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National Accounts of Mauritius – 2003

Foreword

National Accounts of Mauritius – 2003 is the twenty-first issue of an annual report on National Accounts published by the Central Statistics Office. This publication presents data available as at January 2004 on the performance of the economy during the years 2000 to 2003.

As from April 2001, the office is implementing the new system of accounting, namely the 1993 System of National Accounts (SNA 1993) recommended by the United Nations. To facilitate comparison, historical series of main national accounts aggregates according to SNA 1993 have been worked back to 1990, and are given in Part III at Section IV. The office has also adopted the United Nations International Standard Industrial Classification of Economic Activities, Revision 3 of 1990 (ISIC Rev. 3) which supersedes ISIC Rev.2.

The methodology and main data sources used in the compilation of the National Accounts estimates are given in Parts I and II, and the statistical tables and analysis in Part III. A Supply and Use Table for the year 1997 based on data from the 1997 Census of Economic Activities has been compiled and is given in Part III at Section V. An Input - Output table (product by product) for the year 1997 will appear in a separate publication.

The preparation of this report has necessitated the mobilisation of considerable resources and the cooperation on the part of numerous organisations, both public and private. Their assistance is gratefully acknowledged.

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PART 1 - CONCEPTS AND DEFINITIONS

1. General

National accounting represents a system of accounts, which describes the functioning of the national economy in such areas as production, distribution, consumption and accumulation. It has been developed to facilitate the practical application of economic theory. National accounting therefore furnishes a unified system for studying the economic condition of a country and its changes over time.

2. The System of National Accounts (SNA)

A System of National Accounts (SNA) consists of a coherent, consistent and integrated set of macro-economic accounts based on internationally agreed concepts, definitions, classifications and accounting rules. The United Nations Statistical Office in 1953 produced the first publication "A System of National Accounts (SNA)", which was revised in 1968. Since then, the SNA has undergone an extensive revision in the light of country experiences during the twenty-five years. The new version, the SNA 1993 was published in 1993 and countries have been advised to implement the new system as soon as possible. Whilst the basic structure has remained more or less the same, certain changes have been brought in, to take account of new developments and concerns.

2.1 *Implementation of the 1993 System of National Accounts (SNA 1993)*

Mauritius started the compilation of National accounts based on the SNA 1993 in 2001. As from April 2001, the national accounts data are produced according to the new concepts and the format for the presentation of the accounts will be adopted in due course. Historical series as from the year 1990 have been reworked according to the SNA 1993 and are given at Section 4. The new system could not be adopted earlier than in 2001 because there was need for fine tuning the recommendations to the peculiarities of the region as well as individual countries within the region. The results of the 1997 Census of Economic Activities provided the additional and more detailed data required for implementing the new system.

In addition to the change in the system of accounting, the office has also adopted the latest revision of industrial classification, that is, the International Standard Industrial Classification of Economic Activities ISIC, Revision 3 of 1990, for the classification of economic activities. As from April 2001, economic activities are classified according to ISIC Rev. 3 instead of the ISIC Rev. 2. This change in classification will affect the value added of some industry groups but does not affect the overall GDP.

Some of the main changes in terminology, valuation and classification that are relevant to Mauritius are given at paragraph 4.

3. National Accounts of Mauritius - historical background

The first estimates of national income and expenditure date back to the year 1948 when Gross Domestic Product (GDP) stood at some R 300 million. The measures were then confined to 'Value Added' figures only and were published in the Year Book and later, in the Digest of Statistics.

Estimates for 1948 to 1975 were based on the 1953 System of National Accounts. In 1983, following the availability of more detailed data which were collected through an Annual Census of Production, a new series was produced for the years 1976 onwards, based on the 1968 SNA. In April 2001, the Central Statistics Office adopted the 1993 SNA, following the availability of updated and more detailed data from the 1997 Census of Economic Activities. Data series worked according to the 1993 SNA are available for the years 1990 onwards.

4. Main changes between 1968 SNA and 1993 SNA.

4.1 Terminology

- (i) Taxes on production and imports replaces 'Indirect taxes'. SNA93 argues that it is extremely difficult, if not impossible, to determine the real incidence of different kinds of taxes, and that the use of the terms 'direct' and 'indirect' taxes has fallen out of favour in economic theory. Taxes on production and imports comprise all taxes that enterprises incur by engaging in production.
- (ii) Taxes on products and Other taxes on production replaces 'Commodity taxes' and 'Other indirect taxes' respectively and are explained as follows:

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

Other taxes on production are taxes payable out of the value added of producers. This category of taxes includes taxes levied on property, fixed assets and labour employed. Examples are municipal rates, motor vehicle licences and business licences.

