

**Basic Report on  
The 2010 Census of  
Industrial Production  
(CIP)**

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## Foreword

Over the period starting from November 2010 to April 2011, Kenya National Bureau of Statistics in conjunction with the Ministry of Industrialization conducted a Census of Industrial Production (CIP).

The main objective of the 2010 CIP was to collect data on the characteristics and structure of units engaged in industrial and construction activities in Kenya for 2009 as defined by the International Standards of Industrial Classifications of all Economic Activities (ISIC Rev. 4). Specifically, the CIP was meant to provide;

- Baseline data on the industrial structure of the economy,
- Improvement in the quality of industrial statistics by capturing changes in the industrial sector,
- A basis of comparison with other countries,
- Information for policy formulation, implementation, monitoring and evaluation,
- An industrial database reflecting changes in the structure of industry,
- A sampling frame for industrial surveys, and
- A reliable primary data source for the compilation of input-output tables and other national accounts statistics.

This report highlights findings from the census as well as the data collection methodology which was mainly by direct interviews. Necessitated by the need to get an overall picture of all the industrial sectors of the economy, imputations were done in respect of those establishments which did not respond. Therefore, at the analysis stage, the imputed estimates as well as data from other sources outside the CIP were considered alongside available real CIP responses.

I wish to thank the Ministry of Industrialization for collaborating in planning and executing the exercise. Further, I do appreciate with gratitude all the respondent enterprises, whose co-operation in providing the required data was vital to the success of the census. Last but not least, my special thanks go to all members of staff who gave valuable contributions in field data collection, data analysis and report preparation.

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## Executive Summary

The overall aim of the 2010 Census of Industrial Production (CIP), was to provide comprehensive information on the structure of the industrial activities in Kenya. The exercise targeted an estimated total of 3,000 registered establishments in the country. The CIP 2010 focused on various characteristics of formal establishments that included the economic activities at the four digit ISIC, employment, ownership structure, production and installed capacity, inventories, intermediate consumption, incomes, sales, ICT and fixed assets, among others. A total of 1,814 formal establishments/firms responded for the industrial enquiry. Imputations were done for 438 establishments that did not respond based on other regular surveys and other administrative sources. The final results as reflected in the report are aggregated at the two digit (division) of ISIC.

The total output of the industrial sector in 2009 was KSh 1,009.2 billion with total gross value added of KSh 319.8 billion. Manufacturing activities recorded the largest share of industrial production, accounting for 90.3 per cent of total value of industrial output. This was followed by electricity, gas, steam and air conditioning supply which recorded 7.9 per cent of the total output. The total number of persons engaged as at June 2009 was 324,841 with about half of them based in Nairobi. The manufacturing sector accounted for about 94 per cent of total employment within the industrial sector. Most of the employees in industry were males at 77.2 per cent.

A total of 30 per cent of establishments reported capacity utilization below 50 per cent. Some of the key reasons cited by the establishments leading to under-utilization were the high cost of fuels, electricity and raw materials during the reference period.

Overall, the value of inputs into the sector's production process was estimated at KSh 701.9 billion, of which KSh 689.3 billion was intermediate consumption. Cost of raw materials constituted 81.2 per cent of the inputs into the process of production activities of sectors. Energy and water accounted for 8.1 per cent of the input costs while expenditure on other type of inputs amounted to 10.6 per cent. In 2009, inventories were estimated to have reduced by KSh 902.6 million which could have been attributed to an upsurge in economic growth after a slowdown in 2008. Finally, value added (contribution to GDP) of the formal industrial sector was KSh 319.8 billion.

In 2009, the total sales of industry in Kenya was KSh 1,015.4 billion with Manufacturing activities contributing the largest share of sales at 87.7 per cent. Electricity, Gas, Steam and Air Conditioning Supply was second while Water and Sewerage Services had the lowest level of sales at KSh 10.4 billion. Most of the goods produced in Kenya are sold locally, accounting for 83.5 per cent of all sales, East African countries consume 5.4 per cent while 11.8 per cent is exported to the Rest of the World (RoW).

## Abbreviations & Acronyms

|          |  |
|----------|--|
| BEE      | Business Expectations Enquiries  |
| CBR      | Central Business Register  |
| CIF      | Container including Freight  |
| CIP      | Census of Industrial Production  |
| CPC      | Central Product Classifications  |
| EAC      | East African Community   |
| EPZ      | Export Processing Zone   |
| GDP      | Gross Domestic Product   |
| GFCF     | Gross Fixed Capital Formation  |
| GO       | Gross Output   |
| HS       | Harmonized System  |
| IC       | Intermediate Consumption   |
| IIRPD    | Industrial Information, Research and Policy Development                          |
| IRIS     | International Recommendation of Industrial Statistics                            |
| ISIC     | International Standards of Industrial Classifications of All Economic Activities |
| JICA     | Japan International Cooperation Agency   |
| KNBS     | Kenya National Bureau of Statistics  |
| LE       | Labour Enumeration   |
| MOI      | Ministry of Industrialization  |
| MoSPND   | Ministry of State for Planning, National Development and Vision 2030             |
| MSIP     | Monthly Survey of Industrial Production  |
| NHIF     | National Hospital Insurance Fund   |
| NSSF     | National Social Security Fund  |
| RoW      | Rest of the World  |
| SAPs     | Structural Adjustment Programmes   |
| SNA      | System of National Accounts  |
| STATCAP  | Statistical Capacity   |
| TA       | Technical Assistance   |
| VAT      | Value Added Tax  |
| UNIDO    | United Nations Industrial Development Organization                               |
| VA (GVA) | Value added (Gross)  |

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# Chapter 1

## General Overview

### 1.1 Introduction

The overall aim of the 2010 Census of Industrial Production (CIP) was to provide comprehensive information on the structure of the industrial activities in Kenya. The activities included in the census were mining and quarrying, manufacturing, electricity, gas, steam, air conditioning supply, water supply, sewerage, waste management and remediation activities.<sup>1</sup> The 2010 CIP targeted an estimated total of 3,000 registered establishments in the country. The CIP focused on various facets of formal establishments that include number of employees, sales, costs/expenses, salaries and wages. The Census followed International Recommendations on Industrial Statistics (IRIS 2008) and UNIDO Guidelines on Industrial Statistics as part of the key reference documents. Results from the CIP would enable KNBS to compile key statistics on the economy such as;

- Gross Domestic Product (GDP) associated with industrial activities.
- The total value of sales used alongside the inventories to calculate production statistics.
- Total sales of individual product, and external trade data, used to estimate the size of the Kenyan market for particular goods.

The 2010 CIP is a product of joint effort of Ministry of Industrialization (MOI) and Kenya National Bureau of Statistics (KNBS).

### 1.2 Historical Background

The last Census of Industrial Production (CIP) conducted by the Kenya government was in 1977. Past efforts to carry out a similar census were hampered by limitation of funds. However, an attempt was made to conduct one in 1987 but the results were not analyzed because of low response levels. Nevertheless, a detailed up-to-date data for use in measurement of industrial performance has been a key priority for the government. Currently the only industrial statistics available are those compiled under the Monthly Survey of Industrial Production (MSIP), which is based on a countrywide sample of 600 establishments. The statistics received from MSIP are however limited to manufacturing sector and performance indicators of value and quantity of production. Thus, the 2010 CIP was conducted as a primary statistical inquiry that aimed at covering all industrial establishments in Kenya.

The 2010 CIP has greatly benefited from financial support from a World Bank funded Statistical Capacity (STATCAP) project. Preparation for CIP started with harmonization of data collection instruments by both MOI and KNBS in 2007. Thereafter, the harmonized instruments were piloted in May-June 2010. With technical assistance offered to MOI from the Japan International Cooperation Agency (JICA), the pilot survey results were used to improve on the final data instruments used in 2010 CIP. Collection of data was done in

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<sup>1</sup> This classification is informed by the international standards of industrial classifications of all economic activities (ISIC) Revision 4.

four months spanning over November 2010 to February 2011, with the reference period being 2009 calendar year.

### **1.3 Legal Authority and Confidentiality**

The CIP was conducted under the Authority of the Statistics Act, 2006. The Act empowers the Director General of KNBS to conduct Sample Surveys and Censuses. As such, completion of CIP questionnaires by industrial establishments was a compulsory statutory requirement. However, in accordance with the Statistics Act, raw data provided by establishments is not shared with third parties and is strictly confidential.

### **1.4 Objectives and Purpose**

The main objectives of the Census of Industrial Production 2010 were to:

- Gather statistics that portray diversification of industrial activities;
- Provide baseline data on Industrial Structure;
- Improve quality of Industrial data through broadening of the statistical database to cater for changes;
- Provide a basis of comparison with other countries;
- Provide basic information for policy formulation;
- Establish an industrial database and to continuously update the same to monitor and reflect changes in the structure of industry;
- Provide reliable primary data for the compilation of the input-output tables and national accounts statistics;
- Provide key macroeconomic indicators like GDP, output, and capacity utilization among others;
- Provide reliable information concerning the population of establishments and enterprises based on which sampling methods, cut-off instructions and benchmark parameters are determined for various related sample surveys;
- Provide weights for construction of reliable indices such as Production Indices and Producer Price Indices and
- Compile an up-to-date sampling frame for the annual and other related industrial statistical surveys.

### **1.5 Reference Period**

Although the Census related in principle to the calendar year 2009, special cases called for respondents to provide returns referring to their recently concluded accounting year. As much as possible, respondents were encouraged to conform to the calendar year. This notwithstanding, returns covering proximate fiscal years were accepted for reporting purposes and data for these years was incorporated in the calendar-year aggregate without adjustment. Returns which covered a period of less than 12 months were accepted in cases where businesses started or ceased trading during the year.

In conformity to other related employment surveys, all employment details in the 2010 CIP related to the week ending 30th June 2009. Industrial concerns which had no persons

engaged in the week ending 30<sup>th</sup> June 2009 could only be classified as having zero employment (e.g. those establishments that ceased operations earlier in the year or started production later in the year).

## Chapter 2

### Methodology

#### 2.1 Data Sources

The units of enquiry were the establishments classified to their respective specific industry as recommended in the *ISIC, Revision 4*. Respondent enterprises were the single-unit enterprises or parts of multi-unit enterprises operating within the territorial boundaries of Kenya.

Establishments were ideally defined as the economic units that engage, under a single ownership or control, in one, or predominantly one, kind of activity at a single physical location. However, a number of large firms could not furnish separate data on an establishment basis, as their accounts were prepared at the enterprise (firm) level. Such multi-establishments units were classified in the industrial group of their main activity as determined by the products which accounted for the largest share of their turnover.

However due to under reporting and for provision of linkages to the available data, CIP findings were augmented with other data sources including, the Monthly Survey of Industrial Production (MSIP), Annual Enumeration of Employed Persons, Quarterly Business Expectation Enquiries (BEE) and other administrative records.

#### 2.2 Population and sampling frame

The 2010 CIP population of target respondents was made up of all establishments in Kenya that fall under ISIC Rev 4 sections B, C, D and E. These are namely; B (Mining and quarrying), C (Manufacturing), D (Electricity, gas, steam and air conditioning supply) and E (Water supply; sewerage, waste management and remediation activities).

A Central Business Register (CBR) of establishments is kept by KNBS and is maintained and constantly updated using data /information from administrative and public utility records, newspaper announcements, business journals and field personnel contacts. This CBR provided the final list that was used in the 2010 CIP. However, due to some responses being received from enterprises as opposed to establishments, there could be minor differences in the total number of establishments in the CIP compared to CBR.

#### 2.3 Survey Organization and Fieldwork

The 2010 CIP was ideally supposed to be conducted by post. However, experiences from most surveys on establishments show better response rates when they are visited by researchers. A researcher-administered questionnaire was therefore used to gather the data. Operational units from both MOI and KNBS provided all the technical and logistical expertise in questionnaire design as well as in the collection, editing, coding, tabulation, evaluation, analysis of data, and report writing. Field data collection was organized in such a way that three enumerators reported to one supervisor and in turn three supervisors reported to one coordinator.

## 2.4 Variables and Definitions

The Census covers data on variables that characterize industrial production. These include number of establishments, general particulars, economic activities and ownership, employment and hours worked, production and installed capacity, capacity under-utilization, inventories, expenditure on goods and services, cost of purchase of goods for resale, total expenditure, sales and other revenues, plant and technology in use, IT infrastructure and related services, research and development and fixed assets. The definitions used in 2010 CIP borrow heavily from those of the United Nations System of National Accounts, 1993 (SNA93) and the International Recommendations of Industrial Statistics (IRIS) 2008 (Table 2.1).

**Table 2.1 Definition of Variables**

| <b>Statistical Concept</b>                 | <b>Definition</b>  |
|--|--|
| (a) An establishment                       | A production unit engaged in one kind, or predominantly one kind of activity at a fixed physical location.   |
| (b) Persons engaged in an establishment    | Total number of persons who work in or for the establishment. It included employers, own account workers, unpaid family workers and employees.   |
| (c) An employee                            | A person who works in a paid employment job and receives remuneration as wages, salary, commissions, tips, piece rates, bonuses or payments in kind such as food and housing.  |
| (d) An unpaid family worker                | A person forming part of the workforce of any of the proprietors or related to them, who is actively engaged in the business, without any remuneration.  |
| (e) Part-time workers                      | Persons who worked less than half of the usual working hours.  |
| (f) Wages and Salaries                     | Gross amount paid to employees before deduction of income tax, employees' contributions to social security, etc. It includes the earnings of outside piece-workers.  |
| (g) Basic Price                            | Amount receivable by the producer exclusive of taxes on products (e.g. excise duty and Value Added Tax) and inclusive of subsidies on products. The equivalent of imported products is the C.I.F value at the border of the importing country. |
| (h) Purchasers' Price                      | Amount payable by the purchaser exclusive of deductible taxes on products (e.g. deductible VAT).   |
| (i) Turnover                               | Amount (excluding VAT) invoiced to customers after deductions for trade and quantity discounts and allowances for returns but not cash discounts.  |
| (j) Gross output                           | Value on the market of goods and services produced, including work in progress and products for own use. Gross Output is valued at basic prices.   |
| (k) Intermediate consumption of industries | Covers non-durable goods and services used up in production, including repairs and maintenance of the capital stock Intermediate consumption is valued at purchasers' prices   |
| (l) Value added at basic prices            | Equal to the gross output at basic prices less the value of intermediate consumption at purchasers' prices.  |
| (m) Gross Value Added                      | Production value (i.e. total turnover adjusted for changes in stocks and own-account capital assets) less intermediate consumption (i.e. total purchases adjusted for changes in stocks of materials and fuels).                               |
| (n) Payments in kind                       | Goods and services provided to employees free of charge or at markedly reduced costs, which are clearly of direct benefit to the employees as consumers. Examples are food, drinks, clothing, accommodation or other commodities.              |

## 2.5 Response Rate

A total of 1,814 firms/establishments responded to the industrial activities enquiry. Data from 438 additional establishments were imputed based on other regular surveys such as MSIP, the quarterly BEE and other administrative data records for the year 2009. Therefore, the total number of industrial establishments on whose data this report is based is 2,252. The establishments that were not covered in the census included those that could not be located or traced, and those whose administrative records were not accessed. Delays in

receipt of returns from some establishments resulted in follow-ups, even after conclusion of data collection. Table 2.2 gives a breakdown of number of establishments/firms covered by industry.

**Table 2.2**            **Number of Establishments/Firms covered by Industry**

| Activity  | Total Number of Establishments that Responded | Total Number of Establishments Imputed | Total Number of Establishments/ firms covered in the CIP |
|---|---|--|--|
| Mining and Quarrying                                | 48  | 10                                     | 58   |
| Manufacturing                                       | 1,679   | 417                                    | 2,096  |
| Electricity, Gas, Steam and Air conditioning supply | 12  | 5                                      | 17   |
| Water supply, Sewerage                              | 75  | 6                                      | 81   |
| <b>Total</b>  | <b>1,814</b>                                  | <b>438</b>                             | <b>2,252</b>   |

Table 2.3 shows the number of establishments surveyed across the industrial activities. From the data, 94.8 per cent of the responses were at establishment level. The rest were at enterprise level, with one response being received for 26 establishments. The overall response rate based on an initial target of 3,000 establishments was about 85 per cent. Coverage in the mining and quarrying sector was rather low as most of these activities are carried out by informal units which were excluded in the 2010 CIP.

**Table 2.3 Number of Establishments Covered**

| Number of establishments reported | Mining and quarrying     |         | Manufacturing            |         | Electricity, Gas, Steam and Air Conditioning supply |         | Water supply and sewerage |         | Total                    |         | Total number of establishments |
|-----------------------------------|--------------------------|---------|--------------------------|---------|---|---------|---------------------------|---------|--------------------------|---------|--------------------------------|
|                                   | Number of establishments | Percent | Number of establishments | Percent | Number of establishments                            | Percent | Number of establishments  | Percent | Number of establishments | Percent |                                |
| 1                                 | 52                       | 89.7    | 1,988                    | 94.8    | 13  | 76.5    | 73                        | 90.1    | 2,126                    | 94.4    | 2,126                          |
| 2                                 | 2                        | 3.4     | 52                       | 2.5     | 2   | 11.8    | 1                         | 1.2     | 57                       | 2.5     | 114                            |
| 3                                 | 0                        | -       | 26                       | 1.2     | 0   | -       | 2                         | 2.5     | 28                       | 1.2     | 84                             |
| 4                                 | 3                        | 5.2     | 19                       | 0.9     | 1   | 5.9     | 3                         | 3.7     | 26                       | 1.2     | 104                            |
| 5                                 | 0                        | -       | 3                        | 0.1     | 1   | 5.9     | 0                         | -       | 4                        | 0.2     | 20                             |
| 6                                 | 1                        | 1.7     | 3                        | 0.1     | 0   | -       | 1                         | 1.2     | 5                        | 0.2     | 30                             |
| 8                                 | 0                        | -       | -                        | -       | 0   | -       | 1                         | 1.2     | 1                        | -       | 8                              |
| 9                                 | 0                        | -       | 2                        | 0.1     | 0   | -       | 0                         | -       | 2                        | 0.1     | 18                             |
| 11                                | 0                        | -       | 1                        | -       | 0   | -       | 0                         | -       | 1                        | -       | 11                             |
| 12                                | 0                        | -       | 1                        | -       | 0   | -       | 0                         | -       | 1                        | -       | 12                             |
| 26                                | 0                        | -       | 1                        | -       | 0   | -       | 0                         | -       | 1                        | -       | 26                             |
| Total                             | 58                       | 100.0   | 2,096                    | 100.0   | 17  | 100.0   | 81                        | 100.0   | 2,252                    | 100.0   | 2,553                          |

## 2.6 Treatment of non-respondents

The census data in this report includes imputed estimates for non-respondents. Non-respondents are fully estimated even when only few of the most important variables are known. The variables in use which were known include employment, turnover and output. It is notable that some of the information for non-respondents was available from different alternative sources. Key sources include data from the MSIP which captures two variables on quantities and production values, Labour Enumeration (LE) survey which is an annual survey capturing employment numbers and earnings, and other administrative data sources.

Overall, full data for establishments was derived using ratio extension. For partial responses, some imputation procedures were done through use of median at different levels. This involved the application of ratios between known variables to cases where only one sub-component is known. These ratios were calculated at 4 digit ISIC level.

Further, to facilitate comprehensiveness of the data, the census results were also supplemented using data from the establishments that responded during the piloting phase but failed to report in the main exercise. In the analysis, these were treated as actual responses as the reporting complied to the reporting period, 2009. Data on exports was compared with trade data for the same period to confirm variances. After estimation and imputation procedures, results were then aggregated at the 2 digit (division) level.

## 2.7 Challenges

In the course of carrying out the 2010 CIP, the research team encountered a number of challenges. First, there is low level of record keeping, particularly among small establishments which do not keep proper books of accounts. Secondly, securing appointments took long and a number of potential respondents were hesitant to be interviewed as they complained that the instruments were too long and hence time consuming. Similarly, timing of the data collection phase was not appropriate as most of the companies were temporarily closing business in readiness for the December holidays. Thirdly, many returns obtained from respondent enterprises had accounting approaches that were not sufficient for compilation of industrial statistics according to the international recommendations. The report hence gives approximations of the major indicators of industrial statistics based on broad estimates derived from the returns. As much as possible, the statistics presented are an indication of the level and structure of the industrial sector. The above limitations, however, did not give rise to serious undesired effects on the overall quality and reliability of the major indicators at broad ISIC levels.

## Chapter 3

### Ownership Structure, Employment and Earnings

#### 3.1 Introduction

Kenya has a large industrial sector serving both local and foreign markets. This sector is central to economic development and improved prospects for human well-being. The benefits of industrial production can be seen in all aspects of life and particularly in provision of employment opportunities. This chapter discusses various characteristics of establishments in terms of ownership, capitalization, employment and compensation in the industrial sector.

#### 3.2 Type of Ownership

One form of industrial classification is distinction between public and private ownership, and also the various forms of legal ownership. The distinction is based on whether control of the establishment rests with public authorities or private parties and the legal element thereof. Details on the types of ownership are as reflected in Table 3.1 below.

**Table 3.1** Type of ownership

| Activity  | Type of Ownership   |             |                         |                        |             |            |                   |            | Total        |
|---|---------------------|-------------|-------------------------|------------------------|-------------|------------|-------------------|------------|--------------|
|   | Sole proprietorship | Partnership | Private limited company | public limited company | cooperative | parastatal | Local authorities | Other type |              |
| Mining and quarrying                                | 2                   | 5           | 51                      | -                      | -           | -          | -                 | -          | 58           |
| Manufacturing                                       | 140                 | 79          | 1,417                   | 78                     | 343         | 26         | 1                 | 12         | 2,096        |
| Electricity, Gas, Steam and Air conditioning Supply | -                   | -           | 9                       | 3                      | -           | 5          | -                 | -          | 17           |
| Water supply and sewerage                           | 2                   | 3           | 35                      | 29                     | 2           | 6          | 2                 | 2          | 81           |
| <b>Total</b>  | <b>144</b>          | <b>87</b>   | <b>1,512</b>            | <b>110</b>             | <b>345</b>  | <b>37</b>  | <b>3</b>          | <b>14</b>  | <b>2,252</b> |

Majority of the establishments across all industries were private companies. Within this category, manufacturing sector accounted for 93.7 per cent of the total. Nearly all establishments owned by the cooperatives were engaged in manufacturing under the semi-processing of coffee.

About 7 per cent of surveyed firms were public enterprises with majority of these establishments existing as public limited companies. Though private establishments may choose to register as sole proprietorship, partnership or private limited companies, 67 per cent of all establishments were reported as private limited companies.

#### 3.3 Employment and Citizenship

Results from the census revealed that there were some 324,841 persons engaged in the

industrial sector. The number of persons engaged included those who worked in or for the surveyed establishment during the reference period (30<sup>th</sup> June 2009), either as working proprietors, active business partners and unpaid family workers or paid employees.

As indicated in Table 3.3, the majority of persons engaged in industry were Kenyan citizens accounting for 99.5 per cent. The manufacturing sector accounted for about 94 per cent of total employment within the industrial sector. A focus on the manufacturing industry shows that manufacture of food products subsector accounted for 39.4 per cent of manufacturing employment followed by manufacture of textiles which accounted for about 10.5 per cent. Manufacture of basic metals accounted for only 3.1 per cent. Manufacture of food products subsector accounted for 16.8 per cent of all noncitizens, followed by manufacture of chemicals and manufacture of fabricated metal products at 9.8 per cent and 7.4 per cent, respectively. Employment size for the Manufacture of computer, electronic and optical products subsector accounted for less than 1 per cent of the employees in the manufacturing sector.

