2014 to 1,550,768 mbps in 2015. The increase in the bandwidth capacity was attributed to fiber installation in the counties during the review period. The utilized bandwidth capacity increased by 71.6 per cent to 854,551 mbps in 2015. The ratio of total utilized bandwidth to available capacity shrank from 58.8 per cent in 2014 to 55.1 per (Kenya, 2016b). The total number of domains grew by 33.8 per cent to 51,543 in 2015. The number of “co.ke” domains increased by 35.5 per cent to account for 92.7 per cent of the total registered domains in 2015. The growth in the number of registered Kenyan based domains was mainly attributed to the reduction in renewal and average annual fees from KSh 2,320 to KSh 580 and KSh 2,300 to KSh 650, respectively. However, fixed Digital Subscriber Line (DSL) data reduced significantly from 14,512 subscriptions in 2014 to 3,732 subscriptions in 2015 (Kenya, 2016b).

The total wireless broadband subscriptions stood at 7.1 million due to significant uptake of the Global System for Mobile (GSM) (Kenya, 2016b). The international telephone traffic was 1,173 million minutes in 2015. Total roaming traffic more than doubled to 194.8 million minutes. Similarly, both outbound and inbound roaming were 91.2 and 103.6 million minutes, respectively. The total domestic telephone call traffic increased by 27.7 per cent from 30.7 billion minutes in 2014 to 39.2 billion minutes in 2015. Mobile to mobile telephone traffic increased to 39.1 billion minutes, to account for 99.7 per cent of the total domestic telephone traffic (see Annex figures 6(c) and 6(d) for trends in mobile usage). Mobile to fixed telephone traffic increased to 75.4 million minutes. However, fixed to fixed telephone traffic registered a drastic declined to 5.3 million minutes in 2015 mainly attributed to the decommissioning of the fixed wireless network (Kenya, 2016b) (see Annex figures 6(e) and 6(d) for trends in fixed telephone use). The number of messages sent via MMS rose to 13.7 million; The number of Frequency Modulation (FM) for radio increased to 608; television frequencies rose to 302; The number of digital TV stations increased to 62 due to the migration from analogue to digital platform. Digital Terrestrial Televisions (STBs) subscriptions more than tripled to 3.7 million; the number of radio stations increased by four to 139 stations (Kenya, 2016b).
6.4 The link between Digital Transformation and the Kenyan Economy

There three channels through which digital evolution has interacted with the Kenyan economy, thereby generating dividends: Digital adoption by businesses, Digital adoption by people and Digital adoption by the government.

Digital adoption by Businesses

In terms of the impact of the Internet access on trade, one study concludes that a 10% increase in Internet access leads to a 0.2% increase in exports (Freund and Weinhold 2004). Other studies using more recent data find even stronger impacts of Internet use on trade (Meijers, 2014; Meltzer, 2016). Mobile money has stimulated digital entrepreneurship and accelerate access to formal financial services in Kenya. Inadequate, inaccessible financial services are undoubtedly one of the reasons why the poor are trapped in poverty. Without access to finance, the poor people cannot invest in tools to increase productivity, start a microenterprise, invest in education or health, or even take time to search for better opportunities (Muchai and Kimuyu, 2016). The commercial banks have been instrumental in opening up opportunity for the marginalized through the extension of innovative services such as, mobile platforms like the M-pesa, mobile banking, micro financing and agent banking (Kenya, 2014; Muchai and Kimuyu, 2016). Health workers use mobile phones to report counterfeit drugs and stock-outs (The World Bank, 2016b). Ushahidi and Uchaguzi are crowdsourced applications that report and map election violence in Kenya. By multiplying the sources of information, the internet has reduced the risk of media capture and made censorship difficult (The World Bank, 2016b). By introducing an automated complaint management system, customers are able to demand for better public services and there is more accountability (The World Bank, 2016b).