- (iii) Change in inventories replaces 'Changes in stocks'.
- (iv) Financial Intermediation Services Indirectly Measured (FISIM) replaces 'Imputed bank Service Charges'. The argument is that the service charges exist so that they are not really imputed but it is not possible to measure them through direct observation.
- (v) Primary incomes replaces 'Factor incomes'. Primary incomes are payable out of the value added created by production. They include compensation of employees, property income (interest, dividends, etc.) and taxes on production and imports net of subsidies. The concept of 'factor incomes', comprising the first two categories of primary incomes, is no longer used in SNA 93.
- (vi) Gross National Income (GNI) replaces 'Gross National Product (GNP)'. The rationale behind the change is that this aggregate is a concept of income rather than a concept of production.

4.2 Changes in the valuation of output

Under the SNA 68, GDP was estimated at factor cost. It is that part of the cost of producing the GDP, which consists of gross payments to factors of production (labour, land and capital). This valuation had some limitations in the sense that value added at factor cost is essentially a measure of income and not of output. SNA 93 changes the concept from factor cost to basic prices, which is a better measure of output. SNA93 recommends that output be valued at *basic prices*. The basic price is the amount receivable by the producer exclusive of any taxes on products and inclusive of any subsidies on products.

Definitions of the different type of prices and the inter relationship between them:

(i) Basic price

The basic price is the amount receivable by the producer exclusive of taxes payable on products and inclusive of subsidies receivable on products. The equivalent for imported products is the c.i.f (cost, insurance and freight) value, that is, the value at the border of the importing country.

(ii) Producer's price

The producer price is the amount receivable by the producer inclusive of taxes on products (except deductible value added tax) and exclusive of subsidies on products. The equivalent for imported products is the c.i.f value plus any import duties or other taxes on imports (minus any subsidies on imports).

Producer's prices = Basic prices + taxes on products (excluding VAT)
- subsidies on products

(i) Purchaser's price

The purchaser's price is the amount payable by the purchaser. This includes trade margins realised by wholesalers and retailers (by definition, their output) as well as transport margins (that is, any transport charges paid separately by the purchaser) and non-deductible VAT.

Purchaser's prices = Producer's prices + trade and transport margins
+ non-deductible VAT

4.3 *Changes in the methods of estimation*

(i) Annual growth rates

The growth rate of GDP worked out so far was calculated using a Fixed Base Laspeyres Index (fixed weight). It was observed that this index could not adapt to change in the structure of the economy. One of the recommendations of SNA 93 is to use a Chain Index, which is equivalent to using the previous year's structure for calculation of growth rates.

(ii) Output of the General Government

Output of General Government is estimated as the sum of production costs, which include mainly salaries paid to staff. Another important cost is the consumption of fixed capital, which was previously not included because of lack of data. For this new series, consumption of fixed capital has been estimated and is included in the value added of General Government.

(iii) Output of the Central Bank

Under SNA 68, the output of the Central Bank was calculated by the income approach, which included salaries and profit of the bank. However, it was observed that the profit declared or transferred varied considerably from year to year and growth rate of the banking sector fluctuated a lot and did not show clearly the growth of that sector. It has therefore been recommended that the output of the Central Bank be measured as the sum of production costs, which include salaries paid to staff and consumption of fixed capital, in line with the recommendations of the Inter-Secretariat Working Group on National Accounts (ISWGNA).

5. Changes in classification by industry group

The most important change brought in by adopting NSIC Rev. 3, is the classification of activities pertaining to the General Government sector to their respective activity groups. When NSIC Rev. 2 was adopted, most of the activities of the General Government sector were classified under the heading 'Producer's of government services', although no such class existed in the International Standard Industrial Classification. This procedure was adopted by many countries, including Mauritius, because of data constraints.

The new ISIC Rev. 3 has been developed to enable the collection of data on sectors (e.g education, health etc.) which, according to analysts and policy makers, are becoming more and more important. Thus establishments previously grouped under 'Producers of government services', are now reclassified in the relevant industry groups according to their activities. As an example, in the new classification, government institutions involved in education activities are grouped under the heading 'Education'.