**Table 3.2 Employment Levels by Industry and Citizenship, June 2009**

| Activity   | Citizens       | Non<br>Citizens | Total<br>Employment |
|--|----------------|-----------------|---------------------|
| Mining and Quarrying   | <b>4,135</b>   | <b>45</b>       | <b>4,180</b>        |
| Mining of metal ores   | 60             | -               | 60                  |
| Other mining and quarrying   | 4,071          | 45              | 4,116               |
| Mining support service activities  | 4              | -               | 4                   |
| Manufacturing  | <b>303,640</b> | <b>1,438</b>    | <b>305,078</b>      |
| Manufacture of food products   | 119,805        | 250             | 120,055             |
| Manufacture of beverages   | 7,701          | 32              | 7,733               |
| Manufacture of tobacco products  | 1,024          | 26              | 1,050               |
| Manufacture of textiles  | 31,823         | 98              | 31,921              |
| Manufacture of wearing apparel   | 23,332         | 102             | 23,434              |
| Manufacture of leather and related products  | 6,335          | 29              | 6,364               |
| Manufacture of wood and of products of wood and cork,<br>except furniture; manufacture of articles of straw and plaiting | 11,320         | 64              | 11,384              |
| Manufacture of paper and paper products  | 7,825          | 53              | 7,878               |
| Printing and reproduction of recorded media  | 9,202          | 51              | 9,253               |
| Manufacture of coke and refined petroleum products   | 426            | 5               | 431                 |
| Manufacture of chemicals and chemical products   | 16,795         | 146             | 16,941              |
| Manufacture of basic pharmaceutical products and<br>pharmaceutical preparations  | 3,496          | 39              | 3,535               |
| Manufacture of rubber and plastics products  | 16,136         | 91              | 16,227              |
| Manufacture of other nonmetallic mineral products  | 7,103          | 54              | 7,157               |
| Manufacture of basic metals  | 9,440          | 95              | 9,535               |
| Manufacture of fabricated metal products, except machinery<br>and equipment  | 10,231         | 110             | 10,341              |
| Manufacture of computer, electronic and optical products   | 36             | -               | 36                  |
| Manufacture of electrical equipment  | 2,027          | 9               | 2,036               |
| Manufacture of machinery and equipment n.e.c   | 1,793          | 6               | 1,799               |
| Manufacture of motor vehicles, trailers and semitrailers   | 3,372          | 60              | 3,432               |
| Manufacture of other transport equipment   | 291            | 3               | 294                 |
| Manufacture of furniture   | 4,686          | 18              | 4,704               |
| Other manufacturing  | 6,849          | 31              | 6,880               |
| Repair and installation of machinery and equipment   | 2,592          | 66              | 2,658               |
| Electricity  |                |                 |                     |
| Electricity, gas, steam and air conditioning supply  | 8,152          | 5               | 8,157               |
| Water and Sewerage   | <b>7,426</b>   | <b>-</b>        | <b>7,426</b>        |
| Water collection, treatment and supply   | 7,003          | -               | 7,003               |
| Sewerage   | 70             | -               | 70                  |
| Waste collection, treatment and disposal activities; materials<br>recovery   | 353            | -               | 353                 |
| <b>Total</b>   | <b>323,353</b> | <b>1,488</b>    | <b>324,841</b>      |

### 3.4 Employment Status

Workers in an establishment can be divided into permanent, short-term contract, self-employed and casual employment status. Permanent workers are those with stable contracts for whom the employing organization is responsible for payment of relevant taxes and social security contributions and/or where the contractual relationship is subject to prevailing labour regulations. For self-employed persons, regular workers are those who work in their own enterprises or firms on a continuous basis. Casual workers are on-demand employees who do not have stable or regular contracts of work and are 'employed' intermittently. They have no formal employment contract with the employer and their services may be done away with without notice. Casual employees are generally engaged for manual work.

The distribution of persons engaged by employment status is illustrated in Table 3.3. Permanent employees accounted for 56.7 per cent while casuals constituted 25.3 per cent of all employees in the industry. The proportion of regulars to total permanent and casuals was 69.1 per cent. Casuals in the manufacturing sector accounted for 95.7 per cent of all the casuals. The manufacture of food products subsector employed majority of all engaged persons for all categories.

**Table 3.3: Distribution of Employees by Industry and Type of Worker, June 2009**

| Activity  | Regular        | Casuals       | Contract      | Unpaid     | Proprietors  | Total Employment |
|---|----------------|---------------|---------------|------------|--------------|------------------|
| <b>Mining and Quarrying</b>   | <b>2,206</b>   | <b>1,150</b>  | <b>754</b>    | <b>3</b>   | <b>67</b>    | <b>4,180</b>     |
| Mining of metal ores  | 60             | -             | -             | -          | -            | 60               |
| Other mining and quarrying  | 2,142          | 1,150         | 754           | 3          | 67           | 4,116            |
| Mining support service activities   | 4              | -             | -             | -          | -            | 4                |
| <b>Manufacturing</b>  | <b>170,193</b> | <b>78,868</b> | <b>52,223</b> | <b>487</b> | <b>3,307</b> | <b>305,078</b>   |
| Manufacture of food products  | 59,241         | 38,929        | 20,429        | 148        | 1,308        | 120,055          |
| Manufacture of beverages  | 4,498          | 2,287         | 869           | 1          | 78           | 7,733            |
| Manufacture of tobacco products   | 891            | -             | 159           | -          | -            | 1,050            |
| Manufacture of textiles   | 19,796         | 7,766         | 4,062         | 19         | 278          | 31,921           |
| Manufacture of wearing apparel  | 17,411         | 2,131         | 3,810         | -          | 82           | 23,434           |
| Manufacture of leather and related products   | 2,908          | 2,096         | 1,318         | 2          | 40           | 6,364            |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting | 9,001          | 1,621         | 638           | 10         | 114          | 11,384           |
| Manufacture of paper and paper products   | 4,161          | 1,746         | 1,899         | -          | 72           | 7,878            |
| Printing and reproduction of recorded media   | 6,222          | 1,959         | 805           | 23         | 244          | 9,253            |
| Manufacture of coke and refined petroleum products  | 290            | 38            | 93            | -          | 10           | 431              |
| Manufacture of chemicals and chemical products  | 10,600         | 1,874         | 3,989         | 244        | 234          | 16,941           |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations  | 2,031          | 698           | 779           | -          | 27           | 3,535            |
| Manufacture of rubber and plastics products   | 7,634          | 3,811         | 4,591         | 4          | 187          | 16,227           |
| Manufacture of other nonmetallic mineral products   | 3,465          | 1,956         | 1,650         | 6          | 80           | 7,157            |
| Manufacture of basic metals   | 5,281          | 3,624         | 588           | -          | 42           | 9,535            |
| Manufacture of fabricated metal products, except machinery and equipment  | 5,314          | 4,057         | 820           | 6          | 144          | 10,341           |
| Manufacture of computer, electronic and optical products  | -              | -             | 36            | -          | -            | 36               |
| Manufacture of electrical equipment   | 1,533          | 142           | 340           | -          | 21           | 2,036            |
| Manufacture of machinery and equipment n.e.c.   | 510            | 683           | 572           | -          | 34           | 1,799            |
| Manufacture of motor vehicles, trailers and semitrailers  | 2,071          | 921           | 358           | 2          | 80           | 3,432            |
| Manufacture of other transport equipment  | 161            | 63            | 55            | 6          | 9            | 294              |
| Manufacture of furniture  | 2,708          | 1,169         | 719           | 8          | 100          | 4,704            |
| Other manufacturing   | 2,302          | 1,000         | 3,521         | 4          | 53           | 6,880            |
| Repair and installation of machinery and equipment  | 2,164          | 297           | 123           | 4          | 70           | 2,658            |
| <b>Electricity, gas, steam</b>  | <b>6,417</b>   | <b>1,455</b>  | <b>283</b>    | <b>-</b>   | <b>2</b>     | <b>8,157</b>     |
| Electricity, gas, steam and air conditioning supply   | 6,417          | 1,455         | 283           | -          | 2            | 8,157            |
| <b>Water and sewerage</b>   | <b>5,394</b>   | <b>900</b>    | <b>1,113</b>  | <b>1</b>   | <b>18</b>    | <b>7,426</b>     |
| Water collection, treatment and supply  | 5,060          | 862           | 1,070         | -          | 11           | 7,003            |
| Sewerage  | 63             | 7             | -             | -          | -            | 70               |
| Waste collection, treatment and disposal activities; materials recovery   | 271            | 31            | 43            | 1          | 7            | 353              |
| <b>Total</b>  | <b>184,210</b> | <b>82,373</b> | <b>54,373</b> | <b>491</b> | <b>3,394</b> | <b>324,841</b>   |

As indicated in Table 3.4, 77.2 per cent of employees in industry were males with majority being regulars (53 per cent). Females accounted for 24.8 per cent of all employees in the industry. Under manufacturing sector, regular females in the manufacture of wearing apparel activity accounted for over 50 per cent of the employment within that activity.

**Table 3.4: Distribution of Regular and Casual Workers by Industry and Gender, June 2009**

| Activity  | Regular        | Regular       | Casual        | Casual        | Total            |
|---|----------------|---------------|---------------|---------------|------------------|
|   | males          | Females       | Males         | Females       | Regular & Casual |
| <b>Mining and Quarrying</b>   | <b>2,011</b>   | <b>195</b>    | <b>1,136</b>  | <b>14</b>     | <b>3,356</b>     |
| Mining of metal ores  | 60             | -             | -             | -             | 60               |
| Other mining and quarrying  | 1,949          | 193           | 1,136         | 14            | 3,292            |
| Mining support service activities   | 2              | 2             | -             | -             | 4                |
| <b>Manufacturing</b>  | <b>130,307</b> | <b>39,886</b> | <b>61,393</b> | <b>17,475</b> | <b>249,061</b>   |
| Manufacture of food products  | 45,512         | 13,729        | 28,286        | 10,643        | 98,170           |
| Manufacture of beverages  | 3,559          | 939           | 1,346         | 941           | 6,785            |
| Manufacture of tobacco products   | 736            | 155           | -             | -             | 891              |
| Manufacture of textiles   | 13,215         | 6,581         | 5,145         | 2,621         | 27,562           |
| Manufacture of wearing apparel  | 7,194          | 10,217        | 1,524         | 607           | 19,542           |
| Manufacture of leather and related products   | 2,575          | 333           | 1,344         | 752           | 5,004            |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting | 7,946          | 1,055         | 1,499         | 122           | 10,622           |
| Manufacture of paper and paper products   | 3,650          | 511           | 1,610         | 136           | 5,907            |
| Printing and reproduction of recorded media   | 4,792          | 1,430         | 1,440         | 519           | 8,181            |
| Manufacture of coke and refined petroleum products  | 241            | 49            | 24            | 14            | 328              |
| Manufacture of chemicals and chemical products  | 9,427          | 1,173         | 1,588         | 286           | 12,474           |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations  | 1,523          | 508           | 513           | 185           | 2,729            |
| Manufacture of rubber and plastics products   | 7,057          | 577           | 3,618         | 193           | 11,445           |
| Manufacture of other nonmetallic mineral products   | 3,238          | 227           | 1,773         | 183           | 5,421            |
| Manufacture of basic metals   | 5,057          | 224           | 3,604         | 20            | 8,905            |
| Manufacture of fabricated metal products, except machinery and equipment  | 5,043          | 271           | 3,958         | 99            | 9,371            |
| Manufacture of computer, electronic and optical products  | -              | -             | -             | -             | -                |
| Manufacture of electrical equipment   | 1,384          | 149           | 133           | 9             | 1,675            |
| Manufacture of machinery and equipment n.e.c.   | 476            | 34            | 649           | 34            | 1,193            |
| Manufacture of motor vehicles, trailers and semitrailers  | 1,925          | 146           | 909           | 12            | 2,992            |
| Manufacture of other transport equipment  | 134            | 27            | 56            | 7             | 224              |
| Manufacture of furniture  | 2,372          | 336           | 1,128         | 41            | 3,877            |
| Other manufacturing   | 1,388          | 914           | 953           | 47            | 3,302            |
| Repair and installation of machinery and equipment  | 1,863          | 301           | 293           | 4             | 2,461            |
| <b>Electricity</b>  | <b>5,261</b>   | <b>1,156</b>  | <b>1,147</b>  | <b>308</b>    | <b>7,872</b>     |
| Electricity, gas, steam and air conditioning supply   | 5,261          | 1,156         | 1,147         | 308           | 7,872            |
| <b>Water and sewerage</b>   | <b>3,955</b>   | <b>1,439</b>  | <b>748</b>    | <b>152</b>    | <b>6,294</b>     |
| Water collection, treatment and supply  | 3,731          | 1,329         | 713           | 149           | 5,922            |
| Sewerage  | 51             | 12            | 7             | -             | 70               |
| Waste collection, treatment and disposal activities; materials recovery   | 173            | 98            | 28            | 3             | 302              |
| <b>Total</b>  | <b>141,534</b> | <b>42,676</b> | <b>64,424</b> | <b>17,949</b> | <b>266,583</b>   |

### **3.5 Employment by Industry Subsectors and Towns**

This section reviews the distribution of workers by main industrial towns. Nairobi still remains the main industrial town accounting for 48.8 per cent of all employees. This is followed by Mombasa (6.1%), Nakuru (6.0 %), Thika (4.7 %), Machakos (3.7 %) and Kiambu (3.5 %), with the rest of the firms scattered in other small towns. These details are provided in Table 3.5. The manufacture of food products was the key sector that provided employment in the five leading towns with the exception of Mombasa, Nakuru and Machakos. The key activity for Mombasa and Nakuru was manufacture of textiles, while manufacture of wearing apparel dominated in Machakos, mainly due to the contribution of the EPZ companies. Other industrial activities in Machakos are manufacture of non metallic mineral products. Manufacture of basic metals was mainly concentrated in both Nairobi and Mombasa. Manufacture of chemicals and chemical products and that of rubber and plastics products were the other two key activities in Nairobi.

**Table 3.5 Distribution of Workers by Industry and Industrial Towns, June 2009**

| Activity  | Industrial towns |               |                |              |               |               |              |               |               | Total employment |
|---|------------------|---------------|----------------|--------------|---------------|---------------|--------------|---------------|---------------|------------------|
|   | Nairobi          | Kiambu        | Thika (Kiambu) | Kilifi       | Mombasa       | Machakos      | Bomet        | Nakuru        | Other towns   |                  |
| <b>Mining and Quarrying</b>   | <b>618</b>       | .             | <b>263</b>     | <b>380</b>   | <b>76</b>     | <b>248</b>    | .            | <b>179</b>    | <b>2,416</b>  | <b>4,180</b>     |
| Mining of metal ores  | .                | .             | .              | .            | .             | 20            | .            | .             | 40            | 60               |
| Other mining and quarrying  | 614              | .             | 263            | 380          | 76            | 228           | .            | 179           | 2,376         | 4,116            |
| Mining support service activities   | 4                | .             | .              | .            | .             | .             | .            | .             | .             | 4                |
| <b>Manufacturing</b>  | <b>148,105</b>   | <b>11,023</b> | <b>14,900</b>  | <b>6,628</b> | <b>19,463</b> | <b>11,639</b> | <b>9,104</b> | <b>18,048</b> | <b>66,168</b> | <b>305,078</b>   |
| Manufacture of food products  | 38,435           | 7,363         | 10,270         | 1,264        | 2,190         | 1,169         | 8,870        | 2,905         | 47,589        | 120,055          |
| Manufacture of beverages  | 4,498            | 32            | 27             | 324          | 278           | .             | .            | 276           | 2,298         | 7,733            |
| Manufacture of tobacco products   | 1,050            | .             | .              | .            | .             | .             | .            | .             | .             | 1,050            |
| Manufacture of textiles   | 7,086            | .             | 2,139          | 1,841        | 5,748         | 1,627         | .            | 10,277        | 3,203         | 31,921           |
| Manufacture of wearing apparel  | 11,963           | 166           | 465            | 2,546        | 1,935         | 2,336         | .            | .             | 4,023         | 23,434           |
| Manufacture of leather and related products   | 2,057            | 1,431         | 51             | .            | 1,710         | 933           | .            | 90            | 92            | 6,364            |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting | 1,430            | .             | .              | .            | 99            | 1,996         | .            | 3,496         | 4,363         | 11,384           |
| Manufacture of paper and paper products   | 5,633            | 126           | .              | .            | 100           | 397           | .            | .             | 1,622         | 7,878            |
| Printing and reproduction of recorded media   | 8,450            | 84            | 3              | .            | 345           | .             | .            | 39            | 332           | 9,253            |
| Manufacture of coke and refined petroleum products  | 189              | 1             | .              | .            | 241           | .             | .            | .             | .             | 431              |
| Manufacture of chemicals and chemical products  | 15,677           | .             | 167            | .            | 300           | 17            | .            | 614           | 166           | 16,941           |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations  | 2,891            | 455           | .              | .            | .             | 189           | .            | .             | .             | 3,535            |
| Manufacture of rubber and plastics products   | 13,271           | 856           | 29             | .            | 721           | 478           | .            | .             | 872           | 16,227           |
| Manufacture of other nonmetallic mineral products   | 5,148            | .             | .              | 106          | 191           | 1,314         | .            | 8             | 390           | 7,157            |
| Manufacture of basic metals   | 5,226            | 64            | 602            | .            | 3,065         | 403           | .            | .             | 175           | 9,535            |
| Manufacture of fabricated metal products, except machinery and equipment  | 7,835            | 324           | 263            | 486          | 672           | 163           | 234          | 71            | 293           | 10,341           |
| Manufacture of computer, electronic and optical products  | 36               | .             | .              | .            | .             | .             | .            | .             | .             | 36               |
| Manufacture of electrical equipment   | 1,986            | .             | .              | .            | 50            | .             | .            | .             | .             | 2,036            |
| Manufacture of machinery and equipment n.e.c.   | 1,606            | .             | 27             | .            | .             | .             | .            | 166           | .             | 1,799            |
| Manufacture of motor vehicles, trailers and semitrailers  | 2,460            | .             | 253            | .            | 369           | 283           | .            | 50            | 17            | 3,432            |
| Manufacture of other transport equipment  | 44               | .             | .              | 43           | 207           | .             | .            | .             | .             | 294              |
| Manufacture of furniture  | 3,676            | .             | 555            | .            | 178           | 83            | .            | 1             | 211           | 4,704            |
| Other manufacturing   | 5,114            | 121           | .              | 18           | 943           | 251           | .            | 42            | 391           | 6,880            |
| Repair and installation of machinery and equipment  | 2,344            | .             | 49             | .            | 121           | .             | .            | 13            | 131           | 2,658            |
| <b>Electricity</b>  | <b>7,443</b>     | .             | .              | <b>275</b>   | .             | <b>40</b>     | .            | <b>226</b>    | <b>173</b>    | <b>8,157</b>     |
| Electricity, gas, steam and air conditioning supply   | 7,443            | .             | .              | 275          | .             | 40            | .            | 226           | 173           | 8,157            |
| <b>Water and sewerage</b>   | <b>2,539</b>     | <b>306</b>    | <b>239</b>     | <b>293</b>   | <b>456</b>    | <b>114</b>    | .            | <b>1,055</b>  | <b>2,424</b>  | <b>7,426</b>     |
| Water collection, treatment and supply  | 2,186            | 306           | 239            | 293          | 456           | 56            | .            | 1,055         | 2,412         | 7,003            |
| Sewerage  | .                | .             | .              | .            | .             | 58            | .            | .             | 12            | 70               |
| Waste collection, treatment and disposal activities; materials recovery   | 353              | .             | .              | .            | .             | .             | .            | .             | .             | 353              |
| <b>Total</b>  | <b>158,705</b>   | <b>11,329</b> | <b>15,402</b>  | <b>7,576</b> | <b>19,995</b> | <b>12,041</b> | <b>9,104</b> | <b>19,508</b> | <b>71,181</b> | <b>324,841</b>   |

### **3.6 Labour Earnings by Industry Subsector**

This section focuses on the labour cost on employers. This includes remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked, such as for annual vacation, other paid leave or holidays. The cost also includes (social insurance contributions) compulsory employers' contributions to NSSF and other pension schemes, NHIF, accident compensation, and other schemes for the benefit of employees. The survey results showed that the total labour costs for June 2009 were about KSh 11 billion. Notable also from Table 3.6 is that the total payments to casual labourers were about KSh1.3 billion with those of manufacture of food products accounting for 28.6 per cent.

**Table 3.6 Total Employment and Payments to Workers by Industry, June 2009**

| Activity  | Total Employment | Payments (Ksh 000's) |                  |                |                |                | Total Payments    |
|---|------------------|----------------------|------------------|----------------|----------------|----------------|-------------------|
|   |                  | Regular Pay          | Casual Pay       | Contract Pay   | Inkind Pay     | Insurance Pay  |                   |
| <b>Mining and Quarrying</b>   | <b>4,180</b>     | <b>107,717</b>       | <b>27,782</b>    | <b>22,128</b>  | <b>2,701</b>   | <b>4,086</b>   | <b>164,415</b>    |
| Mining of metal ores  | 60               | 189                  | 0                | 0              | 0              | 0              | 189               |
| Other mining and quarrying  | 4,116            | 107,368              | 27,782           | 22,128         | 2,701          | 4,086          | 164,065           |
| Mining support service activities   | 4                | 160                  | 0                | 0              | 1              | 0              | 161               |
| <b>Manufacturing</b>  | <b>305,078</b>   | <b>6,974,665</b>     | <b>1,267,883</b> | <b>834,568</b> | <b>488,263</b> | <b>312,196</b> | <b>9,877,574</b>  |
| Manufacture of food products  | 120,055          | 2,051,324            | 630,605          | 237,358        | 91,360         | 124,546        | 3,135,193         |
| Manufacture of beverages  | 7,733            | 339,669              | 35,667           | 10,039         | 24,989         | 17,257         | 427,621           |
| Manufacture of tobacco products   | 1,050            | 14,707               | 0                | 456            | 0              | 23,933         | 39,097            |
| Manufacture of textiles   | 31,921           | 267,772              | 34,974           | 27,823         | 7,202          | 8,573          | 346,344           |
| Manufacture of wearing apparel  | 23,434           | 291,575              | 16,148           | 85,508         | 61,159         | 12,224         | 466,614           |
| Manufacture of leather and related products   | 6,364            | 98,440               | 23,315           | 25,663         | 874            | 1,526          | 149,819           |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting | 11,384           | 126,231              | 24,506           | 2,796          | 1,748          | 5,233          | 160,514           |
| Manufacture of paper and paper products   | 7,878            | 325,279              | 20,148           | 37,182         | 61,164         | 12,906         | 456,679           |
| Printing and reproduction of recorded media   | 9,253            | 409,330              | 26,145           | 16,566         | 19,717         | 9,433          | 481,191           |
| Manufacture of coke and refined petroleum products  | 431              | 56,843               | 1,154            | 6,223          | 5,267          | 1,523          | 71,010            |
| Manufacture of chemicals and chemical products  | 16,941           | 763,496              | 30,644           | 76,131         | 74,697         | 37,322         | 982,290           |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations  | 3,535            | 199,330              | 16,431           | 27,814         | 2,758          | 3,190          | 249,522           |
| Manufacture of rubber and plastics products   | 16,227           | 259,842              | 82,431           | 87,699         | 2,300          | 8,235          | 440,507           |
| Manufacture of other nonmetallic mineral products   | 7,157            | 281,647              | 58,739           | 17,502         | 97,499         | 2,427          | 457,815           |
| Manufacture of basic metals   | 9,535            | 209,312              | 40,066           | 27,930         | 2,563          | 4,628          | 284,498           |
| Manufacture of fabricated metal products, except machinery and equipment  | 10,341           | 581,747              | 142,273          | 10,469         | 5,189          | 11,632         | 751,309           |
| Manufacture of computer, electronic and optical products  | 36               | 0                    | 0                | 0              | 0              | 40             | 40                |
| Manufacture of electrical equipment   | 2,036            | 55,821               | 823              | 6,641          | 0              | 1,172          | 64,456            |
| Manufacture of machinery and equipment n.e.c.   | 1,799            | 24,070               | 10,326           | 16,811         | 167            | 1,440          | 52,814            |
| Manufacture of motor vehicles, trailers and semitrailers  | 3,432            | 121,377              | 35,001           | 59,866         | 15,476         | 5,057          | 236,776           |
| Manufacture of other transport equipment  | 294              | 6,042                | 1,417            | 0              | 700            | 180            | 8,339             |
| Manufacture of furniture  | 4,704            | 264,805              | 11,952           | 32,416         | 1,148          | 9,067          | 319,388           |
| Other manufacturing   | 6,880            | 56,052               | 14,803           | 3,249          | 81             | 3,087          | 77,273            |
| Repair and installation of machinery and equipment  | 2,658            | 169,953              | 10,314           | 18,424         | 12,209         | 7,566          | 218,466           |
| <b>Electricity</b>  | <b>8,157</b>     | <b>614,709</b>       | <b>23,791</b>    | <b>11,258</b>  | <b>60</b>      | <b>750</b>     | <b>650,568</b>    |
| Electricity, gas, steam and air conditioning supply   | 8,157            | 614,709              | 23,791           | 11,258         | 60             | 750            | 650,568           |
| <b>Water and sewerage</b>   | <b>7,426</b>     | <b>218,590</b>       | <b>12,090</b>    | <b>39,592</b>  | <b>9,073</b>   | <b>6,544</b>   | <b>285,888</b>    |
| Water collection, treatment and supply  | 7,003            | 213,766              | 11,640           | 39,509         | 9,059          | 6,331          | 280,303           |
| Sewerage  | 70               | 1,280                | 0                | 0              | 0              | 109            | 1,389             |
| Waste collection, treatment and disposal activities; materials recovery   | 353              | 3,544                | 450              | 83             | 14             | 104            | 4,196             |
| <b>Total</b>  | <b>324,841</b>   | <b>7,915,681</b>     | <b>1,331,545</b> | <b>907,546</b> | <b>500,097</b> | <b>323,576</b> | <b>10,978,445</b> |

### 3.6.1 Average Earnings by Industry

Average earnings for the regular and casual workers are presented in Table 3.7. Overall, average earnings amounted to KSh 44,760.3 per month in the industrial sector. Within manufacturing, the highest monthly average earnings for permanent workers were recorded in the manufacture of coke and refined petroleum products at KSh 196,009 per month. This was followed by the permanent employees in the manufacture of fabricated metal products, except machinery and equipment at 109,474 per month. Permanent employees in the manufacture of textiles were the least paid at KSh 13,526 per month. Casuals in the manufacture of motor vehicles, trailers and semitrailers were the highest paid at KSh 38,003. The lowest paid casuals were in the manufacture of textiles at KSh 4,504 per month.

