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STATISTICAL ORGANISATION

NEW DELHI

CENTRAL STATISTICAL ORGANISATION

TWENTY FIVE YEARS
OF
PROGRESS

1951—1976

DEPARTMENT OF STATISTICS
MINISTRY OF PLANNING
GOVERNMENT OF INDIA
NEW DELHI

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INTRODUCTION

India has a federal structure and according to the Constitution the subjects are grouped into Union, State and Concurrent lists, the last category representing the areas where both the Union and State Governments can operate. The authority and responsibility for collection of statistics relating to a particular subject are determined by the overall responsibility for the subject under the Constitution. In most cases the statistical activities are organised basically at the State level and the resulting data are later integrated to produce national statistical series. Some statistical activities such as the population census are, however, carried on by the Centre.

2 Perhaps the first significant event in the development of statistics in India was the setting up of the Statistical Committee in 1862 for designing model statistical forms to collect data on trade, finance, education, agriculture, etc., which later led to the issue of 'Statistical Abstracts for British India' in 1868. The first countrywide synchronised population census was organised in 1881. The first issue of 'Agricultural Statistics of British India' was published in 1886. A Statistical Bureau headed by a Director General of Statistics, was formed at the Centre in 1895 to coordinate both agricultural and foreign trade statistics and to collect statistics relating to prices, wages and industry. Later the Bureau was placed under the Director General of Commercial Intelligence and Statistics in 1905 who was assigned the additional function of liaison with the trading community.

3 Among other major events were the creation of the Statistical Division in the Indian Council of Agricultural Research in 1931, which ultimately grew into the Institute of Agricultural Research Statistics (IARS), the founding of the Indian Statistical Institute (ISI) in 1932, and the establishment of the Office of the Economic Adviser in the then Ministry of Commerce and Industry in 1933. The Directorate of Economics and Statistics in the Ministry of Agriculture and the Labour Bureau were also established in the forties.

4 The Economic Enquiry Committee set up in 1925 recommended that all statistical work in the country should be coordinated and centralised in one Department and that this Central Authority should advise the Government on all statistical matters. The recommendations could not, however, be implemented. But later, on the recommendation of the Bowley-Roberston Enquiry Committee (1934), the Government of India decided to establish the Central Statistical Organisation. However, financial difficulties came in the way of implementing the decision. With the outbreak of Second World War in 1939, the Government

convened an Inter-Departmental Committee to suggest ways and means of meeting the statistical requirements in both military and civil spheres of activity. The Committee again recommended the formation of a Central Statistical Office, institution of a statistical cadre, establishment of Statistical Bureaus in States and maintenance of all important Statistics for the entire country. These recommendations were also not given effect to.

5 The years since independence have witnessed a great spurt in the statistical activities in India. Prof. P. C. Mahalanobis was appointed Hony. Statistical Adviser to the Cabinet in 1949 and a proper statistical organisation began to take shape. A Central Statistical Unit was set up in the Cabinet Secretariat in 1949 which developed into the Central Statistical Organisation (CSO) in 1951 with the object of providing technical leadership in building up the statistical system. Initially the CSO was charged with the responsibilities of coordinating the statistical activities in the country, laying down and maintenance of standards (concepts, definitions and procedures), providing consultancy and advisory support to other statistical agencies, disseminating statistical intelligence and keeping liaison with the international statistical agencies.

6 The functions of the CSO expanded with the transfer of the National Income Unit from the Ministry of Finance in 1954, setting up of a separate unit in the same year to look after the statistical work relating to planning in collaboration with the Planning Commission, creation of training facilities for Central and State statistical personnel, and the transfer of the Directorate of Industrial Statistics in 1957 from the then Ministry of Commerce and Industry. These later developments resulted in the additional functions of preparing and publishing national accounts statistics; plan work relating to statistics development; processing, analysis and publication of industrial statistics and organising training programmes in official statistics and related methodology. The Government of India further decided in 1961 that the CSO should have the authority and status of a separate Department to carry on its functions in relation to Central Departments and State Governments, and accordingly the Department of Statistics was created.

7 The CSO has its headquarters at New Delhi. However, work relating to industrial statistics is mainly carried out at Calcutta. The organisation is headed by a Director who is ex-officio Additional Secretary of the Department of Statistics. He is assisted at New Delhi by one Additional Director, six Joint Directors, nine Officers-on-Special Duty, thirty Deputy Directors, fiftytwo Assistant Directors and supporting staff. The Industrial Statistics Wing at Calcutta is under the charge of a Joint Director, and has in addition, one Officer-on-Special Duty, two Deputy Directors, seven Assistant Directors and supporting staff.

8 This Brochure traces the progress of the CSO since its inception

mainly by emphasising its role in the development of statistical organisation and the improvement of data base in the country. The section on statistical organisation includes statistical offices, machinery for coordination, statutory powers, statistical cadres, data processing facilities and training of statisticians. The portion on improvement of data base describes the efforts of the CSO in setting up and maintenance of standards and providing consultative and advisory support in various fields of official statistics. The work on national accounts is next dealt with. Thereafter follow brief descriptions of the activities of the CSO in statistical dissemination and international relations. The Brochure is concluded with an account of some of the important tasks which lie ahead.

2. ROLE IN DEVELOPMENT OF STATISTICAL ORGANISATION

STATISTICAL OFFICES

9 The CSO has been making concerted efforts to provide an adequate organisational base to the statistical system by assisting the establishment or the strengthening of statistical machinery at various levels. The National Sample Survey (NSS), established in 1950 and organised as a joint venture of the three agencies : the ISI, the Directorate of National Sample Survey and the CSO, was reorganised in 1970 and a full fledged National Sample Survey Organisation (NSSO) was set up within the Department of Statistics to look after all aspects of NSS work. A Computer Centre providing electronic data processing facilities was set up in the Department of Statistics in 1966. Statistical units or divisions have also come up in many Ministries with the active support of the CSO.

10 State Statistical Bureaus (SSBs) deal with coordination of statistical activities at the State level. Before independence such offices existed only in the Provinces of Uttar Pradesh, Bombay and Bihar. An integrated development of the statistical system was initiated in the Second Five Year Plan (1956—61) and the Statistical Bureaus and District Statistical Offices have since been set up in twenty-one States and eight Union Territories. The Statistical Bureau in Sikkim is expected to be set up shortly.

11 Over the last two decades a considerable expansion in the system has taken place. In the Central and State Governments and Public Sector Undertakings in 1953 there were 170 statistical units with 4800 statistical personnel and annual expenditure of Rs. 16 million. By 1974-75 the corresponding figures had increased to 510 statistical units, 33,000 statistical personnel and about Rs. 300 million annual budget.

MACHINERY FOR COORDINATION

12 One of the primary functions of the CSO is to coordinate the activities of the statistical offices at the Centre and in the States which enjoy a large degree of initiative in organising their statistical programmes. Adequate coordination in a decentralised statistical system is essential to avoid duplication of effort and to ensure optimum utilisation of resources.

13 Before the creation of the CSO, a Standing Committee of Departmental Statisticians met from time to time to discuss matters

of common concern. After the CSO came into being, the Standing Committee was replaced by the Joint Conference of Central and State Statisticians as the main consultative body for statistical coordination and development. The Conference held nine sessions during the period 1951 to 1960. With the creation of the Department of Statistics in 1961, the Joint Conference was redesignated as the Central Technical Advisory Council on Statistics and a more compact Standing Advisory Committee for the Department was set up to consider problems referred to it from time to time. Some of the important subjects discussed in these Conferences were the measures for creation and strengthening of statistical machinery in the States, training programmes for statistical personnel, adoption of uniform standards for collection, compilation and publication of statistical data, methods for improving the timeliness, quality and coverage of primary data and plan schemes for development of statistics.

14 Both the Council and the Committee were replaced by the Conference of Central and State Statistical Organisations convened in 1971. It considered, among other subjects, the improvements necessary in the various statistical series required for national and regional planning, setting up of data banks, and staff norms and functions of district statistical offices. The second session of the Conference held in 1975 discussed statistical organisation in the country, training of statistical personnel, statistics of prices, preparation of regional accounts and revised priorities for statistical programmes in the Fifth Five Year Plan. A Standing Committee looks after the follow-up action on the recommendations made at the Conference.

15 A number of Working Groups and Advisory Committees have been constituted from time to time to ensure standards and to co-ordinate statistical matters. Prominent among these are the Committees/Groups dealing with training, statistics of employment and unemployment, social statistics, industrial statistics, price statistics, national and regional accounts. A list of the more recent among these is given in Annex I.

16 The CSO has close co-ordination with the Planning Commission. In the CSO units were set up in 1954 to undertake statistical work relating to planning at the Central and State levels. The units were later merged into Planning and State Statistics Division. This Division also functions simultaneously as the Statistics and Surveys Division of the Planning Commission with the Director, CSO acting as the Adviser to the Planning Commission on this subject. It undertakes processing of all plan schemes on development of statistics in the State and Central sectors. The transfer of the Department of Statistics to the Ministry of Planning has further strengthened the co-ordination between the CSO and the Planning Commission.

17 The Second Conference of the Central and State Statistical Organisations (1975) recommended the setting up of high power National Council on Statistics at the Centre and Statistical Committees in the States to ensure effective coordination of statistical matters. The proposal on National Council is under consideration. In most States high power Statistical Committees have been set up. In pursuance of another recommendation of the Conference, the CSO appointed a Working Group on District and Lower Level Statistical Organisations to undertake a comprehensive review of the system and examine how better use could be made of it. The Group has recommended the constitution of District Coordination Committees on Statistics with District Collector as Chairman and the District Statistical Officer as Member-Secretary to ensure effective coordination of all statistical work at the district level.

STATUTORY POWERS

18 Statistical legislation provides the support occasionally needed for eliciting information from the respondents in data collection programmes. It also incorporates the guarantee for safeguarding the confidentiality of the information collected from individual respondents. In India some statistical and regulatory Acts provide for the collection of data. The population census is conducted under the Census Act, 1948. The first Census of Manufacturing Industries (1946) was organised under the Industrial Statistics Act, 1942, which empowered the Government to collect data from factories registered under the Factories Act, 1934. At the instance of the CSO, the need for a separate Statistics Act which would include the provisions of the Industrial Statistics Act and also enable the Government to collect data on a compulsory basis in other fields, was examined and the Government of India enacted in 1953 the Collection of Statistics Act. This Act is wider in scope than the Industrial Statistics Act, 1942 and empowers the Central as well as State Governments to collect statistics in regard to any matter concerning any industry or class of industries, commercial, trading and industrial concerns including factories and matters relating to welfare of labour and conditions of labour. At present the Annual Survey of Industries is conducted under the provisions of this Act.

19 The question whether the Statistics Act should be modified in the light of experience gained in its implementation and to give more effective powers for collection of data on a wider range of subjects was considered by the Department of Statistics as well as the Second Conference of Central and State Statistical Organisations in 1975. The CSO constituted a Working Group to examine the operation of the Statistics Act 1953 and the feasibility of its extension to statistics at

present being collected on voluntary basis. The Working Group has recommended the extension of the Act to concerns engaged in construction, and those offering boarding and/or lodging facilities, and professional services like medical, education, legal, business, cultural or community services. It has also recommended that the Statistics Authority declared under the Act should be entitled to supply confidential data from individual establishments to other government agencies (except revenue and taxation authorities) without disclosure of identity and with proper safeguards of their confidential status. These recommendations are currently under consideration of the Government.

STATISTICAL CADRES

20 A decisive factor in the performance of the statistical system is the calibre of the staff managing the system. The need to recruit and build up the right kind of staff cannot be overemphasised. The Inter-Departmental Committee on Official Statistics recommended in 1945 that the formation of a regular Statistical and Economic Cadre should be taken up for consideration to ensure a fair degree of homogeneity among the staff and help create larger opportunities for incumbents and thus maximise benefits to the Departments as well as to the individuals concerned. Subsequently the issue was considered at various levels and the Government of India organised in 1964 an Indian Statistical Service (ISS) to cater primarily to the needs of the Central Ministries in regard to statistical manpower. Simultaneously an Indian Economic Service (IES) was also established.

21 The ISS is managed by the Department of Personnel under the direction of a Board. The Director of the CSO is the technical member (Statistics) on the Board. Entry into the Service at the initial level is mainly through a nationwide competitive examination. There is also provision for direct recruitment by interview at higher levels. There are four grades in the service: Grade IV (Assistant Director), Grade III (Deputy Director), Grade II (Joint Director) and Grade I (Director). In addition there is provision for Selection Grade above Grade I. Top level posts carrying statistical functions like the Director, CSO, although not encadred to the service, are usually held by the service personnel. Promotions from grade to grade are effected on consideration of merit and seniority. Officers are transferable from Department to Department. Suitability by virtue of past experience and the desires of the Department concerned are given some consideration in postings at the higher levels but not at the lower levels where a wide range of experience is considered desirable.

22 Some of the States, e.g., Gujarat, Karnataka, Kerala, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal have also

organised their own statistical cadres. The possible extension of the Indian Statistical Service to the States was discussed by the Second Conference of Central and State Statistical Organisations (1975). The Conference emphasised that the Service could be conceived of as an effective instrument for efficient and harmonious promotion of statistical activities in the country. It was also suggested that the quality of statistical data emanating from the State agencies would improve considerably if their collection was supervised by a common all-India cadre. On the basis of the recommendations of the Conference, the CSO appointed a Working Group to examine the feasibility of developing the ISS into an all-India service. The Conference also recommended that, pending the establishment of such a service, statistical cadres should be constituted in States where these were not yet organised and exchange of officers between the Centre and States for specific periods should be encouraged. These recommendations are under consideration of the Central and State Governments.