The Kenyan online platform iProcure prescreens its vendors to provide reliable local procurement services connecting agricultural businesses and institutional buyers (The World Bank, 2016b). By the end of 2013, 17 million Kenyans, or more than two-thirds of the adult population, were using the service to pay for taxi rides, electricity bills, or daily supermarket purchases. M-Pesa also created new opportunities for innovation (The World Bank, 2016b).
The Internet is increasing farmers’ access to expertise and information on everything from weather, crop selection, and pest control to management and finance—and make this support available throughout the farming lifecycle. For example, Kenya’s iCow is an agricultural platform developed for small dairy farmers with online and mobile phone-based information and educational videos. Phones are extending the reach of agricultural extension services. One application developed in Kenya is iCow, which helps cattle farmers maximize breeding potential by tracking their animals’ fertility cycles. M-Kilimo information services, launched by KenCall (Kenya’s largest call centre), provide a 24-hour hotline to tens of thousands of small farmers on topics ranging from weather to livestock and pricing. Farmers are also connected with expertise and information on everything from weather, crop selection, and pest control to management and finance. It can also improve their access to markets and increase their pricing power.

**Digital adoption by People**

The successful commercialization of mobile money in Kenya such as M-PESA has led to increased understanding of the potential for innovation to deal with local problems. Mobile money transfer has been recording a remarkable growth, becoming a major spur for economic growth and social development in Kenya (Financial Sector Regulators Forum, 2015; Muchai and Kimuyu, 2016). As shown in Table 6.1 below, the M-Pesa digital payment system creates additional income for more than 145,000 agents in Kenya. As seen in Annex figure 6(g), between 2010 and 2015, the number of money transfer agents has increased from 32,949 to 143,346, creating nearly 200 jobs over that period. Total amount of money transacted through mobile money platforms expanded by 18.7 per cent to KSh 2,816 billion during 2014-2015 (Kenya, 2016b).

**Table 6.1: Kenya – Trends in Mobile Phone Financial Services Growth**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of agents</td>
<td>39,449</td>
<td>50,471</td>
<td>76,912</td>
<td>113,130</td>
<td>123,703</td>
</tr>
<tr>
<td>Mobile money transfer accounts (’000)</td>
<td>10,615</td>
<td>17,396</td>
<td>19,319</td>
<td>26,016</td>
<td>26,023</td>
</tr>
<tr>
<td>Total number of Transactions (millions)</td>
<td>311.0</td>
<td>433.0</td>
<td>575.0</td>
<td>733.0</td>
<td>911.0</td>
</tr>
<tr>
<td>Total value transacted (Ksh billion)</td>
<td>732.2</td>
<td>1,169</td>
<td>1,544</td>
<td>1,902</td>
<td>2,372</td>
</tr>
<tr>
<td>Average value per transaction (Ksh)</td>
<td>2,354.0</td>
<td>2,700.0</td>
<td>2,672.0</td>
<td>2,594.0</td>
<td>2,604.0</td>
</tr>
<tr>
<td>Total Deposits through agents (Ksh billion)</td>
<td>391</td>
<td>566</td>
<td>811</td>
<td>1,033</td>
<td>1,269</td>
</tr>
</tbody>
</table>

Financial Inclusion

The digitization of the financial sector has enhanced transactions drastically over the last decade. More Kenyans are receiving remittance through mobile telephone services. As seen in Figure 6.4, trends in total deposits and transfers through mobile agents continue to grow rapidly. Also seen in Annex figure 6(h), about 75.3% of Kenyans are now formally financially included; a 50% increase in the last 10 years. Financial exclusion, which is now down to 17.4%, has more than halved since 2006. While formal inclusion for men has risen steadily since 2006, for women, formal inclusion leapt between 2009 and 2013 driven by the spread of mobile financial services (MFSs). This has lessened women’s exclusive reliance on the use of informal services. MFS providers include Airtel Money, M-Pesa, MobiCash, Orange Money & Tangaza Pesa (FSD, 2016). The rural-urban gap in financial inclusion is rising. Over the past 10 years, the use of formal prudential services in urban areas has roughly doubled that of rural areas. Exclusion in rural areas is now roughly doubled that of urban areas and is falling much more slowly (FSD, 2016).

Digital adoption in expanding Government services
This comprises a range of services including: Cargo clearance in Kenya which has been digitalised, with importers of cargo required to apply for their Import Declaration Forms (IDFs) through the Kenya National Electronic Single Window System (Kenya TradeNet). Kenya TradeNet System can also process pre-clearance documents including import and export permits from Kenya Bureau of Standards (Kebs), Kenya Plant Health Inspectorate Service (Kephis) and Department of Veterinary Services (DVS), while the Horticultural Crops Development Authority (HCDA) and Pharmacy & Poisons Board (PPB) can also use the system. Huduma Kenya is a Government programme established to enhance access to and delivery of Government services to all Kenyans. It uses the concept of Integrated Service Delivery (ISD) in a one-stop shop, something that has not been conceived or utilized before, even in some of the more developed nations of the world. There is increased public value of e-Government services with 50% of adults accessing at least one e-service.

