

# CHAPTER I

## INTRODUCTION

### GENESIS

The Central Statistical Organisation (CSO), since its inception, has been instrumental in creation of database for various sectors of the economy and its periodic updation so as to meet the requirements of the planners for sound and systematic planning both at the macro as well as micro level. While data requirements may be enormous in various sectors, the judicious collection and maintenance of data for various sectors within the available resource is a challenge. Our economy can broadly be classified into two sectors namely Agricultural and Non- Agricultural sectors. Fairly reasonable database exists for Agriculture Sector where as such data base for Non-Agricultural sector is much to be desired. Keeping in mind the importance of the non-agriculture sector in the economy and the non-availability of basic frame for adoption in various sampling techniques for collection of data and estimation of various parameters, Economic Census was felt necessary. The Economic Census is a small attempt of the CSO for preparing frame of establishments which could be used for various censuses as well as surveys for collection of detailed data particularly on non-agriculture sector of the economy.

### 1.2 EARLIER ATTEMPTS

Broadly the entire planning period may be divided into two, Prior to conduct of the First Economic Census i.e prior to 1976 and thereafter i.e. after the economic census was carried out periodically. Efforts to fill up the data gaps for the non-agricultural sector were made right from the beginning of the First Five Year Plan. The First National Sample Survey (NSS) round (1950-51) covered non-agricultural household establishments as one of its subject themes. Such establishments were covered regularly up to the tenth round (1955-56). Subsequently, selected activities were taken up for survey intermittently in different rounds (14<sup>th</sup>, 23<sup>rd</sup> & 29<sup>th</sup> rounds). Establishment schedules were canvassed in 1971 population census. The census of unorganised industrial units was carried out during 1971-73. Census of the units falling within the purview of Development Commissioner, Small Scale Industries, was carried out during 1973-74 and a survey on distributive trade was conducted by some of the States during the Fourth Five-Year Plan period (1969-74). All such efforts made prior to 1976 to collect data on non-agricultural establishments have been partial and sporadic. Area sampling with probability proportional to population were mostly used even to capture establishments. For a survey of establishments such sample design is not only inefficient but also results in under coverage of desired number of establishments and low reliability of the estimates derived. The prolonged efforts of Statisticians and Planners in finding a way out for collection of information on amorphous areas of activity resulted in a decisive breakthrough with the advent of conduct of Economic Census.

### **1.3 ECONOMIC CENSUS**

The first coordinated approach was made by the Central Statistical Organisation (CSO), Government of India, by launching a plan scheme 'Economic Census and Surveys' in 1976. The scheme envisaged organising countrywide census of all economic activities (excluding those engaged in crop production and plantation) followed by detailed sample surveys of unorganised segments of different sectors of non-agricultural economy in a phased manner during the intervening period of two successive economic censuses.

The basic purpose of conducting the economic census was to prepare a frame for follow up surveys intended to collect more detailed sector specific information between two economic censuses. In view of the rapid changes that occur in the unorganised sectors of non-agricultural economy due to high mobility or morbidity of smaller units and also on account of births of new units, the scheme envisaged conducting the economic census periodically in order to update the frame from time to time.

#### **1.3.1 FIRST ECONOMIC CENSUS (EC -1977) AND FOLLOW UP SURVEYS**

The First Economic Census was conducted through-out the country, except Lakshadweep, during 1977 in collaboration with the Directorate of Economics & Statistics (DES) in the States/Union Territories (UT). The coverage was restricted to only nonagricultural establishments employing at least one hired worker on a fairly regular basis. Data on items such as description of activity, number of persons usually working, type of ownership, etc. were collected.

Reports based on the data of EC-1977 at State/UT level and at all India level were published. Tables giving the activity group-wise distribution of establishments with selected characteristics and with rural and urban break up were generated. State-wise details for major activities and size-class of employment, inter-alia, were also presented in tables.