DATA PROCESSING FACILITIES

23 For efficient functioning of the statistical system satisfactory arrangements are essential to process the data and make the information available to the users in time and in a manner useful to them. The CSO has been actively assisting the statistical offices at the Centre and in the States in acquiring adequate data processing facilities.

24 The CSO set up a Standing Committee for Coordination of Business Machines Installations in 1954 to look into the requirements of the Central and State Statistical agencies for data processing equipment. The Committee provided guidance to the government agencies on staffing and other problems in mechanisation of the processing of statistics. The CSO also handled the work relating to centralised indenting of punch cards for all mechanical tabulation installations in the Government. A census of business accounting machines was conducted and data were collected from various government installations on the strength of machines, card consumption, persons employed, their pay scales and designations, etc., to help plan proper development of mechanised data processing facilities in the country. The recommendations of the Standing Committee regarding emoluments and designations of personnel employed in the business machines installations of the Government were taken into account by the Second Pay Commission (1957—59) in their deliberations.

25 By the mid-sixties the data processing facilities in the country had become inadequate to cope with the increase in the volume of data and demands for processed information could not be met in several cases. As a result, reliable information was not always available in time

even though a large effort was made in collecting voluminous data. Need was felt for a system by which the data collected on major sectors of economy could be stored, processed and presented as required. The electronic data processing appeared to be the best possible means for this purpose.

26 Although there were already a few computers installed in statistical organisations such as the IISI and the IARS, etc., these were mainly deployed for analysis and research rather than for large scale data processing. The first coordinated measure to develop electronic computer applications in the Government was taken in 1966 when a Computer Centre was set up in the Department of Statistics. The Government of India acquired ten medium-sized Honeywell Computers (model H-400) and three of them were set up in the Computer Centre to provide data processing facilities to government organisations in and around Delhi. The remaining were suitably deployed at other centres such as Reserve Bank of India, Bombay, Oil and Natural Gas Commission, Dehra Dun, etc., under the overall coordination of the Department of Statistics.

27 The computer, with its facilities for permanent storage of large volume of data in a readily accessible form and its capacity for very rapid processing, will enable free flow of information within the States on the one hand and between the States and the Centre on the other. The First Conference of Central and State Statistical Organisations (1971) recommended that a Working Group should be set up to formulate a detailed scheme for the establishment of data banks in the States and at the Centre. The CSO convened in 1973 a Committee on Computer Centres and Data Banks. Based on the recommendations of the Committee, a scheme on Data Banks was formulated and included in the Fifth Five Year Plan. Provision has been made for the scheme in the Annual Plans of a number of States like Karnataka, Gujarat, Maharashtra, Madhya Pradesh and Uttar Pradesh. The scheme for setting up a Central Data Bank is under consideration of the Government of India.

TRAINING OF STATISTICIANS

28 Sound training both in methodology and practical applications is an essential pre-requisite to the healthy development of any system. The Second Conference of Central and State Statisticians (1953) recommended that the CSO should organise regular in-service and on-the-job training programmes for statistical officers serving in the Central and State Governments. The CSO, accordingly, started in-service training

of senior statisticians in 1954. Since then organisation of training programmes has been one of the principal activities of the CSO. A nine months training course for junior statistical officers was organised in 1955 by the CSO and the ISI. A standing Committee was set up by the CSO in 1955 in order to give continuing attention to problems of training of statistical personnel. Various Working Groups constituted by the Committee from time to time provided guidance in formulating and revising the training programmes for different categories of staff.

29 The CSO has also been making concerted efforts to set up training facilities at the State level for primary level statistical personnel. Starting from the Second Five Year Plan (1956—61), plan schemes have been implemented to create adequate training facilities in the States. As a result of this policy, most of the States have set up training units and started organising training programmes for Progress Assistants working in Community Development Blocks, Computers, Junior and Senior Statistical Assistants/Investigators. The CSO has provided general guidelines for conducting the training programmes on uniform lines.

30 A number of training courses are regularly conducted by the CSO in official statistics and related methodology for statistical officers employed in Central and State Governments and Public Sector Undertakings at intermediate and senior levels, personnel of the ISS, students of the ISI and participants of International Statistical Education Centre. The training is imparted in collaboration with the ISI, various Departments of the Government and a number of other institutions. Essential details of these training programmes together with the recent proposals for further improvement are described in the following.

Senior officers course

31 This course is meant for the senior officers of the Central and State Governments and Public Sector Undertakings who cannot be spared from their work for a long period but need training to keep themselves abreast of the latest developments in the field of statistics. Each year the course is organised in two parts. The first part, extending over a period of five weeks, is a general course in which emphasis is laid on the latest developments, gaps and future programmes in various fields of official statistics. The second part is of two week's duration and provides specialised training in one or two subjects selected every year. Option is given to the sponsoring organisations to nominate officers for either one part or the entire course. The general course has been taken so far by 310 officers, while 213 officers have undergone specialised training.

Junior officers course

32 A course of 9 months duration is offered by the CSO for junior statistical officers of the Central and State Governments and Public Sector Undertakings to prepare them for supervisory jobs. The course consists of three parts with durations of 16, 11 and 12 weeks respectively. The first part is organised at the ISI, Calcutta, and deals with descriptive statistics, statistical methods, sample survey techniques, design of experiments, theory of index numbers, time series analysis and economic planning. Emphasis is laid on concepts, logical development of the subject and practicals rather than on mathematical derivations. The second part dealing with official statistics is organised at the CSO. The third part provides for specialised training in one field out of demography, labour statistics, agricultural statistics, industrial statistics, national income, etc. This part is organised in collaboration with the concerned Central Departments and Research Institutions. Sponsoring organisations are given the choice to nominate trainees for any part or any combination of the parts of the course. During the last 20 years, 604 officers have been trained under this programme of which 367 attended the first part, 428 the second part and 447 the third part.

33 Two posts of statisticians on special duty were made available in the CSO to provide opportunity for training of State officers on deputation. Each officer was selected for a period of six months for training. So far 15 officers have taken advantage of the training in such diverse fields as statistics of employment and unemployment, statistics of small scale industries, inland trade, public finance, socio-economic surveys and estimation of national and regional incomes. The scheme has not been in operation from 1971. Efforts are being made to revive it.

34 The Standing Committee of the Conference of Central and State Statistical Organisations appointed a Working Group on Training in 1975 to review the existing training arrangements both in the CSO and the SSBs and suggest further improvements in the organisation of the training courses. The Group has suggested revisions in the syllabi and the duration of the courses organised by the CSO for senior and middle level statistical personnel. Model courses have been formulated for primary level professionals and staff engaged in data processing and field investigation. It has been recommended that the States and Union Territories might be grouped into six regions for the purpose of organising these training programmes. In every region, each State/Union Territory should assume the responsibility for conducting one or two of the model

courses for the benefit of the staff in the region. A uniform setup for training units in each SSB, and organisation (periodically by the CSO) of workshops of two-three weeks' duration for trainers from the States are the other recommendations of the Working Group.

Training of ISS officers

35 The CSO has the responsibility for organising training programmes for the ISS officers. An *ad-hoc* Committee on Training set up by the Ministry of Home Affairs formulated in 1966 training programmes for direct recruits and promotees to Grade IV and senior officers of the Service.

36 The direct recruits are appointed to Grade IV on the basis of an annual competitive examination conducted by the Union Public Service Commission. Their entire probation period, extending over two years, is devoted to institutional and on-the-job training in administration, official statistics and statistical techniques. The main aim of the training is to equip the young officers with the requisite professional competence to man statistical posts in the Government. The programme, as originally conceived, used to cover four months' foundational course at the Lal Bahadur Shastri National Academy of Administration, 39 weeks' training in official statistics at the CSO, 27 weeks' training in statistical methodology (13 weeks at ISI, 9 weeks at CSO and 5 weeks at Computer Centre), one week's training in general administration and financial rules at the Institute of Secretariat Training and Management (ISTM), and 20 weeks' on-the-job training in the Department of final posting of the participant. Besides, every probationer was required to prepare a project report on a subject allotted to him. (The programme is revised in some respects for which reference may be made to Para 40). The training for the first batch of the probationers commenced in October 1968. So far 45 probationers have completed the training.

37 Officers are also inducted into Grade IV of ISS through promotion from lower ranks. So far one training course has been arranged for the promotees. This was in 1971 and attended by eight officers. The course of 26 weeks duration was organised in collaboration with the ISI and the ISTM.

38 A course for senior officers of ISS was arranged in 1971. This was attended by seven Grade III officers. The officers received training for four weeks in sample surveys at the ISI and for five weeks in statistical techniques in relation to economic policy and planning at the CSO.

39 A Training Advisory Committee set up by the Department of Personnel and Administrative Reforms of the Cabinet Secretariat

reviewed the training programmes for the ISS officers in 1975 and suggested some changes in the duration and the contents of the programmes in the light of the experience gained since 1968. The recommendations of the Committee have since been accepted by the Government with a few minor changes.

40 Among the principal amendments to the training programme for the direct recruits to Grade IV are the following : A course on basic economic theory (in addition to econometrics) should be included to provide support in dealing with the problems of the economic ministries; topics like theory of linear estimation, multivariate analysis, design of experiments and statistical quality control should be included in the statistical methodology in addition to the sample survey theory and operations research; field training should be arranged in the NSSO for six weeks to gain first-hand knowledge of the problems in data collection; training in electronic data processing should be extended from five to thirteen weeks to cover more intensively computer programming, systems analysis and designs; and the durations of the course on official statistics and on-the-job training should be correspondingly reduced.

41 It has been recommended that since the promotees form a heterogeneous group with varying background knowledge in mathematics, statistics and economics, the CSO should arrange initial back-up training courses in these subjects for four to five weeks before they are put on the main training programme, the duration of which should be increased from 26 weeks to 35 weeks. The revised syllabus of the main programme includes a wide range of subjects—refresher course in mathematics (two weeks), statistical methods (six weeks), sample survey techniques (four weeks), organisation of sample surveys (one week), econometrics (three weeks), statistical methods in planning and evaluation (three weeks), demography (two weeks), official statistics (eight weeks), electronic data processing (five weeks) and general administration (one week).

42 To provide opportunities to senior officers to upgrade their knowledge from time to time in the course of their service career, refresher and functional courses have been recommended. The refresher course consists of three modules—sample survey techniques, advanced statistical techniques in relation to economic policy and planning, and official statistics, each of three weeks' duration. As these topics require knowledge of mathematics and statistical methods, subject orientation courses on these have also to be arranged for those officers who do not possess the requisite background.

43 In addition to the refresher course, a series of functional training courses of one to three weeks' duration in special areas of interest have been recommended. The functional courses are broadly

of two types. The first type would equip the officers with the latest developments in methodology with specific application in official statistics such as short-term forecasting, theory of index numbers, analysis of time series, systems analysis, statistical quality control, etc. The second type would provide special job-oriented training in different fields of official statistics such as demography, agriculture, industry, trade, transport, shipping, national accounts, regional planning, etc.

Other training programmes

44 The CSO has been offering a course in official statistics for the students of the ISI since 1956. The object of the course is to provide a broad understanding of the statistical system in India as also the gaps in data base in various sectors of the Indian economy. So far 640 students have received this course.

45 The CSO has also been assisting the ISI in conducting an evening course in statistics in Delhi, the first session of which commenced in 1958. The course is oriented towards the needs of Government Departments and provides basic training in statistical methods and their applications in different fields for persons employed in Delhi.

46 From time to time short orientation programmes are offered to the post-graduate students in statistics of the universities and trainees in various research institutions like the IARS, International Institute of Population Studies, etc.

Training of foreign statisticians

47 The CSO has been conducting a course in official statistics since 1951 for the benefit of the participants of the International Statistical Education Centre, Calcutta, which is operated jointly by the International Statistical Institute and the ISI under the auspices of the UNESCO and the Government of India. The main purpose of the ISEC is to provide training in theoretical and applied statistics at various levels to the nominees of countries in Asia and Africa. The course consists of two parts. The first part of four weeks is a general course on the sources and methods of data collection, processing, analysis and reporting in various fields of official statistics. The second part provides for specialised training for two weeks in any one of the subjects chosen by a participant. So far 452 participants have taken the course.

48 Special training programmes tailored to suit the needs of the foreign nationals, deputed by their Governments under the technical assistance programmes of various agencies such as those of the United Nations and Colombo Plan, are also arranged by the CSO from time to time.

3. ROLE IN IMPROVEMENT OF DATA BASE

49 The CSO has been playing an active role in the improvement of the data base of the country since its inception. In July 1952, the Government decided that all Ministries should send to the CSO for examination all new proposals for the collection, processing, analysis or publication of statistical data. The Government approved in November 1958, in principle, that the CSO should be in charge of direction, coordination and collection of statistics required for purposes of planning or policy decisions which were of a general nature or related to two or more Ministries. In February 1961, the Government further decided that the CSO should have the authority and status of a Department to advise and issue general directions to the Central Departments and the State Governments regarding the setting up of standards, norms and methods of data collection. These decisions are implemented by the CSO working through a number of Technical Advisory Committees, Working Groups and Expert Groups set up from time to time in different fields of official statistics either in CSO itself or the Departments concerned with these subjects (Annex. I).

50 The following sections contain a brief account of the efforts made by the CSO in effecting improvements in various fields of official statistics. The primary role of the organisation in evolving and maintaining statistical standards is first explained with specific illustrations. An outline is then given of the consultative and advisory support provided by the CSO in different fields.

STATISTICAL STANDARDS

51 As a number of agencies are involved in the statistical activities, it is necessary to set and maintain norms for collection, processing and dissemination of data in order to ensure the quality and comparability of statistical series. This is one of the responsibilities of the CSO. The mechanics of standards includes evolving the concepts and definitions of various statistical terms, identifying their equivalents under varying conditions, determining appropriate techniques for collecting the desired data and finally specifying the methods of processing and the manner of dissemination.

