COUNTRY REPORT - MAURITIUS

ORGANISATION OF ECONOMIC STATISTICS

General overview of the organization of economic statistics

1. The Central Statistics Office (CSO) is the official organisation responsible for the collection, compilation, analysis and dissemination of all official statistical data relating to all aspects of the economic and social activities of the country. Official economic statistics therefore falls under the responsibility of the Central Statistics Office (CSO).

2. However, some statistics do not fall under the purview of CSO. Among are monetary and banking statistics and balance of payments which fall under the responsibility of Bank of Mauritius (BOM). The latter being the regulatory body for banking activities generates the statistics mostly from data collected for supervision purposes. Similarly, the Financial Services Commission (FSC) as regulatory body for financial activities other than banking generates some statistics on the financial services.

Institutional arrangements

3. Because of legal restriction on sharing of data, neither CSO nor BOM and FSC cannot release data relating to individual persons or firms. Sharing of data is therefore done at some level at aggregation, and includes exports and imports of goods and services, transactions with the Rest of the World, GDP forecast, prices and some financial statistics.

4. Institutional arrangements include the work of various committees. These are:
   - i) Statistics Advisory Council (SAC) Committee on Monetary and Financial Statistics: members include among others representatives of CSO, BOM, FSC and Ministry of Finance and Economic Development (MOFED) and work towards the computation of Monetary and Financial Statistics, and setting up of a series on Indicators in Financial Services sector.
   - ii) SAC Committee on SDDS: the members include CSO, BOM, and MOFED among others and look into the graduation of the country to the IMF SDDS.
   - iii) Economic Coordination Committee under the aegis of MOFED which looks into the coherence of the real, fiscal, monetary, and external statistics at macro level.

5. It is noted that CSO has decentralized its activities through the creation of statistical units in many Government Ministries. These units are staffed with CSO officers servicing and advising the Ministries in all statistical matters.

Main Users

6. The main users of economic statistics are MOFED, Bank of Mauritius, Policy makers, the private sector, researchers, investors, funding agencies and regional and international organizations such as the SADC, COMESA, ADB, IMF, World Bank.

User needs of economic statistics and their satisfaction

7. So far, two user surveys on issues of Economic and Social Indicators on National Accounts have been carried. These publications which cover various subjects are designed to rapidly disseminate the main statistical data before the release of more detailed publications. Thus, in the light of the results of the first survey, the frequency of publication was increased from twice a year to four times a year.

8. The need for new statistics, particularly statistics on emerging sectors of the economy (ICT, Sea food, Financial Services) has also been expressed. Work on these sectors has already started.

9. Some data gaps noted are: macro-economic statistics (e.g. savings by sector, GDP deflators), regular input/output tables, and small and medium enterprises statistics.

10. Unofficial meetings with main data users also provide opportunities to get feedback on published data as well as on future needs.

DATA SOURCES AND DATA COLLECTION FOR COMPILATION OF ECONOMIC STATISTICS

Census of Economic Activities (CEA)

11. The main economic census carried out by the CSO is the Census of Economic Activities. The Census is conducted every five years and covers all economic activities, except agriculture, and has as primary objective the collection of detailed information on the operating characteristics and structure of these economic activities. The data are used as benchmark for the computation of annual National Accounts estimates. The Unit of enquiry is the production unit; it can be an establishment or an itinerant unit.

12. The CEA is conducted in two phases:
- (i) Phase I covers a representative sample of "small" establishments (i.e. with less than 10 workers), and itinerants units (about 3,500 out of a total of 75,000). Data collection is done by interview method, and is spread evenly over the reference year to take care of seasonality.
- (ii) Phase II covers all large establishments with 10 or more workers (around 2,500). Data are collected by mail questionnaires.

13. The CEA collects detailed data on employment, labour cost, production, intermediate consumption, investment, as well as some information on ICT usage.

14. Stratified random sampling with activity and region as stratifying factor was used. Allocation to the strata was according to Neyman allocation, taking variability of value added into account.

15. The main disadvantages of the CEA are
- (i) its high cost;
- (ii) it mobilizes a large amount of human resources;
- (iii) high respondents' burden; and
- (iv) timeliness - results are available at the earliest two years after the reference year.

16. The main advantage is that it provides a mine of information on the operating characteristics and structure on all production units. It provides detailed data for the construction of Input-Output tables.

Annual and quarterly surveys

17. During the intercensal years, annual surveys on receipts and expenditure covering the "large" establishments are conducted. For some industry groups, a complete coverage of "large establishments" is done while in others, a sample including mostly the main drivers is covered. The data requested are less detailed than the quinquenniel CEA.

