

## CHAPTER VII COMPUTER CENTRE

7.1 The Government of India, with distant foresight, visualised the urgency and necessity of introducing Computerisation in the official work during mid -sixties. Consequently, it was decided during 1967, to set up this Computer Centre as an attached office under the then Department of Statistics, Cabinet Secretariat, to cater to the Data Processing needs of this Department and other Government Offices under different Ministries. With the clear objective of creating Computer awareness, this Centre right from its inception, continued to perform pioneering tasks of building Data Processing Institutions in various organisations of the Government of India, by imparting intensive training in Systems Analysis, Data Processing and by providing consultancy and support services in the fields of Electronic Data Processing (EDP). Very recently the Government has upgraded the Department. of Statistics and Programme Implementation to a full- fledged Ministry of Statistics and Programme Implementation considering the importance of the role of Statistics in National Planning Process. This Centre, as one of its major tasks, undertook the processing of voluminous data running into several million records, collected by the National Sample Survey Organisation (NSSO) through various Socio-Economic Surveys, follow-up surveys of Economic Census and Annual Surveys of Industries conducted periodically by the NSSO and CSO. It also provides, where possible, computing service and facilities to other Government Departments and Organisations including State Governments.

7.2 On a regular basis, a number of training courses on Electronic Data Processing are conducted for different levels of Statistical personnel namely, EDP Training to 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. This Centre had also earlier conducted training courses on Electronic Data Processing for Internationally sponsored trainees under different United Nations Development Programmes (UNDP), as decided by the Ministry. As per the organisational set up, this Centre is headed by Deputy Director General, (an SAG level officer of ISS) who is assisted by one Additional Director, 4 Joint Directors and 13 Deputy Directors and a team of 30 officers, besides 100 technical and administrative staff in day-to-day functioning of this centre.

### EVOLUTION OF COMPUTER SYSTEM

7.3 The Centre initially started functioning with three Honeywell-400 second generation refurbished computer systems in 1967 as one of the major Computer Centre in the Govt. of India. In 1981, a more powerful third generation Burroughs-3845 computer system having inter alia, on-line program development and data entry facilities, as part of its configuration was installed in replacement of three Honeywell-400 Computer Systems. On account of technological advancements in the Computer industry, the Burroughs-3845 computer system was replaced by a more modern (4th generation) and powerful mainframe computer system DPS-7000/240 in May, 1992. This computer system has more capacity and capabilities for simultaneously handling of varied nature of applications as compared to earlier computer systems. The present mainframe Computer System runs on two-shifts basis having about 86.80% uptime as compared to the total scheduled time till December, 1999.

### APPROACH TOWARDS MODERNISATION OF DATA

#### PRESERVATION

7.4 The basic data processed at this Centre pertaining to Socio-Economic Surveys, Prices and Industries etc. have been preserved in Magnetic Tapes, the only appropriate storage magnetic media available for this purpose till early nineties. Experiencing obvious inconveniences in maintaining the large number of such tapes, steps had been taken to transfer the data onto compact discs (CD). Accordingly, the Centre has procured Pentium PCs with CD-ROM READER and WRITER facilities for preservation of data on CD-ROM.

#### MAIN ACTIVITIES

##### 7.5 The Centre discharges the following main activities:-

- i. Data Preparation Analysing and Designing Systems for data processing applications
- ii. Establishment of the Computerised Systems and implementation thereof for production runs.
- iii. Documentation of the Computerised System for current and subsequent references and use.
- iv. Training on Electronic Data Processing Activities for ISS Officers.
- v. Preservation of data and results on computer media for subsequent use and dissemination.
- vi. Creation, Updation, and Maintenance, of Web-site for the Ministry of Statistics & Programme Implementation being hosted by the NIC.
- vii. Exploring the possibility of Creating National Data Ware House of official Statistics.

#### DATA PREPARATION

7.6 The centre is essentially responsible for processing of data made available to it on magnetic tapes as inputs, which is transferred to Computer hard disc media before processing on mainframe computer system. In 1994, 32 PC-386 based machines were purchased to modernise the Data Entry system and to supplement the data entry resources. During the period from April, 1999 to December, 1999, about 11.62 lakhs records were keyed/verified through these data entry machines. The centre is however, also responsible for data preparation (i.e., keying in the data through data entry machines) relating to:

- i. Consumer Price Indices for Urban Non-Manual Employees CPI (UNME) - Monthly returns.
- ii. Enterprise Survey 1995-96 :- Sch.2.41 (Directory Trading Establishments).
- iii. Monthly Production data for computing the Monthly Index of Industrial Production an alternate exercise.
- iv. Economin census 1998 data for carrying out special exploratory exercises

#### JOBS COMPLETED DURING THE PERIOD FROM APRIL,1999 TO DECEMBER, 1999

7.7 (i)Consumer Price Indices For Urban Non-Mnaual/Small Employees (CPI, UNME) (1984-85=100):-

(a) Indices upto November, 1999 were generated.

(b) System developed to compute average prices of selected items and computed average prices for the months January, 1998 to June, 1999.

(ii) Enterprise Survey 1995-96 Sch. 2.41 (Directory Training Establishment).

