Discussion Paper Series

The KENYA INSTITUTE for PUBLIC POLICY RESEARCH and ANALYSIS

# Labour Demand in Kenya: Sectoral Analysis

Vincent Okara and Brian Obiero

DP/216/2018

THE KENYA INSTITUTE FOR PUBLIC POLICY RESEARCH AND ANALYSIS (KIPPRA)

YOUNG PROFESSIONALS (YPs) TRAINING PROGRAMME

# Labour Demand in Kenya: Sectoral Analysis

*Vincent Okara and Brian Obiero*

Kenya Institute for Public Policy
Research and Analysis

*KIPPRA Discussion Paper No. 216*
*2018*

## KIPPRA in Brief

The Kenya Institute for Public Policy Research and Analysis (KIPPRA) is an autonomous institute whose primary mission is to conduct public policy research leading to policy advice. KIPPRA's mission is to produce consistently high-quality analysis of key issues of public policy and to contribute to the achievement of national long-term development objectives by positively influencing the decision-making process. These goals are met through effective dissemination of recommendations resulting from analysis and by training policy analysts in the public sector. KIPPRA therefore produces a body of well-researched and documented information on public policy, and in the process assists in formulating long-term strategic perspectives. KIPPRA serves as a centralized source from which the Government and the private sector may obtain information and advice on public policy issues.

Published 2018

Bishops Garden Towers, Bishops Road
PO Box 56445-00200 Nairobi, Kenya
tel: +254 20 2719933/4; fax: +254 20 2719951
email: admin@kippra.or.ke
website: http://www.kippra.org

ISBN 9966 817 03 7

The Discussion Paper Series disseminates results and reflections from ongoing research activities of the Institute's programmes. The papers are internally refereed and are disseminated to inform and invoke debate on policy issues. Opinions expressed in the papers are entirely those of the authors and do not necessarily reflect the views of the Institute.

This paper is produced under the KIPPRA Young Professionals (YPs) programme. The programme targets young scholars from the public and private sector, who undertake an intensive one-year course on public policy research and analysis, and during which they write a research paper on a selected public policy issue, with supervision from senior researchers at the Institute.

KIPPRA acknowledges generous support from the Government of Kenya and the Think Tank Initiative of IDRC.

ThinkTank Initiative Initiative Thinktank

# Abstract

*At the core of job creation in an economy is the ability of every sector of the economy (both formal and informal) to grow optimally and create adequate decent jobs for the working population. This study sought to determine the labour demand across various sectors of the economy at both the aggregate and activity level based on their ability to create jobs, the frontier products that Kenya has potential to create value addition for more job opportunities, and targeted programmes that the government plans to implement. The focus of analysis was on manufacturing, the blue economy, and construction and the five activities of the informal sector. The study used time series data from KNBS spanning the period 2000-2016. Using descriptive statistics, the study finds that wholesale and retail trade, and manufacturing are the key employers, accounting for 80 per cent of total employment in 2016. Employment in the formal sector is dominated by education (20%), agriculture (14%), manufacturing (12%) wholesale and retail trade (10%), public administration (9%) and construction (9%). In the formal sector by employment numbers, the leading activities in the agriculture sub-sectors are coffee, tea, sugar and mixed farming. Employment in the wholesale and retail trade is mainly through wholesale trade of agricultural raw materials, maintenance and repair of motor vehicles, retail sale through stalls and retail sale of automotive fuel. For the manufacturing sector, of which 68 per cent of the total employment is agro-processing, the leading employing activities are: wearing apparel made up of textile articles, manufacture of food products, vegetable and animal fat and sugar. The blue economy is dominated by activities connected to water transport, contributing to 81.4 per cent of the total employment, followed by processing and fish preservation contributing 10.2 per cent of the total employment in the blue economy. Therefore, there is need to focus more on the processing and preservation of fish that has potential to create more employment opportunities. Finally, with respect to the construction sector, the study finds that construction of specialized activities and buildings are the leading activities in offering employment and jointly accounting for 90 per cent of total employment in the formal construction. There is need to review the NSSF and NHIF acts to allow them invest in the informal sector (specifically manufacturing and wholesale trade) to make the sector more productive and sustainable for the many youths already engaged in the sector and those yet to join. Access to credit needs to be increased to enable youths with good entrepreneurial ideas get funding for startups. This will ensure youthful labour force engage in productive employments. Policy instruments geared towards reduction of the cost of production such as removal of import declaration fee and railway development levy on industrial inputs, and prompt clearance of VAT refunds are key in growing the manufacturing sector. This will ensure increased profitability to be reinvested hence, more employment opportunities. For the wholesale and retail trade, there is need for establishment of the regulatory authority for the sector, which will go a long way in stabilizing the industry and make the jobs created in this sector more secure. In the construction industry, there is need to scale up skills in the building and construction sector through targeted training of the young labour force who still possess the energy and the vigour to be productively is engaged. On the agro-processing industry, the study recommends that local chamaas and SACCOs need to be provided with incentives invest especially in wearing apparel and made up textile articles.*

## Abbreviations and Acronyms

| | |
|---|---|
| AGOA | African Growth and Opportunity Act |
| EAC | East African Community |
| EPZ | Export Processing Zones |
| ERS | Economic Recovery Strategy |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| GoK | Government of Kenya |
| ILO | International Labour Organization |
| KIFI | Kenya Marine and Fisheries Institute |
| KIHBS | Kenya Integrated Household Budget Survey |
| KIPPRA | Kenya Institute for Public Policy Research and Analysis |
| KITP | Kenya Industrial Training Programme |
| KNBS | Kenya National Bureau of Statistics |
| MOLF | Ministry of Livestock and Fisheries |
| MTP | Medium Term Plan |
| NARC | National Rainbow Coalition |
| NHIF | National Hospital Insurance Fund |
| NSSF | National Social Security Fund |
| PEV | Post-Election Violence |
| SACCOs | Savings and Credit Cooperative Societies |
| SGR | Standard Gauge Railway |
| SME | Small and Micro Enterprise |
| TFP | Total Factor Productivity |
| UN | United Nations |
| USD | United States Dollar |
| VAT | Value Added Tax |
| WB | World Bank |

## Table of Contents

# 1. Introduction

The creation of productive, quality and sustainable employment opportunities has always remained a top priority for the government. Several policy interventions have been formulated and implemented over time to address the issue of unemployment especially among the youth in the country. For example, the Economic Recovery Strategy for Wealth and Employment Creation (ERS) 2003-2007 put a case for creation of decent jobs in improving standards of living and eradication of poverty. To achieve this, the government aimed to create a favourable environment for doing business by the private sector, increase public investments, ensure sound macroeconomic environment, and improve access to productive resources and basic goods and services. With the ERS, the economy grew from about 2.3 per cent in 2003 to 7.0 per cent in 2007, which saw the number of employed persons grow from 7.3 to 9.5 million. By then, the World Bank was advocating for at least a 7 per cent growth rate sustained for a decade to achieve sustainable employment creation. This points to the fact that employment creation is highly correlated to strong GDP growth (KNBS, 2009). Following the post-election violence of 2007, compounded with the financial crisis and severe drought, economic growth slowed down and is yet to attain the 7 per cent growth achieved prior to the post-election violence of 2007.

The government adopted the Kenya Vision 2030 aimed at attaining a middle-income level, and offering high quality living standards to its citizens. The target for economic growth is 10 per cent viewed as appropriate in achieving a faster rate of expanding the productive capacities to create decent jobs and offer higher incomes to those employed. During the first MTP (2008-2012), the government committed to create a total of 1 million jobs annually to address the issue of unemployment as and enhance skills training. In the second MTP (2013-2017) employment was projected to grow from 723,000 in 2013 to 1,432,000 in 2016. However, in the period, the economy was only able to create 755,800 and 897,000 jobs with GDP growth at 5.9 and 5.8 per cent, respectively. The number of those seeking employment opportunities has continued to rise faster than the number of jobs created. With the 2015/16 KIHBS report showing that unemployment rate declined to 7.4 per cent in the last decade with a labour force participation of 77.4 per cent, it means that 22.6 per cent of the labour force have given up their quest for search of decent jobs in Kenya.

The structure of employment has changed over time with the informal sector taking a leading role in job creation as indicated in Table 1. The contribution of the informal sector to total employment has increased from 10.4 per cent in 1972 to 46.9 per cent and 83 per cent in 1992 and 2016 respectively. This was despite the second MTP targeting to balance the contribution of formal and informal sector employment at 71 and 29 per cent, respectively. The high share of informal jobs means that a high number of youths joining the labour market may be earning a living in the informal sector; these are low income jobs with high job insecurity, it means that a high proportion of the labour force is not engaged in decent jobs. As such, effective employment creation policies and strategies should stress both numbers of jobs created and their quality (Government of Kenya, 2013).

**Table 1: Average and Actual Informal and Formal Employments Across Selected Years**

| | Unemployment rate | | Formal | | Average | Average GDP growth rate | Average investment rate |
|---|---|---|---|---|---|---|---|
| Period | Average actual levels (millions) | Average growth rate | Average actual levels (millions) | Average growth rate (%) | (%) | (%) | (%) to GDP |
| 2000-2002 | 4.6 | 10.7 | 1.7 | 0.1 | 12.7 | 1.6 | 17.9 |
| 2003-2007 | 6.6 | 8.1 | 1.8 | 2.3 | 9.7 | 5.1 | 18.3 |
| 2008-2016 | 10.6 | 6.7 | 2.3 | 3.5 | 7.4 | 5.0 | 19.7 |

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

The inability to create enough formal jobs at the same rate as the rising youth population and the growing number of those being churned out of institutions of learning portends more joblessness in the future. It is against this background, that this study was carried out to analyze the labour demand pattern across sectors in Kenya, to identify those that are labour intensive and therefore with higher potential to create more jobs as envisaged in the "Big Four" agenda. The study uses data sourced from the KNBS covering the period 2000 to 2016. The key focus is on sectors with heavy presence of the private sector including manufacturing, construction, wholesale and retail trade, agriculture and the blue economy. While informal employment dominates the labour market, there is no disaggregated (sub sector) data to allow for in-depth analysis. As such, the sectoral analysis focuses more on the formal sector.

The rest of the paper is organised as follows. The next section 2 looks at employment trends in Kenya and details trends in total employment in the public and private, formal and informal sector. Section 3 examines employment in agriculture and the blue economy while Section 4 examines the wholesale and retail trade. Section 5 looks at employment in the manufacturing sector while Section 6 looks at the construction industry. Section 7 provides the conclusion and policy recommendations.

## 2. Employment Trends in Kenya

### 2.1 Introduction

Unemployment rate in Kenya declined to 7.4 per cent in 2016, although the number of unemployed persons did not change significantly. Moreover, while growth in economic activity is related to growth in employment, it is important that such growth is realized in the sectors with high absorptive labour capacity. The informal sector in Kenya dominates the employment market but growth in employment in the informal sector is slowing down while growth in the formal sector is not strong enough to attain the targeted balance of informal and formal employment. The private sector dominates in terms of demand for labour, but creating an enabling environment is critical in securing private sector employment. While the wholesale and retail trade attract more labour given the minimal start-up capital, reducing the cost of doing business will help in diversifying opportunities for employment.

Total employment in Kenya increased from 0.804 million workers in 1972 to 9.0 million in 2006 and 15.9 million in 2016. As a result, the level of unemployment dropped from 12.7 per cent as evidenced in the KIBHS 2005/06 to 7.4 per cent recorded in the KIHBS 2015/16. The number of persons unemployed increased from 1.5 million in 2009 household census to 1.9 million in the KIHBS 2005/06. However, this declined to 1.4 million in 2015/16 (KNBS, 2018). Equally, the economically inactive population has increased from 4.7 million in the year 2009 to 5.3 million in 2005/06 and increased further to 5.6 million in 2015/16. Most of the unemployed are youth aged 35 years and below, with the unemployment rate of 85 per cent while those of 18- and 34-years experience unemployment rate of 53 per cent according to the KIHBS 2015/16.

Growth in employment is highly correlated to growth in economic activity as measured by GDP. However, for economic growth to create jobs, it is critical that there is boom in activity sectors with high labour absorption capacity. During the implementation of ERS (2003-2007), GDP growth rate averaged 5.4 per cent, with a significant contribution from agricultural, financial, tourism and manufacturing sectors. Total employment growth rates averaged 6.4 per cent as indicated in Figure 1. After the slow growth in 2008 that saw the economy grow by only 1.7 per cent, the recovery path is yet to achieve the 7.0 per cent growth realized in 2007. As a result, with an average economic growth of 5.0 per cent in the period 2009-2016, total employment growth slowed marginally to an average of 6.1 per cent. In the same period, total investment to GDP ratio increased from 18.6 per cent in 2006 to 20.2 per cent in 2016, remaining below the envisaged 30 per cent in the Kenya Vision 2030 to sustain a double-digit growth rate.

Over time, the gap between the targeted jobs and actual jobs has increased.