52 Statistical standards have been evolved in various branches of official statistics over a period of time keeping in view the requirements of users and the practicability of their maintenance. International recommendations on the subject have also been taken into account to the extent feasible in order to ensure international comparability of the

data. A few examples of this work are given in the following.

53 In the context of manpower planning, it is necessary to classify workers by two characteristics, viz. industry—the branch of economic activity where the person works, and occupation—the type of work the individual performs. In the decennial population census workers were classified until the 1951 Census by a mixture of industrial and occupational classifications. Need was, therefore, felt to evolve separate industrial and occupational classifications which would be suitable to the Indian situation.

54 The CSO appointed in 1955 a Working Party to devise industrial and occupational classifications of economic activities, keeping in view the international recommendations and the national requirements. Based on its work, the Directorate General of Employment and Training published the National Classification of Occupations (1958) and Standard Industrial Classification (1960) to meet the urgent needs particularly of the 1961 Census of Population. Revised versions of the classifications were published by the CSO in 1962. These were used in the socio-economic enquiries of NSS, SSBs and others.

55 The two classifications are revised periodically to take into account the revision in the international classifications and the changes within the country. A revision of the occupational classification was undertaken by a Working Group set up by the CSO in 1968 and the new National Classification of Occupations (NCO-1968) was issued by the Directorate General of Employment and Training. Similarly a revised industrial classification was also evolved by a Working Group set up by the CSO in 1969 and the new classification entitled 'National Industrial Classification' (NIC-1970) was issued by the CSO. These classifications are used in the Population Census, NSS, National Employment Service, Annual Survey of Industries, etc.

56 The CSO conducted a study in 1959 on statistics relating to import licences, imports and payments to develop a classification by commodities, end uses and user classes. A scheme of classification evolved on the basis of this study was considered by an Inter-Departmental Working Group and was adopted in the compilation and presentation of import licences data. This classification was further revised on the basis of the Standard International Trade Classification (Revised) and the Revised Indian Trade Classification (RITC-1965) was issued. Data on import licences, imports and exports are presented according to this classification.

57 The CSO has recently initiated work on the compilation of a Common Product Classification which would be applicable to various economic activities like production, trade and tariff. The approach adopted for working out this multipurpose classification is to have the NIC-1970 as the basis and to subdivide the headings therein to

provide for individual commodities germane to trade and tariff. Products relating to iron and steel, petroleum and chemicals, electronics, mines and those handled by the Directorate General of Technical Development have so far been brought under the common nomenclature. In evolving the classification, the work of the UN Statistical Office on the International Classification of Goods and Services (ICGS) and on the Harmonisation of Statistical Classifications would be taken into account.

58 The National Development Council, while reviewing in 1955 the employment and unemployment surveys conducted in the country till then, observed a lack of comparability of the results due to differences in concepts, definitions etc., and suggested that the CSO should develop standards so that the surveys could be undertaken by the Centre and the States on a uniform basis. The CSO appointed a Working Party for the purpose and the draft standards set up were considered by the Conference of Central and State Statisticians in 1955. The NSS broadly adopted these standards in its ninth round (1955) and some of the SSBs conducting surveys also followed them. Based on their experience and the international recommendations, the CSO issued in 1961 'Standards for Surveys on Labour Force, Employment and Unemployment'.

59 There was a feeling that the available statistics did not correctly reflect the unemployment situation in the country and a Committee of Experts on Unemployment Estimates, convened by the Planning Commission in 1968 (known as the Dantwala Committee), examined the question in depth and suggested modifications in the measurement of unemployment. The NSSO conducted in 1972-73 a labour force survey taking into account the recommendations of the Committee. When the full results of this enquiry become available, the CSO will arrange for a further probe and suitable revision of the standards for labour force surveys.

60 Another illustration of standardisation is the definition of "wages". A Study Group constituted by the CSO in 1958 spelt out the item contents of 'wage costs', both cash and non-cash, including individual and group benefits and social security charges. This definition of wages is adopted in the enquiries conducted by the Ministry of Labour, NSSO and other agencies.

61 The CSO has been contributing significantly to the promotion of standards in the organisation of sample surveys in the country. Initially, the NSS was operated as a solely Central Government project but soon the CSO persuaded the States to participate in the NSS work by providing financial and technical assistance. Beginning with the 8th round (1954-55) of the NSS, the States have been conducting surveys simultaneously on the same subject programme in a parallel sample

using the same concepts, definitions and procedures, schedules of enquiry and tabulation plans. This institutional arrangement has been largely instrumental in throwing up comparable data for various parts of the country on a number of subjects of socio-economic concern.

62 With a view to providing for wider dissemination of the technical aspects of all important sample surveys organised every year both by the official and the non-official agencies in the country, and thereby promoting the knowledge and adoption of standard procedures, the CSO has been bringing out since its inception an annual report on 'Sample Surveys of Current Interest in India'. The report includes surveys employing probability sampling methods. The technical details enumerated relate to objectives, sampling design, precision aimed at in the results, concepts, definitions and procedures adopted, extent of supervision, response obtained, and steps taken to reduce tabulation errors.

63 It was brought to the notice of the Government of India in 1966 that different official agencies were publishing differing figures of geographical area in the country. The Government then decided that the CSO should be the agency for standardisation of area statistics and no area figures should be published without prior clearance by the CSO. Meetings of the representatives of the Survey of India, Registrar General of India and State Governments are convened by the CSO from time to time to discuss the problems of standardisation of the area figures. The latest standard area figures (as on first July 1971) were published in the 1971 Population Census Tables.

64 The CSO undertook in 1955 the designing of suitable forms for reporting of plan schemes by the States and the Central Ministries following uniform concepts, definitions and procedures. These forms were designed to facilitate technical assessment of the resources required for the execution of the schemes as also the progress achieved in implementing the schemes. The forms and tabulations based on them were discussed by the Fifth Conference of Central and State Statisticians (1956) and were later adopted by the Planning Commission with suitable modifications. The formats have since been updated from time to time according to the growing and changing needs of information required by the Planning Commission. Discussions in several Committees and Groups of statisticians have helped in introducing improvements in the formats. In particular, reference may be made in this connection to the work done by the Data Improvement Committee (1969) and the subsequent studies undertaken to implement its recommendations.

65 Following the recommendations of the Fifth Conference of Central and State Statisticians (1956) and the Preliminary Conference on Research in National Income (1957), the CSO constituted in

1957 a Working Group on State Income with a view to promoting state income estimation by the SSBs on uniform lines ensuring comparability among the estimates. The Group formulated standard concepts, definitions and methods of estimation of state income and related aggregates. It has been examining the estimates prepared by the States from time to time and has made recommendations on the important gaps which need to be filled for improvement of the estimates.

66 On the recommendation of the Working Group on State Income, the Department of Statistics appointed a Committee on Regional Accounts in 1972 to consider and advise on the levels (State, district or other regions) at which economic accounts should be prepared and to devise such a system including supporting and supplementary tables for adoption by all States. The Committee was also to examine the concepts, definitions and classification for preparation of regional accounts and to suggest measures for building up the accounts taking into consideration the availability of data and requirements of State and Central Governments. The Committee submitted its first report in 1974 and recommended a standard set of tables to meet the immediate requirements. In its final report, it has recommended an appropriate framework of regional accounts and the standard concepts, definitions, etc., to be followed in preparation of the accounts.

DEMOGRAPHIC STATISTICS

67 To give continuing attention to problems relating to improvement of population and vital statistics in the country, the CSO set up in 1956 a Standing Committee on Coordination of Population and Vital Statistics. The Committee provided guidance in finalising the concepts, definitions and methods of enumeration adopted in the 1961 Population Census. One of the important recommendations of the Committee was the development of an integrated sampling programme for collection of data on population, births and deaths, which was later to take shape as the Sample Registration System.

68 Following the suggestions of the United Nations and the World Health Organisation that National Committees on population, vital and health statistics might be constituted, the Standing Committee was converted into the National Council of Population in 1960. The CSO, under the direction of the National Council, played host to the First Asian Population Conference held at New Delhi in December 1963.

69 The period 1958—68 was one of expansion of population data system, especially in regard to current flows, and the CSO played a significant part in evolving a viable statistical infra-structure relating

to population through the Office of the Registrar General, India, the NSS, the Department of Health and Family Planning at the Centre and the SSBs. Large scale household demographic surveys were introduced as part of NSS annual rounds (14-23) during the period 1958-59 to 1968-69. The Registrar General of India initiated the Sample Registration System (SRS) in 1963 to provide estimates of current vital rates. The system covered the whole of India by 1968. The CSO was actively involved in finalising the data requirements, designs, schedules, instructions and tabulation programmes of these demographic surveys.

70 On the advice of the CSO, an Expert Committee on Population Projections was set up by the Planning Commission in 1958. The CSO provided technical support to the Committee in evolving, with the use of the first results of the 14th round of NSS, alternative population projections based on different sets of assumptions. One of these was adopted in the formulation of the Third Five Year Plan. It was gratifying to find that the 1961 Census count differed from the relevant projections by less than 2 per cent. Following the conduct of the 1971 Census, the Expert Committee was reactivated to review the official series of the population projections. The Committee worked out the projections at all-India level taking into account the 1971 population distribution by age groups. Further work is in progress to provide rural and urban break-up and state-wise projections.

71 In 1969 the CSO appointed a Working Group on Retrospective Demographic Studies to review the work of agencies concerned with the collection of current data on population, including the NSS and the Registrar General of India. On the recommendation of the Working Group, the annual demographic surveys of the NSS were discontinued from its 24th round (1969-70) for the reason that the SRS was providing current vital rates and a provision was made for comprehensive quinquennial NSS surveys and certain in-depth studies. Accordingly, in the 28th round of NSS (1973-74) data were collected from a large sample of 220,000 households on demographic and socio-cultural particulars of the members of households (including immigrants), vital events occurring in the households during the one year preceding the date of survey, morbidity conditions, fertility history of each ever-married female, knowledge, attitude and practice of family planning in the case of currently married couples, and maternal health and child-care.

72 A Technical Advisory Committee on the Sample Registration System was constituted by the Registrar General in 1973 to provide guidelines for the evaluation of the system. Four Zonal Sub-Committees have been formed and these hold periodical meetings in the Zones to evaluate the conduct of field work and supervision and the

flow of data. The system is being strengthened by increasing the sample size by about 50 per cent in a phased manner.

EMPLOYMENT AND UNEMPLOYMENT STATISTICS

73 Reliable information on employment and unemployment is very important in the context of planning, as employment promotion is a basic objective of planned development. Realising this, the CSO proposed that information on employment and unemployment should be collected by the NSS through households. A preliminary survey covering towns with a population of 50,000 or more, but excluding the four metropolitan cities, was carried out by the NSS in September 1953 and the results were utilised in working out the backlog of unemployed on the eve of the Second Five Year Plan. Later a full-fledged survey covering both the rural and urban areas of the country was launched in 1955. Similar surveys continued till 1959-60.

74 Based on the experience of the above surveys and the international recommendations, the CSO issued in 1961 standards for surveys on labour force, employment and unemployment. Doubts were, however, expressed on the applicability of the standards to rural areas, in particular where seasonal employment and under-employment were predominant. Labour force surveys were accordingly confined to only urban areas.

75 In 1967-68, the CSO reviewed the results of the urban labour force surveys. It was felt that the estimates of unemployment tended to be on the lower side. In 1968 the Planning Commission appointed a Committee of Experts on Unemployment Estimates (known popularly as the Dantwala Committee) to examine the question in depth. In its report submitted in 1970 the Committee observed that for a country like India, with a large proportion of persons dependant on agriculture and household enterprises the dividing line between overt unemployment and under-employment was thin and no precise measure of unemployment was possible. The rate of under-utilisation of labour force, viz., the percentage of days of unemployment to the total mandays in labour force (employed and unemployed) was suggested to be a better indicator than a specific estimate of unemployed in terms of number of persons. Taking into account the suggestions of the Committee, the NSSO launched a survey on employment and unemployment in both rural and urban areas of the country in the 27th round (1972-73).

76 The CSO constituted a Technical Advisory Committee (TAC) on Statistics of Employment and Unemployment in 1975 to consider (i) standardisation of concepts, definitions and procedures for collection of data on employment, unemployment and under-employment in

labour force surveys and population census, (ii) the periodicity of the labour force surveys, tabulation and analysis of labour force data, (iii) methods of improving the scope and coverage of employment market information of the Director General of Employment and Training and other statistics on employment and unemployment and (iv) organisational arrangements for collection and dissemination of manpower data.

77 The Committee (TAC), at its second meeting (1976), recommended that the 1971 Census concepts of economic activity might be retained during 1981 Census with a view to ensuring comparability of labour force data between the two censuses and to studying the change during the decade, 1971—81. The Committee also suggested that, in the next labour force survey by NSSO, a block on the economic questions of 1971 census might be included to enable establishing linkage between the labour force surveys and the population censuses.

HOUSING STATISTICS

78 Population censuses and periodical surveys conducted by the NSS are the main sources of housing statistics. The National Buildings Organisation (NBO) is the coordinating agency at the Centre for the development of housing statistics.

79 The Standing Committee on Coordination of Population and Vital Statistics recommended in 1959 the maintenance on a permanent and up-to-date footing the census house lists and house numbers to provide a frame for future sampling studies. For the first time in the 1961 Population Census, a uniform definition of 'house' was adopted throughout the country and a standardised house-listing form was used. A similar operation was carried out in the 1971 Census also.