The main changes by industry group are given below:

- (i) Agriculture, hunting, forestry and fishing: Include part of expenditure of the Ministry of Agriculture, previously classified under "Producers of Government Services".
- (ii) Mining and quarrying: No change.
- (iii) Manufacturing: Electricity produced by sugar factories as by-products are still included in sugar milling, while electricity produced by the Independent Power Producers (IPPs) of the sugar industry is excluded and shown under "Electricity, gas and water".
- (iv) Electricity, gas and water supply: Include electricity produced by the Independent Power Producers (IPPs)
- (v) Construction: Construction works carried out by the "Public works committee" of the Local Government is now transferred to "Public administration and defence; compulsory social security".
- (vi) Wholesale & retail trade; repair of motor vehicles, motorcycles, personal and household goods: Repair of motor vehicles, motor cycles and of personal and household goods previously under "Community, social and personal services" is now classified here.
- (vii) Hotels and Restaurants: Formerly included in "Wholesale, retail trade, restaurants and hotels".

- (viii) Transport, storage and communications: No change
- (ix) Financial intermediation: Activities of financial intermediaries and insurance companies, formerly classified under 'Financing, insurance, real estate and business activities' are now classified here.
- (x) Real estate, renting and business activities: These activities previously classified under 'Financing, insurance, real estate and business activities' are now classified here. This sector, also includes activities of the Central Information System Division, which was previously recorded in 'Public administration and defence; compulsory social security'.
- (xi) Public administration and defence; compulsory social security: This class includes a variety of government *administrative* activities, including administration of government providing social security programmes. These activities were formerly recorded under the heading 'Producers of government services'.
- (xii) Education: This category includes public as well as private education provided by institutions. Activities of private institutions were previously recorded under 'Community, social and personal services' and those of public institutions under 'Producers of government services'.
- (xiii) Health and social work: This activity group comprises health activities provided by both public and private institutions. Activities of private institutions providing health services were formerly recorded under 'Community, social and personal services' while those provided by public institutions, under 'Producers of government services'. This group also includes activities that are directed to provide a variety of social assistance, counselling and welfare.
- (xiv) Other community, social and personal service activities and private households with employed persons: This class includes other service activities which cannot be classified in the above categories. It includes activities of professional organisations, trade unions, religious and political organisations, as well as recreational, cultural and sporting activities and other services such as hairdressing, laundering and funeral activities. These activities were previously classified under "Community, social and personal services".
- (xv) Financial intermediation services indirectly measured (FISIM): FISIM replaces 'imputed bank service charges' and is measured in the same way as in the 1968 SNA, that is, the total property income receivable (e.g interest) less their total interest payable, excluding the value of any property income from their own funds.

The 1993 SNA recommends that the consumption of these services be allocated among users. However, because of practical difficulties of allocating FISIM among the different users, FISIM is recorded as intermediate consumption of a nominal industry.

6. Data collection, compilation and publication

Benchmark data for the compilation of National Accounts statistics are collected through the Census of Economic Activities which is conducted at five year intervals. Annual data are collected through sample surveys of establishments. In addition, many organisations, both public and private, are regularly contacted for obtaining the latest available information on the key sectors of the economy. Data are collected under the authority of the Statistics Act 2000 which also lays great emphasis on the confidentiality aspect.

The presentation of the tables broadly follows the recommendations of the United Nations 1993 System of National Accounts (SNA). A brief description of the methodology used for the preparation of the Accounts is given in Part I of this report.

National Accounts data are disseminated each year via an annual report entitled "The National Accounts of Mauritius" and in "Economic and Social Indicators". All these publications are published by the Central Statistics Office and are posted on the website of the office (<http://statsmauritius.gov.mu>)

Economic and Social Indicators on National Accounts used to be published twice a year, in April and October. As from 2003, following request for more frequent updates, they are published four times during the year namely in January, April, July and October. The issue published in April now provides a first forecast of National Accounts aggregates for the current year together with revised figures for three earlier years. Subsequent issues in the course of the year provide for figures updated in the light of latest information available.

7. The Report

This report contains the latest available National Accounts data relating to the years 2000 to 2003. Explanatory notes on the concepts, definitions and various methods used for the computation of the estimates are given in the first two parts of the report, whereas the statistical tables grouped as shown below, are contained in the third part. The statistical tables are preceded by a brief analysis.

Part I	-	Concepts and Definitions
Part II	-	Sources and Methods
Part III	-	Statistical Tables
Section I	-	National accounts - Main tables
Section II	-	Trade statistics
Section III	-	Production data and selected indicators
Section IV	-	National accounts aggregates, 1990-1998
Section V	-	Supply and Use Table (SUT), 1997

8. Supply and Use Table (SUT)

It has been possible, by making use of benchmark data available from the 1997 Census of Economic Activities and other sources, to construct a Supply and Use Table (SUT) for the year 1997. The SUT brings together the detailed goods and services accounts in the format of matrices with the product groups in the rows and the different categories and components of supply and use in the columns. In this matrix, commodity flow of goods and services are traced from different sources of supply to different categories of use. This table is an important analytical tool to study economic repercussions.