**Figure 1: Growth in GDP and employment, 2000-2015**

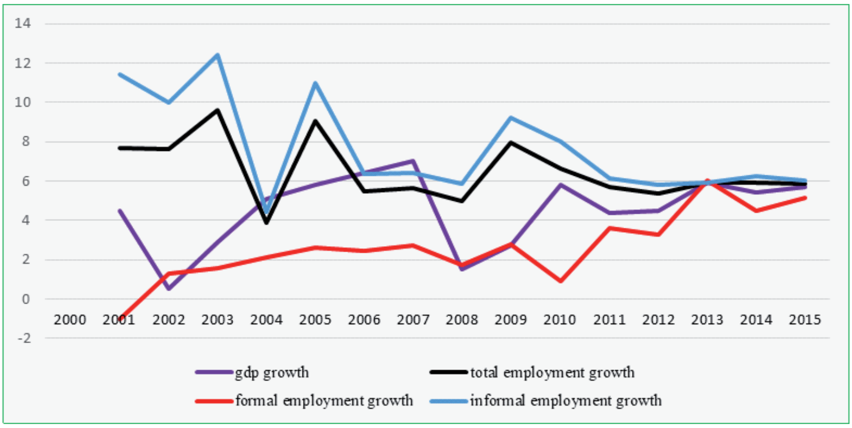
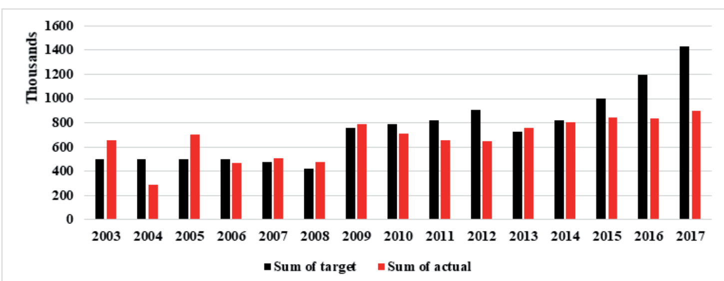



Figure 2 shows that in the implementation of the MTPI and II, the gap increases during the implementation period of the plan. This is as a result of slowed growth in investment in the country, which partly resulted in slow growth in GDP. Investment to GDP ratio increased marginally from 18.3 per cent for the period 2003-2007 to 20.6 per cent for the period 2008-2012. However, this declined in the second MTP period to 18.4 per cent (2013-2017). As a result, GDP growth dropped from an average of 5.1 for the period 2003-2007 to an average of 4.5 per cent in the MTPI. This increased to 5.5 per cent in the MTPII but still remained way below the 10 per cent envisaged in the Vision 2030. This led to an increased gap between the actual and targeted jobs as shown in Figure 2.

**Figure 2: Actual versus targeted jobs: ESR, MTPI and MTPII 2003-2017**



## 2.2 Formal vs Informal Employment

Informal employment dominates employment creation in the labour market. This is because informal employment growth rate averaging 7.6 per cent in the period 2000-2016 was much higher compared to the 2.6 per cent growth rate in the formal employment. Even though the informal employment growth rate declined from an average rate of 8.1 per cent during the ERS to 6.7 per cent with the implementation of the Vision 2030 in 2009-2016, the increase in growth of formal employment realized then was not strong enough, having increased from 2.3 per cent to 3.7 per cent. This may partly be explained by the wider gaps in actual vs target in the formal employment compared to informal employment as indicated in Figure 3.

This notwithstanding, the labour absorptive capacity in the informal employment is declining fast as indicated in Figure 3. In the period following the global financial crisis, growth in informal employment declined from 9.2 per cent in 2009 to 6.0 per cent in 2016. This means that even though the average new jobs created in the sector have increased from an average of 476,000 in 2003-07 to 670,000 in 2009-16, more jobs would have been created if there was a stronger growth. In the same period, although an increased growth in formal employment was realized, this only saw the average new jobs created increase from 42,400 to 84,400. This may explain the decline in unemployment rate from 12.7 per cent and 7.4 per cent, according to KIHBS 2005/06 and 2015/16, respectively.

The high share of informal jobs means that high number of youths are earning a living in the informal sector. Currently, jobs in the informal sector are characterized by low incomes and job insecurity. On Labour Day 2017, the government announced

**Figure 3: Actual versus target employment for formal, informal and total employment, 2013-2017**

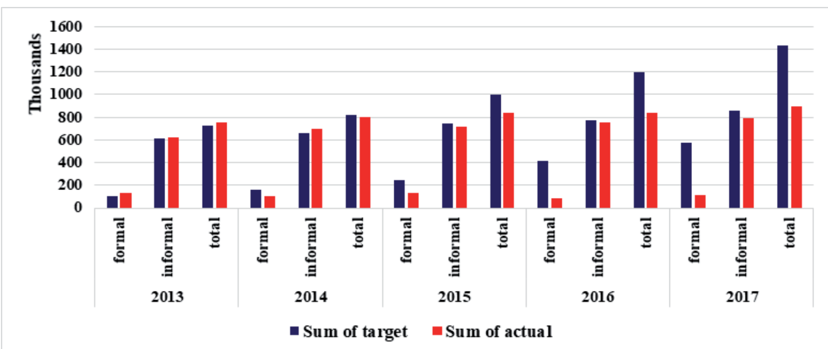
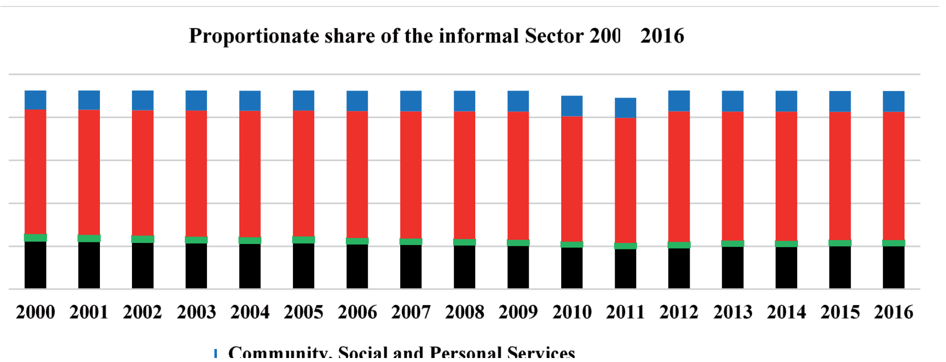
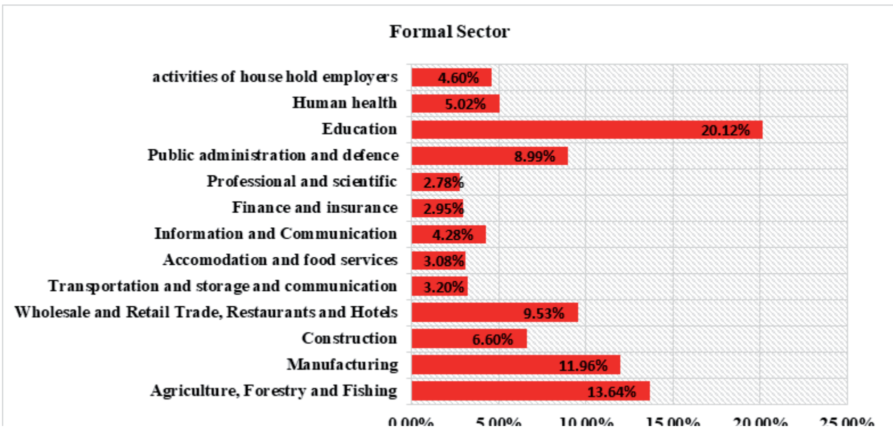


**Figure 4: Proportionate share of the informal and formal sector 2000-2016**




*Source: Kenya National Bureau of Statistics*

new statutory minimum wage rates that reflected 18.0 per cent increase in the wages specified in both the regulation of wages Agriculture Order, 2017 and the Regulation of Wage. The Collective Bargaining Agreements Registered by the Employment and Labour Relations Court, 2016-2017 indicated that the average wage for employees across the sector was 27,164. The formal sector recorded high average wage earnings per employee with the public sector recording higher average earnings than the private sector. The leading earning activities in the private sector include extraterrestrial activities, finance and insurance, electricity and gas and administration and support with annual average earnings of 3.2, 1.8,1.6, 1.4 million, respectively. Average earnings in manufacturing, construction and agriculture are 0.45, 0.65 and 0,33 million, respectively. In the public sector, leading earning activities include finance and insurance, transport and storage and accommodation and food services with average earnings of 1.7, 1.6 and 1.5 million, respectively. Public manufacturing, construction and agriculture have average earnings of 0.88, 0.72 and 0.42 million, respectively.

Figure 4 shows that wholesale and retail trade, hotel and restaurant contributed significantly (over 50%) to the stock of labour over time. This is attributable to the lower capital required in starting such businesses, more so the retail trade. Equally, the small to medium sized retail and wholesale trade do not require highly technical skills and are thus easy to start. For the formal sector, the education sector shared the highest of the labour stock of 2.6 million in 2016 as shown in Figure 4.

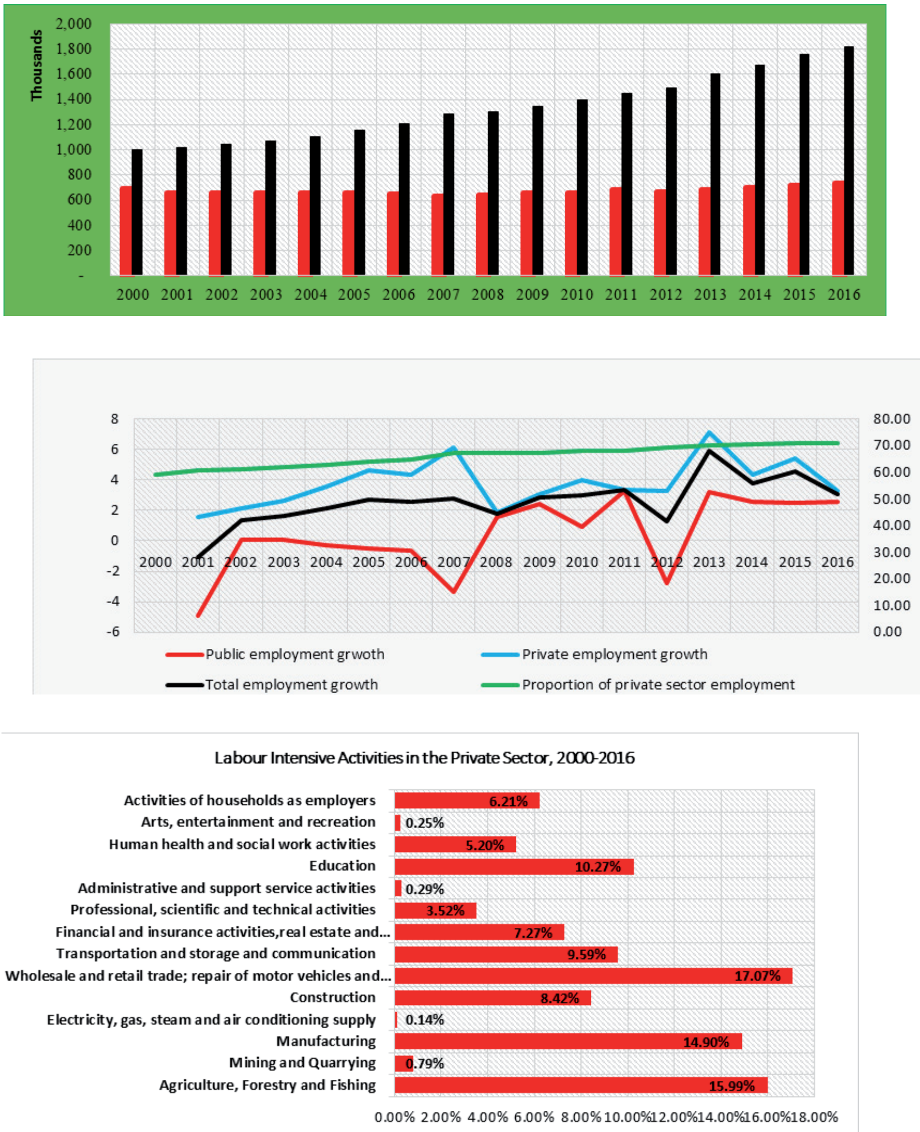
## 2.3 Private vs Public Sector Employment

The private sector dominates in formal employment with its share increasing steadily from 61.8 per cent in 2003 to 67.2 per cent, 70.1 per cent and 71.1 per cent in 2008, 2013 and 2016, respectively, as demonstrated in Figure 5. This was mainly attributed to higher average private sector employment growth of 3.8 per cent in 2000-2016 as compared to the public sector at 0.42 per cent. This notwithstanding, growth in private sector employment has slowed from 4.3 per cent during the ERS to 4.0 per cent in the period of implementing the Vision 2030.

In the recent past, the private sector has witnessed job losses with various companies closing down or trimming the jobs. For example, the period 2014 to 2016 saw manufacturing companies such as Eveready East Africa, Cadbury, Sameer Africa and Tata Chemicals close down citing high cost of production (for example in electricity costs) and due to generally unfavourable business environment. Further, such companies as Coca-Cola, Toyota Kenya, Kenya Airways, giant retail chains such as Nakumatt, Mumias and several banks (Equity, KCB, Sidian, Ecobank, Family, Bank of Africa, and Standard Chartered) have cut down their jobs substantially, while Reckitt & Benkiser, Procter & Gamble, Bridgestone, Colgate Palmolive, Johnson & Johnson and Unilever have all relocated or restructured their operations mostly to Egypt or South Africa mainly on account of high production costs and unfavourable business environment.

