The Computer Centre

India

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Also available at: http://www.mospi.nic.in/mospi_cc_edp.htm

The Computer Centre was set up in 1967 as an attached office of the Department of Statistics with three second generation Computer Systems to cater to the data processing needs of not only the Department of statistics but other Ministry/Departments of the Union government as well. From its very inception, the Centre has effectively performed the pioneering task of building up data processing capabilities in many organisations of the Government of India and played a vital role in imparting intensive training in systems analysis and design, software including programming languages, data processing and consultancies. Till recently Centre's major responsibility related to data preparation and processing of data collected through various socio-economic surveys, Economic Censuses, enterprise surveys, price data and the Annual Survey of Industries conducted by the NSSO and the CSO. However, it has now been diversified. At present the centre possesses a large number of PCs and a group of highly skilled and experienced EDP professionals.

Data Preparation

Data preparation is the integral part of data processing. Besides processing of data made available to it on magnetic tapes as inputs, the Computer Centre also had the system of data preparation by keying in the data through data entry machines. For data entry from the schedules/ questionnaires, the Centre has been using PC-based electronic machines since 1994. The Centre is currently responsible for data preparation (i.e. keying in the data through data entry machines) relating to:

- o Consumer Price Index for Urban Non-Manual Employees CPI(UNME) – monthly returns.
- o National Sample Survey Socio-Economic Survey Listing schedules (0.1 and 0.2) from the 51st round onward.

Data Processing :

Over the years, the Computer Centre has undertaken computing jobs for processing of voluminous data varying widely in structure and content. It has shouldered the responsibility of processing and tabulation of NSS data (and been partly involved in the data cleaning effort) right from the 27th round (1972-73) onwards to the 50th round (1993-94) and the ASI data since 1974-75 upto ASI 1994-95. Tabulation based on past data is also taken up to meet the specific requirements of Planning Commission and other users from time to time. The entire software for processing and tabulation of data of the Economic Censuses (EC) of 1977, 1980, 1990 and 1998 was developed at the centre and provided to the States for processing and tabulating State-level data. Besides giving technical guidance to States, the Computer Centre did the data entry and processing of the state EC-98 data of Meghalaya and Orissa states. Generation of all-India tables based on State level tabulations was also done at the centre. The data of different enterprise surveys of the CSO are also processed at the centre. The Center is also processing and producing price index for urban non-manual employees: CPI (UNME) on a regular basis. The latest data processing project completed by the centre was on Time Use Survey conducted by Central Statistical Organisation in close coordination with six participating states namely Haryana, Gujarat, Orissa, Madhya Pradesh, Tamil Nadu and Meghalaya.

Data Preservation and Dissemination:

As per the "National policy on dissemination of statistical data", Computer Centre has preserved a large volume of data generated through various socio-economic surveys, Enterprise Surveys, Economic Censuses, Annual Survey of Industries and price data on CD-ROMs. These data are being disseminated regularly to a large number of national and international users. Technical guidance for the use of basic data and their processing is also provided to the users both within and outside the country on request.

Training Activity:

Training is one of the main activities of the Centre. It has been conducting EDP courses for various States and Central government departments and international agencies. Over a period of time, the centre has trained a large number of officers in electronic data processing. Besides, it has conducted six "Programmer" level courses and two "Training of Trainers" level courses in EDP for UN-sponsored candidates from the ESCAP region countries under the United Nations Household Survey Capability Programme between 1983 and 1991. EDP training to ISS Probationers was also conducted upto 1995 on a continuous basis. Currently the centre is conducting Information Technology (IT) courses, Software packages for middle level ISS officers and in-house training courses. Training on specific modules on Oracle & Developer 2000, C++, Visual Basic, Visual FoxPro and Internet, Web-designing & Networking has also been organised regularly.

Web-site :

The Web-site of the Ministry of Statistics and Programme Implementation has been indigenously designed and is being maintained by the Computer Centre. The Press Releases are uploaded on the same day. Other materials are also uploaded in the shortest possible time after necessary editing and preparation. To provide better access to the users, the Centre is planning to make it a dynamic web-site. It is also planned to make the entire web-site bi-lingual as per the PMO's guidelines. Computer Centre has completed a project on designing of exclusive web-pages including computerization of activities of Annual Survey of Industries, for NSSO(FOD).

The web site has recently been redesigned. Besides making it more attractive, Hit counter, icons for Search Engine, Suggestions from users, Registration form for downloading repots by the users etc have been added. The objective is to make the web-site, to the extent possible, menu driven. The address of the website is: **http://mospi.gov.in**

Data Warehouse on Official Statistics :

In the light of advances in the field of Information Technology, the statistical data can now play a very vital role in planning for development including industrialization of any country. In view of this, the important key statistical data pertaining to all major sectors of economy must be available simultaneously through internet to all the users who are associated with the planning and development and also to researchers. For this, the Centre has taken up the project of creation and maintenance of National Data Warehouse of Official Statistics from the data generated through sample surveys, censuses, enquiries etc. Under this project, the Centre will preserve data generated by various Central Ministries and Departments and Public Sector Undertakings on electronic media, organize the data in the form of databases, create data Warehouse and provide remote access facilities to end-users through a network. However, it is an evolving and new concept and will take some time before it becomes fully functional and usable. Computer Centre has made a beginning by starting preparation of databases, which is an essential step for creation of data Warehouse. A Direction committee under the chairmanship of DG&CEO, NSSO with members from IIT- Delhi, IASRI-Delhi, RBI, NIC besides senior officers of the Ministry has been constituted to advise the Computer Centre in all aspects of setting up of Data-warehouse including determination of appropriate configuration of hardware, selection of software, consultant and training of officers of the Computer Centre. On the advice of the Direction Committee, the Computer Centre prepared an approach paper giving broad outlines of the project. Further, Australian Bureau of Statistics and Statistics Canada, who have already set up Data warehouse in their countries, have been approached to share their experience, architecture and approach followed in creation of Data Warehouse.

While considering the approach paper, the Direction Committee in its meeting held in November, 2002 decided that there was an imperative need for appointment of a consultant to assist the Computer Centre in this project. The consultant besides system analysis, system designing, selection of software, selection of hardware and development of application software, would do a pilot project jointly with the officers of the Computer Centre on live databases of at least of two sectors for development of Data Warehouse. The consultant would also suggest/organize appropriate training for the officers of the Computer Centre. It has been recommended by the Direction Committee that COG NOS Dataware house tools will be used for the project. It is expected that the pilot project on creation of Data Warehouse on Consumer Expenditure and Employment & Unemployment would be completed by the end of the current financial year.