Based on the frame provided by the First Economic Census, detailed sample surveys were carried out during 1978-79 and 1979-80 covering the establishments engaged in manufacturing, trade, hotels & restaurants, transport, storage & warehousing and services. While the smaller establishments (employing less than six workers) and own account establishments were covered by NSSO as part of its 33<sup>rd</sup> and 34<sup>th</sup> rounds, the larger establishments were covered through separate surveys. Detailed information on employment, emoluments, capital structure, quantity & value of input, output, etc. were collected and reports giving all important characteristics on each of the concerned subjects were published.

#### **1.3.2 SECOND ECONOMIC CENSUS (EC-1980) AND FOLLOW UP SURVEYS**

The Second Economic Census was conducted in 1980 along with the house-listing operations of 1981 Population Census. This was done with a view to economizing resources, manpower, time and money. The scope and coverage were enlarged. This time all establishments engaged in economic activities - both agricultural and non-agricultural whether employing any hired worker or not - were covered, except those engaged in crop production and plantation. All States/UTs were covered with the sole exception of Assam, where Population Census, 1981 was not conducted.

The information on location of establishment, description of economic activity carried out, nature of operation, type of ownership, social group of owner, use of power/fuel, total number of workers usually engaged with its hired component and break-up of male and female workers were collected. The items, on which information were collected in Second Economic Census, were more or less the same as those collected in the First Economic Census. However, based on experience gained in the First Economic Census certain items viz. years of operation, value of annual output/turnover/receipt, mixed activity or not, registered/ licensed/recognised and act or authority, if registered were dropped.

The field work was done by the field staff consisting of enumerators and supervisors employed in the Directorate of Census Operations of each State/UT. The State Directorates of Economics & Statistics (DES) were also associated in the supervision of fieldwork. Data processing and preparation of State level reports of economic census and their publication were carried out by the DES.

Based on the frame thrown up by EC-1980, three follow-up surveys were carried out, one in 1983-84 on hotels & restaurants, transport, storage & warehousing and services, second in 1984-85 on unorganised manufacturing and third in 1985-86 on wholesale and retail trade.

The economic census scheduled for 1986 could not be carried out due to resource constraints. However, the EC- 1980 frame was updated during 1987-88 in 64 cities (12 cities having more than 10 lakh population and 52 class-I cities) which had problems of identification of enumeration blocks and changes due to rapid urbanization. On the basis of the updated frame, four follow-up surveys were conducted during 1988-89, 1989-90, 1990-91 and 1991-92 covering the subjects of hotels & restaurants and transport, unorganized manufacturing, wholesale & retail trade and medical, educational, cultural & other services respectively.

### **1.3.3 THIRD ECONOMIC CENSUS (EC-1990) AND FOLLOW UP SURVEYS**

The Third Economic Census was synchronized with the house listing operations of the Population Census 1991 on the same pattern as EC- 1980. The coverage was similar to that of EC-1980. All States/UTs except Jammu & Kashmir, where Population Census 1991 was not undertaken, were covered.

Based on the frame thrown up by EC-1990 four follow up surveys were carried out: (i) Establishment Survey covering sectors of mining & quarrying, storage & warehousing in 1992-93; (ii) Establishment Survey covering sectors of hotels & restaurants and transport in 1993-94; (iii) NSS 51<sup>st</sup> round covering directory, non-directory and own account establishments in unregistered manufacturing sector in 1994-95 and (iv) Directory Trade Establishments Survey in 1996-97. NSS 53<sup>rd</sup> round covered the residual part of the unorganised trade sector in 1997.

### **1.3.4 FOURTH ECONOMIC CENSUS (EC-1998) AND FOLLOW UP SURVEYS**

With a view to meeting the demand of various user departments for the data on unorganized sectors of the economy and considering the nature of large number of small units which are subjected to high rates of mobility and mortality, it was felt that the economic census must be brought back to quinquennial nature so that an up-to-date frame can be made available once in five years for conducting the follow up surveys. Fourth economic census was planned during 1996. But due to various reasons the scheme could be launched only in 1998.

The overall responsibility for organisation and conduct of the economic census rested with the CSO. The DESs of States/UTs were made responsible for conducting the field work and preparing the report for their respective States/UTs.