9. Problems and limitations of published data

The main problems of the office in obtaining relevant data can be grouped as follows:

(i) *Response rate to 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.

(ii) *Non-uniformity of accounting years*

All firms do not have uniform accounting years. Data referring to the last "twelve-months" period may in fact spread over two or three consecutive years. Only in some cases, have data been adjusted before incorporation in the National Accounts. The time reference of the accounts is the calendar year.

The varying accounting years are also major obstacles to the preparation of the Capital, Finance and Balance Sheet Accounts.

Definition of main aggregates

The concepts and definitions used in this publication are those stated in the United Nations System of National Accounts (SNA) Manual - A system of National Accounts 1993.

(i) *Taxes on production and imports*

Taxes on production and imports comprise all taxes that enterprises incur by engaging in production. There are two categories of taxes, namely taxes on products and other taxes on production.

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 Taxes (VAT).

Other taxes on production are taxes payable out of the value added of producers. This category of taxes includes taxes levied on property, fixed assets and labour employed. Examples are municipal rates, motor vehicle licenses and business licenses.

(ii) *Gross output*

Gross output of industries covers the value in the market of goods and services produced, including work in progress and products for own use. Valuation is usually at basic prices. The imputed rent of owner-occupied dwellings is also included.

The basic price is the amount receivable by the producer exclusive of taxes on products and inclusive of subsidies on products. The equivalent of imported products is the c.i.f. value at the border of the importing country.

Gross output for "general government" and for "non-profit institutions serving households" are computed as the sum of the cost of intermediate consumption expenditure, compensation of employees and consumption of fixed capital.

(iii) *Intermediate consumption*

"Intermediate consumption of industries" covers non-durable goods and services used up in production and includes 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).

"Intermediate consumption of general government" is made up of acquisitions (purchases and transfers in kind) of new goods and services on current accounts.

(iv) *Value added*

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

(v) *Gross Domestic Product (GDP)*

The sum of value added of all domestic producers gives the Gross Domestic Product (G.D.P). 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.

(vi) GDP at basic prices

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.

(vii) GDP at market prices

GDP at market prices is equal to the GDP at basic prices plus taxes on production and imports net of subsidies.

(viii) Gross National Income (GNI)

GDP plus net primary income from abroad gives Gross National Income (GNI).

(ix) Gross National Disposable Income (GNDI)

The sum of Gross National Income (GNI) and net transfers from the rest of the world gives Gross National Disposable Income (GNDI).

(x) Gross Domestic Fixed Capital Formation (GDFCF)

Gross Domestic Fixed Capital Formation (GDFCF) consists of the net additions to the assets of producers of tangible reproducible goods which have an expected lifetime of use of more than one year. These assets are buildings, plants, machinery and transport equipment. The additions are valued at purchasers' prices. Non-reproducible tangible assets such as land and mineral deposits are not included in gross capital formation. However, outlays on improvement of land and development of mining sites are considered as gross domestic fixed capital formation.

Durable goods purchased by households, with the exception of dwellings, are not classified as capital formation but are treated as consumption expenditure.

(xi) Change in inventories

Change in inventories includes the value of the physical change in inventories of raw materials, work in progress and finished goods held by producers.

(xii) Final Consumption expenditure

Consumption expenditure is made up of final consumption expenditure of households and of government.

Government final consumption expenditure is further disaggregated into collective and individual consumption expenditure. **Collective** expenditure consists of the services which government provides to the community as a whole, for example, security and defence whereas **individual** expenditure is made up of expenses incurred in providing services which are mostly beneficial to individuals, mainly in respect of health and education.

Actual Government final consumption expenditure refers to expenditure incurred for the provision of collective services.

Final consumption expenditure incurred by households comprise the value of goods and services purchased by households including the value of imputed rent of owner occupied dwellings. For a better measure of standard of living, actual private final consumption expenditure is used.

Actual private final consumption expenditure covers goods and services supplied to households, irrespective of whether these goods and services are actually paid by government or households themselves. Consequently, it consists of expenditure incurred by households and government on the provision of individual services.

(xiii) Gross National Saving

Gross National Disposable Income (GNDI) less total final consumption expenditure gives Gross National Saving.

(xiv) Exports and Imports of goods and Non factor services

Both exports and imports are measured f.o.b.

