

CHAPTER V

COMPUTER CENTRE

5.1. During the sixties the expansion and the global impacts of Information Technology on applications in the diverse fields was visualised and, the Government of India, with its distant foresight, understood the urgency and necessity of introducing computerization in the official work. Consequently, in 1967 the Government set up the Computer Centre as an attached office of the then Department of Statistics under the Cabinet Secretariat to cater to the data processing needs of the Department as well as other offices under different ministries. Right from the beginning, the Computer Centre has been performing the pioneering task of 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). The role of the Centre has further increased since the Department of Statistics and the Department of Programme Implementation were merged into a full fledged Ministry. Besides building the data processing capability of other institutions, the Centre assumed the responsibility of processing the voluminous data collected by the NSSO through Socio-Economic Surveys, follow-up enterprise surveys of Economic Censuses, ASI and monthly prices of selected commodities for the compilation of Consumer Price Index – Agricultural Labourer/Rural Labourer (CPI-AL/RL) and CPI-UNME. The Centre came to acquire the capability of large-scale data processing running into several million records. Over the years, the data processing capability of the different organizations have increased. As a result, the NSSO has assumed the responsibility of processing the data of NSS surveys through its DPD, while the I.S. Wing of the CSO, Kolkata, has assumed that of the ASI. The present role of the Computer Centre, is with respect to 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 on their request, besides processing other data and conducting various training programmes. The Centre is headed by a Deputy Director General, a Senior Administrative Grade level officer of the ISS, 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 in the day-to-day functioning of the Centre.

Evolution of Computer System in the Centre

5.2. The Computer Centre initially started functioning with three Honeywell-400 second generation refurbished computer systems in 1967, as one of the major Computer Centres in the country. Given the advances in the Personal Computer (PC) based technology, all the operations in the centre are now carried out in the Windows NT platform, using an ORACLE Database Software for application development.

Approach Towards Modernisation

5.3. 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 in 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 modernized after revamping them on the latest Pentium based Hardware, Windows 98 Operating System and Microsoft Office 97 software packages. The Client/ Server PC-based computer system was also used to provide training on Communication and Networking during training courses organized by the Centre.

Main Activities

5.4. The main activities of the Centre include:

- (i) Data Preparation.
- (ii) Analyzing and Designing Computer Systems for data processing applications.
- (iii) Documentation of the Computerized Applications for current and future references and use.
- (iv) Training on Electronic Data Processing.
- (v) Preservation of data and results on computer media for dissemination and use.
- (vi) Creation and maintenance of website for the Ministry of Statistics and P.I., which is hosted by the NIC.
- (vii) Exploring the possibility of creating National Data Warehouse of official statistics.

Data Preparation

5.5. 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 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 32 PC-based electronic machines since 1994 and about 9.37 lakh records have been keyed in /verified through these data entry machines during the period from April to December 2002. The Centre is also responsible for data preparation relating to monthly price data for computing the CPI (UNME).

Processing of Data on PCs and Development of Computer Programs

5.6. The data processing activities include analysis and designing of computerized systems, development and establishment of computer software. This also

includes implementation of the computerized system for producing the final results using basic data /semi processed data, after due validation. The Centre had developed several software programs for producing special tables for users particularly in respect of Special Enterprise Survey 1998-99, Enterprise Survey 1991-92 (service sector), Time Use Survey, the Third and Fourth Economic Censuses, tables from the 55th round NSS socio-economic data for derivation of weighting diagrams proposed for CPI(Urban) and CPI(Rural) series, etc.

Training

5.7. On a regular basis, 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 Internationally sponsored trainees under the United Nations Development Programmes (UNDP).

Work Performed during April 2002 to December 2002

5.8. During the period from April to December 2002, the following jobs were performed:

- (i) CPI-UNME (1984-85=100)
 - Indices from March 2002 to November 2002 were generated.
- (ii) Monthly Index of Industrial Production (Alternative)
 - Generated Index up to August-2002
 - Data entry completed up to October 2002
- (iii) Fourth Economic Census-98
 - Segregated data and directories of newly formed states, namely, Jharkhand and rest of Bihar, Chhatisgarh and rest of M.P. and Uttaranchal and rest of U.P.
 - Generated special tables for IS Division, CSO.
- (iv) Time Use Survey
 - Developed software and generated tables on work participation ratio by sex and place of residence for all six states and combined as required by the CSO.
- (v) Tabulation of Special Enterprise Survey 1998-99

- Developed application software for generation of tables in respect of Special Enterprise Survey 1998-99 and supplied the tables to the CSO.

(vi) Special Tables from NSS Data

- Software developed to produce tables on distribution of household by certain important parameters using the data collected through NSS Consumer Expenditure Schedules for 38th, 43rd & 50th Rounds.

(vii) Training

- A number of training courses of varying duration were conducted for the officers of ISS as well as to the staff of the MOSPI. These courses include Computer Awareness courses, Overview of EDP, Hardware and Software courses, Junior and Senior Certificate courses, Networking Internet and Web Technology courses.
- STG International, New Delhi, trained the officers of the Computer Centre on Visual Basic 6.0 at the Computer Centre.

(viii) National Data Warehouse of Official Statistics

- Setting up of Data Warehouse of Official Statistics:
Direction Committee for setting up Data Warehouse met twice and discussed the approach for creation of Data Warehouse.
- Creation of Data Warehouse for different jobs:

In order to create Data Warehouse menu/ query based software are to be developed to generate various reports. The Computer Centre has initiated the system analysis and software development work with the help of time series data pertaining to CPI (UNME), ASI, NSS Consumer Expenditure and Employment & Unemployment, Third (1990) and Fourth (1998) Economic Censuses, Enterprise Survey (1993-94), etc.

(ix) Dissemination of Data

- Data pertaining to ASI (unit level), Fourth Economic Census (1998), various rounds of NSS Socio-Economic surveys, etc., were provided to many national and international data users on CDs.

(x) Revenue Realization

- The Computer Centre realized revenue of Rs. 6.33 lakhs together with US\$ 11267 from sale of data up to December 2002.

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

5.9.A website of the Ministry of Statistics & Programme Implementation has been created and the Computer Centre has the responsibility for updating this website regularly. The address of the website has recently been changed from <http://www.nic.in/stat> to <http://mospi.nic.in> in order to have an independent domain. The website contains many important information like

- (i) Press releases on Index of Industrial Production, CPI-UNME, Estimates of National Income - quarterly and annual. The time lag for release of these estimates in the form of press notes varies from about a fortnight to a year depending upon whether it is a monthly or annual estimate.
- (ii) Report of the National Statistical Commission
- (iii) Methods of estimation of National Income
- (iv) Summary Data for Real Sector and Advance Release Calendar
- (v) Training calendars of the Ministry
- (vi) Research Project Reports
- (vii) Annual Report of the Ministry
- (viii) Statistical News letters of the Ministry (Quarterly)
- (ix) Tender notices of the CSO
- (x) Page displaying the list of hyperlinks to Statistical sites on the web
- (xi) Introduced the hyperlink "Flash Report " under PI wing highlighting the latest monthly flash report on Projects costing Rs.100 crore and above
- (xii) Added an important hypertext linked to <http://mplads.nic.in> the website on Member of Parliament Local Area Development Scheme, Government of India being regularly maintained by the PI Wing (MOSPI)