# Index of Industrial Production

## Revision of Base year to 2004-05

## An overview





**Government of India**
**Ministry of Statistics & P.I.**
**National Statistical Organization**
**Central Statistics Office (CSO)**
**Economic Statistics Division**
**New Delhi**

# FOREWORD

Index of Industrial Production (IIP) is a composite indicator that measures the short-term changes in the volume of production of a basket of industrial products during a given period with respect to that in a chosen base period.

The All India Index of Industrial Production (IIP) was first released by the Office of Economic Adviser under the Ministry of Commerce & Industry with 1937 as the base year. The Central Statistics Office (CSO) started compiling and releasing the IIP since 1950 with 1946 as the base year. The base year of IIP has since then been revised successively to 1951, 1956, 1960, 1970, 1980-81, 1993-94 and 2004-05. The current revision has taken place by shifting the base year from 1993-94 to 2004-05 covering 682 items (clubbed in 399 item groups: Mining-1, Manufacturing – 397, Electricity – 1) comprising 61 from Mining & Quarrying, 620 from Manufacturing and 1 from Electricity Sector and having the weightage of 14.16%, 75.53% and 10.32% respectively in the all-India IIP.

It is necessary to revise the IIP periodically by changing its base to a more recent period in order to capture the changes in the structure and composition of the industry over time due to the technological changes, economic reforms and consumption patterns of the people. The base revision exercise for IIP is undertaken based on the recommendations of the Standing Committee on Industrial Statistics (SCIS), constituted in the Ministry of Statistics & PI, which is chaired by an expert in the field and has members from the concerned Ministries.

Revising an index series involves a great deal of work including selection of item basket, derivation of weighting diagram, selection of source agencies and units, collection of backlog data, validation test, trial run and obtaining approval from different committees / bodies. The Economic Statistics Division of CSO took responsibility of revising the all India IIP series and successfully completed the herculean task.

This publication gives the details of steps followed in revising the IIP series by shifting the base year from 1993-94 to 2004-05. It also provides the users of IIP with a ready-to-use reference guide on methodological aspects of data (metadata) on IIP based on harmonised concepts and methodologies that facilitate international comparison and help in aggregation of sub-regional and regional level statistics to derive meaningful conclusions. The other purpose of this publication is to provide the statistical offices both at the national and state levels with guidelines in the compilation of all India IIP and the comparable IIPs at State/ UT levels. The adoption of the methodology suggested in this publication will go a long way in facilitating data aggregation and data comparison both at intra-regional and inter-regional levels, including international levels.

This publication has been prepared by the Economic Statistics Division (ESD) of the CSO. I am thankful to the team of officers from the ESD comprising Shri Ashish Kumar (ADG), Shri H. K. Sharma (ADG), Shri G. C. Manna (DDG), Shri A. K. Sadhu (DDG), Smt. Navanita Gogoi (Director) and Ms. Shruti Shukla (Dy. Director) for their hard work in preparing this publication.

I hope that the publication will serve as a useful reference document on the subject. Any suggestion to further improve the contents of the publication is welcome.

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# Abbreviations used

## Glossary of Terms and Abbreviations used

| Sl.No. | Glossary of Terms | Referred as |
|---|---|---|
| 1 | Index of Industrial Production | IIP |
| 2 | Central Statistics Office | CSO |
| 3 | Annual Survey of Industries | ASI |
| 4 | United Nations Statistics Division | UNSD |
| 5 | National Industrial Classification | NIC |
| 6 | International Standard Industrial Classification | ISIC |
| 7 | Standing Committee on Industrial Statistics | SCIS |
| 8 | Department of Industrial Policy & Promotion | DIP&P |
| 9 | Wholesale Price Index | WPI |
| 10 | Census of Manufacturing Industries | CMI |
| 11 | Directorate General of Technical Development | DGTD |
| 12 | Development Commissioner | DC |
| 13 | Micro, Small & Medium Enterprises | MSME |
| 14 | Technical Advisory Committee | TAC |
| 15 | Committee of Secretaries | COS |
| 16 | Gross Value Added | GVA |
| 17 | Net Value Added | NVA |