Delivery, Installation and Configuration of Servers at the National Transport Services Authority: Motor Vehicle Registration (MVR), Motor Vehicle Inspection (MVI), Driver Testing and Licensing (DTL), Citizens’ Self Service Portal (CSP), Road Service License/Public Service License (PSV/RSL), Enforcement, Reporting and Business Intelligence (RBI), and Enforcement Modules have also been completed. Digitization is being applied in Kenya National Examination Council - National Examination results and candidate selection into secondary schools; there is also applied digitised education content in 12 subjects at the secondary school level; online submission of tax returns annually; online custom declaration; electronic reporting of corruption; and a business licensing e-registry by government. Social Protection Cash Transfer in Kenya is currently administered to remote parts of the country using mobile services. As seen in figures 6.5, 6.6, 6.7 and 6.8 which are based on World Development Indicators, the digitization by government has had significant impacts on the efficiency of delivery in services. In the last ten years (between the years 2005-2015), the time required to register property has improved marginally. The time taken to export has reduced drastically when compared to other countries in Sub-Saharan Africa. Kenya has performed impressively well in the time required to start a business and time taken to process imports.
Figure 6.5: Kenya - Time required to register property (days)

Figure 6.6: Kenya - Time to export (days)

Figure 6.7: Kenya - Time required to start a business (days)

Figure 6.8: Kenya - Time to import (days)
6.5 Challenges and Prospects in the Digital sector for Emergence in Kenya

The Challenges of the Digital Sector

Despite glaring successes in Kenya’s digital revolution, a number of challenges remain. The digital sector and the other sectors in the economy, span distinct and different spheres: industries, finance and telecommunications all have different business models. This implies that Kenya has to deal with regulatory obstacles originating from each of these different sectors. Developing the necessary cross-sectoral partnerships including linking pace of technological changes, cultures and regulations may therefore be very challenging to deal with. Some of these include lack of standardization of components and systems being procured and applied across the Government; A wide internal and regional digital, Cyber-crime; Regional disparities in adoption and utilization of ICT services slowing speed of regional integration among other factors (Kenya, 2016b).

The labour productivity and average earning per worker vary widely across the different sectors of the Kenyan economy. The low integration of different segments of the labour market is important to reduce the supply constraints to some sectors. This calls for market-based strategies that would boost productivity and stimulate investment by Government to increase access to ICTs’ use in all sectors (Muchai and Kimuyu, 2016).

Kenya will also need to make continuous additional investments in upgrading and expanding physical infrastructure. Lack of or inadequate supply of affordable and uninterrupted power supply remains a constraint; and Limited penetration of telecommunication infrastructure in rural areas. These are compounded by vandalism of ICT infrastructure. There a growing challenge of inadequate financing coupled with delayed disbursement.

The rapid evolution of the ICT industry is also affecting the demand for certain skills. Demand for those with skills to manage information and exploit data is growing (Meltzer, 2016). Currently, the Kenya ICT industry view of fresh ICT graduates is that of low quality, not only in technical content but also in terms of communication, analytical and critical thinking skills. The
sector is equally limited by the lack of structured ICT professional training program in Kenya thus forcing companies to import the high-end ICT professionals abroad. The lack of structured internship and graduate training programs by local industry has reduced the pool of well-trained graduates. There are very few industrial firms that provide structured on-the-job training for new ICT graduates.

Finally, the rapid application of the digital innovation has the potential to limit control of the money supply, thereby undermining monetary policy. A case in point is, Safaricom teamed up with the Commercial Bank of Africa (CBA) in 2012 to launch M-Shwari, a mobile service that offers micro savings accounts and credit. The total value of deposits mobilised through M-Shwari as of February 2014 were more than KSh 24 billion (Muthiora, 2015) with more than 890,000 loans disbursed (Ngigi, 2014; Adam and Walker, 2015) noted that whilst the mobile money sector is enormously positive from the perspective of financial development, the same process risked undermining the efficacy of conventional systems of monetary control.