**Table 3.7 Average Monthly Earnings to Workers by Industry, June 2009**

| Activity  | Regular         | Casual          | Total           |
|---|-----------------|-----------------|-----------------|
| <b>Mining and Quarrying</b>   |                 |                 |                 |
| Mining of metal ores  | 3,150.0         | -               | 3,150.0         |
| Other mining and quarrying  | 50,125.3        | 24,158.1        | 41,054.1        |
| Mining support service activities   | 40,000.0        | -               | 40,000.0        |
| <b>Manufacturing</b>  |                 |                 |                 |
| Manufacture of food products  | 34,626.8        | 16,198.9        | 27,319.2        |
| Manufacture of beverages  | 75,515.6        | 15,595.6        | 55,318.5        |
| Manufacture of tobacco products   | 16,506.3        | -               | 16,506.3        |
| Manufacture of textiles   | 13,526.6        | 4,503.5         | 10,984.2        |
| Manufacture of wearing apparel  | 16,746.6        | 7,577.5         | 15,746.7        |
| Manufacture of leather and related products   | 33,851.6        | 11,123.7        | 24,331.7        |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting | 14,024.1        | 15,117.8        | 14,191.0        |
| Manufacture of paper and paper products   | 78,173.2        | 11,539.5        | 58,477.5        |
| Printing and reproduction of recorded media   | 65,787.6        | 13,346.1        | 53,230.1        |
| Manufacture of coke and refined petroleum products  | 196,009.1       | 30,371.6        | 176,819.4       |
| Manufacture of chemicals and chemical products  | 72,027.9        | 16,352.2        | 63,663.6        |
| Manufacture of basic pharmaceutical products and pharmaceutical preparations  | 98,143.7        | 23,540.1        | 79,062.2        |
| Manufacture of rubber and plastics products   | 34,037.5        | 21,629.8        | 29,905.9        |
| Manufacture of other nonmetallic mineral products   | 81,283.5        | 30,030.3        | 62,790.3        |
| Manufacture of basic metals   | 39,634.9        | 11,055.8        | 28,004.3        |
| Manufacture of fabricated metal products, except machinery and equipment  | 109,474.4       | 35,068.4        | 77,261.7        |
| Manufacture of computer, electronic and optical products  | -               | -               | -               |
| Manufacture of electrical equipment   | 36,412.9        | 5,798.0         | 33,817.5        |
| Manufacture of machinery and equipment nec  | 47,196.2        | 15,118.2        | 28,831.3        |
| Manufacture of motor vehicles, trailers and semitrailers  | 58,607.9        | 38,002.9        | 52,265.3        |
| Manufacture of other transport equipment  | 37,528.0        | 22,486.8        | 33,297.6        |
| Manufacture of furniture  | 97,786.1        | 10,224.4        | 71,384.4        |
| Other manufacturing   | 24,349.5        | 14,803.4        | 21,458.4        |
| Repair and installation of machinery and equipment  | 78,536.4        | 34,726.7        | 73,249.3        |
| <b>Electricity</b>  |                 |                 |                 |
| Electricity, gas, steam and air conditioning supply   | 95,793.8        | 16,351.4        | 81,110.3        |
| <b>Water and Sewerage</b>   |                 |                 |                 |
| Water collection, treatment and supply  | 42,246.2        | 13,503.0        | 38,062.3        |
| Sewerage  | 20,320.3        | -               | 18,288.3        |
| Waste collection, treatment and disposal activities; materials recovery   | 13,078.8        | 14,516.1        | 13,226.3        |
| <b>Total</b>  | <b>54,150.0</b> | <b>18,182.3</b> | <b>44,760.3</b> |

## Chapter 4

### Industrial Production

#### 4.1 Introduction

One of the objectives of CIP was to establish the contribution, to overall industrial production, of the four sectors covered in the CIP, namely, Manufacturing; Mining and Quarrying; Electricity, Gas, Steam and Air conditioning supply; and Water Supply, Sewerage, Waste Management and Remediation Services. This report uses the production value to assess the contribution of various sectors to the overall industry output. Other useful data analysed in the report is level of capacity utilization in various sectors of the industry.

#### 4.2 Value of Industrial Production

Based on the census enumeration, manufacturing activities recorded the largest share of industrial production, accounting for 90.3 per cent of total value of industrial output in 2009. This was followed by electricity, gas, steam and air conditioning supply which recorded 7.9 per cent of the total output as illustrated in Figure 4.1.

Overall, the value of total industrial production was KSh 1,009.2 billion in 2009. As shown in Table 4.1 Manufacturing was the largest industrial activity with an output of KSh 910.8 billion whereas electricity and gas supply, mining and quarrying; and water and sewerage supply produced KSh 79.7 billion, KSh 13.3 billion and KSh 5.3 billion, respectively.

**Table 4.1      Production Value by Industry**

| Activity  | Total Value of<br>Production (KSh<br>Billion) | Percentage Share |
|---|---|------------------|
| Mining and Quarrying                                | 13.3  | 1.3              |
| Manufacturing                                       | 910.8   | 90.3             |
| Electricity, Gas, Steam and Air conditioning supply | 79.7  | 7.9              |
| Water supply, Sewerage                              | 5.3   | 0.5              |
| <b>Total</b>  | <b>1,009.2</b>                                | <b>100.0</b>     |

Figure 4.1: Percentage Share of Industrial Production

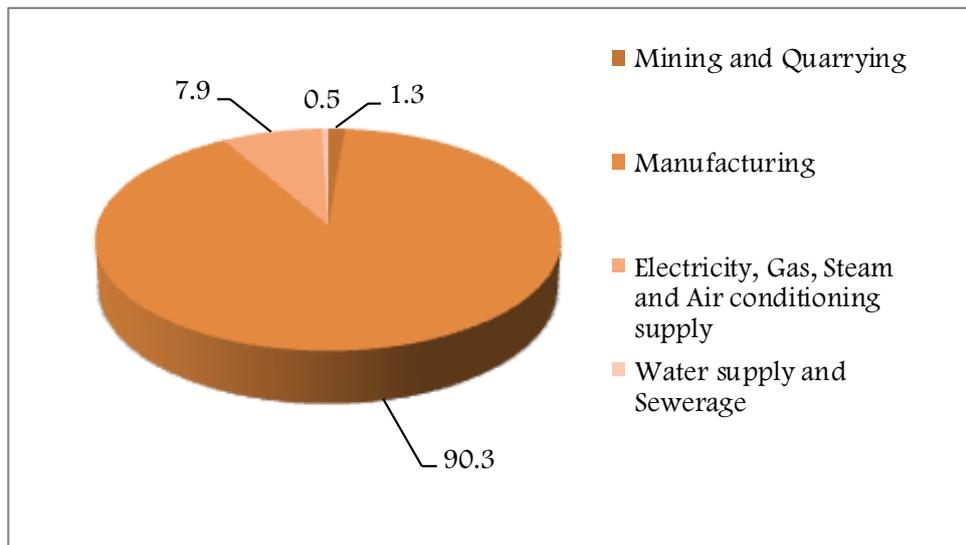


Table 4.2 gives a breakdown of the production of the subsectors. Within the manufacturing sector, the leading activity is the manufacture of food products which has a share of about 30 per cent of overall output value. Other notable activities include manufacture of coke and refined petroleum products; manufacture of beverages, manufacture of chemicals and chemical products, and printing and reproduction of recorded media. Each of these activities contributes more than 5 per cent of total production value. Electricity and water supply together with related activities have a combined contribution of almost 10 per cent. This reflects the important role of these activities in supporting other economic activities, especially manufacturing.

**Table 4.2 Detailed Production Value by Industry**

| <b>Economic Activity</b>   | <b>Total Value of Production (KSh Billion)</b> | <b>Percentage Share</b> |
|--|--|-------------------------|
| <b>Mining and Quarrying</b>  |  |                         |
| Mining of metals ores  | 1.2  | 0.1                     |
| Other mining and quarrying   | 12.1   | 1.2                     |
| Mining support service activities  | 0.0  | 0.0                     |
| <b>Total</b>   | <b>13.3</b>                                    | <b>1.3</b>              |
| <b>Manufacturing</b>   |  |                         |
| Manufacture of food products   | 300.3  | 29.8                    |
| Manufacture of beverages   | 60.4   | 6.0                     |
| Manufacture of tobacco products  | 12.2   | 1.2                     |
| Manufacture of textiles  | 30.8   | 3.1                     |
| Manufacture of wearing apparel   | 16.0   | 1.6                     |
| Manufacture of leather and related products  | 13.5   | 1.3                     |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting | 19.7   | 2.0                     |
| Manufacture of paper and paper products  | 26.4   | 2.6                     |
| Printing and reproduction of recorded media  | 52.3   | 5.2                     |
| Manufacture of coke and refined petroleum products   | 77.3   | 7.7                     |
| Manufacture of chemicals and chemical products   | 51.6   | 5.1                     |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 7.7  | 0.8                     |
| Manufacture of rubber and plastics products  | 48.5   | 4.8                     |
| Manufacture of other non-metallic mineral products   | 40.2   | 4.0                     |
| Manufacture of basic metals  | 41.4   | 4.1                     |
| Manufacture of fabricated metal products, except machinery and equipment   | 43.1   | 4.3                     |
| Manufacture of computer, electronic and optical products   | 1.0  | 0.1                     |
| Manufacture of electrical equipment  | 8.7  | 0.9                     |
| Manufacture of machinery and equipment n.e.c.  | 6.2  | 0.6                     |
| Manufacture of motor vehicles, trailers and semi-trailers  | 10.2   | 1.0                     |
| Manufacture of other transport equipment   | 0.8  | 0.1                     |
| Manufacture of furniture   | 13.4   | 1.3                     |
| Other manufacturing  | 9.6  | 1.0                     |
| Repair and installation of machinery and equipment   | 12.3   | 1.2                     |
| Manufacture of machinery and equipment n.e.c.  | <b>7.2</b>                                     | <b>0.7</b>              |
| <b>Total</b>   | <b>910.8</b>                                   | <b>90.3</b>             |
| <b>Electricity, Gas, Steam and Air conditioning supply</b>   |  |                         |
| Electricity, gas, steam and air conditioning supply  | 79.7   | 7.9                     |
| <b>Total</b>   | <b>79.7</b>                                    | <b>7.9</b>              |
| <b>Water supply, Sewerage</b>  |  |                         |
| Water collection, treatment and supply   | 4.5  | 0.4                     |
| Sewerage   | 0.0  | 0.0                     |
| Waste collection, treatment and disposal activities; materials recovery  | 0.7  | 0.1                     |
| <b>Total</b>   | <b>5.3</b>                                     | <b>0.5</b>              |
| <b>Grand Total</b>   | <b>1009.2</b>                                  | <b>100.0</b>            |

### 4.3 Capacity Utilization by Establishments

Capacity utilization refers to the current level of production compared to what would have been produced if all the machinery/equipment was fully engaged in production activities per the installed capacity. Table 4.3 gives a breakdown of the levels of capacity utilization across four economic activities. The level of capacity utilization by industries has a significant bearing on the level of labour productivity, employment, compensation of employees and the overall profitability of industrial activities. Various factors play a part in determining the level of capacity utilization. These factors include the supply of skilled manpower, supply of raw materials and the mechanical condition of machinery in use.

**Table 4.3 Percentage Level of Capacity Utilization by Economic Activity**

| Capacity Utilisation (%) | Mining and Quarrying |         | Manufacturing |         | Electricity, Gas, Steam and Air conditioning supply |         | Water supply, Sewerage |         | Total  |         |
|--------------------------|----------------------|---------|---------------|---------|---|---------|------------------------|---------|--------|---------|
|                          | Number               | Percent | Number        | Percent | Number  | Percent | Number                 | Percent | Number | Percent |
| 0-9                      | 3                    | 2.5     | 122           | 2.7     | -   | -       | 1                      | 1.4     | 126    | 2.6     |
| 10-19                    | 13                   | 10.7    | 169           | 3.7     | -   | -       | 3                      | 4.3     | 185    | 3.9     |
| 20-29                    | 8                    | 6.6     | 320           | 7       | 2   | 8       | 3                      | 4.3     | 333    | 6.9     |
| 30-39                    | 7                    | 5.8     | 297           | 6.5     | 1   | 4       | 5                      | 7.2     | 310    | 6.5     |
| 40-49                    | 11                   | 9.1     | 465           | 10.1    | 1   | 4       | 5                      | 7.2     | 482    | 10      |
| 50-59                    | 19                   | 15.7    | 518           | 11.3    | 5   | 20      | 10                     | 14.5    | 552    | 11.5    |
| 60-69                    | 15                   | 12.4    | 799           | 17.4    | 5   | 20      | 6                      | 8.7     | 825    | 17.2    |
| 70-79                    | 18                   | 14.9    | 738           | 16.1    | 3   | 12      | 8                      | 11.6    | 767    | 16      |
| 80-89                    | 17                   | 14      | 652           | 14.2    | 1   | 4       | 7                      | 10.1    | 677    | 14.1    |
| 90-100                   | 10                   | 8.3     | 508           | 11.1    | 7   | 28      | 21                     | 30.4    | 546    | 11.4    |

Distribution of establishments according to capacity utilization shows wide disparities. Overall, about 13 per cent of establishments covered had a capacity utilization of below 30 per cent, 11.4 per cent of establishments reported utilization levels above 90 per cent. These patterns are replicated across the sectors covered except for Electricity, Gas, Steam and Air conditioning supply; and Water Supply, Sewerage and Waste Management, each of which had about 30 per cent of establishments with capacity utilization above 90 per cent. A total of 29.9 per cent of establishments reported capacity utilization below 50 per cent. Close to half of all establishments reported average capacity utilization in the range of 60 per cent to 89 per cent.

**Table 4.4 Capacity Utilization by Industry**

| Economic Activity   | Capacity Utilization (%) |       |       |       |        |
|---|--------------------------|-------|-------|-------|--------|
|   | 0-19                     | 20-39 | 40-59 | 60-79 | 80-100 |
| Mining and quarrying  | 13.2                     | 12.4  | 24.8  | 27.3  | 22.3   |
| Manufacture of food products                                    | 8.3                      | 18.5  | 22.4  | 26.2  | 24.6   |
| Manufacture of beverages  | 3.4                      | 11.8  | 22.5  | 31.5  | 30.9   |
| Manufacture of tobacco products                                 | -                        | -     | -     | 100.0 | -      |
| Manufacture of textiles   | 9.6                      | 5.3   | 18.2  | 44.4  | 22.5   |
| Manufacture of wearing apparel                                  | -                        | 1.0   | 18.0  | 47.0  | 34.0   |
| Manufacture of leather and related products                     | 1.8                      | 10.7  | 12.5  | 37.5  | 37.5   |
| Manufacture of wood and products of wood and cork               | 4.5                      | 17.2  | 15.7  | 32.3  | 30.3   |
| Manufacture of paper and paper products                         | 0.9                      | 8.2   | 25.5  | 45.5  | 20.0   |
| Printing and reproduction of recorded media                     | 11.7                     | 7.0   | 20.2  | 39.4  | 21.6   |
| Manufacture of coke and refined petroleum products              | 8.3                      | 27.8  | 13.9  | 47.2  | 2.8    |
| Manufacture of chemicals and chemical products                  | 2.0                      | 17.4  | 34.5  | 31.8  | 14.4   |
| Manufacture of basic pharmaceutical products and pharmaceutical | 5.4                      | 0.9   | 19.6  | 40.2  | 33.9   |
| Manufacture of rubber and plastics products                     | -                        | 2.7   | 18.7  | 48.7  | 29.9   |
| Manufacture of other nonmetallic mineral products               | -                        | 14.3  | 19.3  | 22.7  | 43.7   |
| Manufacture of basic metals                                     | 5.6                      | -     | 29.6  | 42.6  | 22.2   |
| Manufacture of fabricated metal products, except machinery      | 8.2                      | 9.1   | 15.0  | 38.2  | 29.5   |
| Manufacture of computer, electronic and optical products        | -                        | -     | -     | 100.0 | -      |
| Manufacture of electrical equipment                             | -                        | 22.6  | -     | 52.8  | 24.5   |
| Manufacture of machinery and equipment n.e.c.                   | 10.2                     | 24.5  | -     | 49.0  | 16.3   |
| Manufacture of motor vehicles, trailers and semitrailers        | 1.2                      | 8.2   | 41.2  | 30.6  | 18.8   |
| Manufacture of other transport equipment                        | 50.0                     | 50.0  | -     | -     | -      |
| Manufacture of furniture  | 7.0                      | 8.8   | 15.8  | 37.7  | 30.7   |
| Other manufacturing   | -                        | 19.0  | 10.3  | 51.7  | 19.0   |
| Repair and installation of machinery and equipment              | 24.2                     | -     | 13.6  | 30.3  | 31.8   |
| Electricity, gas, steam and air conditioning supply             | -                        | 12.0  | 24.0  | 32.0  | 32.0   |
| Water collection, treatment and supply                          | 6.2                      | 9.2   | 21.5  | 20.0  | 43.1   |
| Sewerage  | -                        | 50.0  | -     | 50.0  | -      |
| Waste collection, treatment and disposal activities             | -                        | 50.0  | 50.0  | -     | -      |

#### 4.4 Reasons for Capacity Underutilization

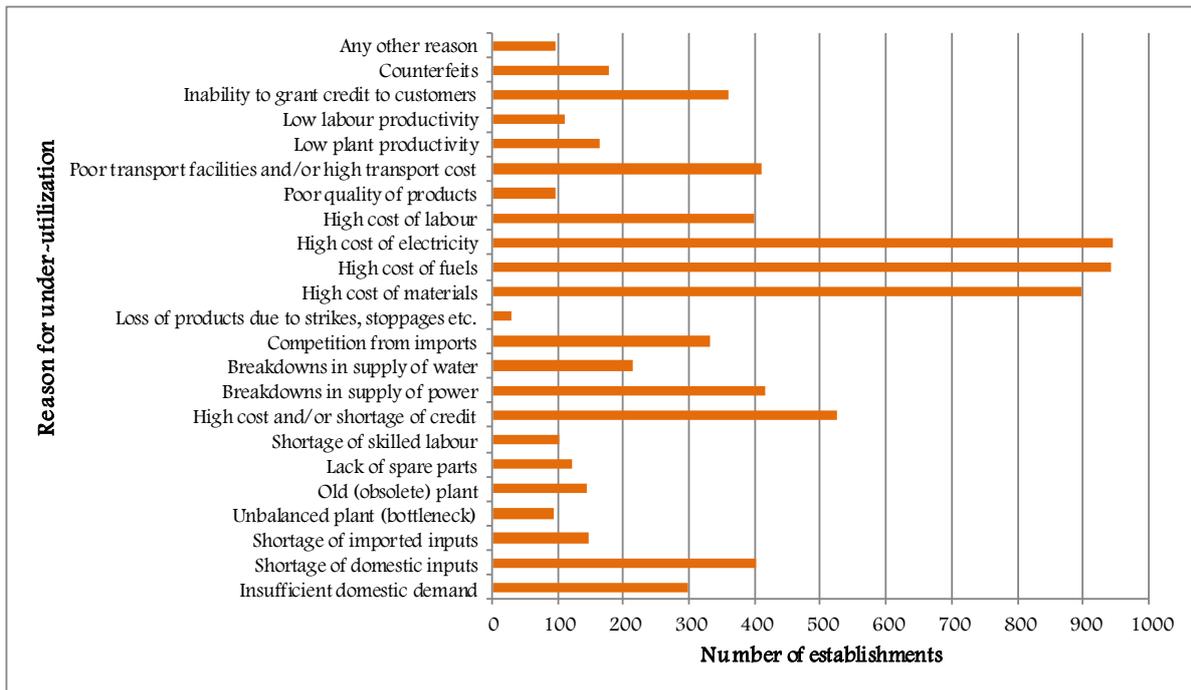
All establishments covered during the CIP reported various levels of underutilization of existing capacity of production. This means that for each of the establishments visited, if the production plant, labour force and other available resources were optimally applied, then the establishment had room for increased production beyond the quantities reported for the reference year.

The census sought to understand the operational challenges faced by industrial activities by including questions on the constraints making it difficult for establishments to realize higher levels of production. For each of the constraints mentioned, the respondent assessed the importance of the reason by indicating whether it affected the establishment highly, moderately or lowly. The responses were analysed and ranked as presented in Table 4.5 and as depicted in Figure 4.2.

**Table 4.5 Reasons for Capacity Underutilization**

| Reasons  | Ranking          |                      |                 |                 |
|--|------------------|----------------------|-----------------|-----------------|
|  | High<br>Per cent | Moderate<br>Per cent | Low<br>Per cent | N/A<br>Per cent |
| Insufficient domestic demand                         | 19.0             | 26.5                 | 16.4            | 38.1            |
| Shortage of domestic inputs                          | 26.1             | 22.8                 | 19.6            | 31.4            |
| Shortage of imported inputs                          | 10.0             | 15.6                 | 17.3            | 57.1            |
| Unbalanced plant (bottleneck)                        | 6.6              | 14.7                 | 18.3            | 60.4            |
| Old (obsolete) plant                                 | 9.8              | 15.1                 | 16.9            | 58.2            |
| Lack of spare parts                                  | 8.0              | 15.6                 | 27.7            | 48.7            |
| Shortage of skilled labour                           | 6.7              | 19.9                 | 28.8            | 44.6            |
| High cost and/or shortage of credit                  | 33.7             | 22.9                 | 14.3            | 29.1            |
| Breakdowns in supply of power                        | 26.3             | 27.3                 | 20.5            | 25.8            |
| Breakdowns in supply of water                        | 14.2             | 15.1                 | 23.4            | 47.3            |
| Competition from imports                             | 22.1             | 13.4                 | 12.1            | 52.5            |
| Loss of products due to strikes, stoppages etc.      | 2.0              | 5.0                  | 20.4            | 72.6            |
| High cost of materials                               | 55.7             | 20.3                 | 6.6             | 17.4            |
| High cost of fuels                                   | 59.7             | 17.7                 | 4.7             | 17.9            |
| High cost of electricity                             | 58.6             | 17.9                 | 5.0             | 18.5            |
| High cost of labour                                  | 25.8             | 35.2                 | 15.9            | 23.1            |
| Poor quality of products                             | 6.6              | 17.4                 | 22.9            | 53.0            |
| Poor transport facilities and/or high transport cost | 27.0             | 26.2                 | 16.4            | 30.3            |
| Low plant productivity                               | 11.2             | 18.7                 | 23.0            | 47.1            |
| Low labour productivity                              | 7.5              | 23.2                 | 24.9            | 44.3            |
| Inability to grant credit to customers               | 24.1             | 19.3                 | 16.2            | 40.4            |
| Counterfeits   | 12.3             | 10.4                 | 10.4            | 66.9            |
| Any other reason                                     | 15.5             | 3.0                  | 2.4             | 79.1            |

**Figure 4.2: Establishments in relation to reasons given for low capacity utilization**



High cost of raw materials and other inputs appears to be a major challenge to industrial production in the country. Out of all the production units that reported these as operational constraints, cost of materials, fuels and electricity were reported by more than half of the establishments as a problem that affected them highly. High cost of labour was reported by 25.8 per cent of units as a highly influencing challenge, while 27.0 per cent indicated that poor but costly transportation of materials was a major challenge. One third of affected units reported limited access and high cost of credit as a high contributor to sub-optimal production levels. Similarly, slightly over 26 per cent of affected establishments reported each of unreliable electricity supply and shortage of domestic material inputs as major constraints in their operations.

Various other aspects of production were reported by units as affecting them negatively in their production activities. These include competition from imports and counterfeit items which diminish product demand, poor water supply and insufficient domestic demand. However, a number of reported constraints affected only a small proportion of establishments, meaning that these had minimal negative effects on the overall industrial production in the country. For each of the constraints of shortage of imported inputs, unbalanced plant (bottlenecks), old or obsolete plant, competition from imports, loss of products due to strikes, poor quality of products and competition from counterfeits; more than 50 per cent reported that these constraints did not affect them at all.

## Chapter 5

### Inputs in Industrial Production

#### 5.1 Introduction

Inputs in general terms are described as factors of production which are used in the production process. The inputs are usually categorized into raw materials and supplies; labour services; capital goods; and land. Land, labour and capital goods constitute primary factors which facilitate production but neither become part of the product nor become significantly transformed by the production process. On the contrary, raw materials and supplies consist of goods and/or services that may be either transformed or used up in the production processes. Such inputs, known as *intermediate inputs*, may re-emerge after having been transformed and incorporated into the output, for instance wheat flour may be transformed into bread; or may be completely consumed, as is the case for electricity and most services.

Intermediate consumption<sup>2</sup> excludes expenditures by enterprises on valuables consisting of works of art, precious metals and stones and articles of jewellery fashioned out of them. Valuables are assets acquired as stores of value: they are not used up in production and do not deteriorate physically over time. Intermediate consumption also excludes costs incurred by the gradual using up of fixed assets owned by the enterprise: the decline in their value during the accounting period is recorded as consumption of fixed capital. However, intermediate consumption does include the rentals paid on the use of fixed assets, whether equipment or buildings, that are leased from other institutional units under an operating lease, and also fees, commissions, royalties, and others, payable under licensing arrangements. Values of goods or services used as inputs into ancillary activities such as purchasing, sales, marketing, accounting, data processing, transportation, storage, maintenance and security are also included as intermediate consumption.

