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Ministry of Finance & Economic Empowerment

CENTRAL STATISTICS OFFICE

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DIGEST OF INDUSTRIAL STATISTICS - 2007

Foreword

This is the twenty-fourth issue of a regular publication of the Central Statistics Office on statistics relating to the Industrial Sector. The Industrial Sector, according to the international recommendations for industrial statistics, covers Mining and Quarrying, Manufacturing and Electricity, Gas and Water Supply.

Data presented in this publication cover the period 2000 to 2007. All the figures have been revised in the light of the “2002 Census of Economic Activities”.

It is hoped that the data provided will prove valuable to all users, in particular, industrialists, decision makers, planners and researchers. The quality of the data published in this report depends heavily on the basic data provided by numerous enterprises and organisations, both public and private. This office acknowledges their valuable contribution.

H. Bundhoo

Director of Statistics

Central Statistics Office,
Ministry of Finance & Economic Empowerment,
PORT LOUIS.
March 2009

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SYMBOLS AND ABBREVIATIONS

SYMBOLS

The following symbols are used throughout:

- Not applicable or nil

... Not available

ABBREVIATIONS

000: Thousand

M_Tons: Metric tons (1,000 kilos)

H_Litres: Hectolitres (100 litres)

Mn_Kwh: Million kilowatthour

GWh: Gigawatthour

No: Number

E P Z: Export Processing Zone

EOE: Export Oriented Enterprises

NSIC: National Standard Industrial
Classification of all economic
activities

C.I.F: Cost, insurance, freight

F.O.B: Free on board

VAT: Value Added Tax

INTRODUCTION

1. Historical background

Data on the Industrial Sector were, prior to 1985, published in the annual report "National Accounts of Mauritius". As from 1985, with the emergence of the manufacturing sector, in particular the EPZ, now EOE (as from October 2006), detailed data on the Industrial Sector are published in a separate report, namely, the annual "Digest of Industrial Statistics".

2. Data collection, compilation and publication

Data are collected mainly through annual surveys which are later benchmarked with the Census of Economic Activities conducted every five years. The survey data are complemented with administrative data such as imports/exports from the Customs Department and turnover data from Mauritius Revenue Authority. Data are collected under the authority of the Statistics Act 2000, which lays great emphasis on the confidentiality aspect.

Statistics relating to the Industrial Sector are disseminated in two ways. As soon as they become available, they appear in quarterly issues of the following "Economic and Social Indicators":

- The Export Oriented Enterprises (EOE)
- The Producer Price Index – Manufacturing Sector
- The Quarterly Index of Industrial Production (QIIP)
- National Accounts Estimates

Comprehensive data are later published in the annual "Digest of Industrial Statistics".

The status of the figures in this issue of the digest is as follows:

Year	Status
2000- 2005	Revised and final estimates
2006	Revised estimates
2007	Provisional estimates

3. Problems and limitations of published data

The Central Statistics Office continues to face the same problems as mentioned in the previous reports, namely:

(i) Response rate to the annual enquiries

The response rate to the annual enquiries undertaken by the office continues to improve. However, it appears that the fear that the Central Statistics Office discloses information to other authorities still prevails among some suppliers of data. Data are collected under the authority of

the Statistics Act 2000, which guarantees the absolute confidentiality of all information. No information relating to costs of production, capital employed or profits of an individual enterprise can be revealed to any authority or person. However, the Statistics Act 2000 allows the disclosure of information in the form of a list of names and addresses of individual undertakings or businesses together with their industrial classifications and products or services provided.

(ii) *Non-uniformity of accounting years*

Firms do not have uniform accounting years. Data collected for the last twelve-months period from the different firms may cover up to three consecutive years. Only in some cases, have the data been adjusted to a calendar year basis. This limitation may affect analysis for a particular year, but not analysis of trends over a period.