18. Quarterly surveys among large establishments are also conducted for the computation of quarterly value added. The surveys cover a sample of the establishments, mostly the main drivers of the various industries.

Use of administrative data

19. Extensive use is made of VAT data, particularly for the quarterly estimates. Other administrative data include are: trade statistics, building permits, companies accounts deposited at the Registrar of Companies, production data from relevant authorities, excise data, tourist arrivals derived from the Passport and Immigration Office, tourist earnings from Bank of Mauritius, etc.

20. The table below gives an indication of the various sources of data used by industry.

Industry	5-yearly Census	Survey				Administrative data
		Annual	Coverage	Quarterly	Coverage	
Agriculture	None	X	Sample	X	Sample	X
Mining and quarrying	X	X	Sample	None	None	X
Electricity, gas and water	X	X	Complete	X	Complete	X
Manufacturing	X	X	Sample	None	None	X
Construction	X	X	Sample	None	None	X
Wholesale and retail trade	X	None	None	None	None	X
Hotels and restaurants	X	None	None	None	None	X
Transport and Communications	X	X	Complete (large)	X	Sample (large)	X
Financial Intermediation	X	X	Complete (large)	X	Sample (large)	X
Real estate and Business Services	X	X	Complete (large)	None	None	X
Other Services	X	X	Complete (large)	None	None	X

Coverage of informal sector units

21. The estimates of value added include the informal sector. The informal sector is indirectly captured through the computation of Supply and Use table for the Census year when data from various sources (CEA, Trade statistics, Local production, Household Budget Survey) are integrated. As such, activities of the informal sector are included in the GDP estimates, but are not isolated.

Data compilation methods

22. Gross domestic product by kind of economic activity is prepared on a quarterly and annual basis. The production approach is used to estimate value added of most industries while the income approach is used in some cases. Reconciliation with GDP estimates by expenditure is done to ensure consistency.

23. Administrative data are often used in conjunction with information collected through the annual and quarterly surveys covering mostly the "large" establishments. In some cases, administrative data is the main source of information. In others, benchmarks are extrapolated using relevant indicators for growth and price, the latter method being used mostly for "small" production units.

24. First forecast and provisional figures are usually worked out by extrapolation based on expected production and prices. Final estimates are computed as given below.

25. *Agriculture*: 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. Thus, output is mostly based on production statistics on quantities obtained from various administrative sources, and on agricultural price surveys. Value added is then estimated by applying the appropriate ratios. Backyard production estimated on the basis of consumption data obtained at Household Budget Surveys is included.

26. *Mining, and quarrying, and Electricity, gas and water supply*: Estimates for "Mining and quarrying" (salt production, stone and sand quarrying) and "Electricity, gas and water supply" are computed based on annual survey data.

27. *Manufacturing*: Estimates for "Manufacturing" are based on annual report and financial statements of Sugar Industry, data of annual surveys conducted by CSO, supplemented with VAT data, Trade data, and Excise data.

28. *Construction*: Estimates for construction are computed using investment estimates on buildings and other construction works as basis. The latter is worked out taking into consideration building permits and cost of construction per sq ft obtained from the five-yearly CEA updated annually with the price index for residential building, investment data by the private and parastatal bodies obtained from surveys, and government capital expenditure on buildings. Value added is calculated by applying benchmark ratio from the CEA. Repair and maintenance of buildings is also included.

29. *Wholesale and retail trade*: The estimates of turnover in retail and wholesale trade are worked out using the commodity approach based on imports and local production data and applying appropriate rates of margins obtained from the CEA. Value added is calculated by applying benchmark ratio from the CEA.

30. *Hotels and restaurants*: Estimates of restaurants and hotels are worked out based on a tourist component, and a local component comprising expenditure of Mauritians in hotels, restaurants, small bars, canteens and on catering. For the local component, the CEA benchmark data are updated using annual growth in number of households and price changes of bars and restaurants. For the tourist component, tourist earnings obtained from the Central Bank is used to calculate tourist spending in hotels and restaurants. Technical ratios of benchmark CEA are applied to get estimates of value added.

31. *Transport, Storage and Communications*: For "Transport, Storage and Communications", estimates for large establishments are made on the basis of annual surveys. Estimates for small units (taxi, lorries, buses, etc.) are based on benchmark data of the CEA updated by increases in the number of licences and appropriate prices.

32. *Financial Intermediation*: For the financial institutions, value added is derived from annual surveys of banks and other financial institutions, statistics from supervisory bodies, and accounts deposited at the Registrar of Companies.

33. *Imputed rent of owner occupied dwellings* is calculated based on the stock of dwellings from the decennial Housing Census updated annually with building permits, and rent obtained from quarterly Rent Survey conducted by this office. The rent in respect of non-residential buildings is also included, the latter being obtained from the returns of establishments surveyed by the office.

