CHAPTER VI
COMPUTER CENTRE

6.1 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 Center right from its inception, continued to perform pioneering tasks of building Data Processing Institutions in various organizations 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). 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.

6.2 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

6.3 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. All the jobs from DPS 7000/240 Computer system were shifted to PC-based Computer system based on client/server Architecture by February 2000 and is functioning under Windows NT operating system and ORACLE Database Software for application developments.

Approach Towards Modernisation of Data Preservation

6.4 The basic data processed at this Centre pertaining to Socio-Economic Surveys, Prices and Industries etc. had 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 and transferred the data on CDs from tapes. Besides, all the EDP training programmes for ISS officers have been modernized after revamping them on the latest Pentium based hardware, Windows98 and Microsoft Office97 software packages. The client/server PC-based computer system is installed and training on Communication and Net Working is included in the course.

Main Activities

6.5 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 and Programme Implementation being hosted by the NIC.

vii) Exploring the possibility of Creating National Data Ware House of official Statistics.

Data Preparation

6.6 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) Economic census 1998 data of Orissa state.

Processing of Data on PCs and Development of Computer System

6.7 The Computer centre has been processing the data collected through follow-up surveys of Economic Census 1998 conducted by the Central Statistical Organization including special Survey of Enterprises 1998-99 sch. S-2 Unorganized Non-Agriculture Enterprises. Monthly Returns of Consumer Prices for Urban Non-manual Employees, Time Use Survey. The data processing activities included 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 many programs for producing special tables for users particularly in respect of Annual Survey of Industries and Time Use Survey.

Jobs Completed During The Period From April, 2000 to December, 2000

6.8 **(i)** Consumer Price Indices For Urban Non-manual Employees (CPI, UNME). (1984-85=100):-

(a) Indices upto from March 2000 to November 2000 were generated.

(b) System was developed to compute average prices of selected items and computed average prices for the months from July, 1999 to June, 2000.

(ii) Special Enterprise Survey 1998-99 Sch. S-2 Unorganised Non Agricultural Enterprises.

Special tables required by ECD, CSO were generated and sent to ECD, CSO for their examination.

(iii) Monthly Index of Industrial Production (Alternative)

Processed data from April 99 to September 99. The results are being examined by C S O. Processing of data upto May 2000 is in prgress. These Results will be made available to CSO as soon as April to September 99 indices are finalized.

(iv) Time Use Survey

Four new tables using revised data of additional survey of the fourth sub-round for Gujarat and Tamil Nadu states were produced alongwith standard errors.

(v) Special Tables From NSS Data.

State-Income of the newly formed three States (Uttranchal, Jharkhand, & Chhattisgarh). Eight new programs were written and executed for producing eight tables (three tables from sch.1.0 (consumer expenditure) one table from sch.10 (employment and unemployment) 50thround and four tables from sch.18.2 of the 48th round.

(vi) Annual Survey of Industries (ASI).

In order to keep confidentiality of factory wise data, data of units in a District of a State having less then three units in an industry suppressed for the years 1974-75,1976-77 to 1997-98.

(vii) National Data Warehouse Of Official Statistics

The report prepared by M/S TCIL 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. A direction committee to advise the Computer Centre on all the matters for Creation of National Data Ware House including Hardware, Software and training was recently constituted by Ministry of Statistics and Programme Implementation.

(viii) Dissemination Of Data

(a) Basic, semi-processed and, processed data and tables pertaining to ASI were supplied to various national\ international users.

(b) Data pertaining to fourth Economic Census in respect of Uttar Pradesh and Delhi was supplied to Society for Participatory Research in Asia (PRIA).

(a) National Sample Survey Socio-Economic Data.

The demands from National and Internatinal Data users have been ever growing for different rounds of data generated from the NSS socio-economic surveys. From April, 2000 to December, 2000 data NSS 38th round to NSS 52nd round were supplied on 152 CDs to around 26 National and International users.

(ix) The Data Of The Following Projects Were 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, 2000 to November, 2000 were transferred on CDs.

(c) National Sample Survey (NSS).

NSS data pertaining to 54th Round Sch. 1.0 (Consumer Expenditure), Sch 3.1(Common property resources, Sanitation and Hygiene services) and Sch. 3.3 (Common property resources and village facilities) was transferred on to CD.

(d) Fourth Economic Census 1998.

All states data except Orissa state was transferred on to CDs.

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

The website of Ministry of Statistics and Programme Implementation is being updated regularly by the Computer Centre. The following updations were carried out:

1. Monthly Consumer Price Index (UNME) from March 2000 to November, 2000

2. Monthly Index of Industrial Production (IIP) from Feb 2000 to October, 2000

3. Annual Survey of Industries – Introduction, Tables for 1996-97, 1997-98.

4. Material for Economic Census-98.

5. NSSO Data.

6. Annual Report of M/O Statistics and PI for the year 1999-2000.

7. Monthly abstract of Statistics of CSO for Dec 1999.

8. Brief about IIP & NIC-98.

9. CSO Publications

10 NSSO Publications.

11. A new link "Summary data (Real Sector)" was created for National Summary data for India.

12. A new link was created for "Guidelines for Research proposals".

13. New link was created for notification on "NSS Golden Jubilee celebrations".

14 Quarterly estimates of Gross Domestic Product for the quarter April – June 2000.

15 Revised Estimates of Annual Income 1999-2000 and Quarterly Estimates of Gross Domestic Product for the quarter January – March 2000.

16. Material on Informal sector.