To analyze input composition in the production processes, the terms *intermediate consumption and material costs*, have been used interchangeably. The terms refer to direct charges actually paid or payable for goods and services consumed or put into production during the year 2009, including freight charges and other direct charges incurred by the establishment in acquiring these materials. Specifically,

The items included under intermediate consumption are:

1. Cost of all raw materials, semi-finished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for ordinary regular maintenance and repair during the year.
2. Cost of fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.
3. Cost of purchased electricity during the year for heat and power.

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<sup>2</sup> Intermediate consumption refers to the *value of the goods and services* consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital.

4. Cost of contract work. The term “Contract Work” refers to the fee a company pays to another company to perform a service.
5. Operating expenses such as the rentals paid on buildings or equipment under an operating lease, and also fees, commissions, royalties, etc., payable under licensing arrangements
6. The value of goods or services used as inputs into ancillary activities such as purchasing, sales, marketing, accounting, data processing, transportation, storage, maintenance, security, etc.

Expenditures excluded are:

1. The value of the depreciation of fixed assets.
2. Valuables bought by enterprises such as works of art, precious metals and stones, ornaments and jewellery.
3. Major renovations, reconstructions, or enlargements of existing fixed assets enhancing their efficiency or capacity, or prolonging their expected working lives.
4. Expenditures on mineral exploration.
5. Expenditures on research and development. This is treated as capital formation.
6. Items used by employees in their own time and at their own discretion for their own use, are regarded as remuneration in kind, not intermediate consumption.

Overall, the value of inputs into the sector’s production process was estimated at KSh 701.9 billion, of which KSh 689.3 billion was intermediate consumption. Cost of raw materials constituted 81.2 per cent of the inputs into the process of production activities of sectors. Energy and water accounted for 8.1 per cent of the input costs while expenditure on other type of inputs amounted to 10.6 per cent. In 2009, inventories were estimated to have depleted by KSh 902.6 million probably due the start of an economic recovery after a slowdown in 2008. Finally, value added (contribution to GDP) of the formal industrial sector was found to be KSh 319.8 billion.

The analyses of the results are presented in four sub-sections namely: components of material cost in general; expenditure on raw materials; expenditure on “electricity, water and fuel” and; other operating costs. Production costs related to labour were discussed in chapter 3 whereas chapter 7 covers costs associated with capital goods.

## **5.2 Components of material cost**

Total recurrent expenditure of industrial and construction activities amounted to KSh 704.8 billion out of which KSh 692.3 billion was intermediate consumption. The non-intermediate costs, reflected as “other recurrent expenses”, accounted for 9.0 per cent of the total recurrent expenses. Insurance premium payments, interest payments, and environmental protection costs are some of the items excluded from intermediate costs and are presented as “other recurrent expenses”. These items reflect expenses that relate to redistribution of income, therefore are not directly linked to cost of production.

**Figure 5.1: Components of Material Expenditures by Broad Economic Activity**

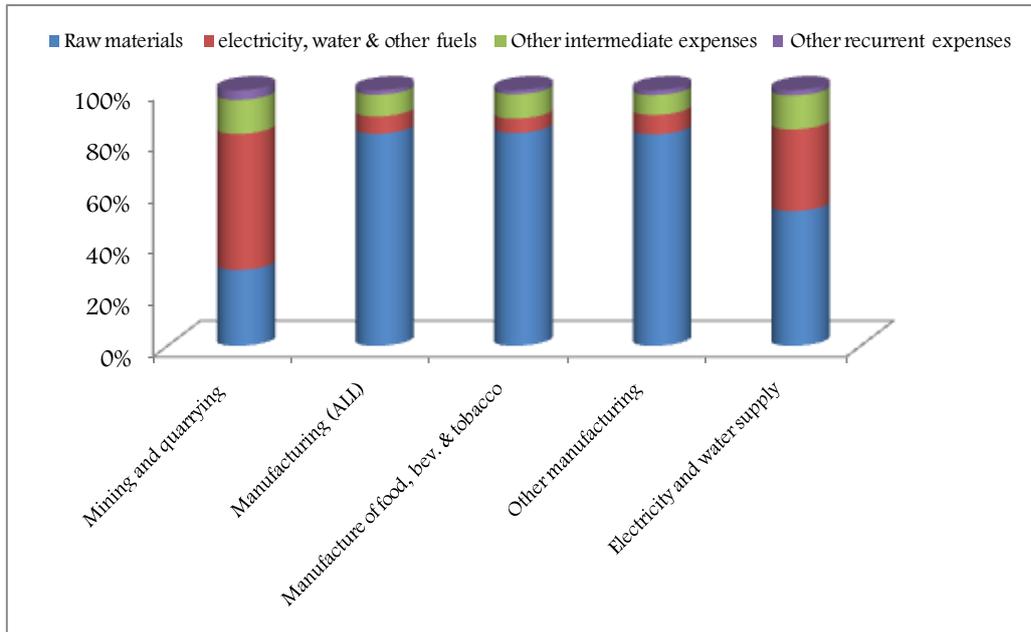


Figure 5.1 highlights the composition of expenditures by economic activity at broad levels. The intermediate costs consisted expenses on raw materials, “electricity, water and fuel”, and “other intermediate expenses”. Each of the three categories recorded expenditure share of 82.7 per cent, 8.3 per cent, and 9.0 per cent, respectively.

Comparison across activities indicated that production expenses in manufacturing are mostly on raw materials. When manufacturing activities are disaggregated into processing of food, beverages & tobacco and, “other manufacturing activity”, the later recorded a lower expenditure share of 41.6 per cent compared to 58.4 per cent for food processing industries. Mining & Quarrying and Electricity & Water supply incurred low expenses on raw materials recording expenditure shares of 0.3 per cent and 3.5 per cent, respectively.

Electricity and Water supply activities registered the largest share of intermediate consumption on “electricity, water and fuel” which constituted 76 per cent of the purchases spent on this category. High expenditure on petroleum products by Electricity supply sub-sector accounted for the observed outcome. The electricity supply sub-sector spent 79 per cent on “electricity, water and fuel”, while Water supply sub-sector recorded 24 per cent.

Table 5.1 provides expenditure structure of intermediate consumption by activity at a detailed level. Across activities, similar results were observed with most industries recording proportion of intermediate consumption (IC) to the total recurrent expenditures in excess of 80 per cent.

Composition of expenditure across activities showed a similar trend with high proportion of expenses on raw materials followed by “electricity, water and fuel” costs and other intermediate expenses. Expenditures on electricity, water and fuel were low although

exceptions were recorded in mining of non-ferrous metal ores and other mining and quarrying which were above 50 per cent.

**Table 5.1 Share of Input Components in Total Intermediate Consumption by Activity**

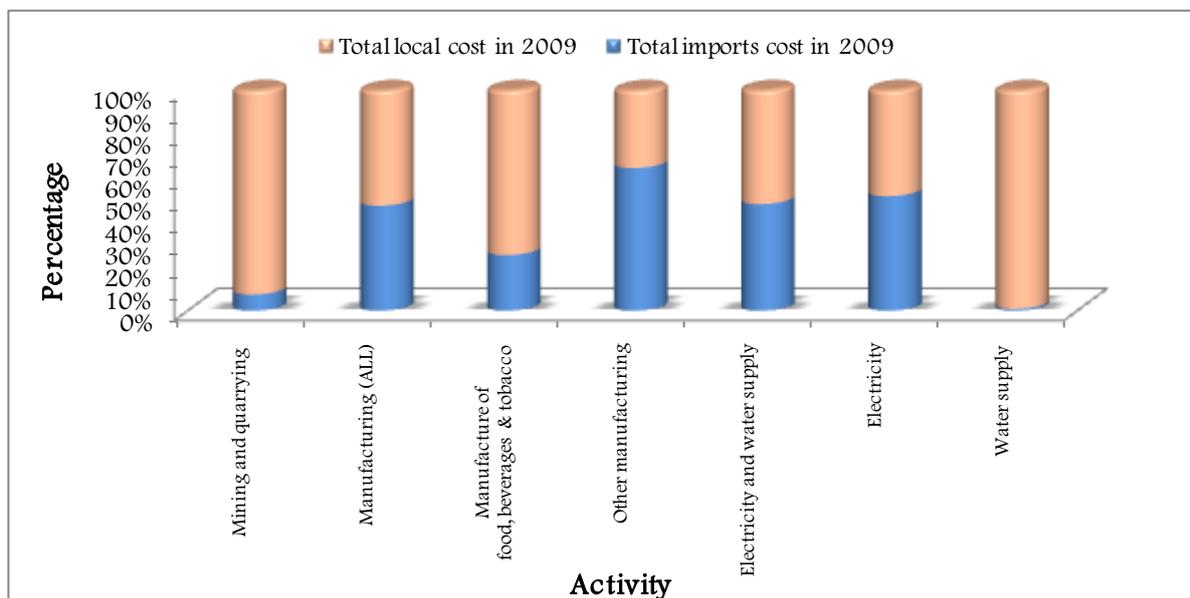
| Activity   | Raw material | Electricity, water and fuel | Other intermediate expenses |
|--|--------------|-----------------------------|-----------------------------|
| Mining of non-ferrous metals ores  | 37.8         | 62.2                        | -                           |
| Other mining and quarrying   | 28.9         | 52.4                        | 14.5                        |
| Mining support service activities  | 71.0         | 23.7                        | 3.0                         |
| Manufacture of food products   | 84.7         | 5.5                         | 8.3                         |
| Manufacture of beverages   | 72.2         | 6.5                         | 19.2                        |
| Manufacture of tobacco products  | 92.5         | 5.0                         | 1.3                         |
| Manufacture of textiles  | 82.4         | 8.6                         | 6.9                         |
| Manufacture of wearing apparel   | 83.4         | 5.2                         | 9.0                         |
| Manufacture of leather and related products  | 79.1         | 8.6                         | 7.5                         |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 79.5         | 12.7                        | 6.4                         |
| Manufacture of paper and paper products  | 72.6         | 16.6                        | 6.9                         |
| Printing and reproduction of recorded media  | 80.8         | 4.5                         | 10.8                        |
| Manufacture of coke and refined petroleum products   | 97.1         | 1.0                         | 1.8                         |
| Manufacture of chemicals and chemical products   | 81.6         | 5.4                         | 10.8                        |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 76.5         | 3.8                         | 17.0                        |
| Manufacture of rubber and plastics products  | 82.0         | 8.6                         | 7.4                         |
| Manufacture of other non-metallic mineral products   | 67.6         | 22.3                        | 9.2                         |
| Manufacture of basic metals  | 88.4         | 5.0                         | 5.3                         |
| Manufacture of fabricated metal products, except machinery and equipment   | 83.5         | 4.5                         | 9.2                         |
| Manufacture of computer, electronic and optical products   | 92.3         | 0.8                         | 6.5                         |
| Manufacture of electrical equipment  | 86.0         | 5.4                         | 7.5                         |
| Manufacture of machinery and equipment n.e.c.  | 79.0         | 6.3                         | 13.8                        |
| Manufacture of motor vehicles, trailers and semi-trailers  | 89.1         | 2.0                         | 7.6                         |
| Manufacture of other transport equipment   | 65.2         | 28.3                        | 5.4                         |
| Manufacture of furniture   | 86.3         | 2.8                         | 10.0                        |
| Other manufacturing  | 73.9         | 15.8                        | 8.8                         |
| Repair and installation of machinery and equipment   | 61.9         | 15.5                        | 16.1                        |
| Electricity, gas, steam and air conditioning supply  | 52.7         | 32.9                        | 12.6                        |
| Water collection, treatment and supply   | 53.1         | 16.0                        | 24.6                        |
| Sewerage   | 12.6         | 21.1                        | 52.2                        |
| Waste collection, treatment and disposal activities; materials recovery  | 57.5         | 29.1                        | 12.1                        |
| Remediation activities and other waste management services   |              |                             |                             |
| <b>Total</b>   | <b>81</b>    | <b>8.5</b>                  | <b>10.6</b>                 |

### 5.3 Expenditure on raw materials

Raw materials are substances, or components that are transformed by establishments and are products of other establishments as well as establishments similar to the producing units. The materials may be purchased directly from producers, obtained through customary trade channels, or secured without option to the market by transferring the product from one establishment to another, under the same ownership. In 2009, the industrial establishments purchased raw materials worth KSh 570.1 billion. Out of this,

52.4 per cent was sourced locally while 47.6 per cent was imported. Figure 5.2 shows the composition of raw materials by activity/sub-activity and source of supply.

**Figure 5.2: Expenditure on Raw Materials by Activity and Source of Supply**



Mining and quarrying activities recorded import share of 7.4 per cent while manufacturing had a share of 25.3 per cent. The sub-activities of manufacturing; manufacture of food & beverage and ‘Other manufacturing’, had import shares of 47.4 per cent and 34.4 per cent, respectively. This indicates that the rest of activities have a low import dependency in terms of supply of their raw materials.

Table 5.2 presents the annual expenditure on raw materials by activity and source at detailed activity level. Manufacture of wearing apparel, manufacture of leather & related products, manufacture of pharmaceuticals, manufacture of rubber & plastic products and, manufacture of fabricated metals all recorded import shares of at least three quarters of the total supply. Manufacture of coke & refined petroleum products have a 99.0 per cent import dependency while water collection, treatment and supply had the lowest import component.

**Table 5.2 Annual Expenditures on Raw Materials by Activity and Source, KSh Million**

| Activity   | Imported Materials | Domestic Materials | Total Materials  | Percentage share of imports |
|--|--------------------|--------------------|------------------|-----------------------------|
| Mining of non-ferrous metals ores  | 96.5               | 89.8               | 186.3            | 51.8                        |
| Other mining and quarrying   | 33.4               | 1,579.0            | 1,612.4          | 2.1                         |
| Mining support service activities  | 2.9                | 2.7                | 5.6              | 51.8                        |
| Manufacture of food products   | 40,185.9           | 162,683.2          | 202,869.1        | 19.8                        |
| Manufacture of beverages   | 14,385.0           | 12,201.6           | 26,586.6         | 54.1                        |
| Manufacture of tobacco products  | 5,257.8            | 2,214.6            | 7,472.4          | 70.4                        |
| Manufacture of textiles  | 7,797.3            | 9,994.7            | 17,792.1         | 43.8                        |
| Manufacture of wearing apparel   | 4,659.3            | 2,506.3            | 7,165.6          | 65.0                        |
| Manufacture of leather and related products  | 2,411.1            | 3,725.8            | 6,136.9          | 39.3                        |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 878.0              | 12,621.9           | 13,499.9         | 6.5                         |
| Manufacture of paper and paper products  | 8,116.7            | 6,295.5            | 14,412.2         | 56.3                        |
| Printing and reproduction of recorded media  | 8,531.1            | 13,768.9           | 22,300.0         | 38.3                        |
| Manufacture of coke and refined petroleum products   | 55,071.8           | 555.1              | 55,626.9         | 99.0                        |
| Manufacture of chemicals and chemical products   | 16,268.2           | 13,729.5           | 29,997.7         | 54.2                        |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 2,977.8            | 1,863.5            | 4,841.3          | 61.5                        |
| Manufacture of rubber and plastics products  | 26,146.6           | 5,009.5            | 31,156.1         | 83.9                        |
| Manufacture of other non-metallic mineral products   | 16,179.5           | 3,715.6            | 19,895.1         | 81.3                        |
| Manufacture of basic metals  | 17,194.6           | 7,278.4            | 24,473.0         | 70.3                        |
| Manufacture of fabricated metal products, except machinery and equipment   | 17,332.7           | 6,413.3            | 23,746.0         | 73.0                        |
| Manufacture of computer, electronic and optical products   | 335.9              | 312.5              | 648.4            | 51.8                        |
| Manufacture of electrical equipment  | 4,009.9            | 1,442.2            | 5,452.1          | 73.5                        |
| Manufacture of machinery and equipment n.e.c.  | 1,429.3            | 7,517.8            | 8,947.1          | 16.0                        |
| Manufacture of motor vehicles, trailers and semi-trailers  | 2,544.6            | 3,469.6            | 6,014.1          | 42.3                        |
| Manufacture of other transport equipment   | 0.0                | 586.6              | 586.6            | 0.0                         |
| Manufacture of furniture   | 5,944.0            | 4,896.0            | 10,840.0         | 54.8                        |
| Other manufacturing  | 1,682.1            | 3,204.5            | 4,886.6          | 34.4                        |
| Repair and installation of machinery and equipment   | 1,996.7            | 834.6              | 2,831.2          | 70.5                        |
| Electricity, gas, steam and air conditioning supply  | 9,742.2            | 8,993.3            | 18,735.4         | 52.0                        |
| Water collection, treatment and supply   | 0.1                | 1,146.3            | 1,146.3          | 0.0                         |
| Sewerage   | 0.5                | 0.5                | 1.1              | 51.8                        |
| Waste collection, treatment and disposal activities; materials recovery  | 11.2               | 266.1              | 277.3            | 4.0                         |
| Remediation activities and other waste management services   | 0.0                | 0.0                | 0.0              | 0.0                         |
| <b>Total</b>   | <b>271,222.5</b>   | <b>298,918.9</b>   | <b>570,141.5</b> | <b>47.6</b>                 |

## 5.4 Expenditure on Electricity, Water and Fuel

Expenditure on “electricity, water and fuels” specifically includes expenses on coke, coal, electricity, wood-fuel, gas oil (heavy diesel, road diesel and other diesel), fuel oils, kerosene, lubricating oil, grease and water. In the presented analysis, the items were broadly categorized into three components. Petroleum products category consisted expenses on gas oil, fuel oils, grease, kerosene and lubricating oil. Electricity and water were grouped together though the total expenditure in this category largely reflects electricity costs. Expenses on wood-fuel, coke and coal were categorized as “coal and other fuels.”

**Figure 5.3: Annual Expenditure Shares on Petroleum Products, Electricity and Water, and Other Fuels by Activity**

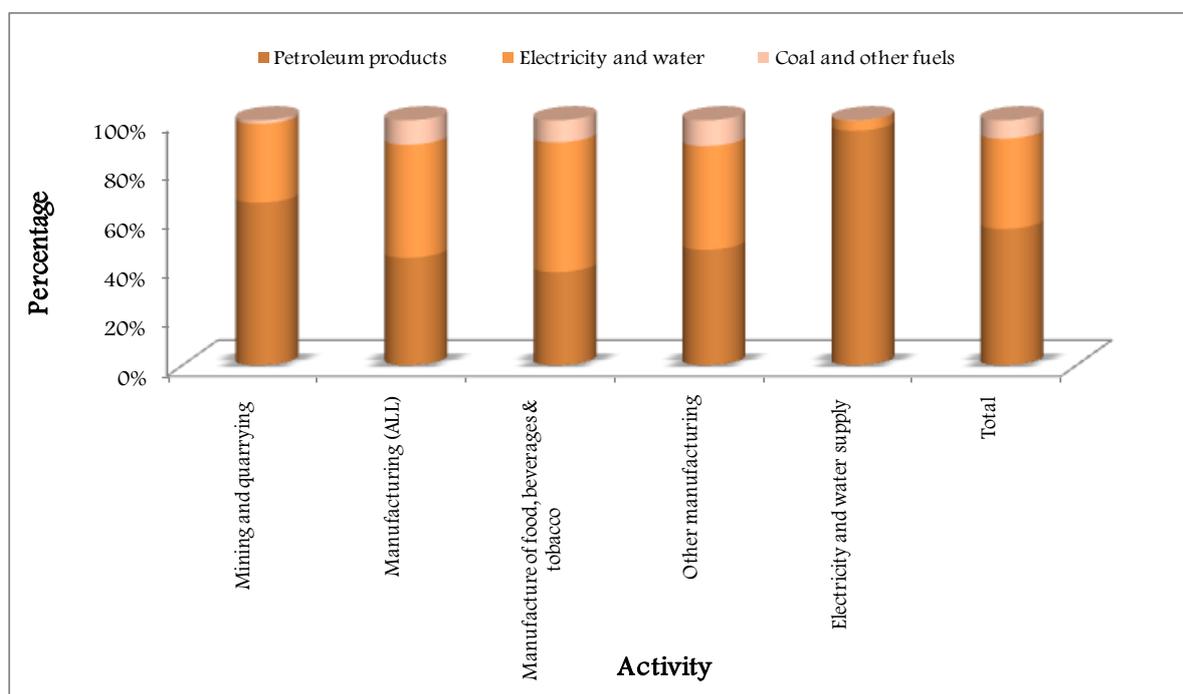


Figure 5.3 shows the expenditure structure of the three input categories by industry. Most of the expenditure in mining and quarrying activity was on petroleum products with negligible expenditure share in coal and other fuels. “Other manufacturing” activity (excluding manufacture of food, beverages and tobacco) recorded the least share of expenditure on petroleum products. The results indicate that mining and quarrying, and electricity supply activities depended heavily on petroleum products to produce. On the contrary, manufacture of food, beverages and tobacco spent more on electricity.

Annual expenditures at detailed activity level are presented in Table 5.3. Total expenditure on “electricity, water and fuel” for all industries amounted to KSh. 59.9 billion out of which 55.7 per cent was on petroleum products. Total expenditures on “electricity and water” and “coal and other fuels” were 36.9 per cent and 7.4 per cent, respectively. Comparison across activities showed manufacturing of food products and electricity supply activities as large purchasers of petroleum products and “coal and other fuels”.

**Table 5.3 Annual Expenditures on Petroleum Products, Electricity and Water and Other Fuels by Activity (KSh Million)**

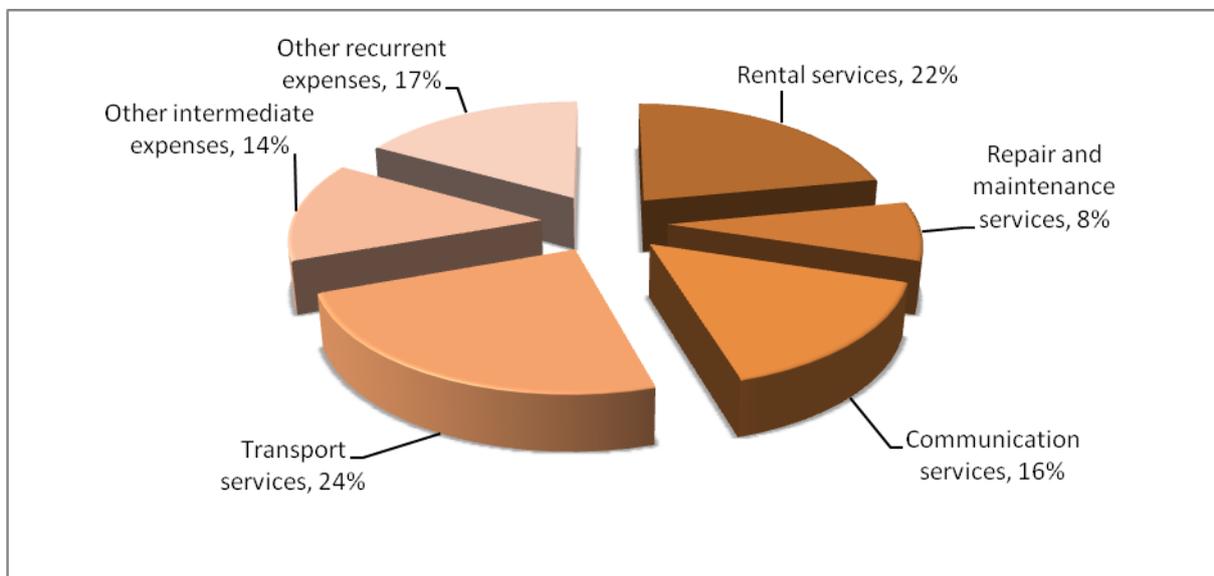
| Activity  | Petroleum Products | Electricity and water | Coal and other fuels | Total           |
|---|--------------------|-----------------------|----------------------|-----------------|
| Mining of non-ferrous metals ores   | 164.2              | 140.4                 | 1.9                  | 306.4           |
| Other mining and quarrying  | 1,978.1            | 899.9                 | 42.8                 | 2,920.9         |
| Mining support service activities   | 1.0                | 0.9                   | 0.0                  | 1.9             |
| Manufacture of food products  | 4,631.0            | 7,148.8               | 1,435.3              | 13,215.0        |
| Manufacture of beverages  | 1,383.8            | 1,007.7               | 1.9                  | 2,393.4         |
| Manufacture of tobacco products   | 81.3               | 320.5                 | -                    | 401.8           |
| Manufacture of textiles   | 717.6              | 1,009.5               | 127.8                | 1,854.9         |
| Manufacture of wearing apparel  | 140.9              | 298.1                 | 8.5                  | 447.5           |
| Manufacture of leather and related products   | 168.3              | 495.2                 | -                    | 663.5           |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 1,903.5            | 248.5                 | 0.2                  | 2,152.2         |
| Manufacture of paper and paper products   | 1,470.5            | 1,173.7               | 644.5                | 3,288.7         |
| Printing and reproduction of recorded media   | 691.2              | 514.0                 | 26.4                 | 1,231.6         |
| Manufacture of coke and refined petroleum products  | 121.7              | 477.4                 | -                    | 599.1           |
| Manufacture of chemicals and chemical products  | 1,177.2            | 626.0                 | 191.0                | 1,994.2         |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products   | 101.5              | 135.3                 | 5.4                  | 242.2           |
| Manufacture of rubber and plastics products   | 664.3              | 2,604.0               | -                    | 3,268.2         |
| Manufacture of other non-metallic mineral products  | 3,155.5            | 1,471.3               | 1,936.2              | 6,562.9         |
| Manufacture of basic metals   | 654.2              | 722.4                 | -                    | 1,376.6         |
| Manufacture of fabricated metal products, except machinery and equipment  | 888.5              | 390.0                 | 0.1                  | 1,278.6         |
| Manufacture of computer, electronic and optical products  | 5.4                | 0.5                   | -                    | 5.9             |
| Manufacture of electrical equipment   | 125.7              | 208.9                 | 8.4                  | 343.0           |
| Manufacture of machinery and equipment n.e.c.   | 51.4               | 644.2                 | 13.7                 | 709.3           |
| Manufacture of motor vehicles, trailers and semi-trailers   | 56.5               | 78.4                  | 0.5                  | 135.4           |
| Manufacture of other transport equipment  | 0.3                | 254.0                 | -                    | 254.3           |
| Manufacture of furniture  | 214.0              | 134.4                 | -                    | 348.4           |
| Other manufacturing   | 729.7              | 317.7                 | 0.5                  | 1,047.9         |
| Repair and installation of machinery and equipment  | 413.3              | 277.0                 | 16.3                 | 706.6           |
| Electricity, gas, steam and air conditioning supply   | 11,546.0           | 168.8                 | -                    | 11,714.8        |
| Water collection, treatment and supply  | 134.8              | 205.9                 | 4.6                  | 345.3           |
| Sewerage  | 1.6                | 0.2                   | -                    | 1.8             |
| Waste collection, treatment and disposal activities; materials recovery   | 7.6                | 132.5                 | -                    | 140.1           |
| Remediation activities and other waste management services  | -                  | -                     | -                    | -               |
| <b>Total</b>  | <b>33,380.4</b>    | <b>22,106.1</b>       | <b>4,465.9</b>       | <b>59,952.4</b> |

## 5.5 Other Operating Expenses

In addition to the total cost of raw materials and expenditures on electricity, water and fuels, information was sought on the consumption of other operating expenses. The inquiries were restricted to the expenses that were important in the cost of production. Information collected included cost of repair and maintenance services of buildings and/or machinery; communication services; legal services; accounting, auditing, and bookkeeping services; advertising and promotional services; expensed computer hardware and supplies and purchased computer services; refuse removal services; management consulting and

administrative services; and all other expenses not previously stated. Each of these items reflected the costs paid directly by the establishment and excluded salaries paid to employees of the establishment for these services.