34. *Business Services*: Estimates of large establishments involved in Business services are made using annual survey data, accounting returns deposited at the Registrar of companies and VAT data. For small establishments, benchmark data collected through the 2002 Census of Economic Activities are extrapolated using various indicators.

35. For *Education*, the output of private secondary institutions is estimated on the basis of returns available at the Private Secondary School Authority. Benchmark ratios worked out from the 2002 Census of Economic Activities, supplemented with data on enrolment and school fees are used to estimate output of other private educational institutions.

36. *Health*: Estimates for private health clinics are computed using survey data, while estimation of the output of private medical practitioners is made based on the number of practitioners and medical fees.

37. *Other services*: The estimates of other services are based on survey data, VAT data, or benchmark data of the CEA updated with suitable indicators.

Availability and use of statistical business registers for the compilation of basic economic statistics

38. A Central Business Register was set up in 1990's on the basis of licences issued by local authorities and registrations with professional councils. The main objective of the register was to provide frames for all surveys

of establishments conducted by the Office. However, due to lack of expertise, our business register did not attained its objectives and generates mainly statistics on licences and registrations. Thus, other sources of information are tapped to have more reliable frames for censuses and surveys of establishments, resulting in a multiplicity of frames (list of establishments from the Housing Census, list of "large" establishments from Labour Unit, list of export enterprises from Ministry of Industry, etc.).

39. Presently, the available database built on the basis of licences issued by local authorities and registrations with professional councils, consists of around 85,000 non-agricultural activity units engaged in about 200 different types of economic activities. The register is based on all business activities which are licensed and/or registered. Economic activities conducted without a licence or registration are excluded. Also not covered are paid domestic services to households, and illegal and criminal activities.

DATA DISSEMINATION

40. Estimates of National Accounts in aggregated forms are released on a quarterly basis in issue of Economic and Social Indicators. A first forecast is made at the beginning of the year and is revised every quarter when more up-to-date data become available. Final estimates are available some 18 months after the end of the reference year.

41. Quarterly estimates are published in another issue of the Economic and Social Indicators, published three months after the end of the reference quarter. The data are usually updated in subsequent issues when more complete data are available.

42. More detailed statistics are published in an annual digest of National Accounts some 18 months after the end of the reference year. The digest includes a brief methodology.

43. All publications are also available on the website of the Office

PROBLEMS AND DIFFICULTIES ENCOUNTERED

44. Main problems and difficulties encountered are:

(i) Economic surveys

Low response rate and the lack of timeliness of responses to the economic surveys. This is mostly explained by the increasing number of surveys conducted by CSO, and the details of information requested. Currently, the establishments are contacted several times a year to provide different types of data. Thus, an establishment (large) may be contacted for the annual income and expenditure survey, the quarterly income and expenditure survey, the investment survey, and the employment and earnings survey.

(ii) Survey frame:

Lack of a good survey frame

(iii) Use of administrative data sources

Administrative data are usually collected for registration, control, supervision, and tax purposes and are not intended for statistical purposes so that coverage, unit of enquiry, definitions and classifications used are not always in line with those of CSO. Only in cases where CSO is involved in the process (such as customs data and tourist arrivals) are some of the problems reduced.

(iv) Processing

Consistency checks, editing and data capture are done manually resulting in a large amount of human resources involved on these basic works. While all tabulation and integration to National Accounts processes are done using spreadsheet software (EXCEL), no specific software is used for National Accounts.

CONCLUSION

45. Collection and compilation of basic economic statistics are currently being done by units, each focusing on one or a group of industries. The estimates are then submitted to the National Accounts Unit for integration.

46. The Office is now working on reviewing its organisational structure, while looking into the setting up of a coordinated, harmonised, integrated, and cost-effective collection of economic data to satisfy needs of users and at the same time avoid overlap and duplication, reduce/eliminate data gaps, and reduce collection costs and response burden. Administrative sources of data will be tapped; these will be supplemented with a complementary set of economic and financial data collection instruments to satisfy existing and emerging data needs of policy makers, with possible centralization of key instruments, and MOUs with important data custodians, etc.

47. Also, with the coming into force of the Business Registration Act in October 2006, any person (individual, company or societé) carrying out a business in Mauritius, will be allocated a unique business number. This identifier will be used by institutions like the Mauritius Revenue Authority and other authorities; and will hence provide an important link to data from various sources. It is expected that this will set the stage for a well-organised integrated register of businesses operating in Mauritius which could serve as frame for censuses/surveys of businesses.

L. F. CHEUNG KAI SUET
CENTRAL STATISTICS OFFICE
MAURITIUS
JULY 2007