

ANNUAL SURVEY OF INDUSTRIES (ASI)

Introduction

The Annual Survey of Industries (ASI) is the principal source of industrial statistics in India. It provides statistical information to assess and evaluate, objectively and realistically, the changes in the growth, composition and structure of organised manufacturing sector comprising activities related to manufacturing processes, repair services, gas and water supply and cold storage. Industrial sector occupies an important position in the Indian economy and has a pivotal role to play in the rapid and balanced economic development. Viewed in this context the collection and dissemination of ASI data, on a regular basis, are of vital importance. The Survey is conducted annually under the statutory provisions of the Collection of Statistics Act 2008, and the Rules framed there-under in 2011, except in the State of Jammu & Kashmir where it is conducted under the State Collection of Statistics Act, 1961 and the rules framed there-under in 1964.

Historical Background

2. Understanding the importance of collection and compilation of data relating to industrial sector of the country, the Government of India, after 1930, launched a voluntary scheme for collection of detailed data from important industries in India. During the Second World War, in order to cater to the specific requirement of war management, each government department created its own statistical sections. In 1942, Industrial Statistics Act was formed on the recommendation of the Royal Commission on Labour. A Directorate of Industrial Statistics (DIS) was formed in 1945 under Ministry of Commerce to administer the act. DIS started Census of Manufacturing Industries in 1946. After independence, Central Statistical Organisation (CSO) was set up under Cabinet Secretariat by the Government of India in 1951 as an apex statistical body for co-ordinating the large variety of data collected by various agencies which was necessitated for adoption of planned economy by the government. In 1956, the Industrial Statistics Act 1942 was repealed with the passing of a more comprehensive Collection of Statistics Act 1953. Subsequently DIS was transferred to the Cabinet Secretariat in 1959 and was attached to Central Statistical Organisation as Industrial Statistics Wing.

Census of Manufacturing Industries (CMI)

3. The Directorate of Industrial Statistics launched the CMI in 1946 with the objective 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. It was conducted annually up to 1958. By 1958, the geographical coverage of the CMI extended to 13 States and 2 Union Territories (UT).

Sample Survey of Manufacturing Industries (SSMI)

4. 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 of Industrial Statistics while the tabulation and analysis of data, report writing, etc. was carried out by the Indian Statistical Institute, Calcutta. The SSMI was conducted annually up to 1958 by the then Directorate of National Sample Survey (now the NSS Office).

Annual Survey of Industries (ASI)

5. The Collection of Statistics (Central) Rules, 1959 framed under the 1953 Act provided for, among others, a comprehensive Annual Survey of Industries (ASI) in India. This survey replaced both the CMI and SSMI. The ASI was launched in 1960 with 1959 as the reference year and is continuing since then except for 1972. For ASI, the Collection of Statistics Act 1953 and the rules frame there-under in 1959 provides the

statutory basis. The ASI refers to the factories defined in accordance with the Factories Act 1948, and thus has coverage wider than that of the CMI and SSMI put together.

Scope and Coverage

6. The ASI extends to the entire country. It covers all factories registered under Sections 2m(i) and 2m(ii) of the Factories Act, 1948 i.e. those factories employing 10 or more workers using power; and those employing 20 or more workers without using power. The survey also covers bidi and cigar manufacturing establishments registered under the Bidi & Cigar Workers (Conditions of Employment) Act, 1966 with coverage as above. All electricity undertakings engaged in generation, transmission and distribution of electricity registered with the Central Electricity Authority (CEA) were covered under ASI irrespective of their employment size. Certain servicing units and activities like water supply, cold storage, repairing of motor vehicles and other consumer durables like watches etc. are covered under the Survey. Though servicing industries like motion picture production, personal services like laundry services, job dyeing, etc. are covered under the Survey but data are not tabulated, as these industries do not fall under the scope of industrial sector defined by the United Nations. Defence establishments, oil storage and distribution depots, restaurants, hotels, café and computer services and the technical training institutes, etc. are excluded from the purview of the Survey.

7. From ASI 1998-99, the electricity units registered with the CEA and the departmental units such as railway workshops, RTC workshops, Govt. Mints, sanitary, water supply, gas storage etc. are not covered, as there are alternative sources of their data compilation for the GDP estimates by the National Accounts Division of CSO.