# Major Highlights of the new series of Index of Industrial Production (Base: 2004-05=100)

- The new series of All India Index of Industrial Production (IIP) with base 2004-05 has a broader coverage of 682 items (clubbed in 399 item groups: Mining-1, Manufacturing – 397, Electricity – 1) comprising 61 from Mining & Quarrying, 620 from Manufacturing and 1 from Electricity Sector having the weightage of 14.16%, 75.53% and 10.32% respectively in the all-India IIP.

- The result of the Annual Survey of Industries (ASI): 2004-05 is used as the basic frame for the selection of products for the manufacturing sector.

- For determining the industry level (NIC 2 digit) weights of the manufacturing sector, the results of ASI: 2004-05 on organised manufacturing sector and the 62nd round of the National Sample Survey on unorganised manufacturing sector are used.

- National Industrial Classification (NIC)-2004 is being followed in the new series instead of NIC-1987.

- The monthly production data for the compilation of new series of IIP are now being made available to the CSO by sixteen (16) source agencies viz. (1) Indian Bureau of Mines (IBM), (2) Directorate of Sugar, (3) O/o the Salt Commissioner, (4) Directorate of Vanaspati, Vegetable Oil & Fats, (5) Tea Board, (6) Coffee Board, (7) O/o the Textile Commissioner, (8) O/o the Jute Commissioner, (9) O/o the Coal Controller, (10) M/o Petroleum & Natural Gas, (11) Joint Plant Committee (Iron & Steel), (12) Railway Board, (13) D/o Industrial Policy & Promotion, (14) D/o Chemicals & Petrochemicals, (15) D/o Fertilizers and (16) Central Electricity Authority.

- Some of the important items newly included in the 2004-05 series basket are 'Apparels', 'Gems and Jewellery', 'Newspapers', 'Milk – skimmed/ pasteurised', 'Steel Structures', 'Copper and Copper Products', 'Biri', 'Purified terephthalic acid', 'Propylene', 'Writing & Printing Paper', 'Refractory Bricks', 'Polypropylene (including co-polymer)', 'Grinding Wheels', 'Cashew Kernels', 'Ayurvedic Medicaments', 'Woollen Carpets', 'Wood Furniture', 'Terry Towel', 'Coir Mats & Mattings', 'Polyester Chips', 'Paraxylene', 'Polythene Bags including Hdpe & Ldpe Bags', 'Cattle and Poultry Feed', 'Twine, jute (sutli)', 'Glass Sheet', 'Instant Food Mixes (Ready to eat)', 'Fruit Pulp', 'Marble Tiles/Slabs', 'Semis', 'Complex grade fertilizers', 'Lens of all kinds', 'Molasses' and 'Heat Exchangers'.

# Chapter 1

# Introduction

## 1.1 Index of Industrial Production (IIP)

Comparison of economic performance over time is a key factor in economic analysis and a fundamental requirement for policy-making. Short-term indicators play an important role in this context by providing such comparison indicators. Among these short-term indicators, the Index of Industrial Production (IIP) has historically been one of the most well known and well-used indicators. The IIP measures volume changes in the production of an economy, and therefore provides a measurement that is free of influences of price changes, making it an indicator of choice for many applications.

The all India IIP is a composite indicator that measures the short-term changes in the volume of production of a basket of industrial products during a given period with respect to that in a chosen base period. It is compiled and published monthly by the Central Statistics Office (CSO) with the time lag of six weeks from the reference month.

In other words, IIP is an abstract number, the magnitude of which represents the status of production in the industrial sector for a given period of time as compared to a reference period of time. It is a statistical device which enables us to arrive at a single representative figure to measure the general level of industrial activity in the economy. Strictly speaking, the IIP is a short-term indicator of industrial growth till the actual results from Annual Survey of Industries (ASI) and National Accounts Statistics become available. This indicator is of paramount importance to the Government for policy planning purposes and is also being extensively used by various organizations including Industrial Associations, Research Institutes and Academicians.