Labour-intensive activities in the private sector are diverse and include wholesale and retail trade with a contribution of approximately 17.7 per cent; agriculture, forestry and fishing with a contribution of 15.9 per cent; and manufacturing with average contribution of 14.9 per cent. Others are education, transport and storage, construction and financial and insurance activity with contribution of 10.27, and 8.4 and 7.2 per cent, respectively. The lower level of capital required in starting

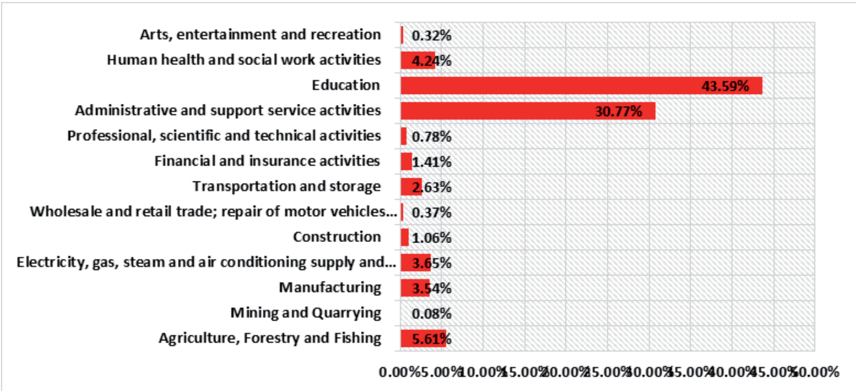
**Figure 5: Public vs private employment; employment growth in public and private sector; labour intensive activities in the private sector, 2000-2016**




most of the wholesale and retail trade business and the low level of regulation in the sector is one of the factors leading to high level of job creation in this sector.

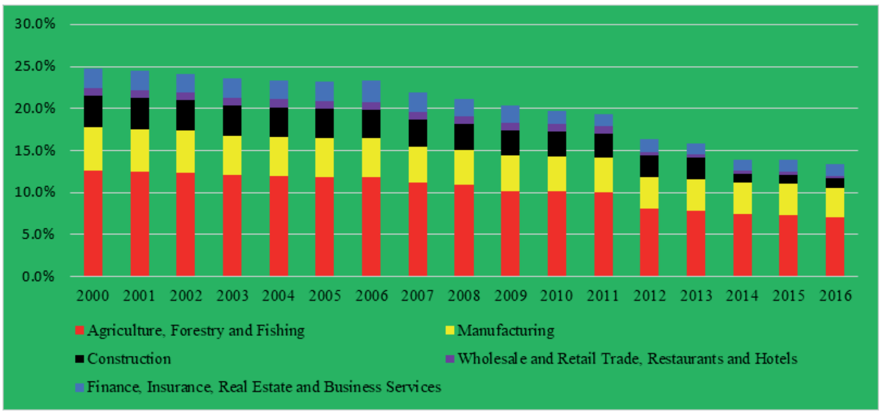
The public sector is dominated by education and administrative activities, which had a contribution of 44 per cent and 30 per cent, respectively. This is followed

**Figure 6: Labour intensive activities in the public sector, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

**Figure 7: Proportionate share of the public formal employment across various sectors**




by agriculture, forestry and fisheries and human health and social work activities that had a contribution of 5.6 and of 4 per cent of the total labour force in the public sector, respectively, in 2016.

# 3. Employment in Agriculture and the Blue Economy

## 3.1 Introduction

The agricultural sector contribution to formal employment demand is significant at 13.6 per cent and is the mainstay of the economy. However, fluctuations in employment demand reflect on the weather effects with significant dips experienced during severe droughts. In addition, three industrial crops, namely tea, coffee and sugarcane dominate (over 50%) formal employment in the agricultural sector. The only component in agriculture that forms part of the blue economy is freshwater and marine fisheries which contribute 0.14 per cent of total agriculture employment. With a target to create 20,000 new jobs in the blue economy, and assuming the current proportionate contributions to employment, fisheries would be expected to create about 960 new jobs which translates to 192 jobs per year. This will require significant investments to grow the fisheries sector.

Agriculture contributes an average of 30 per cent to GDP, over 16 per cent of formal employment, in addition to 3 per cent of the total labour force and 0.01 per cent of the total population. Before 2007, there was a consistent increase in total employment in agriculture but thereafter, employment in the sector has been highly volatile, reflecting the intensified adverse weather conditions as indicated in Figure 8. For example, there was a significant drop in employment in the sector following the severe weather conditions in 2011 which adversely affected activity in the sector especially because of reliance on rain-fed agriculture.

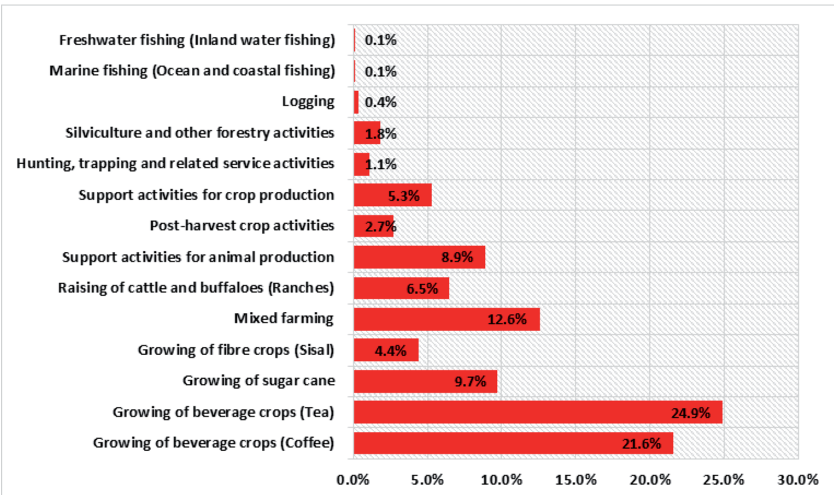
Over 50 per cent of employment in the agricultural sector is in three key industrial crops, namely tea, coffee and sugar. The performance of these crops has significant impact on creation of jobs in the agricultural sector. The proposed mechanization in tea and coffee production processes and drops in exports of these major cash crops for Kenya therefore portend reduction in job opportunities for those already employed and to the prospective job seekers in the agricultural sector. The sugar industry has been plagued by sugar imports that flood the market, thus driving most local industries out of business. These factors impact negatively on job creation prospects for the unemployed youths.

## 3.2 Blue Economy

In line with the government's "Big Four" agenda in enhancing manufacturing, the focus on blue economy is to enhance fish processing in which the government intends to inject U$ 20 million on fish feed mill investment. Among the specific initiatives the government aims to take is identify two aquaculture investors, identify key local/foreign investors to invest in fish feed mill and develop blue

**Figure 8: Growth in employment in agriculture, 2000-2015**


**Figure 9: Employment in agriculture by activity, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

ocean policy. The full implementation of this blue economy strategy is expected to create an estimated 20,000 jobs.

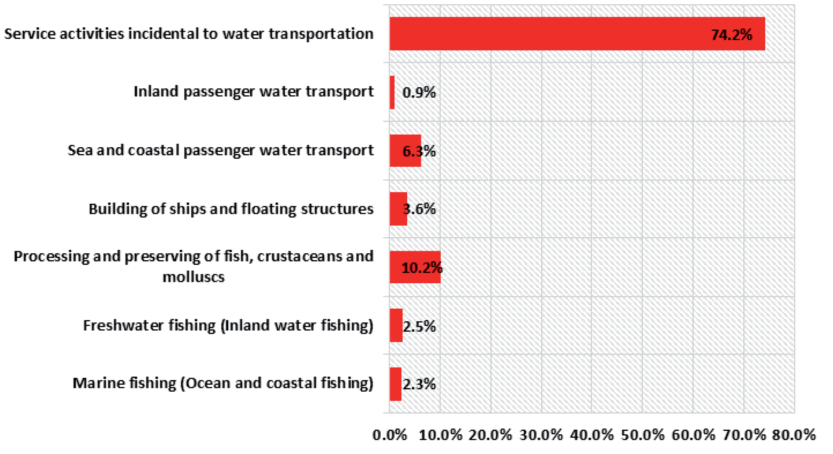
Blue economy encompasses activities of fisheries and aquaculture, maritime transport and logistics, extractive industries and culture, tourism leisure and lifestyle. Annually, the blue economy generates US$ 1.78 billion, with maritime transport contributing US$ 0.73 billion (40% of total sector output), fisheries US$ 0.5 billion (27%) and tourism US$ 0.6 billion (33%) (Kenya Maritime Authority, 2016).

According to the Kenya Marine and Fisheries Institute (KMFI), Kenya's blue economy is currently centred on fisheries and aquaculture and sea transport. To benefit more from the vast oceanic resources, the country needs to also engage on ocean renewable energy, offshore oil and gas exploration, coastal and cruise tourism, deep and short sea shipping, blue biotechnology, extractives and marine aquatic products. However, lack of a national marine integrated policy (national policy) to streamline the exploitation of oceanic resources for shared prosperity and fish processing industries in towns near large water bodies such as Baringo, Turkana, Lodwar, key towns along Lake Victoria and the coast, low investments in the blue economy sector and illegal fishing are some of the key factors holding Kenya from fully exploiting her multibillion blue economy resources for improved GDP growth and creation of job opportunities.

Preliminary analysis of the blue economy indicates that the sector has potential to create numerous jobs and contribute significantly to Kenya's GDP. The service activities incidental to water transport contribute about 40 per cent of the output in the blue economy, followed by processing and preservation of fish, crustaceans and molluscs and sea and coastal passenger water transport as shown in Figure 10. Evidently, the country is yet to embrace labour intensive activities such green oceanic energy and other extractives, and ship and boat building. All these needs to be exploited if Kenya is to reap from the massive marine resources awaiting transformation. Green energy from oceanic sources, fisheries and aquaculture, and ship and boat building are all very key in the government's "Big Four" agenda. These would ensure there is cheap, quality and reliable energy for the manufacturing sector and fisheries sub-sector. With a target of 20,000 new jobs (which is about 4,000 new jobs per day), and if the current contributions to employment is maintained, it means that for example, marine and freshwater fisheries will need to create 960 new jobs (about 192 jobs per year).With the current rate of generating new jobs it would imply significant growth in fisheries.

Obura et al (2017) in a Western Indian Ocean Economy report identifies the rapid increase in population and the high reliance on marine resources for sustenance of livelihood as some of the reasons why there has been stunted growth in the blue economy in the western Indian ocean including Kenya. Around the world, population growth in the coastal zone is generally double the national average, as people are attracted to the coasts by the cities, and jobs in transport and tourism. These pressures from growing coastal populations threaten the economic sectors and people that depend on them.

**Figure 10: Blue economy labour contributions by activity, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

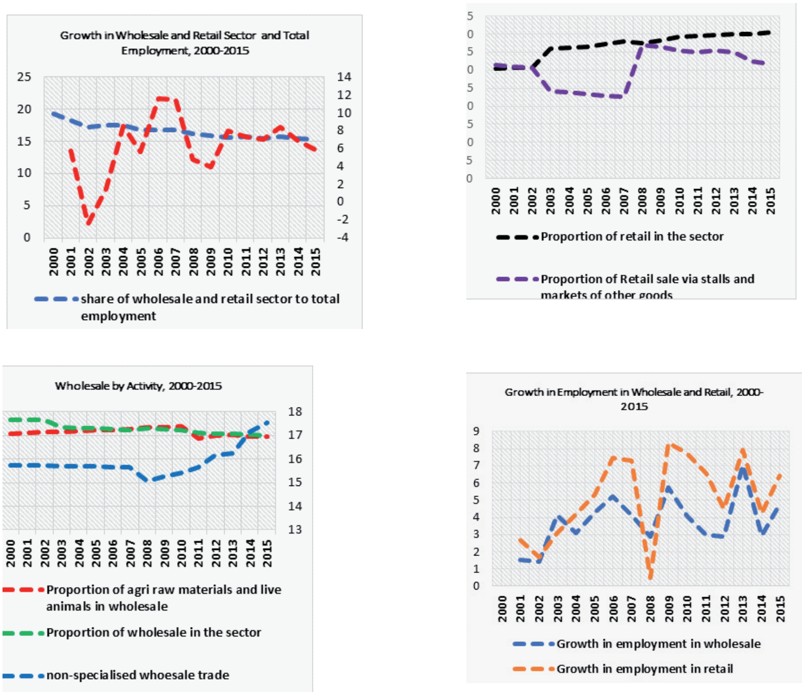
# 4. Employment in Wholesale and Retail Trade

The wholesale and retail trade are labour intensive activities in the formal sector with a contribution of close to 10 per cent of the total labour demand in the formal sector. According to the Kenya National Bureau of Statistics, this sector is among the top five major contributors to the country's GDP. The sector is among the three largest employers in the private sector. The reason behind the strong growth in labour demand in the wholesale and retail sale is the tapping from a vibrant manufacturing sector for locally produced goods and liberalized trade regime for imported products. As at 2016, wholesale of agricultural raw materials and live animals and the repair and maintenance of motor vehicles and non-specialized wholesale trade were the major contributors to total employment in this sector. For the retail sub-sector, the retail sale through stalls and markets of other goods, and non-specialized wholesale trade were the leading key sub-sectors in terms of employments.

The significance of the wholesale and retail trade as an engine for Kenya's economic growth is underscored in the Vision 2030 where the government targets to raise the share of products sold through the formal retail channels to trigger an increase in GDP by Ksh 50 billion and stimulate consumer demand driven investment opportunities especially among SMEs and the agricultural sector. However, the retail sector projected growth has been elusive as demonstrated by the performance of the sector in the last ten years. The effects of post-election violence in the year 2008 that saw the sector grow by 4.8 per cent down from 11.3 per cent, and the general late payments that seem to have taken effect from the year 2014 have made the sector record the lowest growth of 3.8 per in the year 2016.