ASI frame and its Updation

8. The ASI frame is based on the lists of registered factory / units maintained by the Chief Inspector of Factories (CIF) in each state and those maintained by registration authorities in respect of bidi and cigar establishments and electricity undertakings. The frame is being revised and updated periodically by the Regional Offices of the Field Operations Division of NSSO in consultation with the Chief Inspector of Factories in the state. At the time of revision, the names of the de-registered factories are removed from the ASI frame and those of the newly registered factories are added. In updation, only new registrations are added to the existing frame. In spite of regular updating of the frame, quite a number of small-sized factories selected for the survey are found to be non-existing in the field and are termed as deleted factories. However, such factories are not taken into consideration for the purpose of tabulation and analysis in this report.

Unit of Enumeration

9. The primary unit of enumeration in the survey is a factory in the case of manufacturing industries, a workshop in the case of repair services, an undertaking or a licensee in the case of electricity, gas & water supply undertakings and an establishment in the case of bidi & cigar industries. The owner of two or more establishments located in the same State and pertaining to the same industry group and belonging to census scheme is, however, permitted to furnish a single consolidated return. Such consolidated returns are common feature in the case of bidi and cigar establishments, electricity and certain public sector undertakings.

Sample Design and Sample Allocation

10. A new sampling design is adopted from 2012-13 after getting approval of the Standing Committee on Industrial Statistics (SCIS). According to the new sampling design,

ASI sample comprises two parts – Central Sample and State Sample. The Central Sample consists of two schemes: Census and Sample. Under Census Scheme, all the units are surveyed.

(a) Census Scheme:

- (i) All industrial units belonging to the six less industrially developed states/ UT's viz. Manipur, Meghalaya, Nagaland, Sikkim, Tripura and Andaman & Nicobar Islands.
- (ii) For the rest of the states/ UT's., (i) units having 100 or more employees, and (ii) all factories covered under Joint Returns.
- (iii) After excluding the Census scheme units, as defined above, all units belonging to the strata (**State x District x Sector x 4 digit NIC-2008**) having less than or equal to 4 units are also considered under Census Scheme. It may be noted that in the formation of stratum, the sectors are considered as Bidi, Manufacturing and Electricity.
- (b) All the remaining units in the frame are considered under **Sample Scheme**. For all the states, **each stratum is formed on the basis of State x District x Sector x 4-digit NIC-2008**. The units are arranged in descending order of their number of employees. Samples are drawn as per Circular Systematic Sampling technique for this scheme. An even number of units with a minimum of 4 units are selected and distributed in four sub-samples. It may be noted that each of 4 sub-samples from a particular stratum may not have equal number of units.
- (c) Out of these 4 sub-samples, two pre-assigned sub-samples are given to NSSO (FOD) and the other two-subsamples are given to State/UT for data collection.
- (d) The entire census units *plus* all the units belonging to the two sub-samples given to NSSO (FOD) are treated as the **Central Sample**.
- (e) The entire census units *plus* all the units belonging to the two sub-samples given to State/UT are treated as the **State Sample**. **Hence, State/UT has to use Census Units (collected by NSSO (FOD) and processed by CSO (IS Wing)) along with their sub-samples while deriving the district level estimates for their respective State/UT.**
- (f) The entire census units *plus* all the units belonging to the two sub-samples given to NSSO (FOD) *plus* all the units belonging to the two sub-samples given to State/UT are required for pooling of Central Sample and State Sample.

11. It may kindly be noted that samples were drawn considering an average sampling fraction of 12% from all strata. The size of the live frame containing units with status 'open', 'close' or 'non-operating' was 2,23,089. Of these, 48,585 units belonged to the Census Sector, while the remaining 1,74,504 units formed the Sample Sector. Total sample size for ASI 2012-13 was 65,972 (48,585 Census and 17,387 Sample).

Industrial Classification

12. The NIC-1970 was followed to classify economic activities of the factories from ASI 1973-74 to ASI 1988-89. NIC- 1987 had then been introduced and followed till ASI 1997-98. NIC-1998 was then followed from ASI 1998-99 to ASI 2003-04. From ASI 2004-05, the new series of classification, i.e., NIC-2004 has been introduced and the same has been used till ASI 2007-08. From ASI 2008-09, NIC- 2008 has been introduced. It classifies all the factories in the ASI frame in their appropriate industry groups on the basis of the principal product manufactured. This way a unit gets classified in one and only one industry group even though it might be manufacturing products belonging to different industries. The estimates for different aggregates presented in this report at two or three digit level of industry correspond to the NIC-2008 classification.

