

## **NOTES ON METHODOLOGY AND REVISIONS IN THE ESTIMATES**

The present series on National Accounts Statistics was introduced in February 1999 through a brochure entitled “New series on National Accounts Statistics (base year 1993-94)” after a comprehensive review of both the data base and the methodology employed in estimation of various aggregates. The estimates presented in this issue of National Accounts Statistics (NAS) are based on the methodology given in the above-mentioned brochure.

Besides the usual statements on macro economic aggregates, domestic product, consumption, saving and capital formation, public sector transactions and disaggregated statements, this issue includes five special statements. The Statement S-1 presents comparable estimates of important macro-economic aggregates and population from 1950-51 to 2003-2004, specially compiled on the new series with base year 1993-94, for ready reference of the users, incorporating (i) the changes as far as possible on account of additional coverage, conceptual and methodological improvements prior to 1993-94 and until 1980-81 and (ii) using splicing technique at disaggregated level, thereafter. The statement S-2, as in the past gives depreciation as provided in the books of accounts for various institutions. The Statement S-3 gives value of output and domestic product from livestock sector utilising the input-output ratios as specially worked out for the Input-Output Transactions Tables. The special statement S-4 gives advance estimates of national income for the year 2004-2005 at current and constant (1993-94) prices. The CSO has been releasing advance estimates of national income before the close of the year. The methodology for preparing the advance estimates has been published in the NAS, 1994. The current price estimates have been compiled by building up a regression model between the Wholesale Prices Index (WPI) and the Implicit Prices Deflators (IPD) of the gross domestic product, utilising the past data. The IPD are the ratios of the current price estimates to constant price estimates. The relationship of WPI and IPD from the past data read along with the current figures of WPI gives the relevant IPD for the period of reference. The quarterly estimates of GDP for the years 2000-01 to 2004-05 are given in the special statement S-5. The methodology of compiling these quarterly GDP estimates developed by the CSO is already given in NAS-1999.

The sources of revisions in the estimates made due to availability of fresh/revised data are given below:

### **REVISION OF ESTIMATES DUE TO FRESH/REVISED DATA**

The quick estimates and the estimates for the previous years of macro economic aggregates and their disaggregated components published in NAS 2004 have undergone revision due to fresh/revised data becoming available. Sources of data utilised for the revision of the estimates are given below:

## **A: Domestic Product**

### **1. Agriculture**

- 1.1 All India Final Estimates of Crops, 2003-04.
- 1.2 Fully Revised Estimates of Crop Production, 2002-03.
- 1.3 Land Use Statistics - Area Under Crops 2000-01, as well as data received from states.
- 1.4 Revised Estimates of Production of Milk, Eggs and Wool –2001-02, 2002-03 and 2003-04 received from Department of Animal Husbandry & Dairying, Ministry of Agriculture.
- 1.5 Revised Estimates of Meat Production, received from State Governments for the years 2001-02 and 2002-03.
- 1.6 Revised Data on prices of agricultural commodities and livestock products from 2001-02 onwards received from State Governments.

### **2. Forestry & Logging**

Data on production and prices of industrial wood and minor forest products and data on prices of fuel wood for 2001-02 and 2002-03 received from Principal Chief Conservators of Forests/ State DESs.

### **3. Fisheries**

Data on production and prices of marine fish, inland fish, prawns & deep sea fishing, for 2001-02 and 2002-03 received from the State Fisheries Departments and the Department of Animal Husbandry and dairying Ministry of Agriculture.

### **4. Mining & Quarrying**

- 4.1 Mineral Production, 2001-02 to 2003-04 from “Monthly Statistics of Mineral Production” March 2003, March 2004, respectively issued by Indian Bureau of Mines (IBM).
- 4.2 Production of Minor Minerals, 2001-02 to 2003-04 from the State Geological Departments.
- 4.3 Input-Output data from Oil and Natural Gas Corporation (ONGC) and Oil India Ltd. (OIL).
- 4.4 Input data from Neyveli Lignite Corporation.
- 4.5 Input data of Minerals for 2001-02 received from IBM.