80 The CSO convened a Technical Working Party in 1959 to consider the proposals of the NBO on the collection of current housing statistics. The Working Party identified the agencies which would take up the work of collection of data from various government and non-government building construction agencies. Later the NBO sponsored a scheme for implementation by the State Governments and Central construction agencies. The flow of data from Central agencies and the Union Territories has been fairly satisfactory. Proper arrangements in the States are still being evolved.

81 A Sub-Group on Housing and Building Statistics with the CSO as its Convener was set up in 1964 by the main Working Group on Housing, Rural and Urban Planning for the Fourth Five Year Plan in order to review the position regarding available statistics on housing stock, housing condition, housing investment and gaps in the statistics required for formulation of housing programmes and make suitable

recommendations for improvement. The NBO took follow-up action on the recommendations of the Group and as a result data were collected in different rounds of the NSS on housing conditions and facilities, number of pucca houses constructed in rural areas, and investment and sources of financing in building construction in urban areas.

82 An Advisory Group set up by the NBO is currently examining the future development of housing and building statistics in the country.

EDUCATION AND CULTURAL STATISTICS

83 Collection of statistics of education covering all types of educational institutions was initiated by the Ministry of Education in 1947. In addition, All-India Educational Surveys were also conducted in 1956, 1965 and 1973. These surveys aimed at providing a picture of the schooling facilities available in the vicinity of habitations. Statistics on university education are being compiled by the University Grants Commission since 1969-70. The system of educational statistics is, however, still deficient in regard to its content, coverage and timeliness. An Advisory Committee on Educational and Cultural Statistics, set up by the Ministry of Education and Culture in 1973, reviewed the system and recommended the collection of educational statistics on a census-cum-sample basis. Minimum information to be collected on a census basis includes data on class-wise and sex-wise distribution of enrolment, proportion of trained teachers, educational expenditure by specified items and sources, and non-formal education. More detailed data on school teachers, age distribution of students, in-migrants, out-migrants and drop-outs are to be collected on a sample basis.

84 Available statistics on education are largely institutional. The CSO has recently prepared a proposal for conducting a household survey on educational aspects covering school attendance, problems of education against the socio-economic background of children, problems of children not at school, household expenditure on education, and activity pattern of children and youth. The proposal is under consideration.

85 No organised effort has so far been made to collect statistics on cultural facilities, activities and expenditure. Some data are available on number of book titles produced, book trade, libraries, theatres, music, dancing, and other fine arts, museums, monuments, news-papers, periodicals, radio, television, cinema and films. The third All-India Educational Survey (1973) attempted to collect information on cultural content of education and cultural activities of schools and colleges. A Working Group on Cultural Statistics considered the

nature and scope of the cultural statistics which might be gathered keeping in view the nation's socio-economic goals and also identified the cultural components which formed part of other aspects of life. There is a proposal to collect data on cultural aspects of the population through a household survey.

HEALTH STATISTICS

86 Statistical data on health covering different aspects such as vital events, health conditions, nutrition, health services, health manpower, health expenditure, etc., are collected and published at the Centre by the Central Bureau of Health Intelligence. An Advisory Committee on Health Intelligence and Statistics set up in 1964 in the Directorate General of Health Services (DGHS) coordinates the development of health statistics. The Committee has provided guidance in the development of medical records in hospitals, promoted training facilities for statistical personnel and suggested legislation concerning health statistics.

87 For effective planning of health services it is necessary to have certain minimum basic morbidity statistics for the community, such as incidence and prevalence rates of different diseases, their geographical and temporal variations and the characteristics of the affected groups in terms of their age-sex distribution and fatality. Realising the need for such data, the CSO took initiative in arranging the inclusion of certain items on morbidity and cause-of-death in the 12th round of the NSS (1957). Thereafter the NSS has been conducting occasionally morbidity surveys, the latest one being in the 28th round (1973-74).

88 The NSS enquiries so far have adopted a non-medical approach in the ascertainment of the nature of illness. The CSO has recently prepared a proposal for an interview-cum-diagnostic survey on health and morbidity which envisages the collection of retrospective information from households on incidence of sickness, conditions of health and utilisation of health services. The field work would be done by social investigators followed by diagnosis of the current cases of sickness by locally available medical personnel. A pilot survey based on this approach has been completed in Uttar Pradesh and Rajasthan in collaboration with the NSSO, DGHS, and the State Departments of Health.

SOCIAL WELFARE STATISTICS

89 The scope of social welfare statistics is primarily determined by the scope of social welfare services and programmes. In the country

there are pockets of communities whose level of economic and social development is less advanced than the general level. It is the policy of the Government to undertake special programmes for their development. Adequate data touching the life, culture and problems of such backward communities are not available. Routine administrative data flowing from the implementation of specific welfare programmes are, however, compiled. The CSO has provided guidance to the Central Social Welfare Board and other social welfare agencies in the matter of organising their statistical work. Special tabulations of the data on backward classes collected in the course of NSS socio-economic enquiries have also been published.

90 The Ministry of Home Affairs held a meeting in 1974 to take stock of the available statistical series relating to backward classes. The meeting emphasised that the basic data on backward classes must flow as a part of the normal flow of statistics and the CSO should co-ordinate the statistical activities of the various agencies in this regard. A Working Group has been set up by the Ministry of Home Affairs to look into the various aspects of this problem.

SYSTEM OF SOCIAL STATISTICS

91 The CSO has been for sometime past devoting attention to the promotion of a comprehensive system of social statistics. As a first step in this direction, a separate Division of Social Statistics was created in the CSO in 1973 and an Inter-Departmental Standing Committee on Social Statistics was set up with representatives of the major organisations concerned with production and use of social statistics, to consider measures for the coordinated development and utilisation of social statistics.

92 A National Seminar on social statistics was organised by the CSO in collaboration with the Indian Council of Social Science Research (ICSSR), ISI and UNICEF at New Delhi in March 1975 which was attended by a number of participants from the Central and State Governments and experts from national research institutions, international agencies and foreign countries.

93 The Seminar considered the subjects : population and vital events; housing, health and nutrition; education and culture; employment and labour conditions; income, expenditure and level of living; social welfare and security; crime and justice; and other social statistics.

94 The Seminar took stock of the present status of statistics in these fields and the requirements of social planning and also provided the requisite orientation for the development of social indicators and promotion of social research. The Seminar was in a way a projection at the national level of the efforts of the UN Statistical Commission

towards the building up of an integrated system of social and demographic statistics with emphasis on the specific needs of the country.

95 Pursuant to a recommendation of the Seminar the Standing Committee on Social Statistics was reconstituted in July 1976 with Member, Planning Commission as Chairman and including non-official experts of eminence. It is envisaged that the CSO will be primarily concerned with the development of the basic system of social statistics and appropriate set of social indicators. The aspects relating to statistical methodology will be the concern of the ISI. For this purpose, a Chair on social statistics at New Delhi branch of the ISI has been created with the financial assistance of UNICEF for a period of three years.

96 A Working Group set up by the NSSO in 1974 in collaboration with the CSO reviewed the requirements of data for a study on social consumption. The study is concerned with an analysis of what the different classes pay to the Government by way of taxes and what they receive in return by way of social benefits such as subsidised distribution of consumer goods, concessions in education, health, housing social welfare and security services, etc., in order to assess the net redistributive effect of social policy. To facilitate the study there is a proposal to conduct a survey on social consumption through the NSS.

AGRICULTURAL STATISTICS

97 The Indian economy being predominantly agricultural in character, the need for a reliable and comprehensive system of agricultural statistics can not be over emphasised. Agricultural statistics are primarily the responsibility of the States. The Directorate of Economics and Statistics under the Ministry of Agriculture and Irrigation is the Central coordinating agency. The IARS, the NSSO and the CSO are the other Central Organisations associated with the improvement of agricultural statistics.

98 A Technical Committee on Coordination of Agricultural Statistics set up in 1949 by the Ministry of Agriculture examined the procedures followed and the forms used in different States for collecting area and production statistics and recommended uniform concepts and definitions, land-use classification and standard forms for adoption. The Committee also identified gaps in agricultural statistics and suggested suitable measures to fill them. Based on the recommendations of the Committee, schemes were implemented during the First and Second Five Year Plan periods (1950—60) for extension of reporting areas, estimation of production of food and commercial crops of importance, rationalised supervision over the work of area enumeration and prepa-

ration of index numbers relating to agricultural economy. In 1961, the Ministry of Agriculture set up a Standing Committee on Improvement of Agricultural Statistics to provide for continuing attention to the subject. The Committee, meets periodically and formulates measures aimed at improving the quality of agricultural statistics.

99 As a result of the sustained efforts made since independence, the coverage of land utilisation statistics has increased from 69 per cent of the geographical area of the country to 94 per cent. Broadly speaking, except for the States of West Bengal, Orissa and Kerala where the area figures are obtained on the basis of sampling, in the rest of the areas the data are based on the recording of all plots. The coverage of crop forecasts has increased from 10 to 38 crops. Objective procedure of estimation of crop-production has replaced the earlier subjective procedure based on normal yield and condition factor. At present production estimates based on crop-cutting experiments cover about 95 per cent of the production of foodgrains. Index numbers of agricultural area, production and productivity are regularly prepared. Intensive training to the primary reporting staff and extensive supervision of their work are arranged.

100 Among the recent measures taken to speed up the availability of basic data, special mention may be made of the scheme for 'Timely Reporting of Estimates of Area and Production of Principal Crops' (TRS) initiated in 1969-70. The objective of the scheme is to reduce the time-lag in the availability of estimates of area and production and obtain estimates of area soon after the completion of sowing and those of production immediately after harvesting. The scheme is in operation in thirteen States. It is likely to be extended gradually to the other States.

101 The NSS played a dual role in the improvement of agricultural statistics until the 25th round (1970-71). Firstly, it provided technical guidance to the States in conducting surveys of crop production by ensuring uniformity in concepts, definitions and other details and coordinating the results. Secondly, it conducted land utilisation survey and crop-cutting experiments to provide independent estimates of production of seven major cereal crops. These estimates varied widely from the estimates produced by the State agencies and a Technical Committee on Crop Estimates was set up in 1963 by the Planning Commission to investigate the discrepancies in the two series of estimates. The CSO provided secretarial help to the Committee and organised several type studies on the subject. Based on the recommendations of the Committee, the NSS work was reoriented since 1970-71 so as to utilise the expertise of NSS mainly as a statistical check on the primary enumeration of crop areas done by the State agencies and to take up the work of crop-cutting experiments only at supervisory level

in order to improve the crop estimation surveys of the States.

102 India participated in the decennial World Agricultural Censuses sponsored by the FAO. The CSO was associated with the Working Groups set up to provide technical guidance to the Census work. The first two Censuses in 1954-55 and 1961-62 were based on a sample survey approach and the results were available at the State level. The third Census in 1970-71 followed the complete enumeration approach and results on area under different land uses, distribution of holdings according to tenancy, area irrigated and area under principal crops were tabulated at the district level. Simultaneously, the NSSO carried out a land holding survey and a survey of inputs. It is proposed to repeat the Census in 1976-77 on a sample basis and a Working Group is being set up by the CSO to ensure adoption of standard concepts, definitions and procedures.

103 Census of livestock (including poultry) is organised in the country at quinquennial intervals. Prior to the conduct of census, a Technical Working Group is set up by the Ministry of Agriculture to review the experiences of the previous censuses and plan the programme of work of the current census. For the census carried out in 1966, the CSO arranged through the NSS a post census sample check enquiry to study the quality of census work both in regard to the coverage and content. The latest census was carried out in the year 1972.

104 Objective and reliable production estimates for major livestock products are not yet available on a regular basis. Based on the methodology developed by the IARS for collecting data on production and management and feeding practices of livestock, plan schemes have been implemented in different States since 1970. The Ministry of Agriculture set up a Technical Committee of Direction in 1973 to review periodically the status of production statistics and to evolve a systematic scheme of sample surveys to collect the required data from all the States simultaneously. A plan scheme for the purpose prepared on the basis of its recommendations is being implemented.

105 The CSO was also closely associated with the Study Teams and Committees for the improvement of agricultural statistics, irrigation statistics, livestock statistics, fishery statistics and forest statistics constituted by the National Commission on Agriculture. The Commission has recommended the extension of the coverage of land utilisation and crop statistics to the entire country by 1978-79, and the introduction of the method of complete enumeration for collection of basic agricultural statistics in the States of West Bengal, Orissa and Kerala in a phased manner. The Commission has also made a number of useful recommendations for the development of statistics of irrigation, livestock, fishery and forests.

INDUSTRIAL STATISTICS

106 The Industrial Statistics Act 1942 empowered the Government to collect data from factories defined under the Factories Act 1934, a factory being an establishment employing 20 or more workers and using power. A Directorate of Industrial Statistics was set up under the then Ministry of Commerce and Industry in 1946 to co-ordinate the work, advise on technical and legal matters and to process and publish the data on an all-India basis. The Directorate was transferred to the CSO in July 1957 and came to be known as the Industrial Statistics Wing.

107 The Factories Act 1934 was later revised and replaced by the Indian Factories Act 1948. Under the new Act the definition of a factory was extended to cover establishments with 10 or more workers and using power and 20 or more workers but not using power. The Industrial Statistics Act 1942 was replaced by a more wide-ranging Collection of Statistics Act 1953. Industrial statistics from the factories registered under the Indian Factories Act 1948 are being collected under the powers conferred by the Collection of Statistics Act 1953.

Census of manufacturing industries (CMI)

108 The Directorate of Industrial Statistics launched the CMI in 1946 with the object of studying the structure of the Indian industry and estimating its contribution to national income. Because of practical difficulties, the CMI could cover only 29 of the 63 industry groups specified in the Industrial Statistics Act and extended only to 11 States of the Indian Union. By 1958 the regional coverage of the CMI extended to 13 States and two Union Territories.