Kenya's wholesale and retail sector is highly rated in the region. For example, the Oxford Business Group ranks Kenya as the second most developed wholesale and retail sector in Africa after South Africa. Euro Monitor, notes that over the past five years, the average value of consumer spending has risen by as much as 67 per cent, making Kenya the continent's fastest growing retail market. According to Cytonn Kenya's retail sector analysis report of 2014, the drive-in retail sector growth is attributed to 85 per cent of the consumers preferring to shop in formal retail stores. This has triggered unprecedented development of retail space and retail branch networks to respond to consumer demand for shopping convenience that the supermarkets offer. This investor confidence has led to penetration of international retail chain companies such as Massmart Holding's Game, Carrefour and Botswana's Choppies. The government through the National Trade Policy has

**Figure 11: Growth in wholesale and retail sector and employment by wholesale and retail by activities, 2000-2015**

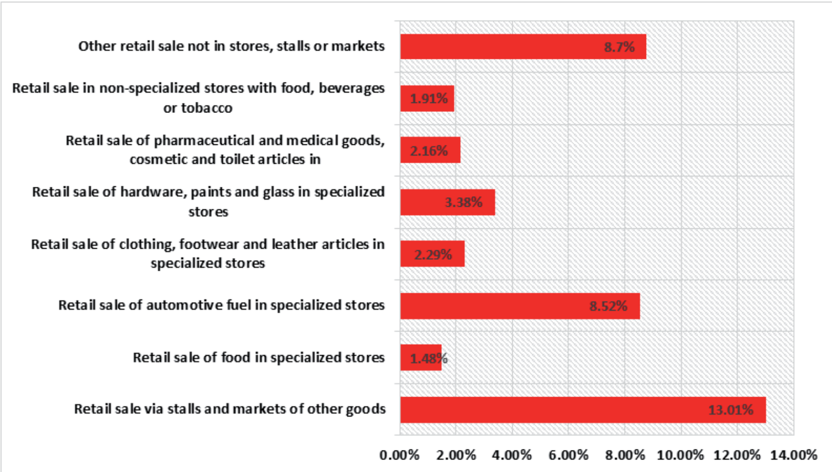



set stage to stimulate growth of the retail sector through measures that include establishment of a business friendly legal and regulatory framework aimed at spurring the sector's growth to the heights that are envisaged in the Vision 2030. This as a result will go a long way in creating decent jobs for the Kenyan youth.

Wholesale dominates the sector, contributing on average 42.8 per cent of total employment in the sector while retail contributes an average of 36.8 per cent. The key driver of employment in the sub-sector is wholesale of agricultural raw materials and live animals which contributes about 41.3 per cent of the employment. For the retail, the key driver is the retail sale through stalls and markets of other goods which, on average, contribute 30.5 per cent. As the retail continues to expand, the share of wholesale is shrinking. Further, the share of agricultural raw materials and live animals is shrinking as that of non-specialized wholesale trade is expanding. This could partly explain the slowing growth of the sector especially after 2010 as shown in Figure 11.

The wholesale and retail sector in Kenya has had its fair challenges in recent times, starting with Uchumi that was declared insolvent in 2006, to Nakumatt that has closed almost all its branches. According to a report by Cytonn Investment

### Figure 12: Retail trade




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

Company in 2018, most of these retail outlets are going under due to unsustainable growth model, where they engaged in rapid expansion with no consideration of profits from the new outlets. This left the retail chains with little or no money to pay owed creditors and suppliers, and salary for workers. The suppliers and creditors then recourse to auctioning of properties when their payments were not forthcoming, while the workers choose to engage in labour strikes. The actions led to massive closure of branches and job losses. Future closure of branches will only render more youths to be unemployed.

# 5. Employment in Manufacturing

## 5.1 Introduction

The government is targeting to accelerate growth of the manufacturing sector to create more employment opportunities especially for the youth. In the "Big Four" agenda, the target is mainly in agro-processing, leather and textile industries while with affordable housing this should serve to promote other sub-sectors in the manufacturing sector. That notwithstanding, the informal sector dominates employment in the manufacturing sector and value chains because most of the products are yet to be fully exploited to expand the opportunities for job creation. For example, with the textile and leather industries, a significant proportion is manufacturing with little indirect jobs created in the value chain. Similarly, while the non-agro processing sub-sectors of the manufacturing sector contribute only 26 per cent of labour, there is opportunity to create job opportunities by shifting to higher complex products for example in pharmaceuticals and iron and steel industries, to give the economy a more competitive edge at domestic and international level. In addition, addressing challenges facing the cement industry will allow it to exploit the opportunities being opened by the affordable housing project and the infrastructure projects.

The government has developed key policies and strategies to spur growth in the domestic manufacturing sector. Under the Kenya Vision 2030, the country's long-term development agenda, the country aims to have a 'robust, diversified and competitive manufacturing sector. The intention was to achieve this through various strategies including restructuring key local industries that use local raw materials but remain uncompetitive, and exploiting opportunities in value addition to local agricultural produce and adding value to intermediate imports and capturing the 'last step' of value addition (for example in metals and plastics).

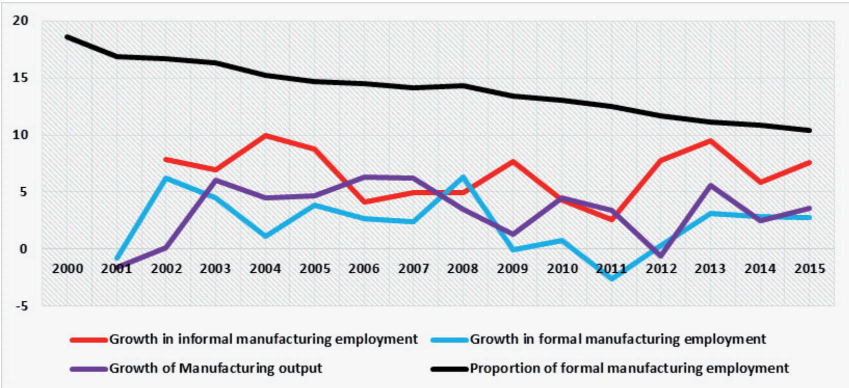
In 2015, the government launched the Kenya Industrial Transformation Programme (KITP) guided by the Kenya Vision 2030. KITP targets to accelerate growth of the manufacturing sector to reverse its declining contribution to GDP and manufactured exports as shown in Table 2. The programme also aims to double the formal manufacturing sector jobs to nearly 700,000. To achieve these, the following strategies are proposed: launching sector-specific flagship projects (textiles, leather, construction, energy), developing Kenyan small and medium enterprises (SMEs), and creating an enabling environment to accelerate industrial development. The full implementation of the government agenda is not only going to improve the quality of life but also create more jobs for its citizens.

**Table 2: The performance of the manufacturing sector (2010-2016)**

| Indicators/ Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Contribution to GDP | 11.3 | 11.8 | 11 | 10.7 | 10 | 9.4 | 9.2 |
| Formal Employment (persons) | 268,100 | 271,500 | 277,900 | 279,355 | 287,456 | 296,000 | 300,900 |
| Output in Millions | 1258,527 | 1,580,776 | 1,619,622 | 1,737,699 | 1,820,369 | 1,976,793 | 2,132,259 |
| Growth (%) | | 3.5 | 3.1 | 5.6 | 3.4 | 3.6 | 3.5 |
| Capital Investment in EPZ (billions) | 23.6 | 26.5 | 38.5 | 48.0 | 44.2 | 48.1 | 51.2 |
| Local Employees in EPZs | 31,026 | 32,043 | 35,501 | 39,961 | 46,221 | 50,302 | 52,019 |
| Value of Output (billions) | 1,259 | 1,581 | 1,620 | 1,738 | 1,822 | 1,977 | 2,132 |
| Compensation of Employees (millions) | 91,864 | 97,819 | 105,714 | 127,186 | | 163,395 | 175,235 |
| Credit (billions) | 112.4 | 146.3 | 169.6 | 182.6 | 237.9 | 290.8 | 277.4 |

*Source: KNBS (2013- 2017), Economic Survey*

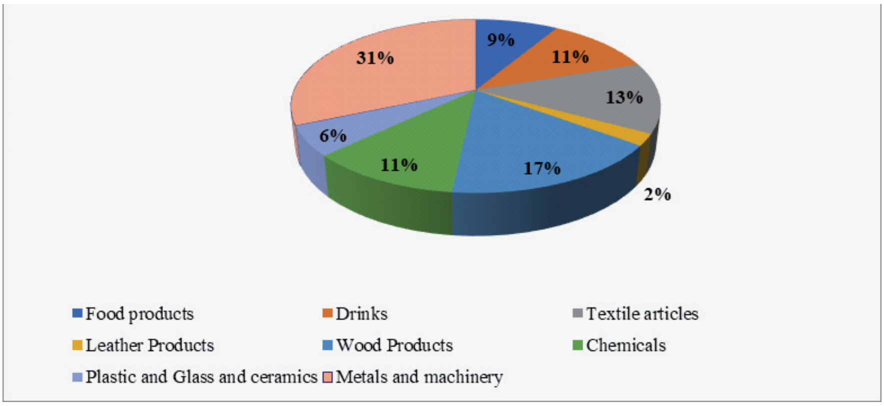
**Figure 13: Growth in employment in the manufacture, 2000-2015**




Manufacturing has a critical role to play in sustaining growth and generating employment as envisaged in the Kenya Vision 2030. The sector employs an average of 19 per cent of total employment, constituting an average of 14 per cent and 20.8 per cent of total formal and informal employment, respectively. While the average growth in employment in the period 2000-2016 was 6.2 per cent, growth in formal employment averaged 2.9 per cent while growth in the informal employment averaged 6.6 per cent as indicated in Figure 13. As a result, the proportion of formal employment in the manufacturing sector has continued to shrink over time as the informal sector took a dominating proportion, increasing to 89.6 per cent in 2016. Local employment by the Export Processing Zones have equally grown from slightly above 30,000 in 2010 to more than 52,000 in 2016. Going by the strategies in the Kenya Industrial Transformation Programme (KITP), more jobs are bound to be created if the proposed strategies are actualized.

The manufacturing sector in Kenya can broadly be classified into nine sub-sectors. The contribution is presented in the Figure 13. Metal and machinery, food products and the textiles sub-sector have the highest contribution to total labour in the manufacturing sector. The government in the “Big Four” agenda has targeted leather and textile and apparel. On the leather industry, the government endeavors to train and set up 5,000 cottage industries and complete the Machakos leather park. Upon completion, this is expected to create 5,000 new jobs. On textile and apparel, the government intends to put up 5 million feet of industrial shades as well as 200,000 hectares of BT cotton and further train 50,000 youth and women. The project is expected to create 10,000 apparel jobs and 50,000 cotton jobs.

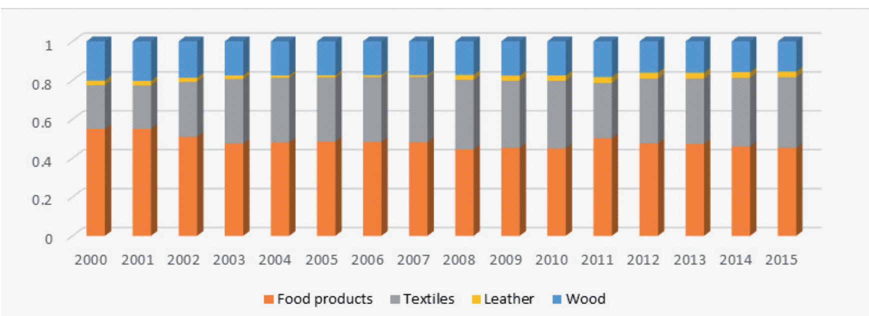
**Figure 14: Proportionate share of manufacturing sub-sector**




### 5.2 Agro-processing

Agro-processing contributes about 70 per cent of total employment in the formal manufacturing sector. The sub-sector is dominated by manufacture of food products that take about 48 per cent of the total labour stock followed by textile manufacturing which shares about a third. The shares of employment by the various industries in agro-processing are captured in Figure 14. In general, agro-processing saw an average growth in employment of 2.1 per cent in the period 2003-2016 mainly attributed to significant growth in employment in leather and textile industries which contribute about 34 per cent of the labour stock in agro-processing. In the period that the country experienced very severe drought in 2011, there was a significant drop in generation of new jobs across all industries. Similarly, growth in employment in the sector slowed between 2008 and 2010, a period after the post-election period and the global financial crisis.

**Figure 15: Proportionate employment shares across in agro-processing sector**



More importantly, growth in agro-processing employment mimicked trends in the textile industry. As such, efforts to grow agro-processing with enhanced textile industry would play a key role in determining the trends in the sub-sector.

## 5.3 Manufacture of textiles

Kenya's textile industry has a role to play in moving the economy to upper middle-income status and in creating meaningful job opportunities for the growing youthful population. The African Growth and Opportunity Act (AGOA) gives Sub-Saharan African countries duty and quota free access to the United States, thus offering a substantial competitive advantage over other textile-apparel exporting countries. The AGOA arrangement has seen Kenya's apparel export increase from US$ 8.5 million in 2002 to US$ 440 million in 2017. Over the same period, almost 50,000 workers were employed in the Export Processing Zones (EPZs). The government intends to take further advantage of AGOA and enhance the local growing and weaving of cotton. Besides revenue, the expansion of these industries will create more employment opportunities for the youth and women. The government as part of the "Big Four" agenda pledged to support farmers in growing cotton with a promise to buy it back. The government has equally succeeded in the revival of Rivatex and now intends to give incentives to investors to build more modern ginneries and textile manufacturing plants.

