

CHAPTER V

COMPUTER CENTRE

5.1 In 1967 the Computer Centre was setup as an attached office of the then Department of Statistics to cater to the data processing needs. The Computer Centre has been building Data Processing Institutions in various organizations of the Government of India, by imparting intensive training on Computer Programming, Data Processing and Systems Analysis besides providing Consultancy and Support Services in the fields of Electronic Data Processing (EDP). Besides, the Centre assumed responsibility of processing voluminous data collected by the National Sample Survey Organization (NSSO) through Socio-Economic Surveys, follow-up enterprise surveys of Economic Censuses, Annual Survey of Industries (ASI) and monthly prices of selected commodities for the compilation of Consumer Price Index – Urban Non-Manual Employees (CPI-UNME). The Centre has a large-scale data processing capacity running into several million records. The NSSO has assumed the responsibility of processing of data of NSS socio-economic surveys through its Data Processing Division (DPD), while the Industrial Statistics (I.S.) Wing of the Central Statistical Organisation (CSO), Kolkata, took up the precessing of data of the ASI. The role of the Computer Centre, in the changed scenario, continues with processing of old and validated NSS data preserved by it to meet the specific requirements of Government organizations including State Governments as also private users. The Centre is headed by a Deputy Director General, who is assisted by one Additional Director, four Joint Directors, thirteen Deputy Directors and a team of thirty officers and about one hundred technical and administrative staff.

5.2 In 1967 the Computer Centre started functioning with three Honeywell-400 second generation refurbished computer systems. In 1981, a more powerful third generation Burroughs-3845 computer system having on-line programme development and data entry facilities, as part of its configuration, was installed. To keep pace with the technological advancements in the computer field, the Burroughs-3845 computer system was replaced by a more modern (4th generation) powerful mainframe computer system DPS-7000/240 in May 1992. This system was extensively utilized for the computer applications of the Department of Statistics. In view of the advancement of the Personal Computer (PC) based technology and due to the breakdown of the DPS 7000/240 in November 1999, all the jobs from DPS 7000/240 computer system were shifted to PC-based system working on Client/ Server Architecture under Windows NT Operating System. Since then all the operations are carried out on the Windows NT platform with the ORACLE Database Software for application development. The move towards modernisation not only continued in upgrading the computer systems but also in the storage media. Till early nineties, the processed data pertaining to the socio-economic surveys, prices and industrial statistics had been preserved on magnetic tapes, the only appropriate storage media then available for the purpose. As maintenance of a large number of such tapes posed inconveniences over the years, steps were taken to transfer the data onto Compact Discs (CD). Accordingly, the Centre had procured Pentium processor based PCs with CD-ROM READER and WRITER facilities for transfer and preservation of data on CDs from magnetic tapes. Besides, all the EDP

training programmes for ISS officers have been improved after revamping them on the latest Pentium based hardware, Windows 98, 2000 and Windows XP Operating System and Microsoft Office 2000 software packages. A number of training courses on Electronic Data Processing and Information Technology are conducted for different levels of statistical personnel, namely, EDP Training to the participants of Junior Certificate Course in Statistics (JCCS), Direct Recruits to Grade IV of ISS, Training on Software Packages to senior/ middle level ISS officers etc. In the past, this Centre has also, conducted EDP training courses for sponsored trainees under the United Nations Development Programmes (UNDP).

5.3 The main activities of the Centre include: (i) data Preparation; (ii) analyzing and designing computer systems for data processing applications; (iii) establishment of the computerized system and implementation; (iv) documentation of the computerized applications for current and future references and use; (v) training on Electronic Data Processing and Information Technology; (vi) preservation of data and results on computer media for dissemination and use; (vii) creation and maintenance of website for this Ministry, which is hosted by the NIC; and (viii) creation of national data warehouse of official statistics.

Data Preparation and Processing

5.4 Data preparation is an integral part of data processing. Besides processing of data made available to it on magnetic tapes as inputs, the Computer Centre also has 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 and about 15.68 lakh records have been keyed in or verified through these data entry machines during the period from April 2003 to March 2004. The Centre is also responsible for data preparation relating to monthly price data for computing the CPI (UNME).

5.5 The data processing activities include analysis and designing of computerized systems, development and establishment of computer software, and the implementation of computerized system for producing the final results after due validation. The Centre had developed several software programs for producing special tables for users particularly in respect of Enterprise Survey 1991-92 (service sector), Index of Industrial Production (alternative), the Third and Fourth Economic Censuses, Tables from the 55th Round NSS socio-economic data etc.

5.6 During the period from April 2003 to March 2004, the following jobs were performed:

(i) CPI-UNME (1984-85=100)

- Indices from March 2003 to February 2004 were generated.
- Prepared Brochure containing Group, Subgroup Indices of the 59 Centre and All India for January - June 2003 and July – December 2003.

(ii) Third and Fourth Economic Censuses -1990 and 1998

- Exported (dumping) data of the Third and Fourth Economic Censuses from Oracle Database Server on the CDs for use of Data Warehouse.

(iii) Enterprise Survey 1991-92 (Service Sector)

- Exported (dumping) data of Enterprise Survey 1991-92 from Oracle Database Server on to the CDs for use of Data Warehouse.

(iv) Special Tabulation from the NSS data

- Software developed to produce tables from the NSS 55th Round data for rural, urban and combined sectors on food and non-food items.

(v) Computerization of Library

- Data Entry and updation of books, journals and Govt. Publications completed.
- Development and installation of library software completed.

(vi) Procurement of Hardware and Software

- Taken-up creation of database in Oracle for procurement of Hardware and Software.

(vii) Revenue Realization

- The Computer Centre realized revenue of Rs. 14.57 lakh together with US \$ 13,552 and UK £ 870 from sale of data from April 2003 to March 2004.

(viii) Twelve training courses were conducted for 204 trainees at the Centre generating 148 training days.

(ix) National Data Warehouse of Official Statistics

- Data Warehouse of Official Statistics is being setup at the Centre. A consultant will be shortly positioned.
- System study carried out and data bases created for ASI (Summary and detail) and Enterprise Survey (Hotels and Restaurants) for creation of Data Warehouse.
- System analysis and software development work with the help of time series data pertaining to CPI(UNME), NSS - Consumer Expenditure and

Employment & Unemployment, Third (1990) and Fourth (1998) Economic Censuses, Enterprise Survey (1991-92 Service Sector) and (1993-94 Transport Sector) etc

(x) Updation and Maintenance of Web-Site of MOSPI

- A website of the Ministry has been designed, created and maintained by the Computer Centre. The Centre also has the responsibility of its regular updation. The address of the website is <http://mospi.nic.in>.