Exports and imports of goods are compiled according to the General Trade System, using the national boundary as the statistical frontier. All goods entering the country are recorded in imports and goods leaving the country, in exports. However, for the sake of continuity and consistency gross imports and exports through the customs and the free zone area are shown separately.

(xv) Compensation of employees

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

Wages and salaries in cash comprise all payments which employees receive in respect of their work, before deductions of employees' contributions to social security schemes. Payments such as refund of travelling of work, commissions, overtime, bonuses, and cost of living allowances are also included.

Payments in kind include 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.

(xvi) Gross operating surplus

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

(xvii) Financial intermediation services indirectly measured (FISIM)

FISIM is the difference between interest received and interest paid by banks excluding those received on own funds. As it is difficult to allocate FISIM to the intermediate consumption of different industries; the total value of FISIM is imputed to a nominal industry with a negative value added.

PARTII – SOURCES AND METHODS

1. Production Account of Economic Activity Group

1.1 Agriculture, hunting, forestry and fishing

The agricultural sector contributed 6.4 % to the Gross Domestic Product in 2002. The activities in this sector are presented in the following sub-groups:

- Industrial crops
- Foodcrops, fruits and flowers
- Livestock, poultry and related products
- Agricultural services
- Forestry and hunting
- Fishing
- Government services

Data sources

- Mauritius Chamber of Agriculture
- Mauritius Sugar Syndicate
- Agricultural Research and Extension Unit (AREU)
- Albion Fisheries Research Centre (AFRC)
- Mauritius Meat Authority (MMA)
- Annual Survey of Employment and Earnings
- Household Budget Surveys
- Special enquiries from foodcrop planters, livestock and poultry breeders
- Housing and Population Census

Methodology

Separate production accounts are prepared for each of the sub-groups mentioned above. Apart from sugar and tea, agricultural activities are performed mainly by small planters, breeders and fishermen who do not keep proper records of their transactions. Because of the lack of proper accounts, a variety of methods, based essentially on the commodity flow approach, is used to estimate gross output, intermediate consumption and value added.

(i) *Industrial crops*

Sugar cane : Details on the sugar industry are given separately in Section 1.2.

Tea and Tobacco : Quantities and prices of tea and tobacco leaves are available from the Tea and Tobacco Board respectively. Intermediate inputs per hectare are computed based on information obtained from a few tea estates and tobacco planters. Total intermediate consumption is then obtained by applying the appropriate rates of inputs to the total area under cultivation.

(ii) Foodcrops, fruits and flowers

Foodcrops : Since July 1997, monthly data on foodcrops production and area harvested are obtained from the Agricultural Research and Extension Unit (AREU), which accounts for about 80% of total production. Estimates of backyard production are made on the basis of consumption data collected through the Household Budget Surveys. Retail prices of about forty foodcrops and fruits are collected weekly by the Prices unit. This enables the valuation of the output for each product at basic price by deducting transport costs and retail margin from its retail price value.

Adhoc production cost surveys are regularly carried out to provide the necessary information on inputs. Intermediate consumption expenditure are then estimated by applying appropriate rates of inputs to the total acreage under cultivation. Some of the inputs, for example fertilizers, pesticides, seeds are cross-checked with imports and local production figures.

Fruits and flowers : Monthly production of banana and pineapple and area harvested are obtained from AREU. As regards other fruits, the number of fruit trees in bearing age is estimated based on the "1985 Fruit Trees Survey" carried out by the Extension Service Division of the Ministry of Agriculture, Food Technology and Natural Resources. Production is first estimated in quantity using an average yield per tree, taking into account the climatic factor. This production is valued at basic prices.

The main source of data for estimating production of flower is exports data from the Foreign Trade unit.

(iii) Livestock, poultry and related products

The Mauritius Meat Authority (MMA) forwards a weekly return on the number of heads and carcass weight of local/imported cattle, sheep, goats and pigs slaughtered at the Abattoir. To these, are added the weight of off-abattoir slaughters estimated from permits issued by the Ministry of Agriculture, Food Technology and Natural Resources. The total quantity multiplied by a weighted average retail price gives the gross output at basic prices (after deducting retail margins and transport costs). Estimates of intermediate expenditure on cattle feed, salt and water etc. are made and deducted from the gross output to obtain value added.

Poultry and egg production are calculated from data obtained through the questionnaires sent to all large producers. These data are supplemented with estimates made for small breeders. Estimates of backyard production are based on the number of broilers sold by the large establishments and on the quantity of feeds sold.