In the textile sector, 86 per cent of the labour stock is engaged in manufacturing. Of these, 37 per cent are in the manufacture of wearing apparel and 26 per cent in the made-up textile articles. Over time though, there have been shifts across the various activities with narrowing engagement in the preparation and spinning of textile fibres while the manufacture of wearing apparel and made-up textiles articles is taking a sizeable proportion of employment. This implies that as the country gears to expanding the textile industry, there is need to focus on the whole value chain in generating employment opportunities.

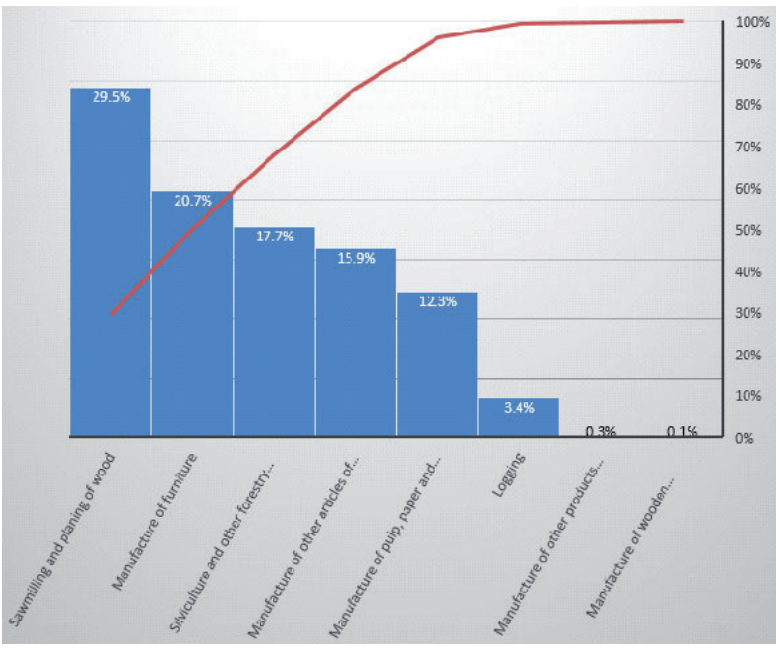
Labour demand in the textile industry has had mixed outcomes since 2002, registering a significant decline in total labour stock in the year 2011. This can be attributed to decline in textile production during the year, occasioned by decline in the production of towelling materials and gunny bags in 2011. However, more job opportunities were created from 2014, mainly due to the opening of new processing plants, diversification of products, increased capacity utilization and a construction boom leading to increased regional trade especially for firms exporting manufactured goods.

## 5.4 Leather industry

The main driver in the leather industry is manufacture of footwear which represents 61 per cent of the total labour demand in the industry. The other relatively labour intensive activity is tanning and dressing of leather and dressing and dyeing of fur. The industry has potentials in job creation, having recorded a growth of 5 per cent since the year 2001. Therefore, more focus on the leather value chain is likely to create more job opportunities.

Trends in aggregate job creation across the industry reveals a positive trend and outlook in the sector, having created an average of 150 jobs annually since the year 2001. The sector recorded the highest number of jobs in the year 2008 due to a modest growth of the leather and footwear industry by 1.8 per cent buoyed by growth in production of unfinished leather. This was, however, short lived as the industry has been struggling since the year 2009 in creating decent jobs for youth and women. In the "Big Four" agenda, the government intends to train and set up 5,000 cottage industries, complete the Machakos leather park and identify three other parks. This is expected to create 5,000 jobs by the end of the 2018/19 financial year and 50,000 jobs by the year 2022.

**Figure 16: Labour stock in wood and wood products by activity, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

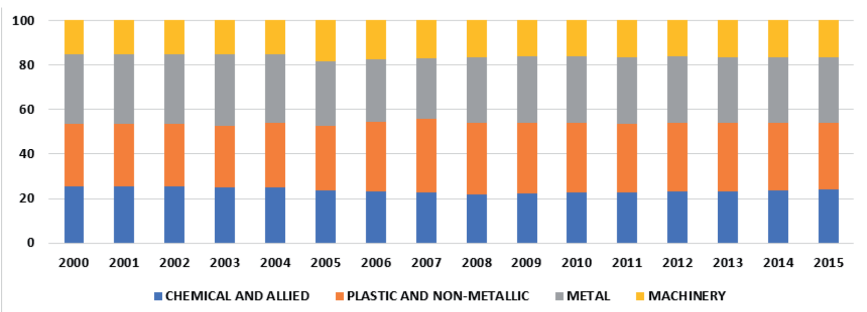
## 5.5 Wood products

In the wood and wood-related activities, the main activity is in saw milling and planning of wood  with a contribution of nearly 30 per cent in the total labour stock. The other labour-intensive activities in this sub-sector are the manufacture of furniture with a contribution of 21 per cent of total employment in the sub-sector. Others are silver culture and other forestry activities and manufacture of other articles of wood with a labour stock contribution of 18, 16 and 12 per cent, respectively. Some of the key developments in this sector that are likely to impact on the number of jobs in the sector include the reopening of the Webuye-based Rai Paper Mill, formerly Pan African Paper Mill, after it was bought for Ksh 900 million by Rai Group of Companies. The company is working to overcome the challenges in the revival process, with the first line expected to create close to 700 jobs and the second line 1,000 jobs. Upon completion, the company is expected to create close to 3,000 jobs. The sector is equally struggling with the government total ban on logging as it seeks to increase the country's forest cover.

## 5.6 Non-agro processing manufacture

In this category of manufacturing sector, the study looked at chemical and allied, plastics and non-metallics, metals and machinery industries. These industries together contributed on average 26 per cent of formal employment in manufacturing, with plastic and non-metal and the metal industries contributing about a third each of the employment. This structure of the industries has not changed significantly over time as indicated in Figure 17.

**Figure 17: Employment in non- agro processing industries, 2000-2015**

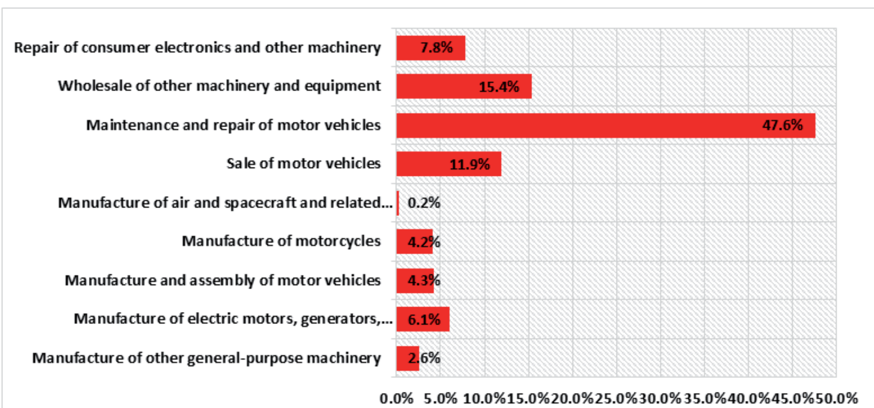


## 5.7 Machinery

In the machinery sub-sector, only about 20 per cent activity is undertaken in the manufacturing sector. While machinery industry contributed on average 16 per cent of the labour force in the manufacturing sector, the broader sub-sector contributes less than 3 per cent of the overall formal employment in the country. A significant proportion (47%) is in maintenance and repair of motor vehicles. This therefore requires enhancement of the skills of young people, especially for them to take up jobs in the assembly of motor vehicles. The other sub-sector that is labour intensive is the wholesale of machinery and equipment with a labour contribution of 15.4 per cent while sale of motor vehicles and repair of consumer electronics have labour stock contribution of 12 per cent and 8 per cent, respectively. As such, the recent efforts to grow the motor industry will make significant contribution to the sub-sector.

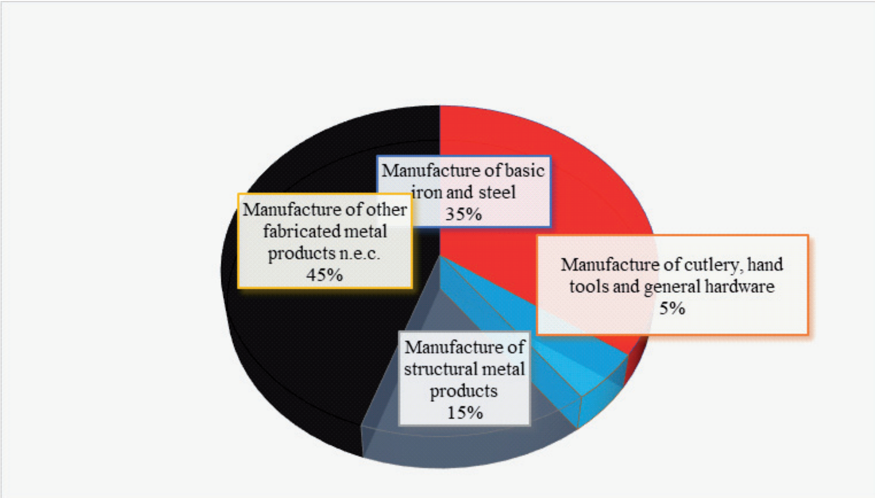
In the recent past, the Kenyan market has witnessed entry of new international car manufacturers and re-entry of companies that had exited the market and the expansion of those on the ground. Peugeot, a French car assembler that closed in 2002, commenced Peugeot brand vehicle assembly in June 2017. Volkswagen has equally started assembly of Volkswagen Vivo cars, which come with a three-year warranty, three year service plan and after-sale services. Toyota company has further opened up assembly plant in Mombasa while Tata motors from India was launched in 2009, setting a base for entry into the East African market. Volvo is planning to roll out an assembly line for lorries in 2018 in partnership with local

**Figure 18: Labour distribution in machinery by activity, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

**Figure 19: Metal and allied labour contribution by activity**



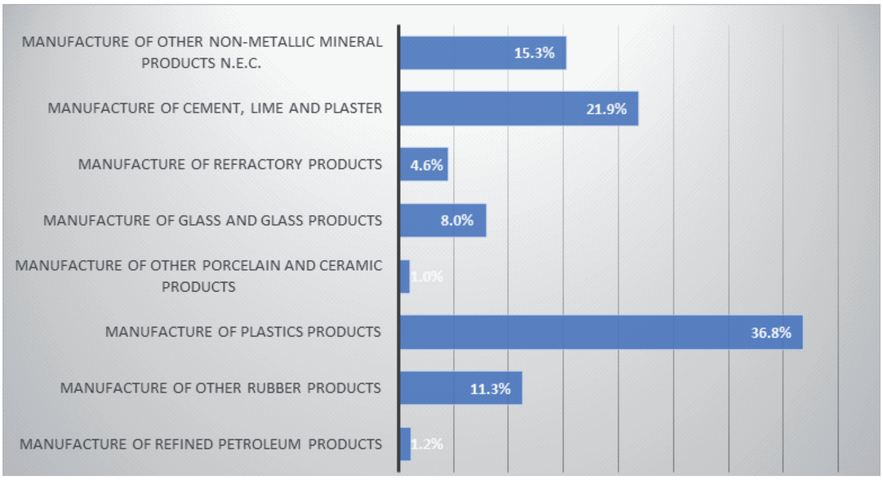

*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

firm NECST Motors. Honda also has plans to produce motor cycles using local materials.

Kenya is yet to make a breakthrough with locally manufactured vehicles. The first attempt for Kenya to have a car manufacturing plant was in 1986 when the former President Moi commissioned the University of Nairobi to develop a car affordable to Kenyans. His motivation was to have a car that was built in Kenya, by Kenyans unlike the foreign models that were being assembled across Africa. This saw the Nyayo Pioneer prototype launched in 1990 with the ability to run at 120 kilometers per hour. However, due to inadequate capacity in automobile engineering and funding, the Nyayo Motor Corporation established to do mass production did not pick up. Kenya thus lost an opportunity to build capabilities in the vehicle manufacturing industry.

The machinery sub-sector was able to create an average of 1,700 jobs annually since the year 2001. However, job opportunities declined in 2012 partly due to decline in import quantities of road motor vehicles by 14.1 per cent occasioned by the weakening Kenya Shilling and disruption of imports from Japan following the tsunami crisis. The decline in jobs for the year 2008 can also be attributed to the post-election violence and the global financial crisis. In the last five years, the sector has created 14,000 jobs, demonstrating the huge potential of the sector to create decent jobs for Kenyan youths if appropriate policies are in place to support the sector.