**Figure 5.4: Components of “other operating expenses”**



Excluded from the listed items were extensive repairs or reconstruction that was capitalized; costs incurred directly by the establishment in using its own work force to perform repairs and maintenance work, repairs and maintenance provided by the building or machinery owner as part of the rental contract.

Figure 5.4 shows the share composition of “other operating expenses.” Firms recorded large expenses in transport services, rental services and communication services. The three groups of services accounted for more than 50 per cent of the total costs incurred.

Table 5.5 provides details on the distribution of “Other operating expenses” by activity where 16.8 per cent of the total “other operating expenses”, which translated to KSh. 12.6 billion, were spent on purchases that had a direct effect on the cost of production.

**Table 5.4 Other Operating Expenses by Broad Category and Activity (KSh million)**

| Activity   | Rental services | Repair and maintenance | Communication services | Transport services | Other input expenses | Other expense | Total         |
|--|-----------------|------------------------|------------------------|--------------------|----------------------|---------------|---------------|
| Mining of non-ferrous metals ores  | -               | -                      | -                      | -                  | -                    | -             | -             |
| Other mining and quarrying   | 260.9           | 210.2                  | 48.1                   | 184.0              | 103.0                | 231.5         | 1,037.8       |
| Mining support service activities  | 0.2             | -                      | 0.1                    | -                  | 0.0                  | 0.2           | 0.4           |
| Manufacture of food products   | 4,126.5         | 1,741.1                | 2,278.2                | 8,046.0            | 3,725.7              | 3,564.5       | 23,481.9      |
| Manufacture of beverages   | 1,369.0         | 426.1                  | 2,014.5                | 1,289.2            | 1,952.3              | 780.2         | 7,831.3       |
| Manufacture of tobacco products  | -               | -                      | -                      | -                  | 103.4                | 103.4         | 206.8         |
| Manufacture of textiles  | 696.7           | 50.6                   | 152.5                  | 468.1              | 112.6                | 472.9         | 1,953.4       |
| Manufacture of wearing apparel   | 461.6           | 14.4                   | 103.6                  | 168.7              | 27.4                 | 201.7         | 977.4         |
| Manufacture of leather and related products  | 88.9            | 62.5                   | 77.6                   | 219.3              | 132.2                | 376.3         | 956.8         |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 573.9           | 101.8                  | 77.0                   | 146.4              | 182.1                | 242.4         | 1,323.7       |
| Manufacture of paper and paper products  | 212.4           | 157.5                  | 194.4                  | 554.2              | 257.3                | 771.3         | 2,147.1       |
| Printing and reproduction of recorded media  | 1,516.6         | 157.1                  | 568.5                  | 428.0              | 305.0                | 1,077.2       | 4,052.2       |
| Manufacture of coke and refined petroleum products   | 542.3           | 127.3                  | 33.2                   | 42.8               | 312.4                | 29.6          | 1,087.6       |
| Manufacture of chemicals and chemical products   | 669.7           | 128.6                  | 1,660.8                | 1,138.1            | 367.9                | 810.4         | 4,775.5       |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 236.9           | 209.1                  | 265.5                  | 255.7              | 107.6                | 171.1         | 1,246.1       |
| Manufacture of rubber and plastics products  | 872.8           | 184.9                  | 357.4                  | 998.7              | 404.6                | 744.7         | 3,563.0       |
| Manufacture of other non-metallic mineral products   | 525.8           | 792.2                  | 890.7                  | 301.3              | 194.2                | 287.9         | 2,992.1       |
| Manufacture of basic metals  | 98.4            | 172.1                  | 196.5                  | 683.7              | 329.9                | 356.8         | 1,837.5       |
| Manufacture of fabricated metal products, except machinery and equipment   | 1,236.4         | 148.0                  | 214.6                  | 498.4              | 524.4                | 788.4         | 3,410.1       |
| Manufacture of computer, electronic and optical products   | 27.3            | 0.9                    | 6.0                    | 10.3               | 0.9                  | 2.4           | 47.8          |
| Manufacture of electrical equipment  | 74.0            | 146.5                  | 88.3                   | 120.3              | 49.2                 | 62.9          | 541.1         |
| Manufacture of machinery and equipment n.e.c.  | 848.0           | 8.0                    | 430.9                  | 261.4              | 16.3                 | 108.7         | 1,673.4       |
| Manufacture of motor vehicles, trailers and semi-trailers  | 97.4            | 44.8                   | 131.3                  | 188.0              | 53.4                 | 87.2          | 602.1         |
| Manufacture of other transport equipment   | 27.7            | -                      | 7.4                    | 13.0               | 0.5                  | 10.6          | 59.1          |
| Manufacture of furniture   | 725.9           | 15.5                   | 155.6                  | 327.0              | 32.8                 | 118.1         | 1,374.9       |
| Other manufacturing  | 156.7           | 47.0                   | 77.4                   | 252.7              | 46.6                 | 99.2          | 679.6         |
| Repair and installation of machinery and equipment   | 188.8           | 71.5                   | 137.6                  | 255.1              | 85.1                 | 295.4         | 1,033.6       |
| Electricity, gas, steam and air conditioning supply  | 642.1           | 905.5                  | 1,230.0                | 1,038.0            | 668.4                | 636.9         | 5,120.8       |
| Water collection, treatment and supply   | 67.1            | 38.5                   | 215.2                  | 123.3              | 86.8                 | 134.8         | 665.7         |
| Sewerage   | 0.6             | 0.6                    | 0.9                    | 1.2                | 1.1                  | 1.2           | 5.6           |
| Waste collection, treatment and disposal activities; materials recovery  | 30.3            | 2.3                    | 3.9                    | 4.8                | 17.0                 | 6.3           | 64.6          |
| Remediation activities and other waste management services   | -               | -                      | -                      | -                  | -                    | -             | -             |
| <b>Total</b>   | <b>16,375</b>   | <b>5,964</b>           | <b>11,618</b>          | <b>18,018</b>      | <b>10,200</b>        | <b>12,574</b> | <b>74,749</b> |

**Table 5.5 Broad Expenditure Categories by Activity**

| Activity   | Raw material   | Electricity, water and fuel | Communication services | Other recurrent expenses | Share of intermediate consumption | Total recurrent expenditure | Total Intermediate Consumption expenditure |
|--|----------------|-----------------------------|------------------------|--------------------------|-----------------------------------|-----------------------------|--|
| Mining of non-ferrous metals ores  | 186.3          | 306.4                       | -                      | -                        | 100.0%                            | 492.8                       | 492.8                                      |
| Other mining and quarrying   | 1,612.4        | 2,920.9                     | 806.3                  | 231.5                    | 95.8%                             | 5,571.0                     | 5,339.5                                    |
| Mining support service activities  | 5.6            | 1.9                         | 0.2                    | 0.2                      | 97.7%                             | 7.9                         | 7.7  |
| Manufacture of food products   | 202,869.1      | 13,215.0                    | 19,917.4               | 3,564.5                  | 98.5%                             | 239,566.0                   | 236,001.5                                  |
| Manufacture of beverages   | 26,586.6       | 2,393.4                     | 7,051.1                | 780.2                    | 97.9%                             | 36,811.3                    | 36,031.0                                   |
| Manufacture of tobacco products  | 7,472.4        | 401.8                       | 103.4                  | 103.4                    | 98.7%                             | 8,081.0                     | 7,977.6                                    |
| Manufacture of textiles  | 17,792.1       | 1,854.9                     | 1,480.4                | 472.9                    | 97.8%                             | 21,600.3                    | 21,127.4                                   |
| Manufacture of wearing apparel   | 7,165.6        | 447.5                       | 775.7                  | 201.7                    | 97.7%                             | 8,590.5                     | 8,388.8                                    |
| Manufacture of leather and related products  | 6,136.9        | 663.5                       | 580.6                  | 376.3                    | 95.1%                             | 7,757.3                     | 7,381.0                                    |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 13,499.9       | 2,152.2                     | 1,081.3                | 242.4                    | 98.6%                             | 16,975.7                    | 16,733.3                                   |
| Manufacture of paper and paper products  | 14,412.2       | 3,288.7                     | 1,375.8                | 771.3                    | 96.1%                             | 19,848.0                    | 19,076.7                                   |
| Printing and reproduction of recorded media  | 22,300.0       | 1,231.6                     | 2,975.1                | 1,077.2                  | 96.1%                             | 27,583.8                    | 26,506.7                                   |
| Manufacture of coke and refined petroleum products   | 55,626.9       | 599.1                       | 1,058.0                | 29.6                     | 99.9%                             | 57,313.6                    | 57,284.0                                   |
| Manufacture of chemicals and chemical products   | 29,997.7       | 1,994.2                     | 3,965.1                | 810.4                    | 97.8%                             | 36,767.4                    | 35,957.0                                   |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 4,841.3        | 242.2                       | 1,074.9                | 171.1                    | 97.3%                             | 6,329.5                     | 6,158.4                                    |
| Manufacture of rubber and plastics products  | 31,156.1       | 3,268.2                     | 2,818.3                | 744.7                    | 98.0%                             | 37,987.3                    | 37,242.6                                   |
| Manufacture of other non-metallic mineral products   | 19,895.1       | 6,562.9                     | 2,704.2                | 287.9                    | 99.0%                             | 29,450.1                    | 29,162.2                                   |
| Manufacture of basic metals  | 24,473.0       | 1,376.6                     | 1,480.7                | 356.8                    | 98.7%                             | 27,687.1                    | 27,330.3                                   |
| Manufacture of fabricated metal products, except machinery and equipment   | 23,746.0       | 1,278.6                     | 2,621.7                | 788.4                    | 97.2%                             | 28,434.7                    | 27,646.3                                   |
| Manufacture of computer, electronic and optical products   | 648.4          | 5.9                         | 45.4                   | 2.4                      | 99.7%                             | 702.1                       | 699.7                                      |
| Manufacture of electrical equipment  | 5,452.1        | 343.0                       | 478.2                  | 62.9                     | 99.0%                             | 6,336.1                     | 6,273.2                                    |
| Manufacture of machinery and equipment n.e.c.  | 8,947.1        | 709.3                       | 1,564.7                | 108.7                    | 99.0%                             | 11,329.8                    | 11,221.1                                   |
| Manufacture of motor vehicles, trailers and semi-trailers  | 6,014.1        | 135.4                       | 514.9                  | 87.2                     | 98.7%                             | 6,751.6                     | 6,664.4                                    |
| Manufacture of other transport equipment   | 586.6          | 254.3                       | 48.6                   | 10.6                     | 98.8%                             | 900.0                       | 889.4                                      |
| Manufacture of furniture   | 10,840.0       | 348.4                       | 1,256.8                | 118.1                    | 99.1%                             | 12,563.4                    | 12,445.3                                   |
| Other manufacturing  | 4,886.6        | 1,047.9                     | 580.4                  | 99.2                     | 98.5%                             | 6,614.1                     | 6,514.9                                    |
| Repair and installation of machinery and equipment   | 2,831.2        | 706.6                       | 738.2                  | 295.4                    | 93.5%                             | 4,571.5                     | 4,276.1                                    |
| Electricity, gas, steam and air conditioning supply  | 18,735.4       | 11,714.8                    | 4,483.9                | 636.9                    | 98.2%                             | 35,571.0                    | 34,934.1                                   |
| Water collection, treatment and supply   | 1,146.3        | 345.3                       | 530.9                  | 134.8                    | 93.7%                             | 2,157.3                     | 2,022.5                                    |
| Sewerage   | 1.1            | 1.8                         | 4.4                    | 1.2                      | 85.8%                             | 8.4                         | 7.2  |
| Waste collection, treatment and disposal activities; materials recovery  | 277.3          | 140.1                       | 58.3                   | 6.3                      | 98.7%                             | 481.9                       | 475.7                                      |
| Remediation activities and other waste management services   | -              | -                           | -                      | -                        | -                                 | -                           | -  |
| <b>Total</b>   | <b>570,141</b> | <b>59,952</b>               | <b>62,175</b>          | <b>12,574</b>            | <b>98.2%</b>                      | <b>704,843</b>              | <b>692,269</b>                             |

## Chapter 6

### Marketing of Industrial Products

#### 6.1 Market Destination of Industrial Output

This section provides details on sales value of industrial output by local industries. The proportions of exports destined for East African Community (EAC) region and the Rest of the World (ROW) are also provided in the tables. The results are classified by major industrial sectors, ISIC REV 4 and also the corresponding sub-sectors.

The analysis used the annual sales figures based on the respondents' replies to questions relating to sales either to domestic market, EAC and ROW and the breakdown by top country of export. It should be noted that in interpreting these results, information is not readily available in standard financial statements and books of accounts, hence very difficult to tally with what is reported under trade figures.

Estimates from the census show that the four sectors covered realized a total of KSh 1,015.4 billion in sales during the year 2009. Manufacturing activities reported the largest share of sales (87.7 per cent). Electricity, Gas, Steam and Air Conditioning Supply was the second while Water and Sewerage Services had the lowest level of sales at KSh 10.4 billion. As shown in Table 6.1, most of the goods produced in Kenya are sold within the country, accounting for 83.5 per cent of all sales. The five EAC countries received goods close to KSh 55 billion, which is equivalent to 5.4 per cent of total sales. The other 11.8 per cent goes to the ROW which includes African countries which are not members of EAC and countries in other continents. Most of the products produced in the Electricity, Gas, Steam and Air conditioning supply sector are for the domestic market, with a small proportion exported to the EAC region.

**Table 6.1 Value of Sales by Destination, KSh Million**

| <b>Economic Activity</b>                            | <b>Total</b>       | <b>Kenya</b>     | <b>EAC</b>      | <b>Rest of World</b> |
|---|--------------------|------------------|-----------------|----------------------|
| Mining and Quarrying                                | 13,224.0           | 6,997.3          | 277.4           | 5,949.3              |
| Manufacturing                                       | 890,117.6          | 728,778.1        | 54,597.6        | 106,741.8            |
| Electricity, Gas, Steam and Air conditioning supply | 101,700.3          | 101,696.2        | 4.1             | -                    |
| Water supply, Sewerage                              | 10,356.1           | 10,075.3         | 36.0            | 244.8                |
| <b>Total</b>  | <b>1,015,398.0</b> | <b>847,546.8</b> | <b>54,915.2</b> | <b>112,935.9</b>     |

Within the manufacturing sector, sales of food products, other non metallic mineral products, tobacco products, chemicals and chemical products, and fabricated metal products except machinery, are the leading sub-sectors to the EAC market by KSh 9,330.2, 6,358.6, 5,498.5, 5,446.7 and 4,457.6 Million respectively. In addition, sale of manufactured food products is leading in the category of ROW by KSh 74,497.0 Million, composition of which is mainly tea. Almost all the products in the Electricity, gas, steam and air conditioning supply; and water supply, sewerage and waste management activities are consumed locally as shown in Table 6.2.

**Table 6.2 Value of Sales to Various Regions, KSh Million**

| <b>Economic Activity</b>   | <b>Total</b>       | <b>Kenya</b>     | <b>EAC</b>      | <b>Rest of World</b> |
|--|--------------------|------------------|-----------------|----------------------|
| <b>Mining and Quarrying</b>  |                    |                  |                 |                      |
| Mining of metals ores  | 1,225.7            | 1,225.7          | -               | -                    |
| Other mining and quarrying   | 11,982.7           | 5,771.6          | 277.4           | 5,933.8              |
| Mining support service activities  | 15.6               | -                | -               | 15.6                 |
| <b>Total</b>   | <b>13,224.0</b>    | <b>6,997.3</b>   | <b>277.4</b>    | <b>5,949.3</b>       |
| <b>Manufacturing</b>   |                    |                  |                 |                      |
| Manufacture of food products   | 324,838.8          | 241,011.6        | 9,330.2         | 74,497.0             |
| Manufacture of beverages   | 56,329.3           | 53,554.8         | 2,252.0         | 522.6                |
| Manufacture of tobacco products  | 14,428.0           | 7,929.4          | 5,498.5         | 1,000.1              |
| Manufacture of textiles  | 27,030.1           | 20,603.1         | 619.3           | 5,807.7              |
| Manufacture of wearing apparel   | 14,976.5           | 12,412.9         | 260.7           | 2,302.8              |
| Manufacture of leather and related products  | 14,962.0           | 10,085.8         | 2,650.4         | 2,225.8              |
| Manufacture of wood and of products of wood and cork, except furniture;<br>manufacture of articles of straw and plaiting | 24,972.3           | 24,342.8         | 594.9           | 34.5                 |
| Manufacture of paper and paper products  | 28,710.2           | 25,084.8         | 2,309.2         | 1,316.1              |
| Printing and reproduction of recorded media  | 53,511.1           | 50,845.0         | 223.8           | 2,442.3              |
| Manufacture of coke and refined petroleum products   | 4,696.8            | 4,515.2          | 181.5           | -                    |
| Manufacture of chemicals and chemical products   | 63,588.7           | 55,456.2         | 5,446.7         | 2,685.8              |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 16,993.4           | 7,941.7          | 2,144.8         | 6,906.9              |
| Manufacture of rubber and plastics products  | 50,330.3           | 45,551.6         | 3,674.6         | 1,104.1              |
| Manufacture of other non-metallic mineral products   | 52,401.1           | 44,650.6         | 6,358.6         | 1,242.4              |
| Manufacture of basic metals  | 37,969.3           | 32,049.0         | 4,211.5         | 1,708.8              |
| Manufacture of fabricated metal products, except machinery and equipment   | 39,315.8           | 33,965.4         | 4,457.6         | 892.9                |
| Manufacture of computer, electronic and optical products   | 930.6              | 911.3            | 19.3            | -                    |
| Manufacture of electrical equipment  | 10,983.3           | 8,857.2          | 1,972.1         | 153.9                |
| Manufacture of machinery and equipment n.e.c.  | 12,075.3           | 11,188.0         | 740.4           | 147.0                |
| Manufacture of motor vehicles, trailers and semi-trailers  | 15,261.3           | 14,026.4         | 1,234.9         | -                    |
| Manufacture of other transport equipment   | 304.7              | 304.7            | -               | -                    |
| Manufacture of furniture   | 13,988.1           | 13,927.6         | 55.8            | 4.7                  |
| Other manufacturing  | 6,910.0            | 5,908.6          | 148.9           | 852.4                |
| Repair and installation of machinery and equipment   | 11,817.5           | 10,711.7         | 211.8           | 894.0                |
| <b>Total</b>   | <b>897,324.2</b>   | <b>735,835.4</b> | <b>54,597.6</b> | <b>106,741.8</b>     |
| <b>Electricity, Gas, Steam and Air conditioning supply</b>   |                    |                  |                 |                      |
| Electricity, gas, steam and air conditioning supply  | 94,492.6           | 94,488.5         | 4.1             | -                    |
| <b>Total</b>   | <b>94,492.6</b>    | <b>94,488.5</b>  | <b>4.1</b>      | <b>-</b>             |
| <b>Water supply, Sewerage</b>  |                    |                  |                 |                      |
| Water collection, treatment and supply   | 9,344.7            | 9,308.7          | 36.0            | -                    |
| Sewerage   | 25.1               | 25.1             | -               | -                    |
| Waste collection, treatment and disposal activities; materials recovery  | 986.3              | 741.4            | -               | 244.8                |
| <b>Total</b>   | <b>10,356.1</b>    | <b>10,075.3</b>  | <b>36.0</b>     | <b>244.8</b>         |
| <b>Grand Total</b>   | <b>1,015,398.0</b> | <b>847,546.8</b> | <b>54,915.2</b> | <b>112,935.9</b>     |
| <b>Percentage Share</b>  | <b>100.0</b>       | <b>83.5</b>      | <b>5.4</b>      | <b>11.1</b>          |

## Chapter 7

### Industrial Investments

#### 7.1 Introduction

The chapter looks at the additions to various types of fixed assets and how they were invested in the different sub-sectors of the industrial sector. The census reveals that machinery and equipment and land were the most significant assets the sector invested in 2009. The bulk of the investment was in five activities namely, manufacture of other non-metallic mineral products, repair and installation of machinery and equipment, manufacture of fabricated metal products, manufacture of food products, and water collection, treatment and disposal activities. The rest of the activities only accounted for 21.8 per cent of the investments in fixed assets.

#### 7.2 Additions to Fixed Assets and Gross Fixed Capital Formation

Investing in fixed assets is important to an economy because it increases the productive potential of the country and therefore a possible source of future economic benefit. The System of National Accounts (2008 SNA) defines “fixed assets” as produced assets (such as machinery, equipment, buildings or other structures) that are used repeatedly or continuously in production over several accounting periods (more than one year). Gross Fixed Capital Formation (GFCF) is then defined as the additions *less* disposals of fixed assets. Fixed assets may be own-produced or purchased from other producers. Table 7.1 presents details on additions to fixed assets by type and industry.

The census reveals that investments in fixed assets were largely in machinery and equipments, and land. Other machinery and equipments (includes transport equipments) constituted 46.1 per cent of the total additions to fixed assets. Establishment in the manufacture of other non-metallic mineral products accounted for 25.3 per cent of the total capital investments for the industrial sector while businesses in the repair and installation of machinery and equipment accounted for 22.3 per cent. Other activities that contributed significantly to the capital investment were the manufacture of fabricated metal products and manufacture of food products with contributions of 19.9 per cent and 8.5 per cent, respectively.

Expenditure on purchases of land constituted the second most important investment at 37.8 per cent of total assets. It is, however, important to note that while investment in land is important at the sector/industry level, ordinarily there are no additions to land at the national level. Investment in land was key in the manufacture of non-metallic mineral products of stones, sand and clay where it constituted 88.9 per cent of the additions to fixed assets. Other constructions and structures, transport equipments, and buildings also comprised significant components of additions to fixed assets. Combined, the sectors invested Ksh 79.1 billion in both tangible and intangible fixed assets in 2009.