## 1.2 Scope and coverage

The general scope of the IIP as recommended by the United Nations Statistics Division (UNSD) (formerly known as United Nations Statistical Office (UNSO)) in May 1950, is to include Mining, Manufacturing, Construction, and Electricity and Gas sectors. However, over time the UNSD also expanded the scope of the index and recommend to include Mining & Quarrying, Manufacturing, Electricity, Gas steam and Air-conditioning supply, as well as Water supply, Sewerage, Waste management and Remediation activities. But, due to constraints of the data

availability and other resources, the present general index of industrial production compiled in India has in its scope the Mining, Manufacturing and Electricity sectors only.

## 1.3 Different terms, definitions and concepts used in compilation of IIP

**Index:** An index is a composite/summary indicator, an absolute number free of units of measurement and expressed, generally, as a percentage with reference to a chosen point. It is a number that shows the percentage change(s) in a variable or group of variables during a particular period with respect to a chosen reference period, called the base period.

**Industrial production:** Industrial production refers to the outputs of all industrial activities, which form part of the International Standard Industrial Classification (ISIC). In India, National Industrial Classification (NIC), which is developed in harmony with the ISIC, is the basis for classification of all economic activities within the boundary of the country. The term 'industry' is used in a restricted sense of production of commodities, excluding agriculture and services. However, in the compilation of IIP the scope is limited and thus industrial production for the purpose of IIP means that of the sectors of Mining, Manufacturing and Electricity.

**Item basket:** It is generally not practicable to include all the economic activities that contribute to industrial production, because data for some activities may not be readily and economically available and some economic activities may not warrant inclusion due to their insignificant contribution. Hence, the items basket means representative basket of items selected by applying judgment and on the basis of their relative importance for compilation of the index. Generally, individual items are included in the index basket according to some minimum contribution of individual item to national product. The basket is so selected that the contribution to national product of all the items in the basket is about 80 percent. The overriding criterion for the selection of item basket is the regular availability of production data from the various data source agencies.

**Weights:** The relative importance of various economic activities is different and these differentials need to be reflected while measuring the performance of the entire industrial sector. With a view to achieving this, each item included in the item basket is given appropriate weight. Weight is generally determined on the basis of the gross value added (GVA) from that industrial activity.

**Base period:** The IIP is a weighted average of the production relatives. The production relative is the ratio of the production in the current period to the reference period. This reference period is called the base period. The base period is

selected taking into consideration its normality, proximity to the comparison period, availability of all relevant data and synchronization with other macro-economic indicators.

**Base revision:** To capture the changes in the structure and composition of the industry over time due to the technological changes, economic reforms and consumption patterns of the people, it is necessary to revise the IIP periodically by changing its base to a more recent period. The base revision exercise for IIP is undertaken based on the recommendations of the Standing Committee on Industrial Statistics (SCIS), constituted in the Ministry of Statistics & PI, which is chaired by an expert in the field and has members from the concerned Ministries. The criteria used for the selection of a base year include: (i) normality (ii) availability of complete and detailed data set (iii) year of economic significance (iv) proximity to the study period, and (v) synchronization with the base year of other important indicators viz. National Accounts, Wholesale Price Index etc. It is worth mentioning that while the first four have economic and statistical implications, the last one is for the sake of comparability and for drawing more meaningful conclusions.