The validation of data (content checking) for all States/UTs has been completed alongwith multiplier computation. The final revised tables were produced after incorporating the comments of Economic Census Division (ECD) the user

(iii)Fourth Economic Census' 98:- This Centre, in 1998-99 has produced a PC-based Data Processing Package for Data Entry, Validation of data files, Updation and Auto-Correction of data files. Another PC based Tabulation Package was also developed for generating the Summary Statements for preparing the sampling frames for follow up surveys of Economic Census, main tables and special tables for facilitating the analysis and report writing work. The use of the first Data Processing Package was demonstrated to the representatives of different States/UTs during a Workshop conducted at this centre

(iv) Monthly Index of Industrial Production (Alternative)

System developed to process and compute the monthly Index of Industrial Production and processed 24 month data from April, 1997 to March, 1999 for validation and to study the variations as compared to the corresponding figure of the existing IIP in vogue at present.

(v) Time Use Survey:- The tables produced by enterprise survey, were reproduced after discussion in the Technical Advisory Committee and after modifying the file creation and tabulation software.

(vi) National Data Warehouse Of Official Statistics:- The report prepared on 'Modernisation of Statistical System of India' contains a segment on formation of Data Ware House of Official Statistics in the Computer Centre, suggests hardware and software components required for establishing data warehouse.

(vii) Dissemination Of Data:-

(a) Annual Survey of Industries.

(1) The ASI Summary 1992-93 tables at All India 2 digit level of NIC by Employment size were generated for the Institute of Human Resource Development.

(2) The ASI Summary tables for the years 1974-75, 1976-77, 1977-78, 1979-80, 1980-81 and 1983-84 were generated for the Institute of Human Resource Development. The tables were generated at All-India and State at 2,3 and 4-digit levels of NIC.

(3) The ASI Summary 1980-81 to 1994-95 tables at All India 2-digit level of Industries generated for Planning Commission.

(4) The ASI 1990-91 information in respect of number of schedules received and number of units was tabulated in respect of Maharashtra state and supplied to DES Maharashtra.

(5) The ASI 1980-81 to 1994-95 All India tables at 2 digit level of NIC were provided to CSO besides, the ASI 1984-85 to 1994-95 All India rural/urban tables at 2-digit level of NIC were also produced for CSO.

(6) The ASI Summary 1990-91 to 1994-95 data provided to the World Bank after due suppression of identification particulars.

(b) National Sample Survey Socio-Economic Data

The demands from National and International Data users have been ever growing for different rounds of data generated from the NSSO socio-economic surveys. From April, 1999 to December, 1999 data has been supplied on 180 CDS to around 29 users from NSS 38th round to NSS 52nd round.

(viii) The Data Transferred From Magnetic Tapes To CD-ROMS:-

(a) ANNUAL SURVEY OF INDUSTRIES

Source code of the entire software of ASI Summary and detailed tabulation developed by Computer Centre for processing data of various years was transferred to CDs.

(b) Consumer Price Index (UNME) Monthly data for the months of February, 1999 to November, 1999 were transferred on CDs.

(ix) Updation and Maintenance of Web-Site of Ministry of Statistics & Programme Implementation

(a) Updation of website

The website of erstwhile Department of Statistics which was being updated earlier by CSO is now being updated by the Computer Centre from the month of September, 1999.

(b) Revamping of WEB-SITE on the direction from the PMO

The existing web-site is being re-designed on the instructions from the PMO. This would cover detailed information/data on Ministry of Statistics & Programme Implementation including a profile of the Ministry and the Hon'ble Minister, Annual Report of the Statistics and Programme Implementation Wings of the Ministry and administrative set up, etc.

#### TRAINING ACTIVITIES DURING THE YEAR

7.8 (a) Courses conducted under the auspices of the Statistics Wing :

(i) Training courses on software packages (2 weeks course from 29.6.98 to 10.7.98 on software packages for 13 Senior and Middle level ISS officers nominated by the Deptt. of Statistics, was organised.

(ii) Junior Certificate Course for Statistics part-III, EDP Module Batch-I (8.2.99 to 26.2.99), Batch-II (1.3.99 to 19.3.99) and Batch-III (22.3.99 to 9.4.99)

(iii)WINDOWS 95/98, WORD 97 for officers of the Computer Centre. Batch- 13.4.99 to 19.4.99) and Batch-II (20.4.99 to 23.4.99)

(iv)JCCS (Part-IV) Data processing for large scale surveys (26.4.99).

(v)MS-DOS & WORDSTAR for Stenos & Librarian of the Computer Centre (3.5.99 to 7.5.99).

(vi)MS-EXCEL 97 - Data Analysis tools for officers of Computer Centre (7.6.99)

(vii)MS-EXCEL 97 & POWERPOINT 97 for officers of Computer Centre Batch-I (5.7.99 to 9.7.99) and Batch-II (12.7.99 to 16.7.99)

(b) Training obtained in India:

i) WINDOWS 95 & MS-OFFICE 97 at CMC Ltd. New Delhi (31.8.98 to 4.9.98).

ii)Computer concepts, WINDOWS 95/98, MS-OFFICE 97 & NETWORKING/INTERNET at Vaishnavi Infotech Ltd. New Delhi (22.3.99 to 3.4.99).

iii)Visual FOXPRO at CMC Ltd., New Delhi (19.4.99 to 24.4.99).

iv)ORACLE & Developer 2000 at CMC Ltd., New Delhi (31.5.99 to 4.6.99).

v)Data Communications & Networking at CMC Ltd., New Delhi (31.5.99 to 4.6.99).

vi)Building a Website at CMC Ltd., New Delhi (15.9.99 to 17.9.99).