Sample survey of manufacturing industries (SSMI)

109 Following the recommendation of the National Income Committee (1949), the Directorate of Industrial Statistics conducted the first SSMI in 1949 for collecting data from factories falling under the 34 industry groups left out by the CMI and defined under the Factories Act 1934. The technical work including the survey design, sample selection and preparation of schedules was undertaken by the Directorate while the tabulation and analysis of data was carried out by the Indian Statistical Institute. Similar surveys were conducted annually until 1958 by the then Directorate of National Sample Survey.

Annual survey of industries (ASI)

110 The CMI and SSMI were integrated into a single survey called

the Annual Survey of Industries (ASI) which is being undertaken since 1959. For the ASI the Collection of Statistics Act 1953 and the rules framed thereunder in 1959 provide the statutory basis. The ASI refers to the factories defined in accordance with the Indian Factories Act 1948 and thus has a coverage wider than that of the CMI and SSMI put together. The data for factories employing 50 or more workers using power and 100 or more workers without power are collected on census basis annually. For factories employing 10—49 workers with power and 20—99 workers without power, the data are collected from a 50 per cent sample every year (the sampling fraction, which was 25 per cent earlier, was raised to 33-1/3 per cent for ASI-1968 and further to 50 per cent since ASI 1973-74). The collection of data is carried out by the Field Operations Division of the NSSO.

Advisory committees

111 A Standing Committee for Improvement of Industrial Statistics was set up in 1966 with the Director, CSO as its Chairman to advise the Government on all aspects of industrial statistics. After the NSSO came into being the Standing Committee was replaced by the Steering Committee on Industrial Statistics of the Governing Council for NSSO in 1973. As a result of the recommendations of these Committees, a number of improvements have been effected in the ASI.

112 In the beginning the reference period in the ASI was the calendar year for all items except fixed assets and working capital for which it was the accounting year. After a careful consideration of all the relevant issues, the reference year was changed to the accounting year for all items since ASI-1966. This practice has stood the test of time even though the accounting year is different for different industry groups.

113 The classification adopted for the ASI was the Standard Industrial Classification—1962 till 1973-74. With effect from ASI—1973-74, the National Industrial Classification—1970 has been adopted.

114 Data under the ASI are collected through a comprehensive schedule. In the initial rounds, the schedule sought particulars relating to manufacturing activity only. Over the years, additions were made to meet the specific data requirements of various organisations. By 1973-74 the schedule consisted of five parts : Part I on manufacturing, Part II on labour turn-over, Part III on stocks and consumption of components and accessories in small scale sector, Part IV on construction expenditure, and Part V on indirect taxes, sales subsidies

and capacity of power equipment installed. The Steering Committee felt that the ASI schedule had become too unwieldy and complicated. It recommended a modified schedule with three parts on manufacturing, labour and construction which was adopted with effect from ASI 1974-75.

115 Until recently there was a long time lag in the availability of the ASI results. The delay occurred in field work as well as at the stage of processing and publication of results. The Steering Committee took a number of steps to reduce the delays. It was decided that the NSSO should complete the field work for a round in one year and its responsibility to process the sample sector data should be transferred to the CSO. Field scrutiny should be tightened up to reduce scrutiny at tabulation stage and the data for a round tabulated within a year of completion of field work. In keeping with these decisions, the CSO computerised the tabulation of data with effect from ASI 1973-74 and for the first time the summary results were released within 6 months of completion of field work. The summary results for ASI 1974-75 have been released in October 1976.

Monthly production statistics

116 Monthly data on industrial production are essential to meet the requirements of short-term monitoring. The data are collected on voluntary basis from about 5000 large units as it is not possible to cover all the 65,000 registered factories. Most of the units are registered with the Directorate General of Technical Development. Others are under the jurisdiction of organisations like the Textile Commissioner, Salt Commissioner, Railway Board, Tea Board, Coffee Board, Iron and Steel Controller and the Ministry of Petroleum and Chemicals. These organisations collect monthly returns of production from the units concerning them and send consolidated figures to the CSO. Information in the returns relates to production, installed capacity and stocks of selected industrial products. The CSO publishes the data in the Monthly Statistics of Production of Selected Industries in India. The Directorate General of Commercial Intelligence and Statistics started the publication in the thirties covering about 15 selected industries and the Directorate of Industrial Statistics took it over in 1949. The publication now presents data for over 400 products. An advance *bulletin* showing the data for 352 items is also being issued under the title : Monthly Bulletin of Production of Selected Industries in India.

Monthly index of industrial production

117 An index covering 35 items was first compiled by the Office

of the Economic Adviser with base 1937=100. Its compilation was transferred to the Directorate of Industrial Statistics in 1950. The base was revised to 1946 and the index was issued as an 'Interim Index'. The index has been revised from time to time with respect to the base year, the basis for weighting diagram, and the coverage of items. The current index has base 1970=100 and covers 352 items including 61 mining, 290 manufacturing and one electricity items. Each of these items accounts for either a gross output of Rs. 10 million or more, or a value added of Rs. 2.5 million or more. The availability of the index has been speeded up considerably of late. It is now available within two months. A quick index introduced with effect from October 1975 has a time lag of six weeks.

Small scale industries

118 At the instance of the then Ministry of Commerce and Industry, the CSO arranged during 1967—71 a census of 'small' units in the registered factory sector, i.e. those having a gross investment in plant and machinery not exceeding Rs. 0.75 million, in some select-ed industries.

119 In regard to the units in the unregistered sector, a few ad-hoc surveys were conducted at different points of time by the SSBs and the agencies like Handloom Board, Coir Board, etc.; to meet their specific requirements. These surveys differed in respect of scope, coverage, concepts and definitions. Data were collected on manufacturing units in the non-factory sector in some of the rounds (14th, 23rd and 29th) of the NSS. A survey of industries in the non-factory sector employing 5—9 workers with aid of power and 5—19 workers without aid of power was conducted during the Fourth Five Year Plan period (1969—74) in urban areas of the country. The CSO provided the technical guidance and coordination and the Ministry of Industrial Development (now Ministry of Industry) the administrative and organisational control. The survey results give State-wise information on a number of important aspects of unorganised industries like production and value added by industry group at two/three digit level, employment, earnings, value added per worker, etc.

120 The Office of the Development Commissioner, Small Scale Industries, conducted in 1973-74 a census of small scale industrial units registered with the State Directorates of Industries. Summary results have been published in June 1976.

PRICE STATISTICS

121 Price statistics are required for regulatory purposes as well as

for a number of statistical uses such as the compilation of index numbers and the estimation of income. In spite of their importance the attention paid to statistics of prices has been rather limited. A number of agencies collect price data but there is a large amount of variation in the quality, coverage and timeliness of the data. The main organisations at the Centre responsible for collection of wholesale prices are the Directorate of Economics and Statistics, Ministry of Agriculture and the Office of Economic Adviser, Ministry of Industry. The responsibility for retail prices is shared by the Directorate of Economics and Statistics, the Labour Bureau and the NSSO. The NBO organises the collection of prices of building materials only. In the States various agencies such as the SSBs, Marketing Organisations, Registrar of Co-operative Societies, etc., collect price data.

Integrated system of price statistics

122 The Conference of Central and State Statistical Organisations (1975) made a detailed review of the existing system of price statistics and stressed the need for rationalisation of price statistics and developing an integrated system of collection, compilation and reporting. It also suggested building up of All-India/State retail price index numbers and composite consumer price indices. The recommendations of the Conference are being examined by a Working Group on Prices Statistics convened by the CSO. The Group is expected to submit its report shortly. Its findings and recommendations will be placed before a National Seminar on price statistics in which both official and non-official agencies and research workers are expected to participate. The final outcome of the seminar will form the basis of a comprehensive proposal for improvement of price statistics.

Consumer price index numbers

123 The construction of consumer price index numbers, earlier referred to as cost of living index numbers, dates back to the period immediately following First World War. Family budget enquiries, as pre-requisite to the measurement of cost of living, were conducted mainly among the working class from time to time in various parts of the country by the Provincial Governments as well as Government of India. However, lack of uniformity in the concepts, definitions, procedures and base periods adopted in compiling different series of index numbers made it difficult to construct a satisfactory all-India index. The Second Conference of Central and State statisticians convened by the CSO in 1953 recommended that fresh family budget enquiries should be conducted on a uniform basis throughout the country. A

Technical Advisory Committee on Cost of Living Index Numbers was constituted in 1954 by the CSO to give continuing attention to the problems of construction of the index numbers. The membership and functions of the Committee were later enlarged in 1966. The Technical Advisory Committee on Statistics of Prices and Cost of Living meets periodically and functions as the apex technical body to oversee all activities in the field of price statistics including the construction of price index numbers.

Family living surveys of industrial workers

124 Based on the preparatory work of the Advisory Committee, a family living survey covering the industrial workers was launched in 1958-59 in 50 centres of which 32 were factory, 10 plantation and 8 mining centres. The survey was a cooperative effort of the Labour Bureau, the CSO, and the NSS. It provided basic data for derivation of weighting diagram for the monthly consumer price index numbers for industrial workers with 1960 as base. The series for different centres including an all-India index was issued by the Labour Bureau. To revise the weighting diagram, a family income and expenditure survey was again conducted in 1970-71 in 60 centres covering 44 factory, 9 plantation and 7 mining centres. The survey design, technical supervision, estimation and tabulation plans were provided by the CSO and the field work was carried out by the NSSO. Using the results of the survey, the Labour Bureau is compiling a revised series of index numbers with base 1970-71.

Urban middle class family living survey

125 A number of bodies such as the Central Pay Commission, the Dearness Allowance Committee, the Bank Tribunal and the Bank Award Commission expressed the need for a middle class consumer price index number for rationalising the pay structures of 'white collar' workers. The Government of India, accordingly, organised in 1958-59 an urban middle class family living survey to facilitate construction of middle class cost of living indices and to ascertain the conditions and levels of living of the middle class families. The overall responsibility for the survey was assigned to the CSO. The survey was conducted in 45 centres in the country, the field work being entrusted to the NSS. The CSO brought out a report on the survey giving the technical details of the survey, the distribution of income and expenditure of middle class families, and employment and service conditions of employees, as well as aspects such as food consumption and nutrition, health, education, housing and welfare of the middle class families.

126 Making use of the weighting diagram derived from the results of the middle class family living survey and the retail prices collected by the NSS, the CSO has been compiling and publishing monthly consumer price index numbers for urban non-manual employees for 45 centres and also a composite all-India index with 1960 as base. A proposal for a fresh family income and expenditure survey to bring out the index with a more up-to-date base year and weighting diagram is under consideration of the Government.

Comparative costliness of centres

127 The Pay Commissions have drawn attention to the need for compiling index numbers of comparative costliness for providing a rational basis for determining compensatory allowance. The CSO developed methodology for compiling such indices by evaluating the costs of the standard local baskets of goods and services which would ensure a common standard of living according to local consumption pattern with due provision for local requirements. Using the methodology, indices of comparative costliness were constructed for all the 45 centres of urban non-manual employees' series for the years 1961—64 and for 32 centres for the year 1974.

Consumer price index for rural labour

128 The Labour Bureau compiled the first series of monthly consumer price index numbers for agricultural labourers on the basis of the data collected through the Agricultural Labour Enquiry, 1950-51. A revised series, using the results thrown up by the Second Agricultural Labour Enquiry (1956-57) conducted by the NSS, are being issued with 1960-61 as base for 15 States and at all-India level. It is proposed to replace the index numbers by a new series using results of the Rural Labour Enquiry conducted by the NSSO in 1974-75. The need for revision of the sampling frame of markets, the scope of commodity coverage and the specification of the items for the collection of monthly data on rural retail prices has been examined by a Working Group of the NSSO with the Director, CSO, as the Chairman. The Group has recommended the collection of retail prices from a sample of about 800 villages (almost double the present number) and compilation of the index numbers for 20 States.

Index number of wholesale prices

129 The weekly index number of wholesale prices was compiled for the first time by the Office of the Economic Adviser to the Govern-

ment of India for the week commencing 10th January, 1942 with 1939 as base year. The index was revised subsequently several times. The present series issued by the same office in the Ministry of Industry has the base year 1961-62 and covers price transactions of 139 commodities and 774 quotations.

130 A Working Group constituted in 1968 examined the problem of revision of the existing series of index numbers of wholesale prices with reference to the selection of a new base year, commodity composition, weighting diagram, price collection and its supervision. The Group has recommended an improved method of deriving the weighting diagram. The commodity coverage and number of quotations have been increased to 355 and 1246 respectively. The price comparison base has been chosen as 1970-71 whereas the weight base proposed is the triennium ending 1969-70.

PUBLIC FINANCE STATISTICS

131 The CSO undertakes economic analysis of the Central, State and Local Government budgets and also the profit and loss accounts and balance sheets of all non-departmental enterprises (companies and corporations) for estimating income, saving, investment, etc. of the public sector and presenting their complete accounts. The organisation is also involved in the preparation of flow of funds accounts. It has been associated with the organisation of statistical work relating to taxes. The details of the work on public sector transactions and flow of funds are presented later under National Accounts Statistics. Other aspects are dealt with here.

132 The Sixth Conference of Central and State Statisticians (1957) recommended that the CSO should convene a Working Group for the development of public finance statistics at the State level. After making a detailed study of the position existing in different States, the CSO set up a Working Group in 1958. The Group identified the important items that needed early development in the context of tax administration, formulation of tax policy and estimation of State income. Problems relating to uniform presentation of State budgets as well as the method of collection and utilisation of sales tax data were also given attention.