4. Performance of the Industrial Sector: 2003 – 2007

(i) **The Industrial Sector**

The Industrial Sector, which covers Mining and Quarrying, Manufacturing and Electricity, Gas and Water Supply accounted for 31.8 % of total employment and represented a share of 21.7.% of GDP in 2007. It registered a growth of 2.3 % in 2007 compared to 4.0 % in 2006. The performance of the sector in 2007 was mainly due to a positive growth of 8.0 % in the EOE sector and partly offset by a negative growth of (-0.4 %) in Non EOE sector respectively. A negative growth of (-13.6 %) was registered in sugar milling which was offset by a positive growth of 3.4 % in electricity, gas and water supply.

Investment in the industrial sector increased from Rs. 8070 million in 2006 to Rs. 10,506 million in 2007, that is, by 30.2 %.

	2003	2004	2005	2006	2007
No of "Large" establishments	933	922	897	837	820
Employment	112,113	104,864	95,782	94,189	95,400
Total value added at basic price (Million rupees)	33,075	35,575	35,630	39,978	44,846
Share in economy (%)	24.1	23.3	22.0	22.0	21.7
Growth rate (%)	+0.8	+0.9	-4.6	+4.0	+2.3
Investment (Million rupees)	5,919	7,131	8,298	8,070	10,506

(ii) The Manufacturing Sector

Manufacturing within the Industrial Sector covers Sugar milling, Food excluding Sugar, Textiles and Others.

	Annual growth rate (%)				
	2003	2004	2005	2006	2007
Manufacturing	+0.0	+0.6	-5.5	+4.0	+2.2
<i>Of which</i>					
<i>Sugar milling</i>	+3.7	+10.6	-9.2	-2.9	-13.6
<i>Food excluding Sugar</i>	+17.5	+4.4	+2.1	+9.6	+4.0
<i>Textiles</i>	-6.9	-7.2	-14.7	+2.9	+8.5
<i>Other</i>	-0.7	+6.6	+0.4	+1.8	-3.1
EOE	-6.0	-6.8	-12.3	+4.6	+8.0

The manufacturing sector, the largest in the Mauritian economy accounted for 19.8 % of GDP in 2007. It registered a positive growth of 2.2 % in 2007 compared to 4.0 % in 2006. The performances of its sub-sectors were as follows:

- The Sugar milling sector declined by 13.6 % in 2007 after a negative growth of 2.9 % in 2006. This is explained by a sugar production of 435,972 tonnes in 2007 compared to 504,857 tonnes in 2006.
- The Food (excluding Sugar) Sector registered a positive growth of 4.0 % in 2007 against a 9.6 % increase in 2006.
- The Textiles sector registered a positive growth of 8.5 % and 2.9 % in 2007 and 2006 respectively after negative growth of 14.7 % and 7.2 % in 2005 and 2004.
- *The EOE sector registered a growth of 8.0 % in 2007. EOE exports which accounts for nearly 88 % of the EOE sales was estimated at Rs 37,840 million in 2007 compared to Rs. 33,610 million in 2006.*

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**COVERAGE,
CONCEPTS
AND
DEFINITIONS**

COVERAGE, CONCEPTS AND DEFINITIONS

1. Coverage

The Industrial Sector, according to the International Recommendations for Industrial Statistics, comprises the following NSIC activity groups:

	NSIC Code
1. Mining and Quarrying	14
2. Manufacturing	15 – 37
3. Electricity, Gas & Water Supply	40

1.1 Mining and quarrying covers salt production and stone and sand quarrying.

1.2 The Manufacturing Industries cover the production of a wide range of goods and have been classified under the following broad groups:

- Sugar milling
- EOE
- Non-EOE

1.3 Electricity, Gas and Water Supply covers the activities of the following:

- The Central Electricity Board (C.E.B.)
- The Central Water Authority (C.W.A.)
- "Firm" Independent Power Producers

2. Concepts and Definitions

All tables have been compiled on an establishment basis.

2.1 Establishment

An *establishment* is defined as an economic unit, which engages in one or predominantly one kind of activity at a single location and under a single ownership.