Prospects of the Digital sector in the Emergence for Kenya

The current trends in Kenya’s digital revolution illustrate the real prospects for economic growth and promises of emergence in the coming decade. Kenya needs to leverage on its advantage to improve access to services, create opportunities and enhance productivity. The 2016 WDR presents examples of how the internet promotes inclusion, efficiency, and innovation. In the digital economy the three mechanisms often operate together (World Bank, 2016).

Expanding Services:

- By reducing the cost of accessing government services, acquiring information and making more information available transparently, digital transformation can make many new economic transactions possible and improve on the human development.
- Currently, the diffusion of digital based services are characterized by serious spatial and vertical inequalities. The low income groups, those in remote locations, in low potential areas appear to be the disadvantaged group. Yet these are the groups that remain equally excluded from the most critical government services.
Expanding opportunities:

- Digital technologies have dramatically expanded the information base, lowered information costs, and created information goods. This has facilitated searching, matching, and sharing of information and contributed to greater organization and collaboration among economic agents— influencing how firms operate, people seek opportunities, and citizens interact with their governments.

Boosting Productivity:

- For the economy as a whole, the most profound impact of the internet on firms and individuals is that it raises productivity. By handing off routine and repetitive tasks to technology, workers can focus on activities with higher value. Using technology for information on prices, soil quality, weather, new technologies, and coordination with traders has been extensively documented in agriculture. Kenya can leverage on such technologies to address the bottlenecks leading to low productivity in the agricultural sector.

The proliferation of the digital economy does raise the need for key economic sectors to work together to allow the digital platforms to work. As the digital services continue to expand, more proactive policies are required to ensure that the market can continue to grow and serve local needs of producers and consumers. Getting the different sectors to coordinate solutions to their needs can be easier said than done, and this hurdle may already have slowed the adoption of digital technology in Kenya.

Kenya needs to pay closer attention to the digitization success of the agricultural and manufacturing in order to forge its emergence. The two sectors are empirically interlinked with economic emergence:

- Countries with successful structural transformation typically are able to increase the value added in agriculture by moving up the value chain (toward improved quality of produce and further processing).

Kenya’s agricultural sector has a huge untapped potential for food processing as well as cattle rearing because of the vast unoccupied land and the lengthy experience in animal husbandry. These potentials can be exploited (AfDB, 2014): About 91% of Kenya’s agricultural exports are
in raw or semi-processed form, resulting in huge export earning losses because of low value addition. Farming is characterized by low productivity due to inadequate rural infrastructure, notably rural roads and irrigation, low absorption of modern technology, inappropriate legal and regulatory frameworks, absence of a coherent land policy, and a domestic market ill-equipped to take advantage of export markets. Kenya is vulnerable to climate change and environmental degradation, necessitating a transition to a Green Economy. There are risks of drops in annual precipitation and extreme weather patterns, predominantly via severe drought, which caused food insecurity and occasionally led to famine in arid and semi-arid regions. Kenya is currently benefiting from the AfDB support in preparing a Green Economy Strategy and Implementation Plan (GESIP) to guide the transition process to a green, low-carbon, climate-resilient economy (AfDB, 2014). Kenya’s National Climate Change Response Strategy and Climate Change Action Plan can leverage on such support to address the challenges in the agricultural sector. In all these grand plans, innovation in the digital platforms might be key to unlocking the growth potential that will unleash the productivity and growth for the emergence of the Kenyan economy.

There are a number of structural factors which Kenya can leverage to achieve higher economic growth. These include improved infrastructure services (especially roads and energy), the spillover effects of the ICT revolution, and an acceleration of south-south integration (The World Bank, 2011). Accelerating growth to meet Kenya’s development goals also requires technological advances and innovation that raise firms’ productivity. Although the likelihood of Kenyan firms to innovate is high compared with firms in several other countries, only a few Kenyan firms have come up with products that are actually new to the domestic market (The World Bank, 2016). The discovery of oil, gas and coal in 2012 might have the potential to boost Kenya’s overall socio-economic development, but exact deposit quantities as well as fiscal and economic impacts are yet to be fully estimated (AfDB, 2014; The World Bank, 2016).
Abbink Jan 2015 Disconnections? Dilemmas around the ‘developmental state’ in Africa
Export Processing Zone Authority. Information for Prospective Investors in Kenya’s EPZs. EPZ Brochure