133 The CSO took up the economic and functional classification of State budgets in 1966 and the appropriate methodology was evolved. All major States now undertake this work on a regular basis. The CSO published in 1975 economic and purpose classification of expenditure of general government relating to the years 1969-70 and 1970-71, covering the Central and State Governments budgets. The latest available information in this regard relates to the year 1974-75.

134 The Directorate of Inspection, Research, Statistics and Publications in the Central Board of Direct Taxes in the Ministry of Finance is responsible for the statistics of income tax, estate duty, gift tax and wealth tax. The data on income tax are published annually giving a detailed classification of the assessed income and the tax levied by several characteristics. The statistics, however, related to the assessments completed during the financial year and not to those pertaining to a given assessment year. This deficiency rendered the data non-comparable over time and it was not possible to use them for forecasting and other analytical purposes. There was a considerable time-lag in the publication of the results. A number of Committees, in particular the Data Improvement Committee (1969) and the Direct Taxes Enquiry Committee (1970) set up by the Ministry of Finance, voiced concern over the data situation. The Ministry of Finance set up in 1973 a Committee of Experts on Direct Tax Statistics to undertake a study of the problem in all its aspects and to recommend a more efficient system of compiling statistics which would adequately meet the needs of the Government.

135 The Committee presented its report in January 1976. A number of measures have been suggested to reduce the time-lag in the availability of income-tax data. In particular, the recommendation that only a sample tabulation of lower income 'Individuals' (having total income of Rs. 25,000 or less) should be undertaken instead of a complete enumeration of all assessment forms, has been already implemented. The Committee has proposed a set of revised tables to replace the existing set in order to remove the various deficiencies in the current statistics. Concrete suggestions have been made on the short-term forecasting of income tax collections. The Committee has also indicated the administrative and organisational changes required to give effect to the various recommendations.

136 India participated in a Seminar arranged by the International Monetary Fund (IMF) on Manual on Government Finance Statistics in February 1975 to discuss the concepts and analytical framework of the Manual. The CSO is participating in the work of a Standing Group set up by the Ministry of Finance in July 1976 to examine the recommendations contained in the IMF Draft Manual with a view to further developing the public finance statistics in the country ensuring international comparability.

REGIONAL LEVEL STATISTICS

137 In the context of multi-level planning, availability of statistics at regional level has been assuming increasing importance. To undertake comprehensive regional planning, it is necessary to demarcate re-

gions and gather information on the resource potentials of the regions in terms of human, infrastructural and capital resources. Some important work in this direction has been done at the instance of the Planning Commission and other concerned agencies.

Demarcation of regions

138 A region generally consists of a group of contiguous districts within a State. To make a region homogeneous consideration is given to factors like population density, cropping pattern, natural resources, soil condition, topography, altitude above the sea level, etc. On the basis of these considerations, a set of 48 regions in the country was formed by the ISI in consultation with the CSO, Ministry of Agriculture and States in 1960. These were used by the NSS from 16th round (1960-61) to 21st round (1966-67) for organisation of field work and tabulation.

139 The Planning Commission proposed a different set of resource development regions in 1964. The CSO convened in 1965 a meeting of the representatives of the ISI, Planning Commission, Ministry of Agriculture and the States to consider the composition of NSS regions and those proposed by the Planning Commission to arrive at an agreed set of regions. The set of 67 regions evolved at the meeting was followed by the NSS between 21st round (1966-67) and 31st round (1976-77).

140 In 1975 the position of the NSS regions from the viewpoint of their homogeneity was reviewed by a Working Group convened by the CSO. The Group had the benefit of advice from the Meteorological Department, Geological Survey of India and the Office of the Registrar General. The Group took into consideration a number of papers on the subject received from the Agricultural Commission and the Soil Map of India obtained from the Indian Agricultural Research Institute. After due examination the Group recommended a revised set of 72 regions. The revised set will be adopted in the NSS work from the 32nd round (1977-78).

District and block level statistics

141 During the Second and Third Five Year Plan Periods (1955-56 to 1964-65), the CSO assisted the States in the organisation of statistical work at the district and block levels by arranging Central financial assistance and providing technical guidance. As a result several States appointed Progress Assistants in the Community Development (CD) and National Extension Service (NES) blocks to report on the progress of the CD and NES activities. Units were set up in

the SSBs to coordinate the statistical work in respect of CD and NES. A Working Group on Community Development Statistics laid down the data requirements and the formats for the presentation of data to facilitate periodical reviews of the progress of the CD and NES programmes. District Statistical Offices were set up for the coordination of statistics at the district level. The Fourth Conference of Central and State Statisticians held in 1955 laid down the functions of the District Statistical Offices.

Municipal year book

142 The Central Technical Advisory Council on Statistics discussed the subject of statistics of local authorities at its meeting held in 1962. On the recommendations of the Council, the CSO carried out in 1964 a study in collaboration with the Delhi Bureau of Economics and Statistics of the problems involved in the collection of data. Based on the experience of this study, a Working Party evolved the concepts, definitions and forms for the compilation of a Municipal Statistical Year Book. A scheme on 'Preparation of Municipal Statistical Year Book and District Statistical Hand Book' was included in the Fourth Five Year Plan. Most of the States have since adopted the scheme.

Regional indicators

143 With a view to studying regional disparities, the CSO undertook the preparation of a set of regional indicators covering various fields such as agriculture, education, health, etc. and circulated, in 1963-64, a paper entitled 'Regional indicators of economic and social development in India'. Based on this work, the Planning Commission later evolved a set of 15 socio-economic indicators to assess the regional disparities in development.

Working Group on regional level statistics

144 Following the recommendation of the Second Conference of Central and State Statistical Organisations in 1975, the CSO set up a Working Group on Regional Level Statistics to examine the availability and requirements of data at different levels, taking into account the current needs of multi-level planning. The Group has recommended a list of minimum basic items on which information should be maintained on a uniform basis by the District Statistical Offices in the country, the frequency of up-dating this information and the levels for which it should be maintained. The sources from which data would

be available and the concepts and definitions to be followed to ensure comparability and uniformity at the State and all-India levels have also been indicated. The proposals of the Group are under consideration of the State Governments.

SAMPLE SURVEYS

145 The CSO plays a consultative and coordinating role in the planning and conduct of sample surveys. It pays particular attention to the methodological aspects to ensure that appropriate survey techniques are adopted and the sample coverage is adequate to provide usable estimates at the desired levels.

146 Until 1970, the CSO was the convener of the Programme Advisory Committee for the surveys organised by the NSS with the responsibility for finalising the subject coverage, sampling design, tabulation plan and other related questions. The NSS was reorganised in 1970 and all aspects of its work were brought under the purview of a single organisation, viz., the National Sample Survey Organisation (NSSO) in the Department of Statistics. The activities of the NSSO are directed by a Governing Council of which the Director of the CSO is a member. The CSO serves as the spokesman of the Central and State Governments for inclusion of their data requirements in the NSS programme. Through active participation in the various Working Groups, the CSO assists the Governing Council in deciding on the subject and item coverage and finalising the technical aspects of survey design and tabulation.

147 The CSO assists the Central and State Governments in formulating the technical aspects of surveys including design and data processing. The CSO was responsible for the entire technical work of the Working Class Family Income and Expenditure Survey (1971-72) sponsored by the Labour Bureau. Among the other surveys designed by the CSO mention may be made of the Occupational Wages Surveys of the Labour Bureau, Surveys on Industry and Occupation Outlook of the Directorate General of Employment and Training, Cost Study of Sugar by the Bureau of Industrial Costs and Prices and Socio-Economic Survey in the Command Areas of Irrigation Schemes by the Government of Assam.

148 Collection of data in enquiries from illiterate respondents poses a number of problems not encountered in developed societies. A Seminar on Data Collection Techniques organised by the CSO in collaboration with the NSS and the ISI in 1969 proved useful in generating a detailed discussion of the problems encountered and possible solutions to them in the Indian situation. The proceedings of the Seminar have been published.

149 The CSO brings out an annual publication entitled 'Sample Surveys of Current Interest in India' giving the technical details and findings of the surveys conducted by various agencies in the country. This enables the organisations engaged in sample survey work to share the experience and expertise developed in the field. The combined issue of the 24th and 25th volumes of the publication covering the years 1972-73 and 1973-74 is under print. A Cumulative Subject Index giving at one place reference to the surveys reported in various volumes has also been brought out. The CSO supplies regularly similar information to the ESCAP for inclusion in their publication: Sample Surveys in ESCAP Region. The latest contribution refers to the 13th volume covering the year 1975.

4. NATIONAL ACCOUNTS

150 Estimation of national income was taken up initially by the Ministry of Commerce (Economic Advisers' Office) and estimates were prepared for the Indian Union Provinces for the years 1945-46, 1946-47 and 1948-49. A National Income Committee was set up in the Ministry of Finance in August 1949. The terms of reference of the Committee included preparing a report on national income and related estimates, suggesting measures for improving the quality of data and collecting essential statistics and recommending ways and means for promoting research in the field of national income. The Committee released the first official estimates of national income for the Indian Union at current and constant (1948-49) prices for the three years 1948-49 to 1950-51. This work became the starting point for the work on estimation of national income and allied aggregates. The small cell in the Ministry of Finance which assisted the Committee was transferred to the CSO in 1954 and formed the nucleus of the National Income Division.

Annual estimates of national income

151 The CSO has been preparing annual estimates of national income both at current and constant prices and the accounts of the public sector in the form of a White Paper since 1956 based on the pattern of presentation of results recommended by the National Income Committee.

152 The CSO published in 1961 a Brochure entitled National Income Statistics-Proposals for a Revised Series of National Income Estimates for 1955-56 to 1959-60, to elicit views of research workers and policy makers on the proposed revisions in the national accounts. The proposals received unanimous support. Further revisions became necessary when the results of the 1961 Population Census were available. Fresh series of estimates of national product were issued in 1967 in the Brochure on Revised Series of National Product for 1960-61 to 1964-65. A study was undertaken of the pattern of economic behaviour since 1950-51 using 1960-61 prices. Comparable series of national product are now available at 1960-61 prices since the beginning of the First Five Year Plan.

153 Continuous efforts are being made to reduce the time-lag between the date of release of the estimates and the period to which they relate. Studies were undertaken to prepare 'quick' estimates of national income at constant prices on the basis of available informa-

tion with a view to releasing such estimates with a time-lag of not more than six months from the end of the accounting year (April to March) to which the estimates refer. As a result of such exercises 'quick' estimates of national income at constant prices were released in October 1959 for the year 1958-59. The 'quick' estimates have since been broad-based to include the estimates at current prices also.

154 Exercises have also been undertaken for preparing estimates of national income and the rates of growth, given the targets of production over the Five Year Plan periods. The estimates on the likely levels of national income at the end of the plan periods were presented in the Third, Fourth and Fifth Five Year Plan documents.

155 Details of value of output and inputs and value added by sectors were published for the first time in March 1975 in the brochure 'National Accounts Statistics 1960-61 to 1972-73—Disaggregated Tables' which included the series from 1960-61 at current prices and from 1950-51 at constant prices. The disaggregated tables together with their brief analysis are now a regular feature of the annual White Paper on National Accounts Statistics.

Other related macro-aggregates

156 Even in the fifties it was strongly felt that the national income statistics should cover the estimates of capital formation and saving to meet the needs of the policy makers. Prof. Milton Gilbert, Director of Economics and Statistics, OEEC, Paris, visited the CSO in 1960 to advise on the direction in which the work could expand and also the estimates which could be attempted. He made a detailed review of the work done and suggested the issue of a new publication containing basic tables on supply and use of resources, gross investment and saving; expenditures, receipts and gross saving in public sector; imports and exports in relation to domestic production and balance of payments.

157 Estimates of capital formation and saving were prepared and published in two mimeographed publications. 'National Accounts Statistics—Estimates of Gross Capital Formation in India for 1948-49 to 1960-61' gave the estimates by type of assets at current and constant (1958-59) prices. The saving estimates were presented in 'Financing of Gross Capital Formation in India, 1948-49 to 1959-60'. Later estimates of capital formation and saving for the period 1960-61 to 1965-66 were prepared and the results were discussed at a special Seminar in 1969. The estimates were revised taking into consideration the views of the Seminar and the official estimates were brought out in 1969 in two Brochures : 'National Income Statistics: Estimates of Capital Formation in India, 1960-61 to 1965-66' and

'National Income Statistics: Estimates of Saving in India, 1960-61 to 1965-66'. The measures of capital formation were presented at current prices and also at constant prices of 1960-61.

158 The White Paper, published in 1970, included the aggregate estimates of both capital formation and saving as also the consolidated accounts of the nation. This pattern was followed till 1973 when detailed estimates of saving by categories and capital formation by type of assets were added.

159 It is important to know how the new capital has been utilised, or in other words, the distribution of capital formation by industry of use. To bridge this gap in information, studies on reproducible tangible wealth of the country and annual additions to capital stock by different industries were initiated in 1970. The estimates of capital stock were attempted for 1965-66 and 1970-71. These are to be finalised. Annual additions to capital stock for different industrial sectors from 1960-61 to 1972-73 were presented in the White Paper in 1976.

160 Studies were initiated in 1970 to prepare estimates of private consumption expenditure by the commodity-flow method. Estimates were obtained of different items going into the consumption basket on the basis of commodity balances. The estimates of private consumption expenditure for the period 1960-61 to 1970-71 at current and constant prices were first published in the White Paper of 1975. The national accounts for the country were thus based completely on independent estimates for all the macro-aggregates.