### **5. Manufacturing( Registered)**

- 5.1 Annual Survey of Industries, 1999-2000.
- 5.2 Index of Industrial Production from ISD, CSO
- 5.3 WPI, Office of Economic Adviser, M/o Industry
- 5.4 Input-Output data on Defence (Manufacturing Units) from M/o Defence

## **6. *Manufacturing ( Un-registered)***

- 6.1 Second All India Census on Small Scale Industrial Units 1987-88, Published by Development Commissioner, Small Scale Industries
- 6.2 Report on Un-organised manufacturing Sector in India No.433 (51/2.2/1).

## **7. *Construction***

- 7.1 Sources listed at Serial No.2, 5, and 6.2.
- 7.2 Finances of Joint Stock Companies, Reserve Bank of India.
- 7.3 Data on coffee plantations for 2002-03 and rubber plantations for 2003-04 respectively from the Coffee and Rubber Boards.
- 7.4 Data on tea plantation for 2000-01 from Tea Board.

## **8. *Electricity, Gas and Water Supply***

- 8.1 Annual Reports of State Electricity Boards
- 8.2 Annual Reports of electricity generating companies in Private Sector
- 8.3 Annual Reports of Gas Authority of India Limited
- 8.4 Ministry of Non-Conventional Energy.

## **9. *Trade, Hotels and Restaurants***

- 9.1 Sources mentioned at Serial Nos.1, 2,3,4,5 & 6.
- 9.2 Additional annual reports of public sector undertakings for the year 2000-01 onwards.
- 9.3 Index of Unit Value of Imports from Directorate General of Commercial Intelligence & Statistics (DGCIS), Ministry of Commerce for the year 2001-02 onwards.
- 9.4 Total Paid up Capital of Public and Private Limited Companies from Department of Company Affairs for the year 2000-01 onwards.

## **10. *Railways, Communication and Public Administration & Defence***

- 10.1 Budget documents for the year 2004-05 giving actual figures for the year 2002-03 and Revised Estimates for 2003-04.
- 10.2 Annual Accounts of Mahanagar Telephone Nigam Limited (MTNL), Videsh Sanchar Nigam Limited (VSNL), Bharat Sanchar Nigam Limited (BSNL) and Indian Railways Finance Corporation for the year 2002-03.

## **11 *Transport by Other Means and Storage***

- 11.1 Number of motor vehicles from State Directorates for the years 2000-01 onwards.
- 11.2 Additional Annual Reports of Public Sector Undertakings and Private companies engaged in road, water and air transport activities for the year 2001 -02 onwards.

- 11.3 Budget documents containing data on ports, pilotage and lighthouses and other departmental enterprises engaged in road transport activities listed at Serial No. 10.1.
- 11.4 Additional Annual Accounts of Central and State Warehousing Corporations.
- 11.5 Public Sector Workforce from “Motor Transport Statistics”, 1999-2000 published by Ministry of Surface Transport.

## **12. *Banking and insurance***

The value added in the Banking and Insurance sector has been revised for the year 2000-01 due to availability of additional annual reports/accounts in respect of non-departmental financial enterprises and revised data on paid up capital received from Department of Company Affairs. Private companies engaged in the Insurance activity have been included for the first time in the Insurance sector in NAS 2003.

## **13. *Real Estate, Ownership of Dwellings, Business Services and Legal Services Sector***

- 13.1 NASSCOM's data on production of software for the year 2002-03 & 2003-04.
- 13.2 CPI (AL) and CPI (UNME).
- 13.3 Data on number of Advocates from Bar Council of India.
- 13.4 Data on number of Chartered Accountants received from Institute of Chartered Accountants of India and data on number of Architects received from Council of Architects for the years 2002-03 onwards.