Based on the frame thrown up by Economic Census 1998, the following follow-up surveys were carried out:-

- (i) Special establishment survey in unorganized sector 1998-99.
- (ii) Survey on Unorganized Manufacturing sector: 2000-01
- (iii) Survey on Unorganized establishments in services sector( excluding trade and finance) : 2001-02
- (iv) Survey on Unorganized Manufacturing sector: 2005-06
- (v) Survey on Unorganized establishments in services sector( excluding trade ) : 2006-07

## **1.4 FIFTH ECONOMIC CENSUS**

The Fifth Economic Census was conducted in 2005. Quinquennial nature of the census could not be given effect to.

The overall responsibility for organisation and conduct of Economic Census rested with the CSO. The DESs of respective States and UTs were made responsible for conducting the field work and preparing the report concerning to their States.

### **1.4.2 SCOPE AND COVERAGE**

The Fifth Economic Census was conducted in all the States/UTs. All economic activities (agricultural and non-agricultural), except those involved in crop production and plantation, related to production and/or distribution of goods and/or services other than for the sole purpose of own consumption were covered.

However, as were done in earlier censuses, the following activities were kept out of the purview of the Fifth Economic Census.

- (i) Establishments of shelter-less and nomadic population, which keep on moving from place to place and camp either without shelter or with makeshift shelter.
- (ii) Establishments engaged in some activities like smuggling, gambling, beggary, prostitution, etc.
- (iii) Domestic servants, whether they work in one household or in a number of households, drivers, etc. who undertake jobs for others on wages.
- (iv) All wage-paid employees of casual nature.
- (v) Household members engaged in household chores.
- (vi) Persons doing different types of jobs depending on the availability of work e.g. loading, unloading, helping a mason or a carpenter, doing earthwork for a contractor.
- (vii) Household members working for other households and earning some money which is insignificant.
- (viii) Households in which none of the members is engaged in any gainful activity i.e. households depending on remittance, rent, interest, pension etc.
- (ix) Owners of tube-wells, tractors, bullock carts, etc. who utilise their spare capacity to earn extra money, if the spare capacity utilisation is occasional and not on regular basis.

### **1.4.3 COMMITTEES AND WORKING GROUPS**

A Standing Committee was constituted under the Chairmanship of Director General, Central Statistical Organisation to look into various aspects relating to the conduct of Fifth Economic Census. The Members of the Committee included Registrar General and Census Commissioner of India, Adviser (FR) and Adviser (PP) both from the Planning Commission, Chief Economic Adviser, Ministry of Finance, representatives from various concerned Central Ministries/Departments like Ministry of Small Scale Industries, Commerce and Industry, Women & Child Development and Labour; and Six State Governments represented by their respective Directors, Directorate of Economics & Statistics. The Committee was assisted by three Working Groups for development of concepts & definitions, strategy for conduct of field work, tabulation of data, publicity & dissemination of results. All the technical and secretarial assistance were provided by the Economic Statistics Division of CSO.

### **1.4.4 CO-ORDINATION COMMITTEE AT STATE HQ./DISTRICT HQ. LEVEL**

State Level Co-ordination Committees (SLCC) under the chairmanship of Chief Secretaries and District Level Coordination Committees (DLCC) under the chairmanship of District Collectors were constituted to review the progress of work and take appropriate measures for smooth conduct of the Census within the prescribed time frame for different activities. Overall coordination at all India level and guidance were provided by the CSO.

#### **1.4.5 NEW INITIATIVES**

- ❖ House listing schedules are proposed to be processed subsequently and to be included in Volume-II of the report, which will be released in the form of soft copy. This would give the type of structures occupied by the units
- ❖ Separate “Address Slip” of the establishments employing 10 workers or more were canvassed for compilation of a Directory of larger establishments. This will also be included in Volume-II and released in soft form.
- ❖ ICR technology was used for the first time to process the data.