Reference period & schedule of enquiry

13. Reference period for ASI is the accounting year of the industrial unit ending on any day during the fiscal year. Thus, in ASI 2012-13, the data collected from the respective industrial units relate to their accounting year ended on any day between 1st April 2012 and 31st March 2013.

14. The schedule for ASI 2012-13 has undergone no changes from that of ASI 2011-12 and it has got two parts. Part-I which is processed at the CSO (IS Wing), Kolkata, aims to collect data on assets and liabilities, employment and labour cost, receipts, expenses, input items – indigenous and imported, products and by-products, distributive expenses etc. Part-II, processed by the Labour Bureau, aims to collect data on different aspects of labour statistics, namely, working days, mandays worked, absenteeism, labour turnover, man-hours worked, earning and social security benefits.

Concepts and Definitions of items collected through the schedule of enquiry

15. The concepts and definitions of items collected through ASI schedule are given below:

Reference Year for ASI 2012-13 is the accounting year of the factory ending on 31st March 2013 while the survey was conducted in 2013-14.

Factory is one that is registered under sections 2m (i) and 2m (ii) of the Factories Act, 1948. The sections 2m (i) and 2m (ii) refer to any premises including the precincts thereof (a) whereon ten or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power, or is ordinarily so carried on; or (b) whereon twenty or more workers are working or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power, or is ordinarily so carried on.

Fixed Capital represents the depreciated value of fixed assets owned by the factory as on the closing day of the accounting year. Fixed assets are those that have a normal productive life of more than one year. Fixed capital includes land including lease- hold land, buildings, plant & machinery, furniture and fixtures, transport equipment, water system and roadways and other fixed assets such as hospitals, schools, etc. used for the benefit of the factory personnel.

Physical Working Capital is the total inventories comprising of raw materials and components, fuels and lubricants, spares, stores and others, semi-finished goods and finished goods as on the closing day of the accounting year. However, it does not include the stock of the materials, fuels, stores, etc. supplied by others to the factory for processing and finished goods processed by the factory from raw materials supplied by others.

Working Capital is the sum total of the physical working capital as already defined above and the cash deposits in hand and at bank and the net balance receivable over amounts payable at the end of the accounting year. Working capital, however, excludes unused overdraft facility, fixed deposits (irrespective of duration), advances for acquisition of fixed assets, loans and advances by proprietors and partners (irrespective of their purpose and duration), long-term loans (including interest thereon) and investments.

Productive Capital is the total of fixed capital and working capital as defined above.

Invested Capital is the total of fixed capital and physical working capital as defined above.

Gross Value of Plant and Machinery represents the total original (un-depreciated) value of installed plant and machinery at the end of the accounting year. It includes the book value of the newly installed plants and machinery and the approximate value of rented in plants and machinery at the time of renting-in but exclude the value of rented-out plants and machinery. Total value of all the plants and machinery acquired on hire - purchase basis is also included.

Outstanding Loans represent all loans (whether short term or long term, interest bearing or not) outstanding according to the books of the factory as on the closing day of the accounting year.

Workers are defined to include all persons employed directly or through any agency whether for wages or not and engaged in any manufacturing process or in cleaning any part of the machinery or premises used for manufacturing process or in any other kind of work incidental to or connected with the manufacturing process or the subject of the manufacturing process. Labour engaged in the repair & maintenance, or

production of fixed assets for factory's own use, or employed for generating electricity, or producing coal, gas etc. are included.

Employees include all workers defined above and persons receiving wages and holding clerical or supervisory or managerial positions engaged in administrative office, store keeping section and welfare section, sales department as also those engaged in purchase of raw materials etc. or purchase of fixed assets for the factory as well as watch and ward staff.

Total Persons Engaged include the employees as defined above and all working proprietors and their family members who are actively engaged in the work of the factory even without any pay, and the unpaid members of the co-operative societies who worked in or for the factory in any direct and productive capacity. The number of workers or employees is an average number obtained by dividing mandays worked by the number of days the factory had worked during the reference year.