## **14. *Other Services***

- 14.1 CPI (AL) and CPI (UNME).
- 14.2 Data on employment in public sector for Medical health & Veterinary services from DGE&T, Ministry of Labour for the year 2001-02.
- 14.3 Revised data on employment and compensation paid to employees engaged in sanitary services in different municipalities obtained from state governments for the years 2000-01 and 2001-02.
- 14.4 Additional annual reports of research institutes for the year 2000-01 onwards.

## **B: Private Final Consumption Expenditure, Saving and Capital Formation**

### **15. Private Final Consumption Expenditure.**

Estimates have been revised from 2000-01 onwards due to availability of fresh/revised data of output, change in stocks, export & import etc. The sources are Monthly Statistics of Foreign Trade of India Vol. I & II, 2002-03. and as listed at 1- 14, 17.8, 17.9.

### **16. Saving**

- 16.1 Revised data on net deposits, investments in shares and debentures, net claims on Government, etc. for household sector for earlier years received from RBI.
- 16.2 For revision in physical assets please see item 17.
- 16.3 Revised data on saving of private corporate sector received from RBI.
- 16.4 Saving of public sector revised from 1999-2000 and onwards because of sources fresh/additional data listed at Serial Nos.8.1, 10.1, 10.2 and 11.2 relating to government budget documents and additional Annual Reports of non-departmental public sector undertakings.
- 16.5 Revision in the Saving of Quasi Corporate and Quasi Govt. Bodies.

### **17. Capital Formation**

- 17.1 Sources mentioned at Serial Nos.5, 6, 7, 8.1, 10.1 and 10.2.
- 17.2 Monthly Statistics of Foreign Trade in India Vol.1 & II, 2002-03.
- 17.3 Annual Survey of Industries, 2001-02 – Provisional summary Results for the Factory Sector.
- 17.4 Revised data on Capital Formation, Private Corporate Sector received from RBI.
- 17.5 Capital Formation of Public Sector revised from 2001-02.
- 17.6 Whole Sale Price Index: Office of the Economic Adviser.
- 17.7 Index of Industrial Production (IIP) - Central Statistical Organisation.
- 17.8 Excise Duties 2002-03 – Statistics of Customs & Revenue Collection of the Indian Union.
- 17.9 Import Duties 2002-03 – Statistics of Customs & Revenue Collection of the Indian Union.

### **18. Consumption of Fixed Capital**

Estimates of consumption of fixed capital are prepared from the value of various types of assets included in fixed capital stock and the expected life thereof and these estimates differ from the provision of depreciation as per books of accounts (c.f. National Accounts Statistics, Sources and Methods, 1989). Depreciation as per books of accounts is given in special statement S-2. Alternative estimates of net Saving / Capital formation can be derived using provision for depreciation. These estimates have undergone revision since 2001-02 due to changes in the estimates of gross fixed capital formation.

## **C: Public Sector Transactions**

- 19.1 Statements on Public Sector Transactions have undergone revision from 2001-02 onwards due to availability of additional/revised/fresh data in respect of Departmental Enterprises and Administrative Departments from budget documents, annual accounts of RBI, Employees Provident Fund Organisation (EPFO), research and scientific institutions covered in 'Public Services in Quasi-Govt. Bodies' and the annual accounts of Non-Departmental Enterprises those have been analysed, represent about 95 percent of paid-up capital of all such enterprises for the year 2002-03.
- 19.2 The entire expenditure incurred under "Member of Parliament Local Area Development Scheme (MPLADS)" has been classified as capital formation as the emphasis of the scheme is for creation of durable assets.

**D: Factor Incomes by Organised and Un-organised sectors**

Detailed concepts of the estimation of factor incomes by organised and un-organised sectors are given in the publication 'National Accounts Statistics: Factor Incomes (New Series), 1980-81 to 1989-90, (March 1994).