Large establishments refer to all establishments, which engage ten or more persons. The source of data referring to employment in large establishments is the Annual Survey of Employment and Earnings carried out by this office.

2.2 Employee

An *employee* is defined as any person who is in regular or casual employment. It includes any person who is temporarily absent on *paid* sick or vacation leave as well as persons holding managerial posts, family workers receiving wages and salaries and paid apprentices.

Definitions of national accounts aggregates

The concepts and definitions used in this publication follow the recommendations of the 1993 System of National Accounts (SNA93) which was implemented in April 2001.

2.3 Gross output

Gross output of industries covers the market value of goods and services produced, including work-in-progress and products for own use. Gross output is valued at basic prices. The basic price is the amount receivable by the producer, exclusive of tax on products but including any subsidy on these products.

Taxes on products are payable on goods and services when they are produced, sold or used. Examples are excise duties, import duties and Value Added Tax (VAT).

2.4 Intermediate consumption

Intermediate consumption of industries covers non-durable goods and services used up in production, including repairs and maintenance of the capital stock and is valued at purchasers' prices. The purchasers' price is the amount payable by the purchaser exclusive of deductible taxes on products e.g. deductible value added tax.

2.5 Value added (Net output)

The *value added* is equal to gross output at basic prices less the value of intermediate consumption at purchaser's prices.

2.6 Gross Domestic Product (GDP)

Gross Domestic Product is the sum of value added of all domestic producers. It represents the aggregate money value of all goods and services produced within a country out of economic activity during a specified period, usually a year, before provision for the consumption of fixed capital.

GDP at basic prices is obtained as the difference between output and intermediate consumption whereby output is valued at basic prices and intermediate consumption at purchasers' prices.

2.7 Compensation of employees

Compensation of employees comprises all payments of wages and salaries by producers to their employees. Payments in kind as well as in cash and contributions to social security and to private pension, casualty insurance and similar schemes are also included.

Wages and salaries in cash include all payments which employees receive in respect of their work before deductions of employees' contributions to social security schemes. They include commissions, overtime payments, bonuses, cost of living allowance, housing allowances, etc.

Wages and salaries in kind are goods and services provided to employees free of charge or at a markedly reduced cost, which are clearly of direct benefit to the employees as consumers.

2.8 Gross Operating surplus

Gross operating surplus is defined as the excess of value added at basic prices over the cost of employees' compensation and other taxes on production and imports net of subsidies.

2.9 Other taxes on production

These consist of all taxes except taxes on products that enterprises incur as a result of engaging in production. Such taxes do not include any taxes on the profits or other income received by the enterprise and are payable irrespective of the profitability of the production. They may be payable on the land, fixed assets or labour employed in the production process or on certain activities or transactions.

SOURCES AND METHODS

1. Mining and quarrying

The activity of mining and quarrying covers salt production, stone and sand quarries. The share of this industry in the Gross Domestic Product is negligible. Estimates of gross output and value added are based on information collected through special enquiries.

2. Manufacturing

The manufacturing sector is the largest sector in the Mauritian economy. It contributes to around 20% of Gross Domestic Product and provides jobs for nearly 30% of the total employed.

Sources

1. Annual Industrial Production Survey (CIP1 & CIP2)
2. Annual Survey of Employment and Earnings
3. Quarterly Index of Industrial Production (QIIP)
4. Foreign Trade Statistics
5. Household Expenditure Survey 2001/02
6. Personal interviews of owners of small manufacturing industries
7. Census of Economic Activities
8. Mauritius Chamber of Agriculture
9. Mauritius Sugar Syndicate
10. VAT data

Methodology

The manufacturing sector is more conveniently analysed under the following broad groups:

- (i) Sugar Milling
- (ii) Food excluding Sugar
- (iii) Textiles
- (iv) Other

Sugar: Production account in respect of sugar milling is prepared from annual reports of the Chamber of Agriculture and from financial statements of the Mauritius Sugar Syndicate. For sugar milling, the end product is sugar and only millers are engaged in its production. The gross output is worked out from the gross proceeds of sugar. The main inputs are sugarcane, milling cost and marketing expenses.