Estimates of milk production are obtained from the Animal Production Division of the Ministry of Agriculture, Food Technology and Natural Resources.

(iv) Agricultural Services

The Irrigation Authority and the Sugar Planters Mechanical Pool Corporation are some of the bodies which provide services to planters. Their respective production accounts are worked out from statistics obtained either from published reports or from direct surveys.

(v) Forestry and hunting

Estimates of forestry production namely, wood processed by sawmills and, to a lesser extent, firewood are made on the basis of information obtained from the Forestry Department.

Hunting, mainly deer hunting, is undertaken during a specific period of the year. The associations of hunters provide estimates of the number of deer shot. Production of venison is estimated in quantity using an average weight per animal computed from past data. This is valued at basic prices as for other livestock.

Intermediate cost for both forestry and hunting are negligible so that the gross output is composed essentially of value added.

(vi) **Fishing**

The Albion Fisheries Research Centre (AFRC) provides data on the quantity of fish caught. Separate figures are given in respect of lagoon and bank fishing. These are then valued at market prices available from the Prices unit. The transport and retail margins are estimated and deducted from the market price value to give gross output at basic prices. Intermediate inputs for lagoon fishing is very low as the fishermen who are engaged in fishing in coastal waters, use artisanal methods and the catch is usually sold fresh. Bank fishing involves higher costs as the fish are caught in high seas in larger vessels. Also, these fish are sold frozen. Establishments engaged in bank fishing are surveyed by a mail questionnaire and a production account is worked out from information thus received.

1.2 The Sugar Industry

The share of the sugar industry in total GDP was 4.3 % and export of sugar represented around 20.6 % of total domestic exports in 2002. Sugarcane plantations occupy about 90% of total land under cultivation.

There are three categories of growers in the sugar industry, namely “miller”, “metayer” and “owner” planters. Millers are owners of sugar factories and large plots of land around these factories. In 2002, they numbered 12 and cultivated sugarcane on an area of 29,619 hectares. Metayers are normally employees of the millers who are allowed to grow sugarcane on their lands. There were 27,713 owner-planters who cultivated 41,575 hectares of land.

Value added generated by the sugar industry is attributed, for national accounting purposes, to the following industrial activity groups:

Agriculture : the final product is sugarcane. Both millers and planters are engaged in its production.

Manufacturing: the final product is sugar and its by-products, molasses, scums and electricity which excludes Independent Power Producers (IPPs). Only millers are engaged in this activity.

Transport : includes only the millers' own account transport of sugarcane, sugar and other inputs

Distribution: includes activities of brokers, shippers and the Mauritius Sugar Syndicate:

Methodology

The period from the growing stage up to the marketing of all sugar produced covers eighteen months. Production is valued on an accrual basis, so that output relating to crop year (n-1)/n is treated as production for calendar year n-1. For example, production of crop year 2001/2002 is included in calendar year 2001.

Sugar is marketed solely through the Mauritius Sugar Syndicate. This agency provides data on value and price of sugar, both local sales and exports' proceeds. All the expenses incurred in respect of marketing are also given.

Production accounts of all sugar estates with factories are worked out from the aggregated data on expenditure presented in the statements : " Analysis of expenditure of Sugar Estate with Factories " and "Analysis of production costs", compiled by the Mauritius Chamber of Agriculture.

The items of expenditure therein are scrutinized and then allocated to the intermediate expenses of the respective industries as mentioned above.

Production Account of Sugar cane

Separate accounts are prepared in respect of millers and planters.

The gross proceeds from the sales of sugar and its by-products are obtained from the Mauritius Sugar Syndicate. The gross output of agriculture comprises 76% of the gross proceeds as the remaining 24% accrue to millers to cover the milling cost.

Intermediate expenses in respect of sugarcane cultivation owned by millers are extracted from the statements provided by the Mauritius Chamber of Agriculture. Intermediate consumption also takes into consideration expenditure incurred on new plantations – a 'ratooning' cycle of 10 years is assumed.

Manufacturing: 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 item under goods consumed is sugarcane; other inputs include milling cost and marketing expenses which are obtained from the Mauritius Chamber of Agriculture and the Mauritius Sugar Syndicate.

Transport: The sugar estates and millers provide their own means of transport. Most of their canes, sugar and other inputs are transported by their own lorries. The 'Transport' activity is valued at cost. The expenditure incurred in respect of purchases of materials and services, compensation of employees and consumption of fixed capital are obtained from the statement, "Analysis of expenditure of Sugar Estates with Factories" published by the Mauritius Chamber of Agriculture. The total of these aggregates gives the gross output. Transport cost is then imputed, on a pro-rata basis, to the intermediate consumption expenditure of the agriculture and manufacturing sectors.