**Table 7.1 Fixed Assets by Type and Industry KSh Million**

| Activity  | Land            | Land Development/ improvements | Buildings      | Other Construction/ structures | ICT Equipment | Machinery and equipment | Intangible Assets | Other          | Total           |
|---|-----------------|--------------------------------|----------------|--------------------------------|---------------|-------------------------|-------------------|----------------|-----------------|
| Mining of non-ferrous metals ores   | -               | -                              | -              | -                              | -             | -                       | -                 | -              | -               |
| Other mining and quarrying  | 5.1             | 9.1                            | 46.3           | 11.7                           | 33.4          | 622.8                   | 179.5             | 14.2           | 922.1           |
| Mining support service activities   | -               | -                              | -              | -                              | -             | -                       | -                 | -              | -               |
| Manufacture of food products  | 106.0           | 274.7                          | 900.7          | 314.2                          | 240.1         | 4,553.1                 | 18.1              | 323.6          | 6,730.5         |
| Manufacture of beverages  | 247.8           | 27.0                           | 94.5           | (499.9)                        | 11.3          | 2,277.7                 | 10.8              | (489.0)        | 1,680.2         |
| Manufacture of tobacco products   | -               | 164.0                          | -              | -                              | -             | 817.3                   | 148.0             | 148.0          | 1,277.3         |
| Manufacture of textiles   | 165.9           | 0.7                            | 21.3           | 4.6                            | 5.3           | 235.7                   | 1.4               | 6.0            | 440.9           |
| Manufacture of wearing apparel  | -               | -                              | (22.4)         | 0.1                            | 1.0           | 29.6                    | 0.8               | 0.9            | 10.1            |
| Manufacture of leather and related products   | 12.3            | 14.2                           | 247.7          | 825.2                          | 10.5          | 187.2                   | -                 | 825.2          | 2,122.3         |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 34.1            | 152.6                          | 29.1           | -                              | 0.2           | 190.5                   | 0.5               | 0.5            | 407.5           |
| Manufacture of paper and paper products   | 4.8             | 23.7                           | 6.2            | 7.6                            | 8.2           | 311.2                   | 2.0               | 7.6            | 371.3           |
| Printing and reproduction of recorded media   | 14.1            | (13.4)                         | (7.7)          | (0.2)                          | 14.7          | 193.9                   | 4.2               | 1.1            | 206.7           |
| Manufacture of coke and refined petroleum products  | -               | -                              | -              | 0.4                            | (0.0)         | 1.0                     | -                 | 0.4            | 1.8             |
| Manufacture of chemicals and chemical products  | 132.5           | 4.9                            | 101.3          | 3.9                            | 46.4          | 545.5                   | 12.4              | 21.9           | 868.8           |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products   | 2.0             | -                              | 6.5            | 2.8                            | 4.4           | 359.1                   | 2.7               | 4.7            | 382.3           |
| Manufacture of rubber and plastics products   | 116.6           | 1.2                            | 10.3           | 20.5                           | 128.0         | 1,126.9                 | 4.6               | 25.1           | 1,433.1         |
| Manufacture of other non-metallic mineral products  | 17,780.4        | -                              | 53.1           | 246.3                          | 74.2          | 1,410.9                 | 95.1              | 341.5          | 20,001.5        |
| Manufacture of basic metals   | 0.4             | 12.2                           | 132.5          | -                              | 8.1           | 1,123.5                 | 0.3               | 0.3            | 1,277.4         |
| Manufacture of fabricated metal products, except machinery and equipment  | 3.9             | 18.7                           | 45.4           | 1.8                            | 2.0           | 15,380.1                | 142.0             | 143.0          | 15,736.8        |
| Manufacture of computer, electronic and optical products  | -               | -                              | -              | -                              | -             | -                       | -                 | -              | -               |
| Manufacture of electrical equipment   | 20.1            | -                              | 27.8           | -                              | 3.9           | 352.4                   | 0.3               | 0.3            | 404.8           |
| Manufacture of machinery and equipment n.e.c.   | 4.4             | -                              | 4.2            | 31.1                           | 0.7           | 9.5                     | -                 | 31.2           | 81.2            |
| Manufacture of motor vehicles, trailers and semi-trailers   | 1.9             | -                              | 11.3           | 8.7                            | 1.2           | 36.4                    | 0.5               | 8.9            | 68.8            |
| Manufacture of other transport equipment  | -               | -                              | -              | -                              | -             | -                       | -                 | -              | -               |
| Manufacture of furniture  | (0.1)           | -                              | 0.1            | 0.0                            | 1.0           | 1.8                     | -                 | 0.0            | 2.9             |
| Other manufacturing   | -               | 1.0                            | 0.0            | -                              | 0.3           | 115.2                   | -                 | -              | 116.6           |
| Repair and installation of machinery and equipment  | 11,264.7        | 30.4                           | 383.3          | 12.6                           | 134.1         | 5,808.2                 | 1.8               | 14.4           | 17,649.5        |
| Electricity, gas, steam and air conditioning supply   | -               | -                              | 17.0           | 12.6                           | -             | 409.1                   | 0.0               | 12.6           | 451.4           |
| Water collection, treatment and supply  | 3.8             | 2.9                            | 4.3            | 3,031.5                        | 45.8          | 344.5                   | 0.6               | 3,032.7        | 6,466.1         |
| Sewerage  | -               | -                              | -              | -                              | -             | -                       | -                 | -              | -               |
| Waste collection, treatment and disposal activities; materials recovery   | -               | -                              | 0.4            | 0.0                            | 0.3           | 3.1                     | -                 | 0.0            | 3.8             |
| Remediation activities and other waste management services  | -               | -                              | -              | -                              | -             | -                       | -                 | -              | -               |
| <b>Total</b>  | <b>29,920.7</b> | <b>723.8</b>                   | <b>2,113.2</b> | <b>4,035.6</b>                 | <b>775.3</b>  | <b>36,446.2</b>         | <b>625.7</b>      | <b>4,475.1</b> | <b>79,115.5</b> |

Capital expenditure on intangible assets, which includes research and development, computer software and database and mineral exploration and evaluation constituted the least of the investments at 0.8 per cent.

### **7.3 Inventories**

Inventories are stocks of goods held by firms to meet temporary or unexpected fluctuations in production or sales, and “work in progress”. Work in progress is a valuation of output on economic activities that cut across accounting periods. For instance, most large projects in construction take more than one year to complete and therefore valuation of output for each accounting period then comprises the work in progress. Inventories are merchandise, raw materials, and finished and unfinished products which have not yet been sold and held in store by an establishment. They are considered liquid assets as can be converted into cash quite easily. Inventories of finished products are particularly important in meeting unexpected increase in customer demand and avoiding loss of sale. A slump in demand can lead to a buildup in inventories which can result to locking capital in the inventories. Inventories of raw materials help in stabilizing production in the event of supply disruption.

**Table 7.2 Changes in Inventories by Activity and Type of Product, 2009 KSh. Million**

| Activity   | Finished products | Products purchased for resale | Work-in-progress | Fuel        | Raw materials* | Total          |
|--|-------------------|-------------------------------|------------------|-------------|----------------|----------------|
| Mining of non-ferrous metals ores  | -                 | -                             | -                | -           | -              | -              |
| Other mining and quarrying   | (35.1)            | (8.0)                         | 825.1            | (168.0)     | 65.5           | 679.5          |
| Mining support service activities  | -                 | (13.6)                        | -                | -           | -              | (13.6)         |
| Manufacture of food products   | 2,890.3           | (288.2)                       | (302.5)          | 105.7       | 1,331.7        | 3,737.1        |
| Manufacture of beverages   | (380.1)           | 22.1                          | (8.4)            | (5.3)       | 377.2          | 5.6            |
| Manufacture of tobacco products  | (31.1)            | -                             | 51.7             | -           | 193.3          | 213.9          |
| Manufacture of textiles  | (302.8)           | 8.2                           | (32.0)           | 0.5         | 790.0          | 463.9          |
| Manufacture of wearing apparel   | 106.2             | (0.1)                         | (194.9)          | (2.5)       | 127.7          | 36.3           |
| Manufacture of leather and related products  | 178.8             | 2.3                           | 32.2             | 0.3         | 6.3            | 219.9          |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 47.0              | 7.3                           | (322.6)          | 1.3         | 370.2          | 103.2          |
| Manufacture of paper and paper products  | (146.9)           | 154.2                         | 12.3             | (15.6)      | 119.7          | 123.7          |
| Printing and reproduction of recorded media  | (49.9)            | (278.9)                       | (327.6)          | (0.3)       | 97.2           | (559.6)        |
| Manufacture of coke and refined petroleum products   | -                 | -                             | -                | -           | -              | -              |
| Manufacture of chemicals and chemical products   | 323.7             | (137.0)                       | (111.2)          | 4.4         | (379.6)        | (299.6)        |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 124.7             | (1.8)                         | (36.6)           | (4.1)       | (135.9)        | (53.6)         |
| Manufacture of rubber and plastics products  | 54.8              | 164.1                         | (268.7)          | (2.5)       | (159.8)        | (212.1)        |
| Manufacture of other non-metallic mineral products   | (1,239.9)         | 27.1                          | (3.2)            | 125.7       | 1,904.5        | 814.3          |
| Manufacture of basic metals  | (219.7)           | (79.1)                        | (123.7)          | (82.9)      | (2,026.5)      | (2,531.8)      |
| Manufacture of fabricated metal products, except machinery and equipment   | 449.1             | 18.0                          | (85.8)           | 0.6         | (1,332.1)      | (950.3)        |
| Manufacture of computer, electronic and optical products   | -                 | (2.6)                         | -                | -           | -              | (2.6)          |
| Manufacture of electrical equipment  | 79.5              | 80.1                          | 149.1            | 0.0         | 80.4           | 389.2          |
| Manufacture of machinery and equipment n.e.c.  | 84.1              | 0.9                           | (42.7)           | (0.1)       | 16.9           | 59.1           |
| Manufacture of motor vehicles, trailers and semi-trailers  | 194.7             | (573.9)                       | (73.5)           | 4.3         | (474.1)        | (922.5)        |
| Manufacture of other transport equipment   | -                 | -                             | -                | -           | -              | -              |
| Manufacture of furniture   | (488.3)           | 76.7                          | 31.3             | (3.9)       | (122.9)        | (507.2)        |
| Other manufacturing  | 20.9              | 5.5                           | (12.4)           | (0.0)       | (62.7)         | (48.7)         |
| Repair and installation of machinery and equipment   | 17.1              | (28.5)                        | 0.9              | 63.0        | (1,797.1)      | (1,744.6)      |
| Electricity, gas, steam and air conditioning supply  | -                 | -                             | -                | -           | 143.8          | 143.8          |
| Water collection, treatment and supply   | (0.3)             | 1.0                           | (46.2)           | 2.2         | 1.5            | (41.8)         |
| Sewerage   | -                 | -                             | -                | -           | -              | -              |
| Waste collection, treatment and disposal activities; materials recovery  | (0.6)             | (3.4)                         | -                | -           | -              | (4.0)          |
| Remediation activities and other waste management services   | -                 | -                             | -                | -           | -              | -              |
| <b>Total</b>   | <b>1,676.3</b>    | <b>(847.4)</b>                | <b>(889.4)</b>   | <b>22.8</b> | <b>(864.9)</b> | <b>(902.6)</b> |

Table 7.2 presents value of changes in the inventories for the various types of products for 2009. Overall, the value of finished products in the inventories increased by Ksh 1.6 billion while value of products purchased for resale and work-in-progress decreased by Ksh 847.4 million and Ksh 889.4 million respectively. The highest build-up in the inventories was realized in the manufacture of foods and manufacture of other non-metallic and mineral products and supply which rose by Ksh 3.7 billion and Ksh 1.1 billion, respectively. On the other hand, businesses in the manufacture of basic metals and those in repair and installation of machinery equipments reported the highest reduction in their inventories at Ksh 2.5 billion and Ksh 1.7 billion respectively.

#### **7.4 Investments**

Investments are made of the inventories and the gross fixed capital formation. Inventories are usually materials and supplies held as inputs by establishments and output held in store waiting to be sold while gross fixed capital formation is additions (*less disposals*) to fixed assets.

Table 7.3 shows investments by type for the various activities of the industrial sector. While the sector invested an equivalent of Ksh 79.1 billion in fixed assets, the sector's inventories were depleted by Ksh 902.6 billion. Consequently, the total investments (gross capital formation) amounted to Ksh 78.2 billion in 2009. The data suggests that the bulk of the gross fixed capital formation was on account of additions to fixed assets. As such the trends in the sectoral contributions follow more or less that of the GFCF.

**Table 7.3 Industrial Investment**

| Activity   | Gross Fixed Capital Formation | Changes in Inventories | Gross Capital Formation |
|--|-------------------------------|------------------------|-------------------------|
| Mining of non-ferrous metals ores  | -                             | -                      | -                       |
| Other mining and quarrying   | 922.1                         | 679.5                  | 1,601.5                 |
| Mining support service activities  | -                             | (13.6)                 | (13.6)                  |
| Manufacture of food products   | 6,730.5                       | 3,737.1                | 10,467.6                |
| Manufacture of beverages   | 1,680.2                       | 5.6                    | 1,685.8                 |
| Manufacture of tobacco products  | 1,277.3                       | 213.9                  | 1,491.2                 |
| Manufacture of textiles  | 440.9                         | 463.9                  | 904.8                   |
| Manufacture of wearing apparel   | 10.1                          | 36.3                   | 46.3                    |
| Manufacture of leather and related products  | 2,122.3                       | 219.9                  | 2,342.2                 |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 407.5                         | 103.2                  | 510.7                   |
| Manufacture of paper and paper products  | 371.3                         | 123.7                  | 495.0                   |
| Printing and reproduction of recorded media  | 206.7                         | (559.6)                | (352.9)                 |
| Manufacture of coke and refined petroleum products   | 1.8                           | -                      | 1.8                     |
| Manufacture of chemicals and chemical products   | 868.8                         | (299.6)                | 569.2                   |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 382.3                         | (53.6)                 | 328.6                   |
| Manufacture of rubber and plastics products  | 1,433.1                       | (212.1)                | 1,221.0                 |
| Manufacture of other non-metallic mineral products   | 20,001.5                      | 814.3                  | 20,815.8                |
| Manufacture of basic metals  | 1,277.4                       | (2,531.8)              | (1,254.4)               |
| Manufacture of fabricated metal products, except machinery and equipment   | 15,736.8                      | (950.3)                | 14,786.5                |
| Manufacture of computer, electronic and optical products   | -                             | (2.6)                  | (2.6)                   |
| Manufacture of electrical equipment  | 404.8                         | 389.2                  | 794.0                   |
| Manufacture of machinery and equipment n.e.c.  | 81.2                          | 59.1                   | 140.3                   |
| Manufacture of motor vehicles, trailers and semi-trailers  | 68.8                          | (922.5)                | (853.7)                 |
| Manufacture of other transport equipment   | -                             | -                      | -                       |
| Manufacture of furniture   | 2.9                           | (507.2)                | (504.3)                 |
| Other manufacturing  | 116.6                         | (48.7)                 | 67.8                    |
| Repair and installation of machinery and equipment   | 17,649.5                      | (1,744.6)              | 15,905.0                |
| Electricity, gas, steam and air conditioning supply  | 451.4                         | 143.8                  | 595.2                   |
| Water collection, treatment and supply   | 6,466.1                       | (41.8)                 | 6,424.3                 |
| Sewerage   | -                             | -                      | -                       |
| Waste collection, treatment and disposal activities; materials recovery  | 3.8                           | (4.0)                  | (0.2)                   |
| Remediation activities and other waste management services   | -                             | -                      | -                       |
| <b>Total</b>   | <b>79,115.5</b>               | <b>(902.6)</b>         | <b>78,212.9</b>         |

## 7.5 Contribution of Industrial Sector to the GDP in 2009

Details of gross output, intermediate consumption, and value added are presented in Table 7.5. Total gross output of all the industrial activities was valued at Ksh 1,009.2 billion while intermediate consumption totaled Ksh 689.8 billion. In absolute terms, the contribution of the industrial sector to the country's GDP was Ksh 319.8 billion.

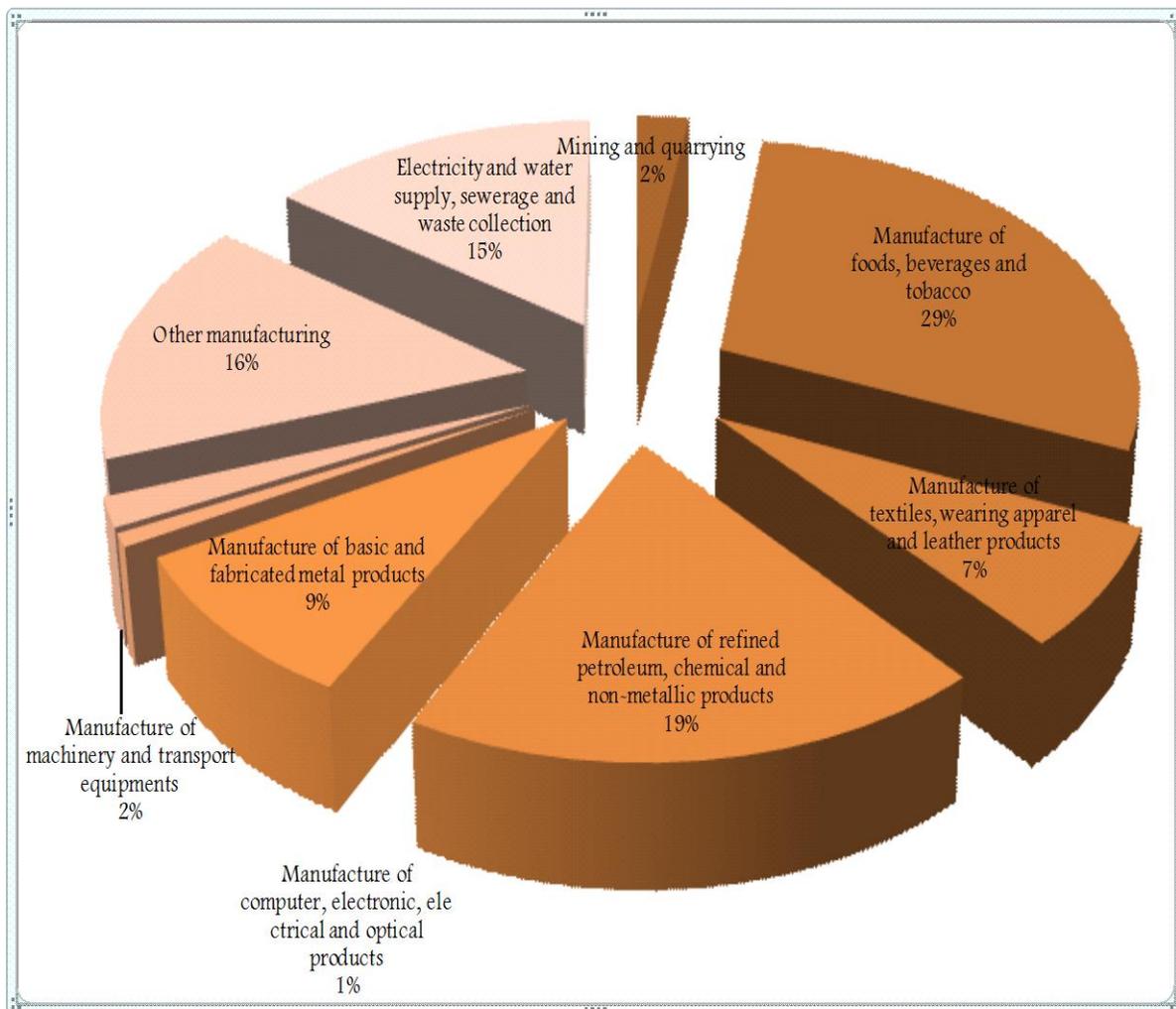
**Table 7.5 Contribution of the Industrial Sector to the GDP in 2009, KSh million**

| Activity   | Gross output        | Intermediate Consumption | Gross Value Added |
|--|---------------------|--------------------------|-------------------|
| Mining of non-ferrous metals ores  | 1,225.70            | 492.77                   | 732.93            |
| Other mining and quarrying   | 12,092.61           | 5,230.52                 | 6,862.09          |
| Mining support service activities  | 15.56               | 7.70                     | 7.85              |
| Manufacture of food products   | 300,306.55          | 235,958.27               | 64,348.28         |
| Manufacture of beverages   | 60,449.56           | 36,031.03                | 24,418.52         |
| Manufacture of tobacco products  | 12,238.82           | 7,977.63                 | 4,261.19          |
| Manufacture of textiles  | 30,842.07           | 21,035.44                | 9,806.63          |
| Manufacture of wearing apparel   | 15,994.10           | 8,365.18                 | 7,628.92          |
| Manufacture of leather and related products  | 13,529.54           | 7,381.12                 | 6,148.42          |
| Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 19,709.72           | 15,587.58                | 4,122.14          |
| Manufacture of paper and paper products  | 26,352.35           | 19,048.96                | 7,303.39          |
| Printing and reproduction of recorded media  | 52,310.33           | 26,506.67                | 25,803.67         |
| Manufacture of coke and refined petroleum products   | 77,259.68           | 57,284.04                | 19,975.65         |
| Manufacture of chemicals and chemical products   | 51,605.80           | 35,949.20                | 15,656.61         |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 7,689.61            | 6,151.74                 | 1,537.87          |
| Manufacture of rubber and plastics products  | 48,477.50           | 37,282.64                | 11,194.86         |
| Manufacture of other non-metallic mineral products   | 40,169.48           | 28,606.51                | 11,562.97         |
| Manufacture of basic metals  | 41,382.35           | 27,311.25                | 14,071.10         |
| Manufacture of fabricated metal products, except machinery and equipment   | 43,101.47           | 27,652.80                | 15,448.67         |
| Manufacture of computer, electronic and optical products   | 1,013.06            | 699.72                   | 313.34            |
| Manufacture of electrical equipment  | 8,695.66            | 6,370.56                 | 2,325.11          |
| Manufacture of machinery and equipment n.e.c.  | 13,402.21           | 11,221.07                | 2,181.14          |
| Manufacture of motor vehicles, trailers and semi-trailers  | 10,210.45           | 6,663.15                 | 3,547.30          |
| Manufacture of other transport equipment   | 832.00              | 708.48                   | 123.52            |
| Manufacture of furniture   | 13,359.39           | 12,445.28                | 914.11            |
| Other manufacturing  | 9,602.85            | 5,659.10                 | 3,943.74          |
| Repair and installation of machinery and equipment   | 12,311.91           | 4,273.99                 | 8,037.92          |
| Electricity, gas, steam and air conditioning supply  | 79,682.45           | 34,934.15                | 44,748.31         |
| Water collection, treatment and supply   | 4,539.96            | 2,022.50                 | 2,517.46          |
| Sewerage   | 10.58               | 7.22                     | 3.35              |
| Waste collection, treatment and disposal activities; materials recovery  | 739.50              | 475.68                   | 263.81            |
| Remediation activities and other waste management services   | -                   | -                        | -                 |
| <b>Total</b>   | <b>1,009,152.82</b> | <b>689,341.94</b>        | <b>319,810.88</b> |

Overall, ratio of the intermediate consumption to the gross output was 68.3 per cent. However, this ratio varied widely across the different activities of the industrial sector. Manufacture of furniture reported the highest value of intermediate at 93.2 per cent while repair and installation of machinery and equipment reported the lowest ratio of intermediate consumption to gross output at 34.7 per cent. This can be explained by the fact that the repairing activities are labour intensive which is not considered part of intermediate consumption.

A comparison of the various activities' value added show that other manufacturing sector accounted for 69.7 per cent of the industrial sector GDP. Mining and quarrying reported the lowest contribution at 2.4 per cent of the industrial sector's GDP. Electricity, gas and water supply contributed 14.8 per cent to the industrial's economic activities.

**Figure 7.1: Contribution to Industrial Sector GDP**



## Notes

1. All the 2,567 establishments targeted were surveyed. However, despite several reminders and subsequent phone calls and field visits to persuade respondents to fill in the questionnaires, the response rate reached about 82 per cent in terms of number of establishments and 95 per cent in terms of gross output by the end of April 2011.
2. The response rate may be addressed after having identified the problems and constraints of the various industries in providing the requested information. A sample of the respondents, representative of the various industries could be convened for a feedback meeting to identify practical issues of the CIP methodology. Information from the meeting would give indications on changes that need to be brought in the questionnaire and eventually to the strategy as regards the data collection.
3. Currently, detailed information on output and input are requested from all establishments through around a 22 page questionnaire. This may be a burden to respondents. Given that the aim of the CIP is to have detailed information on input and output of industries, to reduce respondent burden, it is proposed that at the next CIP, shorter questionnaire requesting information on the main aggregates be sent to all large establishments and a more detailed one to a representative sample only.
4. There is also need to have the support of various industries and employers' associations before the launching of the censuses. This may be done through a workshop to sensitize participants on the importance of statistical data for policy decision making.
5. There is need to capture the informal units in future surveys so as to improve the responses for activities such as mining and quarrying which form the bulk of this sector.
6. There has recently been more and more demand for information on the Small and Medium Enterprises (SMEs) and the "informal" sector. These two sectors will be covered at a later stage. There is now an urgent need to arrive at clear workable definitions of the SMEs and the "informal" sector, so that relevant questions to identify these two sectors could be included in the questionnaires at the next CIP. This will enable the dissemination of separate statistics on these two sectors, particularly following Government policy to boost the SMEs.

## Appendix 1: Questionnaire

### Main Business Activity

Please check the **one main activity** at this business unit which most accurately describes your principal source of operating revenue:

|  |  |  |  |
|--|--|--|--|
| <input style="width: 30px; height: 30px; border: 1px solid black;" type="checkbox"/> | <input style="width: 30px; height: 30px; border: 1px solid black;" type="checkbox"/> | <input style="width: 30px; height: 30px; border: 1px solid black;" type="checkbox"/> | <input style="width: 30px; height: 30px; border: 1px solid black;" type="checkbox"/> |
| Mining and Quarrying   | Manufacturing  | Electricity, Gas, Steam,<br>air conditioning   | Water supply, Sewerage, waste<br>management and remediation<br>Activities            |

### Acknowledgement of receipt of the questionnaire

I, ..... of .....