Establishments in the manufacturing sector (excluding sugar milling) are surveyed twice a year through the Industrial Production Survey. At the beginning of the year, a simplified questionnaire (CIP1) is sent to a representative sample of large establishments requesting information on the quantity of goods produced and their sale value. The value of production or gross output is then derived from the sales figures. A crude estimation of the value added for the current year is then calculated using the working ratio "value added/gross output" worked out on the previous years' figures. Value added in respect of non-respondents is estimated using indicators available, e.g., employment, imports of raw materials and exports of finished goods. These estimates are checked with estimates from VAT data.

In September, a detailed questionnaire (CIP2) is sent to a sample of enterprises, requesting information on employment, labour costs, inputs, sales, stocks and investment. These forms are edited for completeness and consistency. Production accounts are worked out for each of the NSIC groups.

Technical ratios such as gross output / employee, value added / gross output and labour costs / value added are also calculated. These are used to make estimates for the non-respondents and also help in forecasting exercises.

3. Electricity, gas and water Supply

This sector covers the activities of the following:

- The Central Electricity Board (C.E.B.)
- The Central Water Authority (C.W.A.)
- "Firm" Independent Power Producers

The generation of electricity is undertaken by C.E.B. and the independent power producers, while its distribution is effected by C.E.B. only. The C.W.A. is responsible for the storage and supply of water.

Questionnaires are sent twice yearly to the relevant bodies to collect information for the preparation of the production accounts. One questionnaire relates to production and asks for detailed information on receipts, employment and labour costs, purchase of goods and services (local and imported) and stocks of materials while another relates to investment on fixed assets. Data on acquisition of assets such as buildings, plant, machinery and transport equipment are used in the computation of estimates of gross domestic fixed capital formation by type of goods.

4. Estimates at Constant Prices

4.1 General

The production account of the Industrial Sector is initially prepared at current prices. For many analytical purposes, estimates are required which are free from the effects of changes in prices. Working at constant prices allows the study of volume or real growth of a particular sector of the economy.

A 'normal' year is usually selected to represent the base year and the 'quantity' produced in the subsequent years are either revalued at the base year price or the value of goods produced during the current year are deflated by an appropriate price index (deflator).

4.2 Double-deflation method

The value added or the net output of an industry is a residual obtained after subtracting its intermediate consumption from its gross output. Therefore, to obtain the value added at constant prices, both the gross output and the input of goods and services should be revalued at constant prices. This method, the ideal one, is known as the "double-deflation" method. However, this method requires extensive data on both inputs and outputs, which, in practice are very difficult to obtain. Therefore, other methods using 'proxy indicators' are used to indicate volume changes. The proxy indicators most often used are: -

- (a) Physical quantities of goods produced
- (b) Physical quantities of materials used
- (c) Employment

As most industries produce a large number of heterogeneous products it is not possible to obtain separate physical output or input series. The value series are most often deflated by an appropriate price index to obtain a constant price estimate.

The indices normally used are: -

- (i) Producer Price Index (PPI - Manufacturing)
- (ii) Quarterly Index of Industrial Production (QIIP)
- (iii) Consumer Price Index (CPI)
- (iv) Construction Price Index
- (v) Wage/Salary Index
- (vi) Import and Export Price Index

The method used to work out estimates of value added at constant prices for the various industry groups of the industrial sector are given below.

NSIC Group	Industry Group	Method used
-----	-----	-----
14	Mining and quarrying	Deflation by Producer Price Index and Wage Rate Index
15 - 37	Manufacturing:	
	Sugar	Double deflation method
	EOE	Deflation by specific price indices such as the export price index
	Non-EOE	(i) Quantity relatives for homogeneous products; (ii) Deflation by specific price indices for product groups (e.g. PPI)
40	Electricity, gas and water Supply	Volume indicator: units of electricity sold Volume of water sold