**Computation of IIP:** IIP is generally computed as the weighted average of production relatives of all the industrial activities. Here, Laspeyre's fixed-base formula is used for the calculation of the index, which can be expressed mathematically as follows:

$$L_t = \frac{\sum R_i W_{i0}}{\sum W_{i0}} x100$$

Where

$W_{i0}$ = Weight of the i$^{th}$ item in the base year

$R_i$ = Production relative of the i$^{th}$ item= $P_{it} / P_{i0}$

$P_{it}$ = Production of the i$^{th}$ item in the period *t*

$P_{i0}$= Production of the i$^{th}$ item in the base period

**Use-based category:** In addition to the industry wise indices/growth rates, the users also require the indices in respect of different use-based categories, i.e., basic goods, capital goods, intermediate goods, consumer durables and consumer non-durables. Recognizing the above requirements, compilation of use- based indices was started in the 1980-81 base series of IIP from the year 1990-91 onwards. For this purpose, the items included in the item basket of IIP were classified into various use-based categories and the weighted average of production relatives, in respect of all the items falling under a particular use-based category was taken as the monthly index in respect of that particular category. For compilation of use-based indices also the item-wise weights already arrived at for compilation of 2-

digit level indices were used. The details of these use-based categories are given in Table 1.3.1 below.

**Table 1.3.1: Details of Use-based categories**

| Sl.No. | Use based category | Details | Examples |
|---|---|---|---|
| 1 | Basic Goods | Any bulk raw material/product used for further production of new items in manufacturing and agriculture | High Speed Diesel, Aviation Fuel, Kerosene, Urea, Cement all kinds, Granites, Sponge iron, Copper & Copper Products and Electricity |
| 2 | Capital Goods | Plants, machinery and goods used for further investments | Refractory Bricks, Boilers, Air & Gas Compressors, Engines including Internal Combustion and Diesel Engine, Tractors (complete), Transformers, Commercial Vehicles and all machineries like Textile Machinery, Printing Machinery etc. |
| 3 | Intermediate Goods | Any good/product produced as incomplete product or which goes as input in production for further finishing | Cotton yarn, Plywood, Corrugated and other paper boxes, Liquidified Petroleum Gas, Adhesives, Aluminium Tubes/Pipes, Steel Structures, Fasteners etc. |
| 4 | Consumer durable | Products directly used by consumers and having a larger durability (more than 2/3 years) | Pressure Cooker, Air Conditioner (Room), Tyre, Car/Cab, Glazed Tiles /Ceramic Tiles, Telephone Instruments including mobile phone and accessories, Colour TV Sets, Passenger Cars, Motor Cycles, Gems and Jewellery etc. |
| 5 | Consumer non-durable | Products that are directly used by consumers and can't be preserved for long periods | Fruit Pulp, Edible Hydrogenated Oil, Soyabean oil, Milk - skimmed/ pasteurized, Milk Powder, Maida, Rice, Biscuits, Sugar(including sugar cubes), Tea, Cigarettes, Apparels, Newspapers, Antibiotics & it's preparations etc. |

**Source agency:** The monthly production data required for compiling IIP are regularly made available to CSO by various Ministries and Departments of the Government of India, usually called the "source agencies". In terms of the number of items covered, the largest source is the Department of Industrial Policy & Promotion (DIP&P) under the Ministry of Commerce & Industry. The index relating to Mining sector is supplied by the Indian Bureau of Mines, Nagpur which is dovetailed with

manufacturing and electricity indices compiled by CSO to arrive at the General Index of Industrial Production. The data on Electricity sector is received from the Central Electricity Authority.

**Use of Price Deflators:** The IIP computed in India, is a volume index and consequently the production of items are expressed in physical terms. However, the units of reporting in respect of certain items are in value terms. The monthly figure of production value, in such cases is first deflated by the appropriate Wholesale Price Index (WPI) of the concerned categories, released by the Office of the Economic Advisor, Ministry of Commerce & Industry. Deflation is a process that removes the impact of price changes from an estimate of nominal value of output. This is normally done by dividing the current price estimate of output, by an appropriate price index, referred to as the deflator.

**Classification used:** In the context of calculating IIP, classifications of activity (industry) and products are required to categorize economic information about statistical units and their input and output data. In India, the National Industrial Classification (NIC) is the standard classification followed for classifying economic activities and is used in the compilation of IIP too. The NIC is prepared to suit the Indian conditions and follows the principles and procedures laid down in the United Nations' International Standard Industrial Classification (ISIC). To keep pace with the changes in the organization and structure of industries besides accounting for emerging economic activities, the NIC is revised from time to time on the basis of the revision of ISIC.