**Figure 20: Plastic Glass and Non-Metallic goods, Labour Contribution by Activity, 2000-2016**



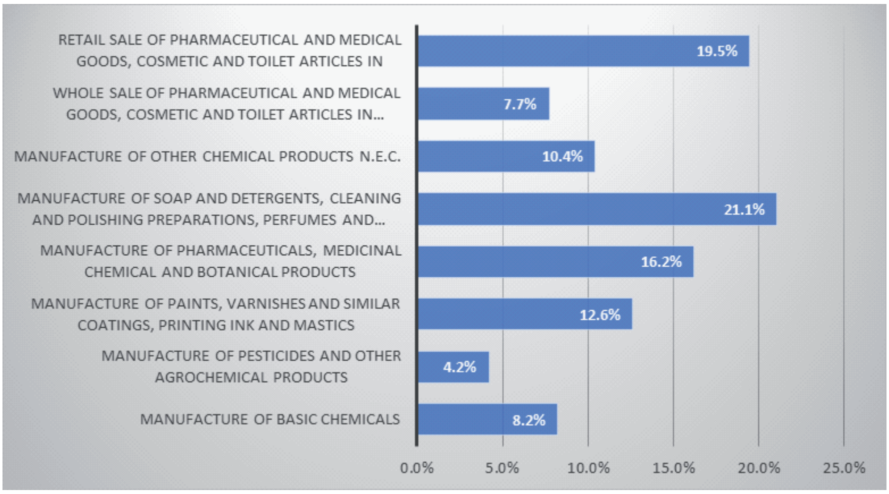

*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

## 5.8 Metal and Allied industry

The metal and allied industry contributed on average 29.8 per cent of total labour stock in the manufacturing sector, with the manufacture of other fabricated metal products contributing close to 45 per cent of the total labour in the industry. Other labour intensive activities in the industry are the manufacture of basic iron and steel with a contribution of approximately 35 per cent of the total labour stock (Figure 19). It is expected that with the anticipated development of affordable housing, the iron and steel industry will grow.

The consumption of steel in Kenya in 2008 stood at 0.9 million metric tons. It is projected that in 2030 the consumption will be 2.9 million metric tons. The Kenyan steel industry lags behind the global practice in terms of capacity utilization and efficiency. Global average capacity utilization rate was 72 per cent while in Kenya it was only 46 per cent on average. Nevertheless, steel consumption has been increasing steadily in the country. The demand had been satisfied mainly through imports. The balance of trade in the country has been worsened since most of the steel scrap is being exported and semi-processed steel imported.

**Figure 21: Labour stock distribution in the chemicals and allied by activity, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

### 5.9 Plastic, Glass and other non-metallic products

This industry contributes on average 30 per cent to total manufacturing formal employment with the manufacture of plastic products constituting about 38.2 per cent of employment in this category of the manufacturing sector. The category has seen a significant drop in growth rate from 6.75 per cent in the period 2003-2007, to 0.25 per cent in the period after. For manufacture of plastics, which is the key driver, growth in employment dropped from 7.7 per cent to -0.3 per cent in the same periods. Growth in employment in manufacture of cement tripled, on average, during the period.

The total ban on plastic bags in Kenya that took effect on 28th August 2017 has had a negative impact on the level of jobs created in this sector. The Kenya Association of Manufacturers estimate that close to 60,000 jobs were lost through the ban. Already, several companies have closed business in Kenya, for example Kensalt, Silpack industries, King plastics, General plastics, Polythene Industries and Poliflex Industries following the ban.

### 5.10 Chemical and Allied

Chemicals and allied industry contribute on average 23.8 per cent of the labour force in the manufacturing sector, with manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toiletries preparation sharing 21 per cent and manufacture of pharmaceuticals, medicinal chemical and botanical products 16 per cent (Figure 21). The sector saw a significant decline in 2008 due to decline in import volumes for raw materials used in the manufacturing of these products following the post-election violence while the 30 per cent decline recorded in export quantum indices for chemicals for the year 2011 could have also led to decline in job opportunities during the time period. Nevertheless, the sector has a growth potential having created an average of 1,200 jobs annually since the year 2001. For the manufacture of pharmaceuticals, employment growth increased from 2.1 per cent in 2003-2007 to 3.1 per cent in the period after. There is evidence that by shifting to more complex products in the pharmaceuticals, the industry would accelerate its growth.

The pharmaceutical industry consists of three segments, namely the manufacturers, distributors and retailers. All these play a major role in supporting the country's health sector which is estimated to have about 4,557 health facilities countrywide. Kenya is currently the largest producer of pharmaceutical products in the Common Market for Eastern and Southern Africa (COMESA) region, supplying about 50 per cent of the regions' market. Out of the region's estimate of 50 recognized pharmaceutical manufacturers, approximately 30 are based in Kenya. It is approximated that about 9,000 pharmaceutical products have been registered for sale in Kenya. These are categorized according to particular levels of outlet as freesales/OTC (Over The Counter), pharmacy technologist dispensable, or pharmacist dispensable/prescription only.

The market for pharmaceutical products in Kenya is estimated at Ksh 16 billion per annum . The government, through Kenya Medical Supplies Agency (KEMSA) is the largest purchaser of drugs manufactured both locally and imported in the country. It buys about 30 per cent of the drugs in the Kenyan market through an open-tender system and distributes them to government medical institutions. The value of Kenyan medicinal and pharmaceutical products exported increased from Ksh 1.6 billion in 1999 to 6.1 billion in 2015 (Kenya Pharmeutical Industry Report, 2016),

# 6. Employment in the Construction Industry

The construction industry is a growing sector considering the mega infrastructure projects the government is implementing. With the target to implement affordable housing project under the "Big Four" agenda, the sector is expected to continue offering job opportunities. The sector is dominated by informal unemployment, and majority of the employed are unskilled labour. Providing an environment that assures the investors of their returns in their investments, and ensuring the government implements projects with high labour absorption levels especially with high local content and the enhanced training of skills required in the sector with the growing TVETs will support the sector in securing jobs for the youth. In addition, there is need to address technology gaps, ensure access to finance to sustain the demand for labour, and promote maintenance to address the seasonality of employment engagement in the sector.

Construction has been a fast-growing sector in Kenya, fuelled by mega infrastructure projects, and is expected to sustain its growth momentum. In 2003-2016, the construction sector growth averaged 8 per cent while its contribution to GDP averaged 6 per cent, with a peak of 13.1 per cent growth rate in 2014 against a GDP growth rate of 4.6 per cent (Table 3). While the sector has contributed on average 6 per cent growth to the GDP, it has contributed on average 3.6 per cent and 2.7 per cent of the formal and informal employment, respectively. In the "Big Four" agenda, the government targets to construct an estimated 500,000 units in the next five years as it seeks to provide affordable housing to the growing Kenyan population. The government under the Tax Amendment Bill of 2018 has given various incentives that are likely to impact positively in the sector. They include exemption of stamp duty for the purchase of first-time home owners under the affordable housing scheme. This is likely to increase the uptake of houses and impact positively on the sector. The bill has equally introduced a housing relief for persons eligible to apply under affordable housing scheme and saving for the purchase of a house.

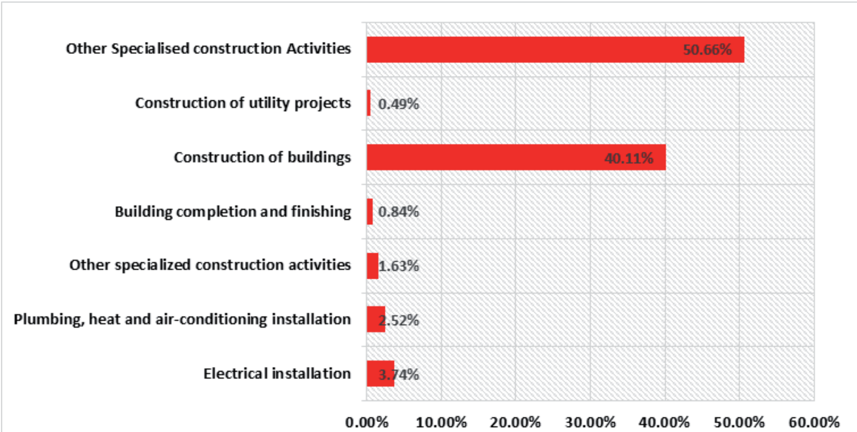
**Table 3: Construction sector's contribution to GDP, and jobs growth rate**

| Year | Contribution to GDP (%) | Construction growth (%) | Growth rate of jobs (%) |
|---|---|---|---|
| 2003 | 3 | 1 | -2.2 |
| 2004 | 4 | 4 | 72.7 |
| 2005 | 4 | 8 | 13.8 |
| 2006 | 4 | 6 | -64.5 |
| 2007 | 3 | 7 | 53.3 |
| 2008 | 16 | 8 | 19.9 |
| 2009 | 15 | 13 | 94.3 |
| 2010 | 3 | 5 | -28.6 |
| 2011 | 4 | 4 | 55.0 |
| 2012 | 5 | 11 | 64.0 |
| 2013 | 5 | 6 | -40.6 |
| 2014 | 5 | 13 | 21.5 |
| 2015 | 5 | 14 | -39.2 |
| 2016 | 5 | 9 | 78.4 |
| Average | 6 | 8 | 21.3 |

*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

The construction industry has a labour stock of close to half a million people being dominated by the informal sector. A survey conducted by the National Construction Authority in 2014 indicates that the construction sector in Kenya depended mainly on unskilled labourers who account for 42 per cent of the employed labour force within the sector. Skilled workers account for 25 per cent while semi-skilled workers are 33 per cent. Similarly, the sector has over time seen an increase in the proportion of informal employment to over 78 per cent in 2016 with an average growth rate of 7.7 per cent compared to formal employment at 2.6 per cent. This notwithstanding, the informal employment growth rate has slowed over time from double digits in early 2000s to about 6 per cent in 2016. About 51 per cent of the employees in this sector are in other specialized construction activities, which explains the high proportion of semi-skilled and unskilled workers working in a construction trade or craft. There are very few engaged in areas that require highly skilled workers such as the electrical, plumbing, heat, and air-conditioning installation which involves building service engineers. These

**Figure 22: Formal construction labour contributions by activity, 2000-2016**



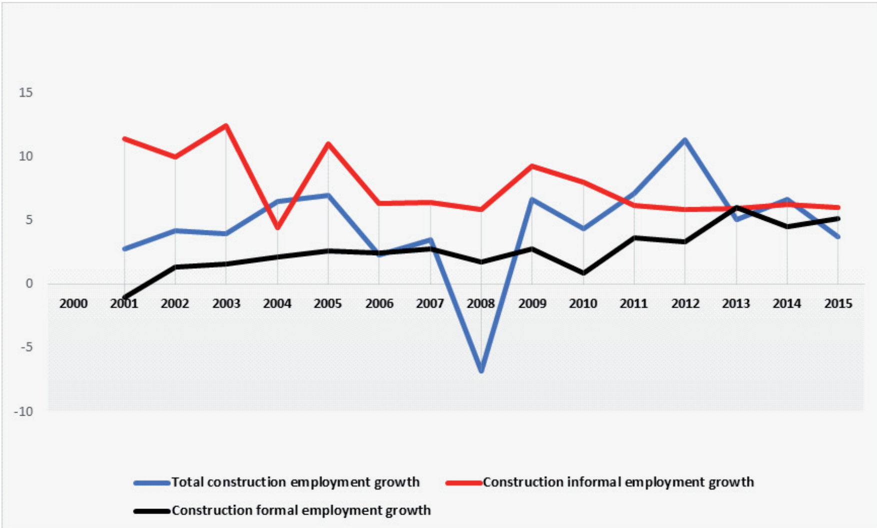

*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

are areas that tertiary institutions, including technical and vocational training institutions, have potential in making significant contribution in building the necessary skills.

The construction sector reveals swings in growth rate in the number of jobs created over time, which is generally not uncommon especially reflecting instability in the sector. Figure 22 reflects the trends without capturing the period of constructing the first phase of the Standard Gauge Railway (SGR). A significant dip is visible in the period following the 2005 referendum, post-election crisis and financial crisis. However, a significant recovery is observed as the government started implementing the Kenya Vision 2030 with the first Medium Term Plan.

A sustained growth of the sector is critical in securing and creating new jobs. Therefore, implementation of the affordable housing project in the "Big Four" agenda which is highly labour intensive is expected to create more job opportunities for the youth. Further, ensuring enhanced local content in other mega projects such as the second Phase of SGR is an opportunity to generate jobs. In addition, enhancing maintenance of the infrastructure project will be critical in reducing the seasonality nature of jobs in the sector.

**Figure 23: Trends in jobs created in construction sector over the election cycles, 2000-2016**




*Source: Authors' compilation using data from Kenya National Bureau of Statistics (Various), Economic Survey*

# 7. Conclusion and Policy Recommendations

## 7.1 Conclusion

The second MTP projected 5 million jobs at an average of 1 million jobs annually. Over the same period, 1.5 million jobs were to be created in the formal sector while 3.7 million were to be created in the informal sector. However, over the period to 2016, a total of 3.2 million jobs were created in both the formal and informal sector with the formal sector creating only 113,000 jobs representing 7 per cent of the projection. The informal sector created 2.7 million jobs, representing 73 per cent of the projection. This points to an acute shortfall in the creation of decent formal jobs for the Kenyan youths seeking employment opportunities.

The manufacturing sector, one of the key sectors in job creation, shows a short fall as projected in the second MTP. A total of 1.1 million jobs were to be created by the sector but only 700,000 jobs were created, with most of them being informal. Projections for formal manufacturing were 338,000 but only 30,000 jobs were created. Informal manufacturing was projected to create 770,000 jobs of which 670,000 were created. This represents job creation of 8 and 87 per cent, respectively, for formal and informal manufacturing.

The manufacturing sector is key in the creation of job opportunities. The sector is, however, plagued by growing informality that contributes close to 90 per cent of all the jobs. The informal sector is characterized by low productivity in terms of low earnings, and stunted growth potential.