#### **1.4.6 ALL- INDIA CONFERENCE**

An All-India Conference of State Secretaries in-charge of Planning and Statistics and Directors of Economics & Statistics to discuss various issues relating to implementation of the scheme was organized at Vigyan Bhawan, New Delhi on 22<sup>nd</sup> December 2004.

#### **1.4.7 WORKSHOP ON INTELLIGENT CHARACTER RECOGNITION (ICR) TECHNOLOGY**

A workshop on ICR technology in processing of Economic Census data was conducted on August 2005 at New Delhi. The purpose of the workshop was to introduce the State/UT Government officers to the concept of ICR technology step by step. Detail demonstration and discussion of the ICR technology was conducted by the officers of RGI in presence of senior officers of CSO, State/UT Governments including some invitees from other Ministries/Deptt. of Government of India.

#### **1.4.8 TRAINING**

Four regional workshops for core group of Trainers consisting of officers from CSO, NSSO and senior officers from Directorates of Economics & Statistics of State/UT Governments were organized at Kolkata, Lucknow, Chandigarh and Bangalore. Subsequently, two officers, one officer from CSO/NSSO and one officer from State/UT Governments, imparted training to the State and district officials who in turn organized training to the lower level officials like Charge officers, enumerators and supervisors.

#### **1.4.9 FUNDS**

The “Fifth Economic Census” was taken as Central Sector Plan Scheme and fully funded by MOSPI. The total budgeted outlay of Rs. 99.20 crores was spent primarily through

State/UT governments. The Directorates of Economics and Statistics were the nodal agencies for executing the scheme in the States/UTs. Funds were allocated to them as per their requirement.

State/UT Governments were also allowed to create 235 temporary posts at DES headquarters for two years. However, no posts were sanctioned at CSO for Economic Census work. The entire economic census work in CSO was carried out by the existing officers of Economic Statistics Division.

#### **1.4.10 PREPARATION OF RURAL AND URBAN DIRECTORIES**

For identification of the primary units in rural and urban areas 20 digit location codes were adopted to prepare directory of primary units separately for rural and urban sectors in each State/UT. The list of villages as per 2001 Population Census with geo code structure already adopted under Population Census 2001 was used for preparation of rural directory. The unit of survey in urban areas was the block(s) carved out by NSSO-FOD under the urban frame survey. The above rural and urban directories were made available to State/UT Governments for updation before canvassing the schedules in the respective States/UTs. The same were updated and subsequently used while canvassing the schedules.

#### **1.4.11 FORMATION OF ENUMERATION BLOCKS**

The State/UT Governments were advised to carve out Enumeration Blocks (EB) broadly covering 200-230 households in rural areas. Each UFS block was treated as one EB for urban areas. The above criteria of forming EB were relaxed in hilly and difficult terrains. Data were collected on voluntary basis by contacting head of the unit/household or from responsible persons.

#### **1.4.12 PUBLICITY**

In order to give wide publicity the MOS & PI televised a 30-second video/audio clippings in electronics media on television channels and issued advertisement seeking public cooperation in about 100 newspapers in various languages throughout the country through the Directorate of Audio and Visual Publicity, Ministry of Information and Broadcasting, prior to the commencement of fieldwork. In addition to this, publicity measures were also undertaken by the State/UT Governments.

#### **1.4.13 FIELD OPERATION**

The fieldwork of Fifth Economic Census started in April 2005 and was over by December 2005 except in Bihar and Andaman & Nicobar Islands. Because of elections in Bihar and Tsunami rehabilitation work in Andaman & Nicobar Islands, the fieldwork was completed by early March 2006. About four (4) lakh enumerators were deployed to collect information from about 42 million establishments. Establishments with fixed premises were covered at the place of their operation. On the other hand, economic

activities that are carried out without any fixed premises or location were covered through households.

All types of establishments (both perennial and seasonal) were covered in the census. The reference period for data collection in respect of perennial establishment was the last calendar year ( i.e Jan-Dec.2004) and for seasonal establishments, it was last working season. For the establishments that have started operation recently, ( i.e operated less than a year for perennial establishments and did not complete a season for seasonal establishments) , the information as on the date of the census was collected. The work of the enumerators was supervised by high level officers.