# Chapter 2

# Earlier Base Revisions

## 2.1 Origin and history of IIP in India

In India, the first official attempt to compute the IIP was made much earlier than even the recommendations on the subject at the international level. The Office of the Economic Advisor, Ministry of Commerce and Industry made the first attempt of compilation and release of IIP with base year 1937, covering 15 important industries, accounting for more than 90% of the total production of the selected industries. The all-India IIP is being released as a monthly series since 1950. With the inception of the Central Statistical Organization in 1951, the responsibility for compilation and publication of IIP was vested with this office.

## 2.2 Need for base revision

To capture the changes in the structure and composition of the industry over time due to the technological changes, economic reforms and consumption patterns of the people, it is necessary to revise the IIP periodically by changing its base to a more recent period. The base revision exercise for IIP is undertaken based on the recommendations of the Standing Committee on Industrial Statistics (SCIS), constituted in the Ministry of Statistics & PI., which is chaired by an expert in the field and has members from the concerned Ministries.

The basic purpose of base revision of IIP is to make the item basket proper representative of the current industrial scenario of the country. The index should capture the changes in the structure and composition of the economy due to economic reforms, technological changes and consumption patterns of the people. Any base revision exercise results in deletion of outdated/ unimportant items from the basket and inclusion of new items which were not in production when earlier IIP item basket was finalized.

The IIP series in India has been revised from time to time shifting the comparison base to a recent period, by reviewing the coverage of items and industries and by improving, as far as practicable, with a view to reflect adequately, the industrial growth and structure. When the index was commenced in India, the base year adopted was 1937 and this was revised successively to 1946, 1951, 1956, 1960, 1970, 1980-81 and 1993-94.

## 2.3 History of base revision

A brief history of the IIP base revision, with salient features, is given in Table 2.3.1 below, which indicates that attempts have been made in each base revision to make the revised series of IIP more representative. The details are given in the following paragraphs.

**Table 2.3.1: Brief history of Base revision of IIP**

| Base year | Sectors, No. of items and weights (in %) | Total no. of items covered | Basis of allotment of weights |
|---|---|---|---|
| 1937 | Mining (1) - 4.0<br>Manufacturing (13) - 92.0<br>Electricity (1) - 4.0 | 15 | Proportion to total value of output |
| 1946 | Mining (1) - 11.95<br>Manufacturing (19) - 88.05<br>Electricity$ | 20 | Value added by manufacture |
| 1951 | Mining (2) - 7.16<br>Manufacturing (85) - 90.68<br>Electricity (1) - 2.16 | 88<br>[ISIC-1948] | Net Value added |
| 1956 | Mining (2) - 7.47<br>Manufacturing (198) - 88.85<br>Electricity(1) - 3.68 | 201<br>[ISIC-1948) | Net Value added |
| 1960 | Mining (37) - 9.72<br>Manufacturing (274) - 84.91<br>Electricity (1) - 5.37 | 312<br>(CII) | Net Value added |
| 1970 | Mining (61) - 7.47<br>Manufacturing (290) - 88.85<br>Electricity (1) - 3.68 | 352<br>(CII) | Net Value added |
| 1980-81 | Min & quarrying (61) - 11.5<br>Manufacturing (290) - 77.1<br>Electricity (1) - 11.4 | 352<br>[NIC-1970] | Gross Value Added |
| 1993-94 | Mining (64) - 10.5<br>Manufacturing (473) - 79.4<br>Electricity (1) - 10.1 | 538<br>[NIC-1987] | Gross Value added |

*$: Electricity not covered*
*ISIC: International Standard Industrial Classification of all economic activities*
*CII: Classification of Indian Industries*
*NIC: National Industrial Classification*

## Base Year: 1937

Initially, the base year adopted was 1937, comprising Mining, Manufacturing and Electricity sectors, covering 15 industries accounting for more than 90% of the total production of these industries. The index termed as ***Interim Index of Industrial Production*** was a quantum index and was computed using weighted arithmetic average with fixed base. The index was discontinued since 1949.