(enter name of recipient)

(enter name of establishment)

acknowledge receipt of the Census of Industrial Production (CIP) 2010 questionnaire.

|   |  |
|---|--|
| Title:  |  |
| Tel:  |  |
| Signature, Date and Stamp:                                    |  |
| Interviewer:  |  |
| Date of collection of questionnaire and financial statements: |  |

**Thank you for receiving and accepting to fill the questionnaire.**

**NOTE:** This page should be filled-in by the person who is receiving the questionnaire on behalf of the entity at the time of delivery by the interviewer. After it is signed, the interviewer should retain the original copy of this page.



## REPUBLIC OF KENYA

### CENSUS OF INDUSTRIAL PRODUCTION (CIP) 2010 QUESTIONNAIRE

#### MEASURING ACTIVITIES OF MINING, QUARRYING, MANUFACTURING, ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY, WATER SUPPLY, SEWERAGE, WASTE MANAGEMENT AND REMEDIAL ACTIVITIES

1 **Authority**

This census is conducted under the Statistics Act 2006. In accordance with this Act, the data reported on this questionnaire will be treated in strict confidence, used for statistical purposes only.

2 **Objective**

The Census of Industrial production of enterprises in Kenya is carried out by Kenya National Bureau of Statistics (KNBS) in conjunction with the Ministry of Industrialization. The data collected will be used for Policy Planning. Industrial establishments

3 **Completion Instructions**

The following notes are meant to help you to complete the form. It is therefore important that you read and understand them before completing it. More specific notes have been provided as **filling instructions** to the Form, for your reference. Please print

(i) **Who is to complete this form**

All enterprises in Kenya, which are engaged in manufacturing, mining, quarrying, Electricity, gas, steam and air conditioning supply, Water supply, sewerage, Waste management and remedial activities are required to complete this form. In cases where one

(ii) **Period covered**

The information required is for the calendar year 2009.

(iii) **Completion and submission of the Form**

The questionnaire sent to the establishment has a carbon copy. Once filled, the original should be returned to the Director General, KNBS and the copy retained by the establishment for future reference.

All sections of the form must be completed. Any parts, which may not be applicable, should be indicated as "not applicable". The duly completed form and any correspondence relating to the form or any other issue concerning the Census of Industrial Product

**The Director, Production Statistics**  
**Kenya National Bureau of Statistics**  
**Herufi Hse, Lt. Tumbo Avenue**  
**P. O. Box 30266 – 00100 Nairobi.**  
**Tel : 020-317583/6/8**  
**e.mail : jgatungu@knbs.or.ke or : director@knbs.or.ke**  
**Or**

**Or**

**Director, IIRPD**  
**Ministry of Industrialization**  
**Teleposta Towers, 22nd Floor**  
**Kenyatta Avenue**  
**P.O. Box 30418 - 00100, Nairobi**  
**Tel: 020-315001-6**  
**e.mail:pdede@industrialization.go.ke**

The nearest District Industrial Development Office (DIDO)/District Statistical Office (DSO).

4 **Financial Statements**

Some of the information required for this enquiry can be obtained from the Financial Statements for the years 2008/2009 and 2009/2010. Kindly attach the copies of your Financial Statements for the two years to the completed questionnaire.

5 **Other Comments**

In case you have any comments or information relating to the data provided, please insert them in the comment box found on page 20

**1. GENERAL PARTICULARS OF THE ESTABLISHMENTS**

1.1 Name of Establishment: .....

1.2 Business Address : .....  
 .....

1.3 Physical Location:(Street name).....(Building).....

1.4 Town: .....

1.5 County:.....District:..... Code:

| OFFICIAL USE |  |  |
|--------------|--|--|
|              |  |  |

1.6 Telephone No:.....

1.7 Fax No:.....

1.8 Website Address (URL):.....

1.9 E\_mail Address:.....

1.10 Contact person: ..... Designation:.....

1.11 E\_mail address:.....Tel No:.....

1.12 In what year did this company/establishment begin operations in the country? .....(YYYY)

1.13 If your return covers more than one establishment i.e. factory/workshop/mine/quarry/plant state

number of establishments covered:.....

Give details for each establishment/branch(es)/affiliates covered in terms of name, type of activity and physical location i.e. street and town

| Name    | Activity | Physical Location |
|---------|----------|-------------------|
| 1. .... | .....    | .....             |
| 2. .... | .....    | .....             |
| 3. .... | .....    | .....             |
| 4. .... | .....    | .....             |

**2. CHARACTERISTICS OF ESTABLISHMENT (Data should as far as possible relate to ONE establishment only)**

2.1 The period covered by this return is from January to December 2009; if not, indicate period covered in the table below:

|       |     |       |      |
|-------|-----|-------|------|
|       | Day | Month | Year |
| From: |     |       |      |
| To:   |     |       |      |

If the period covered is less than 12 months, then please give an explanation

.....  
 .....

**2.2 Economic Activities:**

Please select the sub-sector(s) that best describes this establishment's economic activity (ies) using the following International Standards of Industrial Classifications (ISIC)

(Select a maximum of 3):

| Industry                    | Sub-Sector  | Code | (Tick) |
|-----------------------------|---|------|--------|
| <b>Mining and Quarrying</b> | Mining of hard coal   | 0510 |        |
|                             | Mining of lignite   | 0520 |        |
|                             | Extraction of crude petroleum   | 0610 |        |
|                             | Extraction of natural gas   | 0620 |        |
|                             | Mining of iron ores   | 0710 |        |
|                             | Mining of uranium and thorium ores  | 0721 |        |
|                             | Mining of other non-ferrous metal ores  | 0729 |        |
|                             | Quarrying of stone, sand and clay   | 0810 |        |
|                             | Mining of chemical and fertilizer minerals  | 0891 |        |
|                             | Extraction of peat  | 0892 |        |
|                             | Extraction of salt  | 0893 |        |
|                             | Other mining and quarrying not elsewhere classified (nec).  | 0899 |        |
|                             | Support activities for petroleum and natural gas extraction   | 0910 |        |
|                             | Support activities for other mining and quarrying   | 0990 |        |
| <b>Manufacturing</b>        | Processing and preserving of meat   | 1010 |        |
|                             | Processing and preserving of fish, crustaceans and molluscs   | 1020 |        |
|                             | Processing and preserving of fruit and vegetables   | 1030 |        |
|                             | Manufacture of vegetable and animal oils and fats   | 1040 |        |
|                             | Manufacture of dairy products   | 1050 |        |
|                             | Manufacture of grain mill products  | 1061 |        |
|                             | Manufacture of starches and starch products   | 1062 |        |
|                             | Manufacture of bakery products  | 1071 |        |
|                             | Manufacture of sugar  | 1072 |        |
|                             | Manufacture of cocoa, chocolate and sugar confectionery   | 1073 |        |
|                             | Manufacture of macaroni, noodles, couscous and similar farinaceous products                               | 1074 |        |
|                             | Manufacture of prepared meals and dishes  | 1075 |        |
|                             | Manufacture of other food products not elsewhere classified (nec).  | 1079 |        |
|                             | Manufacture of prepared animal feeds  | 1080 |        |
|                             | Distilling, rectifying and blending of spirits  | 1101 |        |
|                             | Manufacture of wines  | 1102 |        |
|                             | Manufacture of malt liquors and malt  | 1103 |        |
|                             | Manufacture of soft drinks; production of mineral waters and other bottled waters                         | 1104 |        |
|                             | Manufacture of tobacco products   | 1200 |        |
|                             | Preparation and spinning of textile fibres  | 1311 |        |
|                             | Weaving of textiles   | 1312 |        |
|                             | Finishing of textiles   | 1313 |        |
|                             | Manufacture of knitted and crocheted fabrics  | 1391 |        |
|                             | Manufacture of made-up textile articles, except apparel   | 1392 |        |
|                             | Manufacture of carpets and rugs   | 1393 |        |
|                             | Manufacture of cordage, rope, twine and netting   | 1394 |        |
|                             | Manufacture of other textiles not elsewhere classified (nec).   | 1399 |        |
|                             | Manufacture of wearing apparel, except fur apparel  | 1410 |        |
|                             | Manufacture of articles of fur  | 1420 |        |
|                             | Manufacture of knitted and crocheted apparel  | 1430 |        |
|                             | Tanning and dressing of leather; dressing and dyeing of fur   | 1511 |        |
|                             | Manufacture of luggage, handbags and the like, saddlery and harness                                       | 1512 |        |
|                             | Manufacture of footwear   | 1520 |        |
|                             | Sawmilling and planing of wood  | 1610 |        |
|                             | Manufacture of veneer sheets and wood-based panels  | 1621 |        |
|                             | Manufacture of builders' carpentry and joinery  | 1622 |        |
|                             | Manufacture of wooden containers  | 1623 |        |
|                             | Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials      | 1629 |        |
|                             | Manufacture of pulp, paper and paperboard   | 1701 |        |
|                             | Manufacture of corrugated paper and paperboard and of containers of paper and paperboard                  | 1702 |        |
|                             | Manufacture of other articles of paper and paperboard   | 1709 |        |
|                             | Printing  | 1811 |        |
|                             | Service activities related to printing  | 1812 |        |
|                             | Reproduction of recorded media  | 1820 |        |
|                             | Manufacture of coke oven products   | 1910 |        |
|                             | Manufacture of refined petroleum products   | 1920 |        |
|                             | Manufacture of basic chemicals  | 2011 |        |
|                             | Manufacture of fertilizers and nitrogen compounds   | 2012 |        |
|                             | Manufacture of plastics and synthetic rubber in primary forms   | 2013 |        |
|                             | Manufacture of pesticides and other agrochemical products   | 2021 |        |
|                             | Manufacture of paints, varnishes and similar coatings, printing ink and mastics                           | 2022 |        |
|                             | Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations | 2023 |        |

|   |      |  |
|---|------|--|
| Manufacture of other chemical products not elsewhere classified (nec).                                      | 2029 |  |
| Manufacture of man-made fibres  | 2030 |  |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products                                   | 2100 |  |
| tyres   | 2211 |  |
| Manufacture of other rubber products  | 2219 |  |
| Manufacture of plastics products  | 2220 |  |
| Manufacture of glass and glass products   | 2310 |  |
| Manufacture of refractory products  | 2391 |  |
| Manufacture of clay building materials  | 2392 |  |
| Manufacture of other porcelain and ceramic products   | 2393 |  |
| Manufacture of cement, lime and plaster   | 2394 |  |
| Manufacture of articles of concrete, cement and plaster   | 2395 |  |
| Cutting, shaping and finishing of stone   | 2396 |  |
| (nec).  | 2399 |  |
| Manufacture of basic iron and steel   | 2410 |  |
| Manufacture of basic precious and other non-ferrous metals  | 2420 |  |
| Casting of iron and steel   | 2431 |  |
| Casting of non-ferrous metals   | 2432 |  |
| Manufacture of structural metal products  | 2511 |  |
| Manufacture of tanks, reservoirs and containers of metal  | 2512 |  |
| Manufacture of steam generators, except central heating hot water boilers                                   | 2513 |  |
| Manufacture of weapons and ammunition   | 2520 |  |
| Forging, pressing, stamping and roll-forming of metal; powder metallurgy                                    | 2591 |  |
| Treatment and coating of metals; machining  | 2592 |  |
| Manufacture of cutlery, hand tools and general hardware   | 2593 |  |
| Manufacture of other fabricated metal products not elsewhere classified (nec).                              | 2599 |  |
| Manufacture of electronic components and boards   | 2610 |  |
| Manufacture of computers and peripheral equipment   | 2620 |  |
| Manufacture of communication equipment  | 2630 |  |
| Manufacture of consumer electronics   | 2640 |  |
| Manufacture of measuring, testing, navigating and control equipment   | 2651 |  |
| Manufacture of watches and clocks   | 2652 |  |
| Manufacture of irradiation, electromedical and electrotherapeutic equipment                                 | 2660 |  |
| Manufacture of optical instruments and photographic equipment   | 2670 |  |
| Manufacture of magnetic and optical media   | 2680 |  |
| Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus | 2710 |  |
| Manufacture of batteries and accumulators   | 2720 |  |
| Manufacture of fibre optic cables   | 2731 |  |
| Manufacture of other electronic and electric wires and cables   | 2732 |  |
| Manufacture of wiring devices   | 2733 |  |
| Manufacture of electric lighting equipment  | 2740 |  |
| Manufacture of domestic appliances  | 2750 |  |
| Manufacture of other electrical equipment   | 2790 |  |
| Manufacture of engines and turbines, except aircraft, vehicle and cycle engines                             | 2811 |  |
| Manufacture of fluid power equipment  | 2812 |  |
| Manufacture of other pumps, compressors, taps and valves  | 2813 |  |
| Manufacture of bearings, gears, gearing and driving elements  | 2814 |  |
| Manufacture of ovens, furnaces and furnace burners  | 2815 |  |
| Manufacture of lifting and handling equipment   | 2816 |  |
| Manufacture of office machinery and equipment (except computers and peripheral equipment)                   | 2817 |  |
| Manufacture of power-driven hand tools  | 2818 |  |
| Manufacture of other general-purpose machinery  | 2819 |  |
| Manufacture of special-purpose machinery  | 282  |  |
| Manufacture of agricultural and forestry machinery  | 2821 |  |
| Manufacture of metal-forming machinery and machine tools  | 2822 |  |
| Manufacture of machinery for metallurgy   | 2823 |  |
| Manufacture of machinery for mining, quarrying and construction   | 2824 |  |
| Manufacture of machinery for food, beverage and tobacco processing  | 2825 |  |
| Manufacture of machinery for textile, apparel and leather production  | 2826 |  |
| Manufacture of other special-purpose machinery  | 2829 |  |
| Manufacture of motor vehicles   | 2910 |  |
| Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers             | 2920 |  |
| Manufacture of parts and accessories for motor vehicles   | 2930 |  |
| Building of ships and floating structures   | 3011 |  |
| Building of pleasure and sporting boats   | 3012 |  |
| Manufacture of railway locomotives and rolling stock  | 3020 |  |
| Manufacture of air and spacecraft and related machinery   | 3030 |  |
| Manufacture of military fighting vehicles   | 3040 |  |
| Manufacture of motorcycles  | 3091 |  |
| Manufacture of bicycles and invalid carriages   | 3092 |  |
| Manufacture of other transport equipment not elsewhere classified (nec).                                    | 3099 |  |
| Manufacture of furniture  | 3100 |  |

|   |   |      |  |
|---|---|------|--|
|   | Manufacture of jewellery and related articles                   | 3211 |  |
|   | Manufacture of imitation jewellery and related articles         | 3212 |  |
|   | Manufacture of musical instruments                              | 3220 |  |
|   | Manufacture of sports goods                                     | 3230 |  |
|   | Manufacture of games and toys                                   | 3240 |  |
|   | Manufacture of medical and dental instruments and supplies      | 3250 |  |
|   | Other manufacturing not elsewhere classified (nec).             | 3290 |  |
|   | Repair of fabricated metal products                             | 3311 |  |
|   | Repair of machinery   | 3312 |  |
|   | Repair of electronic and optical equipment                      | 3313 |  |
|   | Repair of electrical equipment                                  | 3314 |  |
|   | Repair of transport equipment, except motor vehicles            | 3315 |  |
|   | Repair of other equipment                                       | 3319 |  |
|   | Installation of industrial machinery and equipment              | 3320 |  |
| <b>Electricity, gas, steam and air conditioning supply</b>                    | Electric power generation, transmission and distribution        | 3510 |  |
|   | Manufacture of gas; distribution of gaseous fuels through mains | 3520 |  |
|   | Steam and air conditioning supply                               | 3530 |  |
| <b>Water supply; sewerage, waste management and remediation activities</b>    | Water collection, treatment and supply                          | 3600 |  |
|   | Sewerage  | 3700 |  |
|   | Collection of non-hazardous waste                               | 3811 |  |
|   | Collection of hazardous waste                                   | 3812 |  |
|   | Treatment and disposal of non-hazardous waste                   | 3821 |  |
|   | Treatment and disposal of hazardous waste                       | 3822 |  |
|   | Materials recovery  | 3830 |  |
|   | Remediation activities and other waste management services      | 3900 |  |
| <b>Please give accurate description of the main activity of establishment</b> |   |      |  |

2.3

**Type of Ownership (tick one)**

|   |                            |  |
|---|----------------------------|--|
| 1 | Sole Proprietorship        |  |
| 2 | Partnership                |  |
| 3 | Private Limited Company    |  |
| 4 | Public Limited Company     |  |
| 5 | Cooperative                |  |
| 6 | Parastatal                 |  |
| 7 | Local Authorities          |  |
| 8 | Central Government         |  |
| 9 | Other Type (Specify) _____ |  |

***Please show all monetary information in Kenya Shillings***

**2.4 Share Capital:**

- (i) Nominal (KSh) : .....
- (ii) Estimated market value (KSh): .....
- (iii) Paid up (KSh) : .....

Of paid up, how much:

- (a) Kenyan , (KSh) -----
- (b) Other E.African, (KSh) Tanzanian ----- Ugandan ----- Burundian ----- Rwandese -----
- (c) Foreign (State Residence and Capital ownership):

|                   | Country | Capital (KSh) |
|-------------------|---------|---------------|
| 1 <sup>st</sup> : | -----   | -----         |
| 2 <sup>nd</sup> : | -----   | -----         |
| 3 <sup>rd</sup> : | -----   | -----         |

**3. EMPLOYMENT, HOURS WORKED AND COMPENSATION OF EMPLOYEES**

**3.1 Number of Persons Employed (as at 30<sup>th</sup> June 2009 and 30<sup>th</sup> June 2010)**

| No       | Items                 | Citizen |        | Non-Citizen |        | Total |        |
|----------|-----------------------|---------|--------|-------------|--------|-------|--------|
|          |                       | Male    | Female | Male        | Female | Male  | Female |
| 3.1.1(a) | Proprietors           | 2009    |        |             |        |       |        |
|          |                       | 2010    |        |             |        |       |        |
| 3.1.1(b) | Unpaid Family Workers | 2009    |        |             |        |       |        |
|          |                       | 2010    |        |             |        |       |        |
| 3.1.2    | Employees of which:   |         |        |             |        |       |        |
| 3.1.3.1  | Permanent Employees   | 2009    |        |             |        |       |        |
|          |                       | 2010    |        |             |        |       |        |
| 3.1.3.2  | Contract Employees    | 2009    |        |             |        |       |        |
|          |                       | 2010    |        |             |        |       |        |
| 3.1.3.3  | Casual Employees      | 2009    |        |             |        |       |        |
|          |                       | 2010    |        |             |        |       |        |

**3.2 Average weekly work hours per employee/Number of Months Worked per year**

| No       | Items                 | Average weekly work hours per employee | Number of Months /year worked |
|----------|-----------------------|--|-------------------------------|
| 3.2.1(a) | Proprietors           |  |                               |
| 3.2.1(b) | Unpaid Family Workers |  |                               |
| 3.2.2    | Employees of which:   |  |                               |
| 3.2.2.1  | Permanent employees   |  |                               |
| 3.2.2.2  | Contract employees    |  |                               |
| 3.2.2.3  | Casual employees      |  |                               |

**3.3 Compensation of Employees**

| No      | Items   | Total (KSh) 2009 | As at June 2009 | As at June 2010 |
|---------|---|------------------|-----------------|-----------------|
| 3.3.1   | Wages and salaries in cash of employees of which:   |                  |                 |                 |
| 3.3.1.1 | Permanent Employees                                 |                  |                 |                 |
| 3.3.1.2 | Contract  |                  |                 |                 |
| 3.3.1.3 | Casual Employees                                    |                  |                 |                 |
| 3.3.2   | Wages and salaries in kind except social insurance* |                  |                 |                 |
| 3.3.3   | Social Insurance contributions by employers**       |                  |                 |                 |

\* Costs of free meals, canteen subsidies, housing services, uniforms/special clothing, transport to and from work, medical costs, voluntary training and education costs, sports facilities, and all other costs, which are voluntarily made by the employer for

\*\* Compulsory employer's contributions to NSSF/other pension schemes, NHIF, accident compensation, and other schemes for the benefit of employees.

**3.4** If your company provides formal internal/external training to its employees, what was the value of expenditure in year 2009? (Ksh) .....

**4. PRODUCTION, INSTALLED CAPACITY**

4.1 What was the average level of capacity utilization in your company during the year 2009? .....%

(Capacity utilisation is defined as the current level of production compared to what would have been produced if all the

| 1  | Description of products<br>(List all products produced) | HS Code |  |  |  |  |  |  |  | Unit Of Measurement<br>(Please conform to use of<br>standard units) | Maximum possible production<br>per year (Qty) | Actual production in<br>the year 2009 (Qty) | Total Value of<br>product(KSh) | CPC Codes (office use<br>only) |  |  |  |
|----|---|---------|--|--|--|--|--|--|--|---|---|---|--------------------------------|--------------------------------|--|--|--|
|    |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 2  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 3  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 4  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 5  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 6  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 7  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 8  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 9  |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 10 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 11 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 12 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 13 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 14 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 15 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 16 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 17 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |
| 18 |   |         |  |  |  |  |  |  |  |   |   |   |                                |                                |  |  |  |

If more than 18 products, please attach list of the products and details

**5 . REASONS FOR UNDERUTILIZATION:** If your company's production capacity was not fully utilized, rank the most important reasons for underutilization of capacity using a scale of 1 to 4.

- 1 High
- 2 Moderate
- 3 Low
- 4 N/A

| REASONS   | Code | Priority Ranking |
|---|------|------------------|
| 1. Insufficient domestic demand                           | 11   |                  |
| 2. Shortage of domestic inputs                            | 12   |                  |
| 3. Shortage of imported inputs                            | 13   |                  |
| 4. Unbalanced plant (bottleneck)                          | 14   |                  |
| 5. Old (obsolete) plant                                   | 15   |                  |
| 6. Plant maintenance problems due to:                     |      |                  |
| 6.1 Lack of spare parts                                   | 16   |                  |
| 6.2 Shortage of skilled labour                            | 17   |                  |
| 7. High cost and/or shortage of credit                    | 18   |                  |
| 8. Breakdowns in supply of power                          | 19   |                  |
| 9. Breakdowns in supply of water                          | 20   |                  |
| 10. Competition from imports                              | 21   |                  |
| 11. Loss of products due to strikes, stoppages etc.       | 22   |                  |
| 12. Uncompetitiveness of exports due to:                  |      |                  |
| 12.1 High price of products due to:                       |      |                  |
| 12.1.1 High cost of materials                             | 23   |                  |
| 12.1.2 High cost of fuels                                 | 24   |                  |
| 12.1.3 High cost of electricity                           | 25   |                  |
| 12.1.4 High cost of labour                                | 26   |                  |
| 12.2 Poor quality of products                             | 30   |                  |
| 12.3 Poor transport facilities and/or high transport cost | 31   |                  |
| 12.4 Low plant productivity                               | 32   |                  |
| 12.5 Low labour productivity                              | 33   |                  |
| 12.6 Inability to grant credit to customers               | 34   |                  |
| 13.0 Counterfeits   | 40   |                  |
| 14.0 Any other reason (Please Specify)                    | 99   |                  |

6 INVENTORIES

| Type of product (s)  | Value of inventories in 2009(KSh)        |                                |
|--|--|--------------------------------|
|  | At beginning of the year(Opening Stocks) | At end of year(Closing Stocks) |
| 6.1 Finished products *                                    |  |                                |
| 6.2 Products purchased for resale **                       |  |                                |
| 6.3 Work-in-progress                                       |  |                                |
| 6.4 Fuel ***   |  |                                |
| 6.5 Raw materials, components, spare parts, Tools etc. *** |  |                                |

\* Use enterprise gate (sales) prices (less indirect taxes, like VAT and Excise duties) to value stocks of finished products and work-in-progress. In the latter case, a proportion of the price

\*\* Products purchased for resale should be valued at the prices prevailing at the time of valuation (beginning yr/end yr) as distinct from prices at which they were originally purchased and entered as

\*\*\* Use purchasers' price (Exclusive of Deductible VAT;include other taxes and duties paid or payable).