Distribution: The gross output is computed from the related expenditure items as given in the Mauritius Sugar Syndicate report. The cost component consists mainly of elements of value added.

1.3 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.

1.4 Manufacturing

The share of the manufacturing sector in the economy has constantly been increasing following the rapid development of the Export Processing Zone sector (EPZ). Manufacturing enterprises accounted for 22.6 % of the Gross Domestic Product in 2002 compared to 15% in the early eighties.

Sources

Annual Census of Industrial Production

Annual Survey of Employment and Earnings

Trade Statistics

Household Budget Surveys

Personal interviews of owners of small manufacturing industries

Census of Economic Activities

Quarterly Employment Survey in EPZ and Pioneer Status Enterprises

Methodology

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

Sugar Milling

EPZ enterprises

'Other' enterprises

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 as explained in section 1.2.

EPZ and '*Other*' establishments are surveyed twice a year through the Census of Industrial Production (CIP).

At the beginning of the year, a simplified questionnaire (CIP1) is sent to all the 'large' establishments requesting information on the quantity of goods produced and their sale value. Gross output is thus derived from the sales figures and estimates of value added for the current year is calculated using the working ratio value added/gross output worked out using the previous year's figures. Value added in respect of non-respondents is estimated using indicators available on employment, imports of raw materials and exports of finished goods.

In September, a detailed questionnaire is sent to a representative sample of large establishments to collect information on employment, labour costs, inputs, sales, inventories and investment. The response rate to the enquiries has been on average around sixty per cent during the past years. However, in terms of gross output this accounts for nearly eighty per cent. Production accounts are worked out for each of the ISIC groups. Technical ratios such as labour costs/gross output, 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.

1.5 Electricity, gas and water supply

This sector covers the activities of two public enterprises, namely the Central Electricity Board (C.E.B.) and the Central Water Authority (C.W.A.) as well as the Independent Power Producers (IPPs) which provide electricity to the national grid.

The generation of electricity throughout the island is undertaken by the C.E.B and the I.P.P's, while its distribution rests solely with the C.E.B. The C.W.A. is responsible for the storage and supply of water.

The enterprises are required to fill in two questionnaires annually. The first relates to the income and expenditure accounts of the current year, requesting detailed data on receipts, employment, labour costs, purchase of goods and services. Through this questionnaire, the enterprise is also requested to give a forecast for the forthcoming year. The second questionnaire, collects information on investment in buildings and machinery for the estimation of GDFCF by type of goods. In addition, the para-statal bodies C.E.B and C.W.A, regularly publish their income and expenditure accounts, which are used extensively for the preparation of production accounts.

1.6 Construction

The construction industry consists of the activities of:

General builders and civil engineering contractors

Small contractors and special trade contractors

Public authorities engaged in capital works -
Ministry of Infrastructure, local authorities and the
Development Works Corporation

Own-account construction carried out by individuals

Sources

Building permits statistics

Financial Report of Accountant-General's Department

Trade Statistics

Housing and Population Census

Household Budget Surveys

Special surveys of building contractors and para-statal bodies

Methodology

The gross output of the construction industry is the value of investment on residential and non-residential buildings, roads, electricity and communications networks, land improvement and reclamation, maintenance and repair services, etc. The methodology adopted varies with the type of construction and the source of statistical information.

The main source of data is the records of building permits kept by the Ministry of Public Infrastructure and the local authorities. The total volume (floor area) of building construction, whether performed by contractors or individuals, is compiled at the office from these records.

A few 'small' contractors are interviewed to obtain the price charged per square metre for the construction of dwellings and its breakdown into labour costs and materials consumed. These prices vary with the size and location of the building. In addition 'large' builders and contractors are surveyed to obtain value of projects completed during the year. Supplemented with investment statistics, collected for the computation of the fixed capital formation, an estimate of gross output in the private sector is derived .

Data on construction works (value and expenses) carried out by the Ministry of Public Infrastructure, local authorities and the Development Works Corporation are obtained from their respective accounts as well as from the Financial Report of the Accountant's General Department. These are used to evaluate gross output of construction in the public sector.

Another element of the construction industry is the repair and maintenance of buildings, both residential and non-residential, performed by the various contractors and public authorities. Estimates are made from benchmark data from:

stock of buildings updated from the 2000 Housing Census

repairs and maintenance expenses by households from Household Budget Surveys

maintenance costs by industries obtained from returns of the annual Census of Industrial Production

Some items of intermediate consumption, e.g. aggregates, paints, cement, iron bars, are cross-checked with production and imports statistics.