## Base Year: 1946

Subsequently, the base year was shifted to 1946 by the Office of the Economic Adviser, Ministry of Commerce & Industry. The scope of the index was restricted to the Mining and Manufacturing sectors, comprising of 20 industries with 35 items. The 'value added by manufacture' in the base year obtained from the first Census of Manufacturing Industries (CMI), India, 1946 was used for determining the weights to be assigned to different items. In the case of Coal, the gross ex-factory value at pithead of the coal mines was taken as an estimate of value added. The index, viz., *Interim Index of Industrial Production* from 1947, was compiled using simple weighted arithmetic mean. The adjusted indices, after allowing for variations in the number of days in the month for all industries, except sugar, were also compiled using suitable formulae. For sugar, the seasonal variation adjusted indices were compiled.

## Base Year: 1951

The Interim Index of Industrial Production was discontinued in April 1956 and was replaced by the revised index with 1951 as the base year, covering 88 items compiled by CSO. The items in this index were classified according to the International Standard Industrial Classification (ISIC) 1948 of all economic activities. The various industries included in the index were categorized into two major groups, i.e., Coal and Iron Ores for the Mining and Quarrying, 17 major groups for the Manufacturing and one major group for the Electricity sector. The index was computed using the weighted arithmetic mean of quantity relatives with weights being allotted to various items in proportion to 'value added by manufacture' in the base year 1951. The value added by manufacture was actually the Net Value Added (NVA) computed by deducting the value of factors of fuel, material used, industrial services purchased and depreciation on fixed assets from the gross ex-factory value of the output. These indices were adjusted for variations in the number of days in the month for all the industries except for sugar, salt and tea industries. For the three seasonal industries, the seasonal variations were adjusted by the method of moving averages. The monthly indices of industrial production were released officially through Press Notes/ad-hoc publications of Central Statistical Organization.

## Base Year: 1956

The index was further revised to base year 1956 on the recommendation of the Working Group constituted by Central Statistical Organization. The series was revised in July 1962 covering 201 items of production, classified according to the Standard Industrial and Occupational Classification of all Economic Activities published by the CSO in 1962. The weights were assigned to various items on the basis of NVA in the base year as per CMI, 1956. The indices were compiled using the weighted arithmetic mean. No adjustments were made for variation in the number of days of the month and the seasonal variations were adjusted on the basis of overall indices rather than confining to only three industries viz. sugar, tea and salt. The monthly series of index numbers from January 1951 to December 1961 was the basis for estimating the seasonal indices using the method of moving averages.

## Base Year: 1960

The index with 1960 as base year, was based on (i) regular monthly series for 312 items and (ii) annual series including 124 additional items as compared to 201 items covered by the earlier index (base: 1956=100). Though the published index was based on regular monthly series for 312 items, weights were allotted on the basis of the total 436 items with a view to use the same set of weights for the regular monthly index and the annual index covering the additional items as well. If any item, for which regular monthly series was not available, occurred in a group, the weight of that group was adjusted by dropping the weight of that item while calculating the monthly group index. No such adjustment in weight was made while computing the major group index for such groups. The crude general index of every month was adjusted for seasonality by appropriate seasonal index calculated by using the method of moving averages of the crude general index. The index was a simple weighted arithmetic mean, the weights being proportional to NVA in the base year. The Mining and Quarrying index was specially worked out by the Indian Bureau of Mines and excluded Gold, Salt, Petroleum and Natural Gas.

## Base Year: 1970

The year 1970 was chosen as the comparison base on account of its nearness to the reference period chosen for a number of other official indices, like the Wholesale Price Index, Consumer Price Index etc. apart from satisfying the other criteria of selecting a base year.The series of index numbers with base 1970, which took into account the structural changes that had taken place in the industrial activity of the country since 1960, was released in March 1975, covering 352 items comprising of 61 items for Mining, 290 for Manufacturing and 1 for Electricity Sector respectively. The weighting diagram for the Manufacturing sector was based on the results of ASI: 1970, whereas for the Mining sector, the net value

added by that sector as estimated by Indian Bureau of Mines was used. In case of Electricity, the net value added in 1970 as available from the White Paper on National Income published by the CSO was used.