Republic of Kenya- Ministry of Information, Communications and Technology. A brief on the Konza Techno City


ANNEXES
Figure 3(d): Health expenditure, total (% of GDP)

Figure 3(e): Health expenditure, public (% of GDP)
<table>
<thead>
<tr>
<th>Economic Services Sector</th>
<th>Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Industrial Development Bank (IDB) Capital Ltd;</td>
<td>Kenya Accountants and Secretaries National Examinations Board (KASNEB)</td>
</tr>
<tr>
<td>2. Kenya Investment Authority (KIA);</td>
<td>Privatization Commission</td>
</tr>
<tr>
<td>3. Kenya Industrial Research and Development Institute (KIRDI);</td>
<td>Kenya Investment Authority</td>
</tr>
<tr>
<td>4. Kenya Industrial Estates (KIE);</td>
<td>Insurance Regulatory Authority</td>
</tr>
<tr>
<td>5. Industrial and Commercial Development Corporation (ICDC);</td>
<td>Public Procurement Oversight Authority</td>
</tr>
<tr>
<td>6. Kenya Bureau of Standards (KEBS);</td>
<td>State Corporations Appeals Tribunal</td>
</tr>
<tr>
<td>7. Export Promotion Council (EPC);</td>
<td>Kenya National Assurance Co. (2001)</td>
</tr>
<tr>
<td>8. Export Processing Zones Authority (EPZA);</td>
<td>Capital Market Authority</td>
</tr>
<tr>
<td>9. Kenya Industrial Property Institute (KIPI);</td>
<td>Deposit Protection Fund Board</td>
</tr>
<tr>
<td>10. Numerical Machining Complex (NMC);</td>
<td>National Bank Of Kenya</td>
</tr>
<tr>
<td>11. Kenya National Trading Corporation (KNTC);</td>
<td>Kenya Post Office Savings Bank</td>
</tr>
<tr>
<td>12. Kenya Wines Agencies Ltd (KWAL);</td>
<td>Consolidated Bank of Kenya</td>
</tr>
<tr>
<td>13. East African Portland Cement Company Limited (EAPCC);</td>
<td>Retirements Benefit Authority</td>
</tr>
<tr>
<td>14. Kenya Tourist Development Corporation (KTDC);</td>
<td>Kenya Reinsurance Corporation</td>
</tr>
<tr>
<td>15. Kenya Utalii College (KUC);</td>
<td>Kenya Revenue Authority</td>
</tr>
<tr>
<td>16. Kenya Tourist Board (KTB);</td>
<td>Kenya Trade Network Agency</td>
</tr>
<tr>
<td>17. Catering and Tourism Development Levy Trustees (CTDLT);</td>
<td>Competition Authority of Kenya</td>
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<td>18. Bomas of Kenya;</td>
<td></td>
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<tr>
<td>19. Kenya Wildlife Service (KWS);</td>
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<td>20. Kenyatta International Conference Centre (KICC);</td>
<td></td>
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<tr>
<td>22. Tourism Trust Fund (TTF);</td>
<td></td>
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<tr>
<td>23. National Social Security Fund (NSSF);</td>
<td></td>
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<tr>
<td>24. Kenya National Library Services (KNLS);</td>
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<tr>
<td>25. Sports Stadia Management Board (SSMB);</td>
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<tr>
<td>26. National Council for Persons with Disability (NCPD);</td>
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<tr>
<td>27. National Commission for Gender and Development (NCGD);</td>
<td></td>
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<tr>
<td>28. Youth Enterprise Development Fund.</td>
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</tbody>
</table>
Source: Data from World Bank Open Source, accessed in October 2016
Figure 6(c): Kenya - Cellular subscriptions per 100 people, 1990-2015

Figure 6(d): Kenya - Mobile Cellular subscriptions, 1990-2015

Source: Data from World Bank Open Source, accessed in October 2016
Source: Data from World Bank Open Source, accessed in October 2016
Figure 6(g): Kenya - Number of Mobile Money Transfer Agents (2010-2015)

Figure (6h): Kenya - Financial Access in 2016 (%)