1.7 Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods.

This group contributed 11.8 % to the Gross Domestic Product of the country in the year 2002

Sources

Census of Industrial Production

Register of licence holders

Trade Statistics

Agricultural Statistics

Special enquiries from docks and stevedoring, and large distributive enterprises

Census of Economic Activities

Value Added Tax Department

Survey of large establishments

Road transport statistics

Methodology

Wholesale and retail trade: The gross output for wholesale and retail trade is estimated as the gross margins obtained between sale and purchase values of goods sold. These goods can be categorised into two groups: imported goods and locally manufactured goods.

Imported goods: The basic data used for the computation of wholesale and retail margins on imported goods are obtained from the annual tabulations on imports. Imports are classified itemwise according to the Standard International Trade Classification (S.I.T.C., Revision 3) and for each item the quantity, C.I.F. value, customs and fiscal duties are available.

These data are first grouped into broad economic categories namely intermediate, final consumption and capital goods. Margins are estimated as the difference between the 'landed cost' and the retail price for each item. Wholesale margins are estimated using available information from 1997 Census of Economic Activities (1997 CEA) and additional data collected through annual special enquiries from "large" enterprises engaged in storage, clearing and forwarding activities. Retail margins are derived from information available from the 1997 CEA.

Locally manufactured goods: Wholesale and retail margins are estimated using the commodity flow approach. The volume and value of goods manufactured are obtained from the annual Census of Industrial Production conducted by this office. These products are valued at basic prices and also at the retail prices, collected by the Prices Unit of this office. The difference between the two values gives the gross output.

For agricultural products a similar approach is used. The main source of data is agricultural statistics compiled at this office.

Other activities:

Estimates are also made in respect of margins obtained from the following:

Mauritius Sugar Syndicate for the marketing of sugar worked out from data obtained by mail questionnaire.

Lottery and pool organisers based on information obtained from the Value Added Tax Department.

Shipchandling activities using value of ships stores supplied.

Other activities such as auctioneers and scrap metal dealers which are estimated using data collected at the Census of Economic Activities.

Intermediate costs incurred by the distributive trades are estimated on the basis of information collected from different sources. Income tax statistics and special enquiries provide indicators on the cost structure. The distributive trades consume a lot of the output of other industries, e.g. transport, docks and stevedoring, accounting and advertising. The gross output of these service industries is first worked out and an estimate of the amount consumed by the distributive trade is made on a percentage basis.

The production account is then worked out from the aggregated data on gross output and intermediate consumption expenditure.

Repair of motor vehicles, motorcycles and personal and household goods.

For establishments engaged in the repair of vehicles, the production account is worked out using data from the 1997 Census of Economic Activities, the age distribution of vehicles registered and import figures of spare parts, lubricants, and other materials used in repair works. These are supplemented with a mail survey carried out annually among a few 'large' garages.

Other repair services reported at the census of economic activities concerned mainly repairs of electronic goods. The value added is calculated in line with imports of electronic goods.

1.8 Hotels and Restaurants

In the year 2002 this sector contributed 6.1 % of the country's Gross Domestic Product.

Sources of data

Ministry of Tourism (Survey of outgoing tourists)

Bank of Mauritius

Census of Economic Activities

Register of licenses from local authorities

Special annual enquiries

Methodology

Data on the number of room nights/beds nights spent during the year, collected from the Ministry of Tourism, are used as leading indicators for activities of the hotel industry. Making use of these indicators and estimates of tourist earnings obtained from the Bank of Mauritius, the production account of the hotel industry has been worked out using working ratios (gross output/intermediate consumption, value added/gross output etc.) obtained from the 1997 Census of Economic Activities.

The total number of restaurants and cafes operating is obtained from the register of license holders compiled by the Local Authorities. Estimates of gross output, intermediate cost and value added per restaurant are made, based on ratios worked out from the 1997 CEA and supplemented with information collected from personal interviews of owners of a few restaurants and cafes.

The aggregates compiled for this sector are checked for consistency with other available sources, namely with data from the survey of outgoing tourists conducted jointly by this office and the Ministry of Tourism.

1.9 Transport, storage and communications

This group contributed 13.5 % to the Gross Domestic Product in 2002 and covers a wide range of activities grouped under the following:

Land transport

Water transport

Services allied to transport, namely cargo handling, ports and airport services, travel agencies and storage and warehousing