More attention should also be given to agro-processing which contributes close to 68 per cent of the labour demand in manufacturing. The textile industry being the key driver of agro-processing requires local capacity to create value addition along the production chain for more job opportunities for the unemployed youths. The textile industry has been able to create an average of 3,000 formal jobs annually and un-estimated informal jobs. For the year 2015, the sector created 5,000 jobs of the 6,700 jobs created in agro-processing. In the last five years, the sector has created close to 30,000 jobs. The manufacture of wearing apparel is the main driver of the textile industry in terms of job creation.

The other sectors that have positive potential for growth include the machinery industry that has registered consistent growth in the level of jobs created. The main driver in this industry is the maintenance and repair of motor vehicles, highlighting continued importation of second-hand vehicles. The opening of various assembly lines in the country seems to contribute less to total labour demand in the sector.

Formal and informal construction creates an average of 5,000 and 13,000 jobs annually, respectively. The formal construction is driven by other specialized construction activities that include construction of foundations, steel bending, bricklaying and stone setting, roof covering for residential buildings, erection of chimneys and industrial ovens construction of outdoor swimming pools. Most of these activities are invariably being undertaken with minimum skills and therefore the need to enhance the skills required more so in the construction of buildings.

## 7.2 Policy Recommendations

### 7.2.1 Manufacturing and the informal sector

Access to credit needs to be increased to enable youths with good entrepreneurial ideas get funding for startups. This will ensure youthful labour force engage in productive employments. The NSSF and NHIF Acts could be reviewed to allow them invest in the informal sector to make the sector more productive and sustainable for the many youths already engaged in the sector and those yet to join.

Policy instruments towards reduction of the cost of production, such as removal of import declaration fee and railway development levy on industrial inputs, and prompt clearance of VAT refunds are key in growing the manufacturing sector. This will ensure increased profitability to be reinvested, and more employment opportunities.

Access to dependable and affordable utilities (electricity and water) can reduce the cost of production in the industries. Connecting Kenya's industries to cheap power sources such as renewable energy as opposed to thermal power will guarantee that manufacturers face a favourable tariff for cheaper production. Reduced cost of production can impact positively on investments.

The retail sector remains quite labour intensive. However, going by the recent massive layoffs, closure and mergers of large retail chains, there is need for the establishment of regulatory authority for the sector. This will go a long way in stabilizing this industry and make jobs created in this sector more secure.

Government programmes aimed at enhancing job creation in the blue economy should focus on the following issues. Plans for fast-tracking the revival of the Kenya National Shipping Line and developing the maritime transport sector, including shipping, shipbuilding and repair, marine engineering, and marine insurance need to be fast-tracked. There is also need to develop the skills needed to grow the blue economy by training specifically processing and preserving of fish and maritime transport in the area of construction of ships and floating structures.

### 7.2.2 Construction

Construction remains the key employer of many Kenyan youthful population even though the labour intensive activity is non-specialized construction activities; that is construction of foundations, steel bending, bricklaying and stone setting and roof covering for residential buildings. Therefore, there is need to scale up skills in the building and construction sector through targeted training of the young labour force to be productively engaged in this sector.

### 7.2.3 Machinery

Currently, the motor vehicle assembly point in Kenya seems to offer very minimal job opportunities. To create decent jobs for the Kenyan population, there is need to create an enabling environment for the companies through favourable taxation regimes such as special VAT charge of 10 per cent instead of 16 per cent on imported raw materials. Increased assembly of vehicles locally will open up many job opportunities for the youths within the assembly points and also in other connected service areas.

### 7.2.4 Agro-processing

The Kenya sugar industry has been struggling in the recent past due to various challenges such as production inefficiencies, influx of imported cheap sugar into the country and the illicit cross border cheap sugar that finally floods the Kenyan market. This has either left many sugar industries struggling financially or closed as scores are left jobless. There is therefore need to stabilize the sugar industry through protectionist policies, stringent legal framework to curb influx of illicit cheap sugar and possible privatization of struggling government-owned companies.

The textile industry is a key employer to many Kenyans. The move by the government to encourage the growing of cotton and the promise of future buyout of the harvest is positive. The further opening of the textile industries such as Rivatex is equally a step in the right direction. There is therefore need to incentivize local 'chamaas' and SACCOs to consider investing in the textile industries, especially in the manufacture of wearing apparel and made up textile articles. This will lead to opening of more textile industries in the country to create employment opportunities.

## References

Government of Kenya (2008). First Medium-Term plan, 2008 – 2012: A Globally Competitive and Prosperous Kenya. Nairobi: Government Printer.

Government of Kenya (2013). Second Medium-Term Plan 2013-2017 Transforming Kenya: Pathway to Devolution, Socio-economic Development, Equity and National Unity. Nairobi: Government Printer.

Government of Kenya (2013), *Employment Policy and Strategy for Kenya*. Nairobi: Government Printer.

Government of Kenya (2016), Kenya's Industrial Transformation Programme, available at http://www.industrialization.go.ke/index.php/downloads/282-kenya-s-industrial-transformation-programme. Retrieved 14 March, 2018 at 10:04 AM.

ILO (2017), Global Employment Trends for Youth 2017: Paths to a better working future.

Kenya National Bureau of Statistics (Various). *Economic Survey*. Nairobi: Government Printer.

KIPPRA (2015), *Kenya Economic Report 2015: Empowering Youth through Decent and Productive Employment*. Nairobi: Kenya Institute for Public Policy Research and Analysis.

KIPPRA (2017). Kenya Economic Report 2017: Sustaining Kenya's Economic Development by Deepening and Expanding Economic Integration in the Region. Nairobi: Kenya Institute for Public Policy Research and Analysis.

UNDP (2017), Human Development for Everyone: Human Development Report 2016.

World Bank (2017), Unemployment, Total (% of total labor force) (modeled ILO estimate).

World Bank (2008), The Growth Report: Strategies for Sustained Growth and Inclusive Development. Commission on Growth and Development, Washington DC: World Bank.

# Annex

## Table A1: Main activities in agro-processing

| Year | Processing and preserving of fruit and vegetables | Manufacture of vegetable and animal oils and fats | Manufacture of sugar | Manufacture of other food products n.e.c. | Manufacture of furniture | Manufacture of dairy products | Manufacture of other articles of paper and paperboard | Total Agro-processing |
|---|---|---|---|---|---|---|---|---|
| 2000 | 5,150 | 2,107 | 16,569 | 29,766 | 4,360 | 4,437 | 4,206 | 141,855 |
| 2001 | 5,442 | 2,123 | 15,899 | 29,839 | 4,380 | 4,458 | 4,216 | 140,662 |
| 2002 | 5,817 | 2,143 | 16,141 | 30,337 | 4,338 | 4,482 | 4,230 | 153,933 |
| 2003 | 5,539 | 2,160 | 16,311 | 30,769 | 4,325 | 4,505 | 4,238 | 165,689 |
| 2004 | 5,977 | 2,192 | 16,524 | 31,360 | 4,339 | 4,551 | 4,274 | 165,924 |
| 2005 | 6,551 | 2,250 | 16,504 | 32,101 | 4,396 | 4,653 | 4,354 | 169,375 |
| 2006 | 7,155 | 2,300 | 16,326 | 32,698 | 4,437 | 4,740 | 4,419 | 172,167 |
| 2007 | 7,816 | 2,353 | 15,537 | 32,698 | 4,481 | 4,820 | 4,486 | 173,975 |
| 2008 | 7,276 | 2,394 | 16,523 | 32,740 | 6,143 | 5,403 | 5,973 | 191,499 |
| 2009 | 6,943 | 2,510 | 16,515 | 32,843 | 6,289 | 5,742 | 6,077 | 190,409 |
| 2010 | 6,886 | 2,561 | 16,655 | 32,528 | 6,399 | 5,798 | 6,109 | 191,552 |
| 2011 | 7,800 | 14,182 | 17,176 | 21,127 | 6,646 | 6,700 | 5,017 | 176,532 |
| 2012 | 6,748 | 14,673 | 17,539 | 20,602 | 6,651 | 6,262 | 5,062 | 186,095 |
| 2013 | 6,925 | 15,494 | 17,983 | 20,535 | 6,910 | 6,620 | 5,288 | 192,064 |
| 2014 | 7,147 | 16,029 | 17,971 | 19,670 | 7,050 | 6,923 | 5,353 | 198,548 |
| 2015 | 7,237 | 16,209 | 18,137 | 19,892 | 7,248 | 7,302 | 5,524 | 205,305 |
| 2016 | 7,221 | 17,336 | 18,106 | 18,882 | 7,281 | 7,516 | 5,579 | 209,440 |

## Table A2: Activities in the textile industry

| Year | Manufacture of wearing apparel, except fur apparel | Preparation and spinning of textile fibres | Manufacture of knitted and crocheted fabrics | Manufacture of cordage, rope, twine and netting | Manufacture of other textiles n.e.c | Manufacture of made-up textile articles, except apparel | Wholesale of textiles, clothing and footwear | Retail sale of clothing, footwear and leather articles in specialized stores | Washing and (dry-) cleaning of textile and fur products | Total Textile |
|---|---|---|---|---|---|---|---|---|---|---|
| 2000 | 7,284 | 13,356 | 7,671 | 2,176 | 382 | 2,628 | 889 | 4467 | 3,131 | 41,984 |
| 2001 | 7,194 | 13,285 | 7,494 | 2,131 | 382 | 2,606 | 892 | 4,422 | 3,221 | 41,627 |
| 2002 | 11,518 | 20,123 | 7,282 | 2,077 | 616 | 4,183 | 901 | 4,342 | 3,265 | 54,307 |
| 2003 | 15,578 | 26,404 | 7,096 | 2,030 | 833 | 5,658 | 929 | 4,395 | 3,288 | 66,211 |
| 2004 | 15,634 | 26,518 | 7,167 | 2,048 | 848 | 5,707 | 949 | 4,398 | 3,395 | 66,664 |
| 2005 | 15,858 | 26,825 | 7,319 | 2,089 | 873 | 5,823 | 983 | 4,447 | 3,553 | 67,770 |
| 2006 | 15,894 | 27,922 | 7,528 | 2,143 | 844 | 5,950 | 1027 | 4,539 | 3,759 | 69,606 |
| 2007 | 16,026 | 28,466 | 7,704 | 2,189 | 859 | 6,067 | 1,066 | 4,604 | 3,848 | 70,829 |
| 2008 | 16,720 | 26,902 | 8,075 | 2,232 | 838 | 16,720 | 1,087 | 4,579 | 3,994 | 81,147 |
| 2009 | 15,895 | 25,659 | 8,087 | 2,334 | 881 | 15,895 | 1,143 | 4,642 | 4,262 | 78,798 |
| 2010 | 15,864 | 26,672 | 8,212 | 2,282 | 933 | 15,864 | 1,098 | 4,684 | 4,452 | 80,061 |
| 2011 | 16,586 | 6,668 | 8,497 | 2,415 | 1,027 | 17,237 | 1,040 | 4,700 | 4,614 | 62,784 |
| 2012 | 27,377 | 6,741 | 8,422 | 2,418 | 1,072 | 17,844 | 1,031 | 4,757 | 4,857 | 74,519 |
| 2013 | 28,731 | 7,034 | 8,634 | 2,514 | 1,161 | 18,265 | 1,036 | 4,890 | 5,162 | 77,427 |
| 2014 | 31,231 | 7,329 | 8,782 | 2,428 | 1,248 | 20,864 | 1,051 | 5,097 | 5,462 | 83,492 |
| 2015 | 33,334 | 7,648 | 8,960 | 2,475 | 1,347 | 22,811 | 1,094 | 5,223 | 5,767 | 88,659 |
| 2016 | 34,642 | 7,721 | 8,879 | 2,489 | 1,411 | 24,835 | 1,116 | 5,388 | 6,115 | 92,596 |

## Table A3: Total labour stock of the machinery sub-sector

| Year | Maintenance and repair of motor vehicles | Manufacture of other fabricated metal products n.e.c. | Sale of motor vehicles | Manufacture of basic iron and steel | Total Machinery |
|---|---|---|---|---|---|
| 2000 | 20,216 | 8,577 | 5,740 | 5,729 | 64,992 |
| 2001 | 20,703 | 8,558 | 5,733 | 5,621 | 64,739 |
| 2002 | 20,986 | 8,536 | 5,769 | 5,489 | 64,650 |
| 2003 | 21,242 | 8,510 | 5,921 | 5,374 | 64,664 |
| 2004 | 21,932 | 8,539 | 6,019 | 5,293 | 65,868 |
| 2005 | 22,823 | 8,652 | 6,195 | 5,261 | 70,067 |
| 2006 | 23,943 | 8,733 | 6,422 | 5,212 | 72,035 |
| 2007 | 24,603 | 8,820 | 6,623 | 5,469 | 73,959 |
| 2008 | 25,081 | 8,776 | 6,774 | 7,046 | 71,624 |
| 2009 | 25,405 | 9,010 | 7,091 | 7,111 | 73,033 |
| 2010 | 25,916 | 9,224 | 7,080 | 7,180 | 75,077 |
| 2011 | 26,204 | 9,640 | 7,137 | 7,473 | 82,747 |
| 2012 | 27,659 | 9,698 | 7,288 | 7,427 | 84,004 |
| 2013 | 29,467 | 9,698 | 7,560 | 7,658 | 87,841 |
| 2014 | 31,213 | 10,136 | 7,942 | 7,831 | 91,985 |
| 2015 | 32,947 | 10,163 | 8,200 | 7,860 | 95,252 |
| 2016 | 33,957 | 10,257 | 8,528 | 7,985 | 98,375 |

