

CHAPTER V

COMPUTER CENTRE

5.1 The Computer Centre (CC) setup in 1967 was to cater to the data processing needs and had been building Data Processing Institutions in various organizations of the Government of India, by imparting training Data Processing and Systems Analysis besides providing Consultancy and Support Services. 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 an experience in large-scale data processing 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 processing of data of the ASI. The role of the Computer Centre, in the changed scenario still 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, twelve Deputy Directors and a team of twenty two officers and about one hundred technical and administrative staff in functioning of the Centre.

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 XP (Professional) 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 for 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 the Ministry of Statistics and P.I., 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 13.50 lakhs records have been keyed in or verified through these data entry machines during the period from April 2004 to January 2005. 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 Annual Survey of Industries the Third and Fourth Economic Censuses, tables from the 38th, 43rd, 50th and 55th Round NSS socio-economic data etc.

5.6 During the period from April 2004 to January 2005, the following jobs were performed:

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

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

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

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

(iii) Employment & Unemployment

- Generated 108 Reports of State x Region base data on Participation on Labour force and Work force and estimates of Unemployment Rate from NSS Survey (38th, 43rd and 50th Rounds) on revised format using Crystal Report and VB6 for Planning Commission.
- Generation of estimates for compilation of Millennium Development Goal (MDG) Indicators from 47th Round of NSS.

- Preparation of Control file and SQL script for Creation of Data Base for 55th Round of Employment and Un-Employment of NSS.

(iv) Special Tabulation from the NSS Data

- Special table for Maharashtra and UP were generated for FOD for 50th and 55th rounds of consumer expenditure.
- SQL were generated to create tables from the 48th Round data on Land & Live Stock holdings.

(v) Annual Survey of Industries (ASI)

Development of Computer Programs on PC.

- Three programs developed to generate All India (3) digit level tables on number of units, value of Plant and machinery and value of land for the years 1974-75 to 1994-95 to meet the special requirement of the users.
- Queries/programs developed to extract unit level data on the required parameters to provide cost estimates to the users.
- Developed three programmes and executed them to meet special requirement of Institute of Applied Manpower Research (IAMR).

(vi) Computerization of Library

- Operating instructions and slides in Power Point were prepared for the purpose of demo on Library Software.

(vii) Installation of Hardware and Software

- Installation of Oracle 9i on Server (Backend) and Developer 2000 on clients (Frontend) attached under Networking & patches installed on Server by TCS two times due to Hard disk crash on Main Server.
- SPSS software with new license number on 12 PCs.
- APS 2000++ Hindi software installed on all PCs.
- 4 Laser Jet printers, 3 CD writers installed with various PCs and 1 New Projector received/installed in training hall no 2.
- 20 Pentium IV PC were purchased to modernise the Data Entry Unit.
- Cristal Report software installed on one PC.
- VB Net software installed on 2 PCs.
- Data Warehouse Software COGNOS received and installed on 22 PCs in Training Hall No.1.
- R.F. Link installed with LAN.
- IP Address of 22 PCs had been changed for R.F. Link.
- COGNOS software installed on 6 PCs for testing.
- One PC received from world bank with ICP software preloaded and installed.

(viii) Revenue Realization

- The Computer Centre realized revenue of Rs. 16.70 lakhs together with US \$ 7962 and UK £ 417 from sale of data from April 2004 to January 2005.

(ix) Ten training courses were conducted for 160 trainees at the Centre involving 92 training days.

(x) National Data Warehouse of Official Statistics

- Meeting of the Direction Committee held to discuss the revised RFP and selection of the consultant. It was decided to form a Core Group to discuss the feasibility of procurement of COGNOS tools for implementation of Pilot project.
- Meeting of the core group held and it was decided to procure the COGNOS software tools based upon terms and condition of NIC and to form a Committee to negotiate with the vendor for procurement of COGNOS tools.
- Meeting of the Negotiation Committee held, negotiations finalized and decided to procure COGNOS tools on the terms and conditions on which NIC procured these tools.
- System study for meeting requirements of COGNOS Data Warehouse tools.
- Installation of Software 'Data Warehouse tools' (COGNOS) completed.
- Two weeks Software Training on 'Warehouse tools (COGNOS)' completed for the officers of Computer Centre.
- System Study for pilot project of "Employment & Unemployment" started jointly by Key Soft & Computer Centre professionals.
- Creation of infrastructure (hardware procurement) required for pilot project development is in progress.
- Query based system has been developed for ASI (Detailed and Summary) and Enterprise survey 1993-94 on ORACLE Platform.

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

- A website of the Ministry of Statistics & PI has been designed, created and is being maintained by the Computer Centre. The address of the website is <http://www.mospi.nic.in>.
- More than 100 reports of the Ministry have been upload in full for downloading by the users.
- System of on-line registration has been introduced for downloading/viewing the reports.