Wages and Salaries are defined to include all remuneration in monetary terms and also payable more or less regularly in each pay period to workers as compensation for work done during the accounting year. It includes (a) direct wages and salary (i.e., basic wages/salaries, payment of overtime, dearness, compensatory allowance, house rent and other allowances), (b) remuneration for the period not worked (i.e., basic wages, salaries and allowances payable for leave period, paid holiday, lay-off payments and compensation for unemployment, if not paid from sources other than employers), (c) bonuses and ex-gratia payment paid both at regular and less frequent intervals (i.e., incentive bonuses, good attendance bonuses, productive bonuses, profit sharing bonuses, festival or year-end bonuses, etc.). It excludes lay off payments which are made from trust or other special funds set up exclusively for this purpose i.e., payments not made by the employer. It also excludes imputed value of benefits in kind, employer's contribution to old age benefits and other social security charges, direct expenditure on maternity benefits and crèches and other group benefits. Travelling and other expenditure incurred for business purposes and reimbursed by the employer are excluded. The wages are expressed in terms of gross value i.e., before deduction for fines, damages, taxes, provident fund, employee's state insurance contribution, etc.

Contribution To Provident Fund And Other Funds includes old age benefits like provident fund, pension, gratuity, etc. and employers contribution towards other social security charges such as employees state insurance, compensation for work injuries and occupational diseases, provident fund-linked insurance, retrenchment and lay- off benefits.

Workmen and Staff Welfare Expenses include group benefits like direct expenditure on maternity, crèches, canteen facilities, educational, cultural and recreational facilities; and grants to trade unions, co-operative stores, etc. meant for employees.

Total Emoluments is defined as the sum of wages and salaries including bonus.

Total Input comprises total value of fuels and materials consumed as well as expenditures such as cost of contract and commission work done by others on materials supplied by the factory, cost of materials consumed for repair and maintenance of factory's fixed assets including cost of repairs and maintenance work done by others to the factory's fixed assets, inward freight and transport charges, rates and taxes (excluding income tax), postage, telephone and telex expenses, insurance charges, banking charges, cost of printing and stationery and purchase value of goods sold in the same condition as purchased .

Total Output comprises total ex-factory value of products and by-products manufactured as well as other receipts such as receipts from non-industrial services rendered to others, work done for others on material supplied by them, value of electricity produced and sold, sale value of goods sold in the same condition as purchased, addition in stock of semi- finished goods and own construction.

Depreciation is consumption of fixed capital due to wear & tear and obsolescence during the accounting year and is taken as provided by the factory owner or is estimated on the basis of cost of installation and working life of the fixed assets.

Net Value Added is arrived by deducting total input and depreciation from total output.

Presentation of Data

16. The ASI results presented in the published reports relate to the industrial units covered under the census and sample sectors of the ASI. The total of any characteristic was obtained by adding the figures of the census sector and estimates of sample sector.

Present position of availability of results

17. As per the National Dissemination Policy, the ASI reports are supplied on electronic media to the Computer Centre, New Delhi which has been declared as the Data Warehouse of the Ministry of Statistics & PI for the purpose of dissemination to users on request as per the Pricing Policy fixed by the Ministry. As per the national policy on dissemination of statistical data, the Computer Centre is disseminating the Unit-wise data to users. Of course, for unit-wise dissemination, due care is taken in suppressing identities of industrial units as required under the Collection of Statistics Act 2008. This is achieved by merger of data of some units in some industry groups/States/UTs when the number of units becomes less than three.

18. In certain cases, there may be abnormal growth/decline in some characteristics compared to the previous year. The possible reasons for the same may be as follows:

- a) Inclusion of new units in the frame, particularly in the Census Sector.
 - b) Selection/non-selection of some Sample units, having considerable value of multiplier.
 - c) Closure/Non-Operation of units, which had the significant effect on the economy in the previous year.
 - d) Movement of Sample units in the previous year to Census units in the current year, depending either on the size of employment or due to the sampling strategy or both, and vice-versa.
 - e) High/low performance of the units in the current year, as compared to low/high performance in the previous year.
 - f) Increase in the number of Census units (having multiplier 1) as compared to the previous years (where many such units were covered under Sample sector with multiplier higher than 1) with considerable reduction in the growth rates of Total Output, Gross Value Added (GVA), Fixed Capital and other important parameters in certain cases.
19. The following office may be contacted for the ASI results on electronic media against payment:

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