161 The preparation of break-down of domestic product according to factor incomes was next undertaken. The estimates of factor incomes for the period from 1960-61 to 1972-73 were published in the White Paper in 1976. Factor incomes were estimated by five categories: compensation of employees, rent, interest, profits and dividends, and mixed income of the self-employed. The first four categories would normally give the complete factor share distribution of value added but for the existence of unincorporated enterprises and the household industries operated primarily by self-employed persons in whose case income could not always be separated between labour income and operating surplus. It was, therefore, necessary to introduce a new category for such sectors.

162 The White Paper on National Accounts Statistics issued in 1976 includes details of all the macro-aggregates considered significant for obtaining an overall idea of the functioning of the economy. Details of the total level of output of the economy arising in different industrial sectors, the distribution of the income thus generated between the inputs of labour and capital and the final utilisation of income in the form of current consumption in the public and the private

sectors and capital formation are presented. The financing of the total capital formation in the form of saving originating in different institutional sectors is also given.

Inter-industry transactions

163 The research work on inter-industry transactions was initiated in the late fifties in the CSO and the ISI. In the early sixties a Committee was set up to examine the possibility of preparing inter-industry tables as a supplement to the national accounts statistics on a regular basis. The Committee considered the inter-industry table prepared by the ISI for 36 industrial sectors with 1955-56 as the reference year and recommended the resumption of the work at the Government level. A joint study by the Planning Commission and the CSO has accordingly been taken up for the year 1968-69. The study provides details of transactions for as many as 275 important industry groups in a table consistent with the national accounts statistics in terms of the macro-aggregates, values of outputs, values of inputs, etc. The study is expected to be completed shortly. The work on 1973-74 table has been initiated.

Public sector transactions

164 The public sector in the beginning was limited to administrative departments and the departmental enterprises like the railways, communication, etc. The scope of the public sector has since increased substantially in the form of government companies and corporations. The study of the transactions of the non-departmental enterprises and their role in the generation of domestic product, capital formation, etc., has become important.

165 First results of economic analysis of the principal public sector undertakings in India were published in March 1960. Subsequently, three more issues were brought out during 1961-63 and the coverage was gradually extended. A Brochure entitled 'National Income Statistics. A Study of Public Sector Undertakings in India', giving the share of the public sector in total domestic product, capital formation and saving, was published in 1963. A detailed study on the transactions of the entire public sector was finalised in 1973. More important results are now published in a separate section of the White Paper.

Flow of funds

166 For monitoring economic development flow of funds accounts

are necessary. The Ministry of Finance felt the need for such information in the late fifties and the work was initiated in 1957 jointly by the CSO and the Reserve Bank of India (RBI). Attempts were made to construct accounts for the Government by the CSO and for the banking and corporate sectors by the RBI. In 1959, Prof. H. W. Arndt of the Australian National University visited India to examine the feasibility of construction of such comprehensive accounts for the country. After detailed discussions, he prepared a memorandum on the subject entitled 'Financial Flows of Indian Economy, 1951-52 to 1957-58'.

167 A Working Group submitted in 1963 a detailed report on the Flow-of-Funds Account for 1957-58. For the purpose of preparation of the accounts the economy was divided into six sectors namely households, banks, other financial institutions, private corporate sector, government and rest of the world. In the light of its recommendations, it was decided that the work on financial transactions would be continued in the RBI and accounts prepared on an annual basis and the work on non-financial transactions would be undertaken by the CSO. The RBI has been publishing the details of financial transactions from time to time and the CSO has initiated the study of non-financial flows.

Distribution of income and wealth

168 A Committee on Distribution of Income and Wealth was appointed by the Government in 1960 to review the changes in the levels of living during the First and Second Five Year Plans, to study the trends in the distribution of income and wealth and, in particular, to ascertain the extent to which the operation of the economic system resulted in concentration of wealth and means of production. The Committee was also required to ascertain the type of data needed for future studies, to identify the gaps in information and to suggest steps to fill the gaps.

169 The Committee submitted its Report in two parts in 1964 and 1968. They examined the overall growth of national income and its utilisation in the form of current consumption, capital formation, etc., since 1950-51 vis-a-vis the growth of population. The Committee came to the broad conclusion that the major share of the additional national income generated during the decade (1950-51 to 1960-61) was used up in providing for the extra population added, which resulted in the level of consumption remaining more or less what it was at the beginning of the period.

170 The CSO initiated, in 1971, studies on trends in incomes and prices. The object of the studies was to obtain a realistic

measurement of the levels of living of the people for the determination of the poverty line and the distribution of people by size classes of income, expenditure and ownership of capital assets and also by various demographic and socio-economic characteristics. Though broad estimates have been made of the proportion of people below the poverty line at different points of time and of the movement of wages in different occupational groups in relation to the movement of prices and cost of living, comprehensive studies are yet to be undertaken to draw definite conclusions regarding the trends.

State Income

171 The Statistical Bureaus of the States of Uttar Pradesh, Bihar, and the erstwhile Bombay had started preparing estimates of State income even before the release of the Final Report of the National Income Committee in 1954. Later other States like Madhya Pradesh Orissa and West Bengal also initiated work on the subject. The position was reviewed by the Fifth Joint Conference of Central and State Statisticians in 1956 and it was recommended that the States should prepare estimates of State income broadly on the lines followed by the National Income Committee.

172 Practically all the States now compute State income estimates at current and constant prices. The latest period to which the estimates relate or the base year adopted for constant price series is, however, not uniform for all the States. Besides, the methodology adopted and the estimates prepared by the individual State authorities are not always comparable. The CSO undertook compilation of comparable estimates of State income for the commodity producing sectors on income originating basis for the period 1962-63 to 1964-65, mainly for the use of the Planning Commission. The work was later extended to cover all the remaining sectors and the State estimates for the triennium 1962—65 compiled by the CSO were used for the formulation of the Fourth Five Year Plan. The Fifth Finance Commission also made use of average State per capita income based on these estimates as one of the indicators for determining the allocation of resources among States. Estimates for the period 1967-68 to 1969-70 were used by the Sixth Finance Commission and also by the Planning Commission for the Fifth Five Year Plan. The latest estimates relate to the period 1970-71 to 1972-73.

173 The Sixth Finance Commission felt that because of the spatial variations in the prices in the country, the measurement of State income at the prices prevailing in individual States might not always give the true measure of the inter-State differential in the levels of development. Estimates of State domestic product were accordingly

prepared for 1967-68 to 1969-70 by the CSO using uniform all India weighted average prices. The Sixth Finance Commission used these results along with the measures of State domestic product at State prices for drawing conclusions regarding State resources. The results brought out clearly that (i) the overall price levels in the States deviated from the average all-India prices, (ii) the differential movements in the per capita income among States are the result of the differential movements in production besides the differential trends in prices and (iii) the overall price differentials among States do not give a proper measure of the extent of variation in the inter-State purchasing power of the rupee because of the quality differences in outputs.

174 A methodological study was undertaken by the CSO in five States which envisaged the factorisation of State domestic product into expenditure categories by commodities, identification of commodities of equivalent qualities in these States and working out of price relatives thereof, aggregation of the price relatives within each expenditure category and finally obtaining the overall indices of purchasing power of rupee for each of the States as compared to the national average. The finalisation of the methodology and the availability of results for individual States would constitute a major break-through in the intricate task of making meaningful inter-State comparisons of the domestic product and purchasing power parities.

Regional accounts

175 A Committee on Regional Accounts was appointed in 1972 to suggest the system of accounts to be prepared at the State level. The Committee submitted its first report in November 1974. It recommended a set of eighteen standard tables to be prepared by all States. The tables cover besides domestic product, all the important macro-economic measures like fixed capital formation, current consumption-expenditure, transactions of the public sector and indicators of regional development. The Committee has also recently submitted its final report, which includes, *inter-alia* the appropriate frame-work of regional accounts.

176 To enable the States to achieve the twin objectives of preparing reliable estimates and ensuring inter-State comparability, the CSO has been providing since 1965 facilities for training of State Bureau officers in State income work. The officers are given six-months on-the-job training in the CSO. An intensive training course was also organised in national and regional income for personnel engaged in State income work for a period of six months in 1971. A Workshop on the preparation of standard tables recommended in the First report

of the Committee on Regional Accounts was held by the CSO in 1975 to assist the States in the work on standard tables.

International comparison of national income aggregates.

177 Inter-country comparison is generally done at the international level in terms of per capita income using official exchange rates for conversion of currency. This, however, is not a satisfactory method as the exchange rate is not always a valid indicator for measuring the purchasing power of currencies in the context of economic development. The UN Statistical Office, in collaboration with the University of Pennsylvania, has taken up a project with the primary object of determining the purchasing power of the currencies of different countries which could be used for conversion of estimates of national income aggregates in terms of a common unit of measurement for international comparison. India has been participating in this project since 1969.

178 Phases I and II of the project relating to binary comparison between India and the USA for the years 1967, 1970 and 1973 have so far been completed. The results of the Phase I of the study with details of methodology have been presented by International Bank for Reconstruction and Development and the University of Pennsylvania in the publication, 'A System of International Comparison of Gross Product and Purchasing Power'. In the second phase the same exercise has been repeated for a different reference year with a few additional countries participating in the project.

179 The UN Statistical Office has now proposed to launch Phase III of this project in which comparisons on similar lines will be made for the year 1975. The number of participating countries will be nearly 35 and the countries will be classified into regional groups. For each of these regional groups, there will also be a comparison with a base country within the region. For the comparison of Asian countries, India has been chosen as the base country. It is expected that with the completion of this project meaningful conclusions can be drawn regarding the stages of development of countries in different regions of the world. This is of particular interest to the developing countries where a large number of transactions take place in non-monetary terms which are not always evaluated and taken account of in national income estimation as contrasted to similar transactions in the developed countries.

Advisory bodies

180 The work on National Accounts, State Income and International Comparison project is guided by Advisory Committees and

Working Groups of experts set up by the CSO. These bodies are (i) Advisory Committee on Compilation and Analysis of National Accounts, (ii) the Advisory Committee on Collection of Data on National Income, (iii) the Working Group on State Income and (iv) the Committee of Experts on International Comparison of National Accounts Aggregates.

Research studies

181 The National Income Committee had expressed the hope that the publication of its two Reports (in 1951 and 1954) would create sufficient interest amongst the researchers in the Universities and research institutions and stimulate independent research on national income and allied subjects which was essential for healthy development of the subject. The Indian Association for Research in National Income and Wealth (IARNIW) was set up in 1964 as a non-profit body to serve the purpose of exchange of know-how at the technical level. The Association arranges annually either a conference or a seminar and carries out its activities with the help of an annual grant from the Department of Statistics. The conferences held so far have included discussions of subjects such as distribution of national income by factor shares, by type of organisation, by rural and urban areas; measurement of real product and wealth; flow-of-funds and consumer expenditure. Special seminars have been arranged on subjects like State income, Indian economic growth, system of accounts for the States, etc. The papers discussed at these conferences have been published in the form of three volumes on 'Papers on National Income and Allied Topics'. The Association now plans to issue a Journal so that more research papers on topics of vital interest can be published.

5. STATISTICAL DISSEMINATION

182 In its role as a Central clearing house of statistical intelligence the CSO issues a number of publications besides those on national income and industrial statistics, which have been referred to earlier. In doing so conformity with UN concepts and definitions is kept in view so as to permit international comparisons.

183 Key statistical data on various facets of the Indian economy like population, employment, production, consumption and stocks, trade and tourism, communications, banking, currency and finance, prices and national product are presented every month in the Monthly Abstract of Statistics (MAS). The first issue of the MAS related to October 1948 and was published by the Administrative Intelligence Room of the then Ministry of Commerce. The CSO took over the publication from April 1951.

184 The MAS gives national estimates but does not give Statewise breakdowns. Such details are published annually in the Statistical Abstract, India. The Statistical Abstract is the most comprehensive publication of the CSO issued since 1950. It incorporates the latest available data on as many as 257 socio-economic indicators. It is widely used both at home and abroad as an authentic source of statistical information.

185 Another annual publication entitled Basic Statistics Relating to the Indian Economy published since 1965-66 presents a factual account of the progress of the country through the various plan periods. The current issue relates to the year 1974-75.

186 An account of the economic and social conditions in India is given in facts and figures in the Statistical Pocket Book, India. The current issue for 1975 contains 139 tables showing data for the years 1961, 1963, and the latest two years for individual statistical series. Latest data on selected indicators are also given in a handy form in the card : India-Economic Progress in Figures.

187 A quarterly Statistical Newsletter is issued by the CSO describing briefly the major statistical activities in the country. As an aid to research in the fields of economics and statistics, the Organisation brings out a quarterly publication DOCSTAT which contains abstracts of selected articles of theoretical and practical interest appearing in national and international journals on economics and statistics. As already mentioned earlier (vide para 149) the CSO brings out every year a report on 'Sample Surveys of Current Interest in India' giving the salient features of sample surveys conducted during the year by Central and State Governments, universities, research institutions, etc.

188 Information in regard to the functions, strength, expenditure and publications of each statistical establishment in the country is shown in the biennial publication entitled 'Statistical System in India'. Another biennial publication, the Directory of Statistical Personnel in Government gives the names and addresses of statistical personnel under the Central and State Governments and in Public Sector Undertakings.

189 The CSO has recently prepared a Directory of Statistics : India which provides information on statistical services, series and terms. This is a standard reference book based on the pattern of the Directory of International Statistics brought out by the UN in 1975.

190 A list of publications of the CSO is given in Annex. II.

191 The CSO over the years has developed a highly skilled graphical section for providing a quick and easy grasp of the behaviour of statistical series. The services of this section are available to the other Central Departments also. The CSO has also assisted some of the Departments in developing their own graphical units. In-service training is arranged for the artists working in Central and State Departments. The CSO organises exhibitions of statistical charts for the national and international conferences.