For compiling the index, monthly production reports were received by CSO from as many as 17 source authorities that, in turn, collected data from the production units. In terms of the number of items covered, the largest source was the then Directorate General of Technical Development, who supplied monthly production data on as many as 261 out of 290 items included in the Manufacturing Sector. The data relating to Mining and Quarrying and Electricity sectors were furnished to the CSO by the Indian Bureau of Mines and the Central Electricity Authority respectively.

## Base Year: 1980-81

The Government of India felt that the continued adoption of 1970 as the base year for IIP was leading to inadequate reflection of the changes that have taken place in the industrial structure and set up a Working Group in 1978 under the Chairmanship of the then Director General of CSO, to consider the change of the base year and recommend modifications in the weighting diagram. The working group first explored the possibility of adopting 1975-76 as the base year for the revised IIP. It was finally decided to shift the base year to 1980-81 instead of 1975-76 to accommodate adequately the items from the small-scale sector.

For the first time in 1980-81 series, the small-scale sector was represented by 18 items in the compilation of index. For these items, no separate weight was assigned in the weighting diagram. However, the production of these items was clubbed with the production figures of the corresponding items supplied by the large and medium units. The data for these items were supplied by the Development Commissioner, Micro, Small & medium Enterprises (DC, MSME). The representation of the small-scale sector was included in the index from the month of July, 1984, prior to which only the DGTD production data was utilized.

The 1980-81 series of IIP was based on National Industrial Classification (NIC) 1970 published by CSO. The weighting diagram upto the ultimate digit of NIC was compiled on the basis of *gross value added* of the factory sector of ASI: 1980-81. This method was followed for all the industries except Cotton Textiles (decentralized sector), for which a different approach had to be adopted. There were a few items for which the value of production in ASI: 1980-81 was less than the corresponding value supplied by the Directorate General of Technical Development (DGTD). In these cases, value of production was obtained from the DGTD and used for assigning the weights at item levels. For some items where data were available from both DGTD and DC (MSME), item level weights were distributed using the total values of the output of the item from both the agencies.

Another significant feature of 1980-81 series of IIP was the compilation of use-based indices, which was started in the 1980-81 base series of IIP from the year 1990-91 onwards. The IIP series with base 1980-81 was computed for each month from April 1981 to March 1998.

## Base Year: 1993-94

CSO attempted an exercise of revision of base year from 1980-81 to 1985-86 and compiled indices for the period April 1986 to May 1995 with base 1985-86. However, the revision exercise was quite delayed as the indices with base 1985-86 were ready only in 1995 and it was considered that the release of the revised indices at such a late stage would not serve the desired purpose as the representativeness of the series is reduced with the passage of time. In an inter-Ministerial Meeting held in CSO in November 1995, it was decided to abandon the idea of releasing the indices with base 1985-86 and initiate the exercise for revision of IIP to base 1993-94 as soon as the relevant ASI results become available. The decision to shift the base year of IIP to 1993-94 instead of 1985-86 was endorsed by the Committee of Secretaries (COS). Accordingly, a Technical Advisory Committee (TAC) was set up in the Department of Statistics.

The scope of the index was confined to Mining, Manufacturing and Electricity Sectors and did not cover Gas and Construction. The distribution of items covered by the index with 1993-94 base year was Mining-64, Manufacturing-473 and Electricity-1.

To retain the distinctive character and enable the collection of data, these 473 items of the Manufacturing sector were clubbed into 281 item groups. The item basket so identified captured about 80% of the output of the Manufacturing sector. All the 18 items of small scale sector included in the 1980-81 series of IIP were accounted for in the revised series with base 1993-94.