# Table A4: Metal and allied

| Year | Manufacture of basic iron and steel | Manufacture of cutlery, hand tools and general hardware | Manufacture of structural metal products | Manufacture of other fabricated metal products n.e.c. | Total Metals |
|---|---|---|---|---|---|
| 2000 | 5,729 | 1,088 | 3,395 | 8,577 | 18,789 |
| 2001 | 5,621 | 1,081 | 3,346 | 8,558 | 18,606 |
| 2002 | 5,489 | 1,073 | 3,302 | 8,536 | 18,400 |
| 2003 | 5,374 | 1,055 | 3,260 | 8,510 | 18,199 |
| 2004 | 5,293 | 1,065 | 3,236 | 8,539 | 18,133 |
| 2005 | 5,261 | 1,087 | 3,238 | 8,652 | 18,238 |
| 2006 | 5,212 | 1,110 | 3,228 | 8,733 | 18,283 |
| 2007 | 5,469 | 1,132 | 3,344 | 8,820 | 18,765 |
| 2008 | 7,046 | 1,151 | 3,219 | 8,776 | 20,192 |
| 2009 | 7,111 | 1,201 | 3,323 | 9,010 | 20,645 |
| 2010 | 7,180 | 1,124 | 3,275 | 9,224 | 20,803 |
| 2011 | 7,473 | 1,160 | 3,326 | 9,640 | 21,599 |
| 2012 | 7,427 | 1,135 | 3,278 | 9,698 | 21,538 |
| 2013 | 7,658 | 1,153 | 3,370 | 9,698 | 21,879 |
| 2014 | 7,831 | 1,156 | 3,436 | 10,136 | 22,559 |
| 2015 | 7,860 | 1,168 | 3,489 | 10,163 | 22,680 |
| 2016 | 7,985 | 1,148 | 3,567 | 10,257 | 22,957 |

## Table A5. Plastic, glass and other non-metallic products

| Year | Manufacture of refined petroleum products | Manufacture of other rubber products | Manufacture of plastics products | Manufacture of other porcelain and ceramic products | Manufacture of glass and glass products | Manufacture of refractory products | Manufacture of cement, lime and plaster | Manufacture of other non-metallic mineral products n.e.c. | Total PG and non-Metallic |
|---|---|---|---|---|---|---|---|---|---|
| 2000 | 274 | 2,446 | 5,562 | 242 | 1,597 | 966 | 4,345 | 1,185 | 16,617 |
| 2001 | 259 | 2,372 | 5,816 | 232 | 1,563 | 962 | 4,119 | 1,144 | 16,467 |
| 2002 | 258 | 2,286 | 6,132 | 233 | 1,523 | 956 | 4,072 | 1,095 | 16,555 |
| 2003 | 256 | 2,211 | 6,425 | 233 | 1,488 | 951 | 3,179 | 1,053 | 15,796 |
| 2004 | 253 | 2,552 | 6,883 | 231 | 1,461 | 952 | 3,302 | 1,319 | 16,953 |
| 2005 | 245 | 3,006 | 7,488 | 231 | 1,447 | 963 | 3,447 | 1,696 | 18,523 |
| 2006 | 235 | 3,226 | 8,159 | 228 | 1,727 | 971 | 3,761 | 2,346 | 20,653 |
| 2007 | 216 | 3,728 | 8,869 | 227 | 1,709 | 980 | 3,936 | 3,109 | 22,774 |
| 2008 | 241 | 2,709 | 8,608 | 224 | 1,708 | 983 | 4,291 | 3,123 | 21,887 |
| 2009 | 260 | 2,640 | 8,606 | 230 | 1,723 | 1,016 | 4,450 | 3,196 | 22,121 |
| 2010 | 277 | 2,567 | 8,626 | 229 | 1,707 | 1,022 | 4,564 | 3,147 | 22,139 |
| 2011 | 292 | 2,695 | 8,642 | 232 | 1,767 | 1,032 | 4,556 | 3,315 | 22,531 |
| 2012 | 300 | 2,626 | 8,432 | 229 | 1,743 | 1,023 | 4,673 | 3,295 | 22,321 |
| 2013 | 299 | 2,656 | 8,580 | 235 | 1,784 | 1,053 | 4,896 | 3,402 | 22,905 |
| 2014 | 286 | 2,657 | 8,614 | 234 | 1,796 | 1,061 | 4,847 | 3,399 | 22,894 |
| 2015 | 282 | 2,689 | 8,639 | 236 | 1,826 | 1,074 | 4,978 | 3,477 | 23,201 |
| 2016 | 274 | 2,631 | 8,603 | 233 | 1,866 | 1,068 | 5,111 | 3,568 | 23,354 |

## Table A6: Wood and wood products labour stock

| Year | Sawmilling and planning of wood | Manufacture of wooden containers | Manufacture of other products of wood; manufacture of articles of cork, straw and | Manufacture of furniture | Manufacture of pulp, paper and paperboard | Manufacture of other articles of paper and paperboard | Silviculture and other forestry activities | Logging | Total wood Industry |
|---|---|---|---|---|---|---|---|---|---|
| 2000 | 9,626 | 28 | 121 | 4,360 | 4,154 | 4,206 | 17,484 | 723 | 40,702 |
| 2001 | 9,614 | 29 | 119 | 4,380 | 4,114 | 4,216 | 16,836 | 750 | 40,058 |
| 2002 | 9,607 | 30 | 117 | 4,338 | 4,062 | 4,230 | 16,728 | 773 | 39,885 |
| 2003 | 9,595 | 31 | 115 | 4,325 | 4,015 | 4,238 | 16,771 | 802 | 39,892 |
| 2004 | 9,545 | 32 | 113 | 4,339 | 3,993 | 4,274 | 16,759 | 835 | 39,890 |
| 2005 | 9,589 | 33 | 112 | 4,396 | 4,013 | 4,354 | 16,399 | 882 | 39,778 |
| 2006 | 9,566 | 34 | 110 | 4,437 | 4,021 | 4,419 | 15,961 | 939 | 39,487 |
| 2007 | 9,560 | 35 | 108 | 4,481 | 4,032 | 4,486 | 14,807 | 994 | 38,503 |
| 2008 | 9,510 | 36 | 106 | 6,143 | 4,021 | 5,973 | 14,560 | 992 | 41,341 |
| 2009 | 9,758 | 38 | 106 | 6,289 | 4,010 | 6,077 | 14,179 | 1,010 | 41,467 |
| 2010 | 9,746 | 39 | 104 | 6,399 | 3,973 | 6,109 | 14,311 | 1,037 | 41,718 |
| 2011 | 9,927 | 42 | 108 | 6,646 | 3,960 | 5,017 | 6,490 | 1,059 | 33,249 |
| 2012 | 9,856 | 42 | 106 | 6,651 | 3,840 | 5,062 | 6,548 | 1,086 | 33,191 |
| 2013 | 10,159 | 45 | 107 | 6,910 | 3,939 | 5,288 | 6,529 | 1,132 | 34,109 |
| 2014 | 10,356 | 46 | 104 | 7,050 | 4,167 | 5,353 | 6,454 | 1,137 | 34,667 |
| 2015 | 10,379 | 48 | 104 | 7,248 | 4,232 | 5,524 | 6,409 | 1,137 | 35,081 |
| 2016 | 10,346 | 50 | 101 | 7,281 | 4,329 | 5,579 | 6,226 | 1,183 | 35,095 |

## Table A7: Leather industry

| Year | Repair of footwear and leather goods | Tanning and dressing of leather; dressing and dyeing of fur | Manufacture of luggage, handbags and the like, saddlery and harness | Manufacture of footwear | Total Leather |
|---|---|---|---|---|---|
| 2000 | 49 | 1,297 | . | 2,324 | 3,670 |
| 2001 | 50 | 1,265 | . | 2,231 | 3,546 |
| 2002 | 50 | 1,226 | . | 2,123 | 3,399 |
| 2003 | 49 | 1,193 | . | 2,032 | 3,274 |
| 2004 | 49 | . | . | 1,955 | 2,004 |
| 2005 | 49 | . | . | 1,894 | 1,943 |
| 2006 | 49 | . | . | 1,830 | 1,879 |
| 2007 | 49 | . | . | 1,740 | 1,789 |
| 2008 | 49 | 995 | 866 | 3,279 | 5,189 |
| 2009 | 50 | 998 | 909 | 3,392 | 5,349 |
| 2010 | 50 | 1,005 | 987 | 3,401 | 5,443 |
| 2011 | 50 | 1,064 | 1,007 | 3,598 | 5,719 |
| 2012 | 49 | 1,047 | 1,032 | 3,600 | 5,728 |
| 2013 | 50 | 1,076 | 1,072 | 3,726 | 5,924 |
| 2014 | 52 | 1,131 | 1,091 | 3,640 | 5,914 |
| 2015 | 53 | 1,139 | 1,122 | 3,715 | 6,029 |
| 2016 | 54 | 1,159 | 1,128 | 3,717 | 6,058 |

## Table 1.8: Chemical and allied

| Year | Manufacture of pharmaceuticals, medicinal chemical and botanical products | Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparation | Manufacture of other chemical products n.e.c. | Whole sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores | Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in | Total Chemicals |
|---|---|---|---|---|---|---|
| 2000 | 2,913 | 4,853 | 2,232 | 2,596 | 1,753 | 19,697 |
| 2001 | 2,897 | 4,850 | 2,225 | 2,619 | 1,829 | 19,657 |
| 2002 | 2,881 | 4,842 | 2,215 | 2,650 | 1,875 | 19,668 |
| 2003 | 2,866 | 4,834 | 2,206 | 2,742 | 1,993 | 19,147 |
| 2004 | 2,958 | 4,856 | 2,212 | 2,809 | 2,094 | 19,529 |
| 2005 | 3,088 | 4,929 | 2,241 | 2,914 | 2,237 | 20,102 |
| 2006 | 3,246 | 4,986 | 2,263 | 3,046 | 2,421 | 20,776 |
| 2007 | 3,389 | 5,149 | 2,287 | 3,166 | 2,596 | 21,556 |
| 2008 | 3,362 | 5,123 | 2,299 | 3,275 | 2,728 | 21,027 |
| 2009 | 3,385 | 5,260 | 2,381 | 3,459 | 2,960 | 21,731 |
| 2010 | 3,449 | 5,192 | 2,401 | 3,415 | 3,171 | 22,428 |
| 2011 | 3,599 | 5,243 | 2,506 | 1,739 | 3,381 | 21,616 |
| 2012 | 3,714 | 5,150 | 2,513 | 1,684 | 3,645 | 22,026 |
| 2013 | 3,838 | 5,299 | 2,611 | 1,758 | 3,990 | 23,168 |
| 2014 | 4,002 | 5,432 | 2,629 | 1,876 | 4,314 | 24,355 |
| 2015 | 4,164 | 5,513 | 2,698 | 1,928 | 4,675 | 25,153 |
| 2016 | 4,220 | 5,485 | 2,710 | 2,017 | 5,080 | 26,048 |

## Table 1.9: Labour stock in the blue economy

| Year | Marine fishing (Ocean and coastal fishing) | Freshwater fishing (Inland water fishing) | Processing and preserving of fish, crustaceans and molluscs | Building of ships and floating structures | Sea and coastal passenger water transport | Inland passenger water transport | Service activities incidental to water transportation | Total Blue Econ |
|---|---|---|---|---|---|---|---|---|
| 2000 | 172 | 241 | 174 | 535 | 845 | 372 | 10,686 | 13,025 |
| 2001 | 177 | 240 | 164 | 523 | 833 | 359 | 10,473 | 12,769 |
| 2002 | 181 | 238 | 153 | 509 | 825 | 350 | 10,504 | 12,760 |
| 2003 | 180 | 237 | 244 | 497 | 813 | 348 | 10,551 | 12,870 |
| 2004 | 185 | 237 | 285 | 488 | 809 | 345 | 10,639 | 12,988 |
| 2005 | 192 | 239 | 840 | 484 | 806 | 335 | 10,600 | 13,496 |
| 2006 | 200 | 242 | 931 | 479 | 751 | 325 | 10,290 | 13,218 |
| 2007 | 207 | 244 | 1,027 | 474 | 715 | 299 | 9,732 | 12,698 |
| 2008 | 215 | 246 | 1,031 | 467 | 745 | 288 | 9,797 | 12,789 |
| 2009 | 233 | 258 | 1,152 | 474 | 741 | 289 | 9,935 | 13,082 |
| 2010 | 248 | 264 | 1,228 | 468 | 737 | 286 | 9,934 | 13,165 |
| 2011 | 259 | 249 | 1,231 | 481 | 763 | 130 | 10,100 | 13,213 |
| 2012 | 259 | 251 | 1,275 | 475 | 779 | 126 | 10,244 | 13,409 |
| 2013 | 277 | 258 | 1,363 | 486 | 790 | 122 | 10,113 | 13,409 |
| 2014 | 290 | 293 | 1,316 | 481 | 820 | 122 | 10,197 | 13,519 |
| 2015 | 303 | 303 | 1,336 | 486 | 834 | 122 | 10,206 | 13,590 |
| 2016 | 315 | 335 | 1,380 | 481 | 854 | 122 | 10,043 | 13,530 |

ISBN 9966 817 03 7

Kenya Institute for Public Policy Research and Analysis
Bishops Garden Towers, Bishops Road
PO Box 56445, Nairobi, Kenya
tel: +254 20 2719933/4, 2714714/5, 2721654, 2721110
fax: +254 20 2719951
email: admin@kippra.or.ke
website: http://www.kippra.org