6. INTERNATIONAL RELATIONS

192 The CSO has the responsibility of maintaining liaison with the international statistical organisations on all statistical matters. This takes the form of interchange of statistical intelligence, participation in Conferences and Seminars and technical assistance for the development of statistical systems. The collaboration with international agencies has enabled India to introduce international standards within the country and ensure better international comparability of data collected.

193 One of the basic functions of the international organisations is the dissemination of statistics for international use. There is regular flow of statistical material between the CSO on the one hand, and the UN Statistical Office and the Statistical Division of the ESCAP on the other.

194 The CSO has been participating actively in the Seminars, Working Groups and Conferences arranged by international agencies to promote the development of statistics at the national and international levels. The important Conferences are the Sessions of the UN Statistical Commission, Conference of Commonwealth Statisticians, Sessions of the Committee on Statistics of ESCAP (earlier called Conference of Asian Statisticians) and the International Statistical Institute. The CSO played host to the Seventh Conference of Commonwealth Statisticians in 1970 and the Twelfth Session of the Conference of Asian Statisticians in 1973. It is hosting in November 1976 the Nineteenth Session of the UN Statistical Commission. The CSO in association with the Indian Statistical Institute will also be organising the Forty-first Session of the International Statistical Institute in December 1977. India hosted a similar session in 1951.

195 The CSO coordinates the allocation of fellowships offered by UN and other related agencies in the fields of official statistics and related methodology. It assists the Government of India in securing for the developing countries in Asia, Africa and Latin America the services of Indian Statistical experts under the sponsorship of UNDP and other UN agencies.

7. PROSPECT

196 The Indian statistical system is still in a process of evolution. Even so, manifold demands have been made on the system for meeting the pressing requirements of data for planning for economic growth and social justice. It was not an easy task to put together a reasonably efficient statistical machinery to serve the needs of planning, administration and policy formulation. The CSO may take its due share of credit for this accomplishment. All the same, this organisation is well aware of the shortcomings in the system evolved so far and the many important measures which remain to be taken to develop it further. While it is not easy to chart out the long term strategy, one may be able to envisage roughly the immediate prospect.

Coordination

197 Notwithstanding the significant progress achieved in the field of coordination, there is still a general feeling, and sometimes a genuine complaint, that statistical activities in the country are not adequately coordinated. One of the principal reasons for lack of effective coordination is that recommendations from purely technical bodies do not get effectively implemented by those concerned with policy making and administration. There is still a lack of Central Authority to decide what statistics should be collected by which agency and in what manner. It is hoped that the high power National Council, recommended by the Conference of Central and State Statistical Organisations, when set up, will be able to guide the Department of Statistics in securing this objective and promoting a harmonious and articulated development of the statistical system.

Standards

198 Laying down and maintenance of standards is a continuing process and there is still much room for improvement. In the past, statistical standards like industrial, occupational and trade classifications ; concepts, definitions and procedures in large scale data collection programmes such as population and agricultural censuses and NSS socio-economic surveys have been evolved as and when the need arose. The efforts were somewhat sporadic and *ad hoc* rather than sustained. With the increasing statistical activities in the country, it is necessary to compile systematically statistical terms and procedures adopted by the statistical agencies in various fields of official statistics and examine

them critically from the view point of standardisation. Lack of adequate appreciation of prescribed standards on the part of some of the statistical agencies is one of the causes of non-comparability of data that one comes across at times. This can be overcome only through more intensive training, wider dissemination and closer vigilance on the part of the coordinating agencies. One step taken recently regarding dissemination of the information on specific standards is the publication : Directory of Statistics—India. The Directory contains a portion relating to standards giving references to sources in which selected statistical terms are defined. It is proposed to intensify the activities regarding the release of standards in different fields after due authorisation by the concerned technical committees of experts. Simultaneously, careful consideration will be given to the development of appropriate measures for ensuring more effective adherence to the accepted standards by the different agencies.

Release of statistics

199 Statistics collected and compiled by statistical agencies are at times subjected to ~~scrutiny of policy makers~~ ^{all ministry clearance} before being released. While it cannot be said that statistics emanating from official statistical agencies are always objective, unbiased and accurate ~~(and need no further scrutiny)~~ there should logically be no hindrance to the publication of statistics once these are subjected to the technical scrutiny and cleared by appropriate bodies like the CSO at the Centre and the SSBs at the State level. A convention, if not a statutory provision, has to be developed to this end.

Training

200 It is well recognised that efficient utilisation of training resources can best be achieved through the creation of a proper training environment provided by a Staff College. An integration of the various training activities of the Department of Statistics into a Staff College is contemplated as an important measure to improve the existing training facilities for the statistical personnel of the Central and State Governments and Public Sector Undertakings. A number of other steps recommended by the Training Advisory Committee will be taken to render the training more effective.

Data banks

201 With a decentralised statistical system such as the one in India, timely flow of data required for policy making poses several

problems. A Computerised Information System and organisation of Data Banks at various levels with facilities for inter-communication among them are the most effective means for making the best possible use of the large mass of data produced in the country. It is hoped to establish Data Banks and Computer Centres in the SSBs and the Department of Statistics.

Social statistics

202 Social statistics has been a relatively neglected field of activity in the country inspite of its vital role in the context of the present development plans with emphasis on social justice. The CSO is concerned with promotion of an integrated approach for the development of social statistics, social indicators and establishment of appropriate linkages between the different social sectors. This work will be mainly organised on the lines of the framework of social and demographic statistics for developing countries as recommended by the United Nations. A "Review on Social Trends" is being planned by the CSO in collaboration with the Indian Council of Social Science Research. A Working Group set up by the Indian Institute of Public Administration is engaged in evolving a set of social indicators for urban development.

203 At present a number of agencies are dealing with individual sectors of social statistics. Paucity of resources and, in particular, of trained statistical personnel in these agencies has been one of the main hurdles. Unless the reliability and timeliness of statistical data flowing from these agencies are improved significantly, the superstructure of establishing the linkages and preparing integrated framework cannot be accomplished. The Standing Committee on Social Statistics is seized of this problem and it is hoped that more resources will be made available to the agencies concerned in the next few years to enable them to undertake the work effectively.

Industrial statistics

204 One of the serious shortcomings of the Annual Survey of Industries (ASI) until recently was the large time-lag in the availability of the results. As a result of the vigorous steps taken over the last two years, considerable improvement has taken place in reducing the time-lag in making available the principal results. The production of the detailed results running into many volumes still takes a long time due to paucity of staff and outmoded methods of processing on Unit Record Equipment. It is necessary that the processing of the results of ASI should be progressively computerised. Such a policy will also

greatly help in improving the quality and content of the various tables produced under the ASI.

205 The ASI throws up a vast volume of information on the structure, activity and performance of the registered manufacturing sector. Related information is available on trade, excise, customs and tax revenue from other statistical agencies. An interpretative analysis of the data flowing from various sources to establish inter-relationships and to obtain better understanding of the economic processes would be of immense value to the planners. Action in this direction is hoped to be initiated soon in the CSO.

206 The current monthly index of industrial production reflects the trend in the production of only the large units in the registered manufacturing sector. The absence of a regular reporting system to supply monthly data on the production of factories in the small scale sector stands in the way of extending the coverage of the index to the entire factory sector. The index also does not provide break-downs according to the States or major sectors. Inter-Departmental Working Groups are currently examining these problems to suggest remedial measures.

Economic census

207 The data base is still weak in some sectors such as unorganised industry, transport, construction and services. The CSO is initiating work to develop an integrated system of economic censuses and surveys as a means of gathering periodically the essential data on various segments of the non-agricultural economy. The scheme, which is being commenced shortly envisages a census of all establishments in the sectors of mining, manufacturing, trade, transport, construction and services to be followed by sample surveys of unorganised segments. For the purpose of the scheme an establishment is defined as a unit or a household engaged in a non-agricultural economic activity and employing on a regular basis one or more paid workers. It will provide information on the distribution of 'unorganised' establishments by location and activity and also on employment, value of inputs and outputs, investment, etc. It is hoped that this scheme together with the household surveys of own-account enterprises by the NSSO will cover adequately the unorganised segments of the entire non-agricultural economy of the country.

Short-term forecasting

208 In preparing national income estimates, the work is greatly hampered due to late availability of basic data on agricultural

production, details of production of machinery and equipment, company finance, etc. If advance estimates of macro-aggregates like national income, capital formation and saving become available before the close of the financial year, they can be used for annual budgeting and planning. It is proposed to develop the methodology for short-term forecasting of different economic indicators and macro-economic aggregates.

Macro-aggregates at the state level

209 At present State level estimates of saving, investment, current and capital transfers, etc., cannot be prepared due to the absence of information on inter-State transactions. Existence of multi-unit establishments spread over a number of States for which Statewise data are not available also create special problems. The Committee on Regional Accounts which recently examined this question has made many suggestions for the compilation of estimates of State income and other related aggregates. The recommendations of the Committee with regard to special programmes of collection of data for this purpose are going to be pursued vigorously with the agencies concerned.

Distribution of income

210 In planning for reducing the disparities in the levels of living it is necessary to estimate periodically the extent of inequality among different classes and in different parts of the country. No comprehensive data are available at present to undertake this exercise. It would be necessary to carry out surveys on income, consumption, assets and liabilities of households at suitable intervals. Of these, surveys on income have proved intractable so far because of large response biases in providing information on incomes. A Working Group on integrated household income surveys has recently completed its deliberations. Future work on the lines suggested by the Group will be able to fill this vital gap.

System of national accounts for developing countries

211 The System of National Accounts (SNA) recommended by the UN is not quite adequate for use in policy formulation in a developing country like India. The distributive aspects considered in the SNA refer to classification according to industrial and institutional sectors and by types of income. It is not possible to derive from them the household income not to speak of its distribution by size classes and other characteristics. There is need for providing a separate household

sector while presenting the accounts on production, consumption and capital formation. It is also necessary to make a distinction between goods and material services on the one hand and the non-material services on the other. With a large sector of non-monetised economy, a distinction has to be made between monetary flows and imputed flows and provide for both. The accounts need to be worked out separately for the rural and urban areas. All these call for revision and adaptation of the prevalent system of accounting and more elaborate collection of data through large scale household enquiries.

212 The first twenty-five years in the life of the CSO have not been quite uneventful. The statistical system has taken root and has grown into a young sapling. The system has now grown sufficiently strong and resilient and should be able to further develop on its own. In this process the CSO will play its due role. It will no doubt need the effective cooperation of all the statistical organisations at the Centre and in the States, academic and research institutions and constructive suggestions from users of statistics. It is only through the informed participation by all concerned that an articulated system of statistics which is objective, comprehensive, reliable and timely can be built up.

ANNEX I

A. RECENT COMMITTEES AND WORKING GROUPS OF THE CSO

1. Standing Committee of the Conference of Central and State Statistical Organisations.
2. Advisory Committee on Training in Official Statistics and Related Methodology.
3. Working Group on Training of State Statistical Personnel.
4. Standing Committee on Social Statistics.
5. Technical Advisory Committee on Statistics of Employment and Unemployment.
6. Technical Advisory Committee on Statistics of Prices and Cost of Living.
7. Working Group on Price Statistics.
8. Advisory Committee on Collection of Data on National Income.
9. Advisory Committee on Compilation and Analysis of National Accounts.
10. Working Group on State Income.
11. Committee on Regional Accounts.
12. Committee of Experts on International Comparison of National Accounts Aggregates.
13. Technical Advisory Committee on Economic Census and Surveys.
14. Working Group on District and Lower Level Statistical Organisations.
15. Working Group on Collection of Statistics Act.
16. Working Group on All-India Statistical Service.
17. Working Group on Regional Level Statistics.

B. COMMITTEES AND WORKING GROUPS OF OTHER ORGANISATIONS

1. Governing Council of NSSO.
2. Committee of Direction for the Computer Centre.
3. Indian Statistical Institute Council.

4. Expert Committee on Population Projections.
5. Technical Advisory Committee on Sample Registration System.
6. Expert Committee on Educational and Cultural Statistics.
7. Standing Committee on Statistics of Backward Classes.
8. Standing Committee on Improvement of Agricultural Statistics.
9. Steering Committee on Industrial Statistics.
10. Standing Group on Public Finance Statistics.

LIST OF PUBLICATIONS

Monthly

1. Monthly Abstract of Statistics.
2. Monthly Statistics of Production of Selected Industries of India.
3. Monthly Bulletin showing Production of Selected Industries of India and the Index of Industrial Production.
4. Consumer Price Index Numbers for Urban Non-Manual Employees.

Quarterly

5. Statistical Newsletter.
6. DOCSTAT.

Annual

7. India's Economic Progress in Figures (a card).
8. Statistical Abstract, India.
9. Statistical Pocket Book, India.
10. Basic Statistics relating to the Indian Economy.
11. Annual Survey of Industries (10 volumes).
12. Annual Survey of Industries—General Review.
13. Sample Surveys of Current Interest in India.
14. National Accounts Statistics (White Paper).

Ad-hoc publications

15. Statistical System of India.
16. Directory of Statistical Personnel in the Central and State Governments.
17. Energy Statistics.
18. National Accounts Statistics (Disaggregated tables).
19. National Income Statistics—Estimates of Savings in India.
20. National Income Statistics—Estimates of Capital formation in India.
21. Brochure on Revised Series of National Product.
22. Directory of Statistics : India

LIST OF ABBREVIATIONS

CSO	Central Statistical Organisation
IARS	Institute of Agricultural Research Statistics
ISI	Indian Statistical Institute
ISS	Indian Statistical Service
NBO	National Buildings Organisation
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
SSBs	State Statistical Bureaus

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