7 ANNUAL EXPENDITURE ON GOODS AND SERVICES

7.1 Annual Electricity, Water and Fuel Purchased at purchaser's price<sup>1</sup>

| ITEM                                |              | Actual Consumption |             | Maximum Capacity Requirement |
|-------------------------------------|--------------|--------------------|-------------|------------------------------|
|                                     |              | Quantity           | Value (KSh) | Quantity                     |
| 1. Coal                             | Tonne        |                    |             |                              |
| 2. Coke                             | Tonne        |                    |             |                              |
| 3. Fuelwood by Source and type      |              |                    |             |                              |
| Government Plantations (Indigenous) | Tonne        |                    |             |                              |
| Government Plantations (exotic)     | Tonne        |                    |             |                              |
| Private Plantations (Indigenous)    | Tonne        |                    |             |                              |
| Private Plantations (exotic)        | Tonne        |                    |             |                              |
| Small Scale (Indigenous)            | Tonne        |                    |             |                              |
| Small Scale (exotic)                | Tonne        |                    |             |                              |
| 4. Gas(LPG)                         | Cubic metres |                    |             |                              |
| 5. Gas Oil                          |              |                    |             |                              |
| (i) Road diesel                     | Litre        |                    |             |                              |
| (ii) Heavy Gas oil                  | Litre        |                    |             |                              |
| (iii) Other Gas oil                 | Litre        |                    |             |                              |
| 6. Motor Gasoline                   | Litre        |                    |             |                              |
| 7. Fuel oils                        | Litre        |                    |             |                              |
| 8. Electricity                      | Kwh          |                    |             |                              |
| 9. Kerosine                         | Litre        |                    |             |                              |
| 10. Lubricating oil                 | Litre        |                    |             |                              |
| 11. Grease                          | Kg           |                    |             |                              |
| 12. Water                           | Cubic metres |                    |             |                              |
| 13. Others(Specify)                 |              |                    |             |                              |

<sup>1</sup>Exclusive of Deductible VAT; include other taxes and duties paid or payable



**8. OTHER EXPENSES (KSh):**

| ITEM  | VALUE(KSh) |
|---|------------|
| a.Rental of buildings   |            |
| b.Rental of machinery and equipment                               |            |
| c.Minor repairs and maintenance(including repair of IT equipment) |            |
| d.Telecommunications  |            |
| e.Other information and computer related services                 |            |
| f.Postal and Courier Services                                     |            |
| g.Expenses on air tickets   |            |
| h.Printing  |            |
| i.Hire of transport   |            |
| Freight Transport   |            |
| Passenger Transport   |            |
| i.Warehousing storage and handling charges                        |            |
| k.Clearing and forwarding charges                                 |            |
| l.Advertising and promotion                                       |            |
| m.Security services   |            |
| n.Consulting and management fees                                  |            |
| o.Other business services (legal, accounting, etc.)               |            |
| p.Other business travel expenses                                  |            |
| q.Bank charges  |            |
| r.Expenditure on environmental protection                         |            |
| s.Insurance (for works)   |            |
| t.Other, specify-----   |            |

**9. ANNUAL COST OF GOODS PURCHASED FOR RESALE**

KSh .....

**10. TOTAL EXPENDITURE**

KSh .....







**13.12 Which of the following activities did(company) use internet for during the period 2009 (Multiple responses**

1. Communicating (Email/Internet phone)
2. Getting information about good and services
3. Getting information from government organizations, public authorities via websites
4. Reading/Downloading electronic books, newspaper or magazine
5. Purchasing or ordering goods or services
6. Internet Banking
- 7.. Providing customer service
8. Research
9. Other(specify)

**13.13 E-commerce**

**13.13.1 Did your business place orders(make purchases) for goods or services via the internet during the period(**

|               |              |
|---------------|--------------|
| <b>1. Yes</b> | <b>2. No</b> |
|               |              |

**13.13.2 Did your business receive orders(make sales) for goods or services via the internet during the period(2009**

|               |              |
|---------------|--------------|
| <b>1. Yes</b> | <b>2. No</b> |
|               |              |

**13.13.3 Did your business make payments for....via the internet during the period(2009)**

| Item   | Yes | No | D/K |
|--|-----|----|-----|
| Taxes  |     |    |     |
| Statutory deductions eg NHIF, NSSF, Pensions |     |    |     |
| Salaries                                     |     |    |     |

**13.13.3 Value of goods and services**

| Item  | KSH |
|---|-----|
| 1. Value of goods and services purchased through the internet at purchase |     |
| 2. Value of goods and services sold through the internet excluding VAT    |     |

**13.13.4 What proportion of your business total turnover during the period(2009) Excluding VAT did those internet**

%

**13.14 How has the use of modern technology and ICT affected the following?**

| Item                             | Positive | Negative | Neutral |
|----------------------------------|----------|----------|---------|
| 1. Employment                    |          |          |         |
| 2. Production                    |          |          |         |
| 3. Sales                         |          |          |         |
| 4. Communication                 |          |          |         |
| 5. Records Management            |          |          |         |
| 6. Transaction time              |          |          |         |
| 7. Business costs                |          |          |         |
| 8. Keeping pace with competitors |          |          |         |
| 9. Others (please specify).....  |          |          |         |

**13 INFORMATION TECHNOLOGY INFRASTRUCTURE AND RELATED SERVICES**

**13.1 Does your company have the following?**

| Infrastructure        | 1. Yes | 2. No | 3. D/K | If Yes How many? |
|-----------------------|--------|-------|--------|------------------|
| 1. Computer           |        |       |        |                  |
| 2. Telephone line     |        |       |        |                  |
| 3. Mobile phone       |        |       |        |                  |
| 4. Post box           |        |       |        |                  |
| 5. Website            |        |       |        |                  |
| 6. Local Area Network |        |       |        |                  |
| 7. Intranet           |        |       |        |                  |
| 8. Extranet           |        |       |        |                  |
| 9. Internet           |        |       |        |                  |

**13.2 What type of Internet connectivity does your business have?**

|                         |  |
|-------------------------|--|
| 1. Fixed line           |  |
| 2. Wireless(Wimax)      |  |
| 3. Satellite (VSAT)     |  |
| 4. Mobile Modem         |  |
| 5. Fibre connection     |  |
| 6. Other (specify)..... |  |

**13.3 Since when did the business acquire the internet connection**

**13.4 Does your business have a broadband connection(Speeds greater than or equal to 256Kbps)?**

| 1. Yes | 2. No | 3.D/K |
|--------|-------|-------|
|        |       |       |

**13.5 What bandwidth are you using for internet connectivity in your business?**  Kbps

**13.6 How reliable is the internet connection?**

| Very reliable | Reliable | Not reliable | Very unreliable |
|---------------|----------|--------------|-----------------|
|               |          |              |                 |

**13.7 Has the ease of internet connection improved after the landing of the undersea cables in 2008?**

| 1. Yes | 2. No | 3.D/K |
|--------|-------|-------|
|        |       |       |

**13.8 Did internet connectivity improve your sales?**

| 1. Yes | 2. No | 3.D/K |
|--------|-------|-------|
|        |       |       |

**13.9 Domain name**

| Item  | 1. Yes | 2. No |
|---|--------|-------|
| Does your business have a domain name?        |        |       |
| Does your business have a dot.ke domain name? |        |       |

**13.10 What proportions of persons employed in your business routinely used.. at work in the last 6 months?**

| Item     | % |
|----------|---|
| Computer |   |
| Internet |   |

**13.11 What proportion of employees in your business have an email account?**  %

**13.12 Which of the following activities did(company) use internet for during the period 2009 (Multiple responses )**

1. Communicating (Email/Internet phone)
2. Getting information about good and services
3. Getting information from government organizations, public authorities via websites
4. Reading/Downloading electronic books, newspaper or magazine
5. Purchasing or ordering goods or services
6. Internet Banking
- 7.. Providing customer service
8. Research
9. Other(specify)

**13.13 E-commerce**

**13.13.1 Did your business place orders(make purchases) for goods or services via the internet during the period(2009)**

|        |       |
|--------|-------|
| 1. Yes | 2. No |
|        |       |

**13.13.2 Did your business receive orders(make sales) for goods or services via the internet during the period(2009)**

|        |       |
|--------|-------|
| 1. Yes | 2. No |
|        |       |

**13.13.3 Did your business make payments for....via the internet during the period(2009)**

| Item   | Yes | No | D/K |
|--|-----|----|-----|
| Taxes  |     |    |     |
| Statutory deductions eg NHIF, NSSF, Pensions |     |    |     |
| Salaries                                     |     |    |     |

**13.13.3 Value of goods and services**

| Item   | KSH |
|--|-----|
| 1. Value of goods and services purchased through the internet at purchaser's price |     |
| 2. Value of goods and services sold through the internet excluding VAT             |     |

**13.13.4 What proportion of your business total turnover during the period(2009) Excluding VAT did those internet sales represent?**

%

**13.14 How has the use of modern technology and ICT affected the following?**

| Item                             | Positive | Negative | Neutral |
|----------------------------------|----------|----------|---------|
| 1. Employment                    |          |          |         |
| 2. Production                    |          |          |         |
| 3. Sales                         |          |          |         |
| 4. Communication                 |          |          |         |
| 5. Records Management            |          |          |         |
| 6. Transaction time              |          |          |         |
| 7. Business costs                |          |          |         |
| 8. Keeping pace with competitors |          |          |         |
| 9. Others (please specify).....  |          |          |         |

**13.15 Expenses in connection with IT related products and services for reporting period at purchaser's price<sup>1</sup>**

| <b>Expenditure</b>  | <b>KSH</b> |
|---|------------|
| 1. Internet/ E-mail account                                       |            |
| 2. Fixed telephone  |            |
| 3. Mobile phone   |            |
| 4. Postage  |            |
| 5. Maintenance/repair of IT related equipment                     |            |
| 6. Training in IT   |            |
| (i) Local   |            |
| (ii) Overseas   |            |
| 7. Consultancy services   |            |
| 8. Leased/dedicated lines(s)                                      |            |
| 9. Other current expenses (toner, CD, flash disks, cartridge etc) |            |
| <b>TOTAL</b>  |            |

**13.16 How would you rate the cost of internet connection?**

| High | Fair | Low | D/K |
|------|------|-----|-----|
|      |      |     |     |

**13.17 Capital expenditure** KSH

|  |  |
|--|--|
| 1. Purchase of software (including upgrades) |  |
| 2. Purchase of hardware (including upgrades) |  |
| 3. Software development                      |  |
| 4. Other capital expenditure, specify: ..... |  |

<sup>1</sup>All purchasers price should be inclusive of Customs and Excise duties but exclusive of deductible VAT

**14. RESEARCH AND DEVELOPMENT**

**Areas and Expenditure**

| Area of research (e.g. new product line, improving existing product lines etc.) | Expenditure(KSh) |
|---|------------------|
|   |                  |
|   |                  |
|   |                  |
|   |                  |
|   |                  |

If not undertaking research and development, kindly provide reason(s): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**15. FIXED ASSETS**

(Fixed assets consist of building and construction works, machinery and equipment with a productive life of more than one year. New purchases comprise acquisition of new locally produced items and imports of both new and used items. Costs of major improve

| Item   | Net Book value at the beginning of the year (KSh) | Value of additions during the |  |                                | Sale of Fixed assets during the year (KSh)(-) | Depreciation (KSh) (-) | Revaluation of fixed assets (+/-) | Net Book Value at end of Period (KSh) |
|--|---|-------------------------------|--|--------------------------------|---|------------------------|-----------------------------------|---------------------------------------|
|  |   | Year (KSh)                    |  |                                |   |                        |                                   |                                       |
|  |   | Purchased                     |  | Own Produced +Own Construction |   |                        |                                   |                                       |
| New assets (+)   | Used assets(+)                                    |                               |  |                                |   |                        |                                   |                                       |
| 1. Land  |   |                               |  |                                |   |                        |                                   |                                       |
| 2. Land Development/improvements                                   |   |                               |  |                                |   |                        |                                   |                                       |
| 3. Residential Buildings   |   |                               |  |                                |   |                        |                                   |                                       |
| 4. Non-residential buildings                                       |   |                               |  |                                |   |                        |                                   |                                       |
| 5. Other Construction/structures                                   |   |                               |  |                                |   |                        |                                   |                                       |
| 6. Machinery and equipment   |   |                               |  |                                |   |                        |                                   |                                       |
| 6.1 Transport Equipment  |   |                               |  |                                |   |                        |                                   |                                       |
| 6.2 ICT Equipment  |   |                               |  |                                |   |                        |                                   |                                       |
| 6.3 Other Machinery and equipment                                  |   |                               |  |                                |   |                        |                                   |                                       |
| 7. Intellectual property( including patents, software, copyrights) |   |                               |  |                                |   |                        |                                   |                                       |
| 7.1 Research and Development                                       |   |                               |  |                                |   |                        |                                   |                                       |
| 7.2 Mineral exploration and evaluation                             |   |                               |  |                                |   |                        |                                   |                                       |
| 7.3 Computer software and database                                 |   |                               |  |                                |   |                        |                                   |                                       |
| 7.4 Entertainment, literary and artistic originals                 |   |                               |  |                                |   |                        |                                   |                                       |
| 8. Other (specify) .....   |   |                               |  |                                |   |                        |                                   |                                       |
| <b>Total</b>   |   |                               |  |                                |   |                        |                                   |                                       |



## Appendix 2      Distribution of establishments by Industries and counties

|  | Nairobi City | Kiambu     | Kirinyaga | Murang'a   | Nyandarua | Nyeri     | Kilifi    | Kwale    | Lamu     | Mombasa    | Taita/Taveta |
|--|--------------|------------|-----------|------------|-----------|-----------|-----------|----------|----------|------------|--------------|
| Mining of metals ores  | 0            | 0          | 0         | 0          | 0         | 0         | 0         | 1        | 0        | 0          | 0            |
| Other mining and quarrying   | 14           | 6          | 0         | 0          | 0         | 0         | 3         | 0        | 0        | 1          | 2            |
| Mining support service activities  | 1            | 0          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 0          | 0            |
| Manufacture of food products   | 156          | 133        | 88        | 127        | 2         | 54        | 13        | 0        | 0        | 23         | 5            |
| Manufacture of beverages   | 27           | 3          | 0         | 0          | 0         | 3         | 1         | 0        | 0        | 9          | 0            |
| Manufacture of tobacco products  | 2            | 0          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 0          | 0            |
| Manufacture of textiles  | 51           | 7          | 1         | 0          | 0         | 0         | 2         | 0        | 0        | 11         | 1            |
| Manufacture of wearing apparel   | 33           | 5          | 0         | 0          | 0         | 1         | 1         | 0        | 0        | 8          | 0            |
| Manufacture of leather and related products  | 14           | 6          | 1         | 0          | 0         | 0         | 0         | 0        | 0        | 5          | 0            |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting ma | 38           | 0          | 1         | 0          | 0         | 2         | 3         | 0        | 0        | 5          | 0            |
| Manufacture of paper and paper products  | 39           | 2          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 2          | 0            |
| Printing and reproduction of recorded media  | 143          | 3          | 0         | 0          | 0         | 2         | 1         | 0        | 0        | 11         | 0            |
| Manufacture of coke and refined petroleum products   | 6            | 1          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 1          | 0            |
| Manufacture of chemicals and chemical products   | 119          | 1          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 5          | 0            |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 22           | 2          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 0          | 0            |
| Manufacture of rubber and plastics products  | 99           | 6          | 0         | 0          | 0         | 0         | 0         | 1        | 0        | 8          | 0            |
| Manufacture of other non-metallic mineral products   | 28           | 0          | 0         | 1          | 0         | 0         | 1         | 1        | 0        | 2          | 0            |
| Manufacture of basic metals  | 14           | 4          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 8          | 0            |
| Manufacture of fabricated metal products, except machinery and equipment   | 61           | 5          | 0         | 0          | 0         | 0         | 1         | 0        | 0        | 8          | 0            |
| Manufacture of computer, electronic and optical products   | 2            | 0          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 0          | 0            |
| Manufacture of electrical equipment  | 13           | 0          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 1          | 0            |
| Manufacture of machinery and equipment n.e.c.  | 23           | 1          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 0          | 0            |
| Manufacture of motor vehicles, trailers and semi-trailers  | 48           | 1          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 5          | 0            |
| Manufacture of other transport equipment   | 2            | 0          | 0         | 0          | 0         | 0         | 1         | 0        | 0        | 1          | 0            |
| Manufacture of furniture   | 48           | 3          | 0         | 0          | 0         | 0         | 3         | 0        | 0        | 4          | 0            |
| Other manufacturing  | 13           | 3          | 0         | 0          | 0         | 0         | 1         | 0        | 0        | 5          | 0            |
| Repair and installation of machinery and equipment   | 53           | 3          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 4          | 0            |
| Electricity, gas, steam and air conditioning supply  | 8            | 0          | 0         | 0          | 0         | 0         | 2         | 0        | 0        | 0          | 0            |
| Water collection, treatment and supply   | 7            | 11         | 2         | 4          | 0         | 1         | 2         | 0        | 2        | 3          | 1            |
| Sewerage   | 0            | 0          | 0         | 0          | 0         | 0         | 1         | 0        | 0        | 0          | 0            |
| Waste collection, treatment and disposal activities; materials recovery  | 6            | 0          | 0         | 0          | 0         | 0         | 0         | 0        | 0        | 0          | 0            |
| <b>Total</b>   | <b>1090</b>  | <b>206</b> | <b>93</b> | <b>132</b> | <b>2</b>  | <b>63</b> | <b>36</b> | <b>3</b> | <b>2</b> | <b>130</b> | <b>9</b>     |

|  | Tharaka-  |          |           |          |          |           |          |          |          |          |           |
|--|-----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|-----------|
|  | Embu      | Kitui    | Machakos  | Makueni  | Marsabit | Meru      | Nithi    | Garissa  | Mandera  | Homa Bay | Kisii     |
| Mining of metals ores  | 0         | 0        | 1         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Other mining and quarrying   | 0         | 0        | 5         | 1        | 0        | 0         | 0        | 0        | 0        | 1        | 1         |
| Mining support service activities  | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of food products   | 20        | 4        | 10        | 0        | 1        | 33        | 4        | 2        | 0        | 2        | 7         |
| Manufacture of beverages   | 0         | 0        | 0         | 0        | 0        | 0         | 1        | 0        | 0        | 2        | 1         |
| Manufacture of tobacco products  | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of textiles  | 0         | 0        | 4         | 1        | 0        | 2         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of wearing apparel   | 0         | 0        | 4         | 0        | 1        | 1         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of leather and related products  | 0         | 0        | 1         | 0        | 0        | 0         | 0        | 0        | 1        | 0        | 0         |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting ma | 2         | 0        | 1         | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of paper and paper products  | 0         | 0        | 2         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Printing and reproduction of recorded media  | 1         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of coke and refined petroleum products   | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of chemicals and chemical products   | 0         | 0        | 2         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 1         |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 0         | 0        | 2         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of rubber and plastics products  | 1         | 0        | 4         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of other non-metallic mineral products   | 0         | 0        | 3         | 0        | 0        | 1         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of basic metals  | 0         | 0        | 3         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of fabricated metal products, except machinery and equipment   | 0         | 1        | 6         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of computer, electronic and optical products   | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of electrical equipment  | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of machinery and equipment n.e.c.  | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of motor vehicles, trailers and semi-trailers  | 0         | 0        | 1         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of other transport equipment   | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Manufacture of furniture   | 0         | 0        | 3         | 0        | 0        | 1         | 0        | 0        | 0        | 1        | 0         |
| Other manufacturing  | 0         | 0        | 2         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Repair and installation of machinery and equipment   | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Electricity, gas, steam and air conditioning supply  | 4         | 0        | 1         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Water collection, treatment and supply   | 2         | 1        | 1         | 0        | 1        | 2         | 0        | 1        | 0        | 0        | 0         |
| Sewerage   | 0         | 0        | 1         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| Waste collection, treatment and disposal activities; materials recovery  | 0         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 0        | 0        | 0         |
| <b>Total</b>   | <b>30</b> | <b>6</b> | <b>57</b> | <b>2</b> | <b>3</b> | <b>41</b> | <b>5</b> | <b>3</b> | <b>1</b> | <b>6</b> | <b>10</b> |

|  | Elgeyo/Mara |          |          |           |          |           |          |           |           |           |           |
|--|-------------|----------|----------|-----------|----------|-----------|----------|-----------|-----------|-----------|-----------|
|  | Kisumu      | Migori   | Nyamira  | Siaya     | Baringo  | Bomet     | kwet     | Kajiado   | Kericho   | Laikipia  | Nakuru    |
| Mining of metals ores  | 1           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Other mining and quarrying   | 4           | 0        | 0        | 0         | 1        | 0         | 1        | 4         | 0         | 1         | 3         |
| Mining support service activities  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of food products   | 14          | 3        | 6        | 2         | 5        | 12        | 1        | 1         | 18        | 4         | 34        |
| Manufacture of beverages   | 4           | 0        | 0        | 1         | 0        | 0         | 0        | 0         | 1         | 0         | 6         |
| Manufacture of tobacco products  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of textiles  | 1           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 2         | 9         |
| Manufacture of wearing apparel   | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 1         | 0         |
| Manufacture of leather and related products  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 1         |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting ma | 0           | 0        | 0        | 0         | 1        | 0         | 0        | 0         | 0         | 1         | 13        |
| Manufacture of paper and paper products  | 2           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Printing and reproduction of recorded media  | 2           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 2         | 1         | 4         |
| Manufacture of coke and refined petroleum products   | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of chemicals and chemical products   | 1           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 2         |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of rubber and plastics products  | 1           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of other non-metallic mineral products   | 2           | 0        | 0        | 0         | 0        | 0         | 1        | 1         | 0         | 0         | 1         |
| Manufacture of basic metals  | 1           | 0        | 0        | 0         | 0        | 0         | 0        | 1         | 0         | 0         | 0         |
| Manufacture of fabricated metal products, except machinery and equipment   | 6           | 0        | 0        | 0         | 0        | 1         | 0        | 1         | 0         | 1         | 5         |
| Manufacture of computer, electronic and optical products   | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of electrical equipment  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of machinery and equipment n.e.c.  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 3         |
| Manufacture of motor vehicles, trailers and semi-trailers  | 1           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 2         |
| Manufacture of other transport equipment   | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Manufacture of furniture   | 2           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 1         |
| Other manufacturing  | 2           | 0        | 0        | 0         | 0        | 0         | 0        | 1         | 1         | 0         | 1         |
| Repair and installation of machinery and equipment   | 3           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 1         | 2         |
| Electricity, gas, steam and air conditioning supply  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 1         |
| Water collection, treatment and supply   | 2           | 0        | 0        | 7         | 0        | 0         | 0        | 1         | 1         | 3         | 7         |
| Sewerage   | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| Waste collection, treatment and disposal activities; materials recovery  | 0           | 0        | 0        | 0         | 0        | 0         | 0        | 0         | 0         | 0         | 0         |
| <b>Total</b>   | <b>49</b>   | <b>3</b> | <b>6</b> | <b>10</b> | <b>7</b> | <b>13</b> | <b>3</b> | <b>10</b> | <b>23</b> | <b>15</b> | <b>95</b> |

|  | Nandi     | Narok    | Trans Nzoia | Uasin<br>Gishu | Bungoma   | Busia    | Kakamega  | Vihiga   | Total       |
|--|-----------|----------|-------------|----------------|-----------|----------|-----------|----------|-------------|
| Mining of metals ores  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 3           |
| Other mining and quarrying   | 2         | 0        | 0           | 3              | 0         | 0        | 0         | 0        | 53          |
| Mining support service activities  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 1           |
| Manufacture of food products   | 12        | 1        | 5           | 11             | 6         | 0        | 4         | 1        | 824         |
| Manufacture of beverages   | 0         | 0        | 0           | 1              | 0         | 0        | 0         | 0        | 60          |
| Manufacture of tobacco products  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 2           |
| Manufacture of textiles  | 0         | 0        | 0           | 4              | 0         | 0        | 0         | 0        | 96          |
| Manufacture of wearing apparel   | 0         | 0        | 0           | 1              | 0         | 0        | 2         | 0        | 58          |
| Manufacture of leather and related products  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 29          |
| Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting ma | 0         | 0        | 0           | 3              | 0         | 0        | 0         | 0        | 71          |
| Manufacture of paper and paper products  | 0         | 0        | 0           | 1              | 1         | 0        | 1         | 0        | 50          |
| Printing and reproduction of recorded media  | 0         | 0        | 0           | 1              | 1         | 0        | 0         | 0        | 172         |
| Manufacture of coke and refined petroleum products   | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 8           |
| Manufacture of chemicals and chemical products   | 0         | 0        | 0           | 0              | 2         | 0        | 0         | 0        | 133         |
| Manufacture of pharmaceuticals, medicinal chemical and botanical products  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 26          |
| Manufacture of rubber and plastics products  | 0         | 0        | 0           | 1              | 0         | 0        | 0         | 0        | 121         |
| Manufacture of other non-metallic mineral products   | 0         | 0        | 0           | 1              | 0         | 0        | 0         | 0        | 43          |
| Manufacture of basic metals  | 0         | 0        | 0           | 0              | 0         | 0        | 1         | 0        | 32          |
| Manufacture of fabricated metal products, except machinery and equipment   | 0         | 0        | 0           | 1              | 0         | 0        | 3         | 0        | 100         |
| Manufacture of computer, electronic and optical products   | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 2           |
| Manufacture of electrical equipment  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 14          |
| Manufacture of machinery and equipment n.e.c.  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 27          |
| Manufacture of motor vehicles, trailers and semi-trailers  | 0         | 0        | 0           | 1              | 0         | 0        | 0         | 0        | 59          |
| Manufacture of other transport equipment   | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 4           |
| Manufacture of furniture   | 0         | 0        | 0           | 2              | 0         | 0        | 2         | 0        | 70          |
| Other manufacturing  | 0         | 0        | 0           | 1              | 0         | 0        | 0         | 0        | 30          |
| Repair and installation of machinery and equipment   | 0         | 0        | 0           | 1              | 0         | 0        | 0         | 0        | 67          |
| Electricity, gas, steam and air conditioning supply  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 16          |
| Water collection, treatment and supply   | 0         | 1        | 0           | 1              | 0         | 1        | 3         | 5        | 73          |
| Sewerage   | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 2           |
| Waste collection, treatment and disposal activities; materials recovery  | 0         | 0        | 0           | 0              | 0         | 0        | 0         | 0        | 6           |
| <b>Total</b>   | <b>14</b> | <b>2</b> | <b>5</b>    | <b>34</b>      | <b>10</b> | <b>1</b> | <b>16</b> | <b>6</b> | <b>2252</b> |