#### **1.4.14 SCHEDULES CANVASSED**

The schedules namely (i) House List (Annex.I), (ii) Establishment Schedule (Annex.II), (iii) Address Slip (Annex.III) were canvassed in Economic Census. Separate schedules were used for rural and urban areas. The fourth schedule namely, the Establishment Abstract (EA) (Annex.IV) was completed from the entries contained in the Establishment Schedule. The schedules were designed and printed as per the requirement of the ICR technology and in consultation with O/o the RGI .

#### **1.4.15 POST ENUMERATION CHECK**

Post Enumeration Check (PEC) was conducted in all States/UTs immediately after completion of the field work. Two villages and two urban blocks were selected at random in each district through out the country. Same schedules were canvassed by the Field Operations Division of National Sample Survey Organisation in the selected villages/blocks in all States/UTs, except Arunachal Pradesh, Manipur, Mizoram and Tripura, where PEC was done by the DESs of respective States. It was an administrative internal exercise, which would provide managerial input for experience building, improvement in future operations and extent of error in the data.

#### **1.4.16 RELEASE OF PROVISIONAL RESULTS**

In order to meet the immediate needs of various users, arrangements were made for quick tabulation of Economic Census data. The important parameters of the census data compiled through establishment abstract schedule like number of establishments, employment, adult female workers, hired workers, etc. classified according to agriculture/non-agricultural activities, rural/urban and State/UT-wise were released on 12<sup>th</sup> June, 2006.

#### **1.4.17 DATA PROCESSING**

Intelligent Character Recognition (ICR) technology, which is also known as Automated Forms Processing, was used for the first time to process the EC-2005 data. Automated Forms Processing technology enables the user to process documents from their images or directly from paper and convert them to computer readable data. Automated forms are

forms designed to be scanned to a digital format so that the data on the form can be “extracted” by software rather than keyed by data entry personnel. While Forms Processing packages will give recognition capabilities, they also manage the complete life cycle of the document from scanning to extract and even include Image Archive and Retrieval.

The schedules of the Fifth EC were scanned/digitized at the fifteen regional Data Processing Centres of RGI. After running the edit programme, the error list files were handed over to the State Governments for corrections. The DES officials of the State Government corrected the error files in two/three cycles and then sent the data files to RGI Headquarters to give final touch before sending to Computer Centre, MOSPI. The data files were made completely error free by applying auto corrections at the Computer Centre.

Unlike earlier census where data were processed by the individual State/UT Government, this time the data processing work was done centrally by the Computer Centre, MOSPI using the software developed in house for all the States/UTs. The final tables required for writing the State/UT level reports were provided to respective State/UT Governments.

#### **1.4.18 TABULATION PLAN**

As decided, the series of tables were generated: (a) main tables and (b) special tables. The main tables were to provide State/UT-wise results in respect of principal characteristics of the establishments and employment therein classified by major activity groups, type of establishments, ownership type, social group of owner, size class of employment, power/fuel used, source of finance, etc., The special tables were to reflect major characteristics of data at all India level.

Unlike Fourth Economic Census report this time All-India report would be prepared in two volumes. Volume-I of the report would be based on the data collected through Establishment List and would be analyzed as was done in earlier census. Volume-II of report would be based on the data collected through House List Schedule and Address Slip. Volume-II of the report would contain list of units classified by various characteristics like type of structure, address of the establishments employing 10 or more workers. Volume-II will be published in soft form.

#### **1.4.19 CLASSIFICATION OF ACTIVITIES**

Economic activities are assigned 4-digit codes as per National Industrial Classification (NIC) 2004. The list of major agricultural and non-agricultural activity groups along with their NIC codes are given at Annex.-V. To facilitate quick coding of economic activities, for the first time Alphabetic Index was prepared and made available to State/ UT Governments.

#### **1.4.20 CONCEPTS AND DEFINITIONS**

Concepts and Definitions of important terms used in Fifth Economic Census are at Annex. VI.