The Sectoral Weights were allocated on the basis of Gross Value Added for 1993-94 as published in the National Account Statistics. For the first time, the weighting diagram of IIP with base 1993-94 also took into account the contribution of the **unorganized Manufacturing sector** along with that of organized Manufacturing sector based on Annual Survey of Industries (ASI). Gross Value Added and Gross Value of Output were used as criteria for allocation of weights.

For the series with base 1993-94, the data was received from the same set of 14 source agencies ( as was for 1980-81 series), except for Railways, for which the consolidated data was supplied by the Railway Board instead of data being supplied earlier by 5 agencies. The data on Electricity sector was furnished by the Central Electricity Authority. The index relating to Mining and Quarrying sector was supplied by the Indian Bureau of Mines, Nagpur which was combined with

Manufacturing and Electricity sectors' indices compiled by CSO to arrive at the General Index of Industrial Production.

The revised series was officially released on 27th May 1998. The press release on the Quick Estimates of IIP and the advance release calendar are also being disseminated through the Website of the Ministry since May 1998.

# Chapter 3

# Revision of base year of the current series to 2004-05

## 3.1 Background of base revision

In the 7th meeting of Standing Committee on Industrial Statistics (SCIS) (present composition of the SCIS is at **Annexure-I)** held on 12th July, 2002, it was decided to undertake the revision of base year of current series of IIP from 1993-94 to 1999-2000. A Sub-group under the Chairmanship of Prof. C. P. Chandrasekhar was constituted to deal with the technical and operational aspects of revision of the IIP.

**Recommendations of the Sub-group under the Chairmanship of Prof. C.P. Chandrasekhar**

The Sub-group under the Chairmanship of Prof. C.P. Chandrasekhar, in its meeting held on April 1, 2003 recommended the following:-

**(i)** The **Manufacturing Sector** would cover only the Registered Manufacturing Sector for revised series of IIP.

**(ii)** The CSO would compile an index for the registered manufacturing sector as a lead indicator.

**(iii)** Office of Development Commissioner (Micro, Small & Medium Enterprises) may come out with a separate index for Micro, Small & Medium Enterprise sector.

**(iv)** The data from the Annual Survey of Industries (ASI) is to be used for determining the item basket. All those products which contribute 0.20% or more to total value of production at 2-digit industry of National Industrial Classification are to be included in the Item basket.

**(v) The weighting diagram:**

- The total weight may be distributed to Mining, Registered Manufacturing and Electricity on the basis of Gross Value Added (GVA) for the base year.
- The weight of Registered Manufacturing sector may be distributed to 2-digit industry groups of NIC in proportion to their GVA at all-India level.
- The 2-digit weights would be further assigned in stages to 3/4 digit level of NIC in proportion to their respective GVA at all-India level.
- Finally the 4-digit level weights would be distributed to selected items in proportion to their Gross Value of Output (GVO).

Though the SCIS, in its meeting held on 16th March, 2007, approved the adoption of the IIP series (Base: 1999-2000=100) as per the recommendations of the C.P.

Chandrasekhar Sub group, the revised series could not be released, due to non-availability of regular monthly production data from Department of Industrial Policy & Promotion (DIPP), under the Ministry of Commerce & Industry, the source agency which provided approximately 80% of monthly production data. Consequently, the 1993-94 IIP series continued.

The National Statistical Commission (NSC), in its meeting held on 21st November 2008, recommended revision of base year of IIP to 2004-05, but left the final decision to SCIS for choosing appropriate base year. Accordingly, the matter regarding change of base year of IIP was again considered by SCIS in its meeting held on 12th December 2008. In the meeting, DIPP informed that the problem regarding supply of monthly production data, owing to which the 1999-200 series could not be released, was sorted out and it would be possible for them to provide regular monthly production data. Now it was to be decided whether the 1999-2000 series should be released or the exercise of base revision to 2004-05 year should be started afresh. To take the final decision in this regard, SCIS constituted a small group comprising Prof. Biswanath Goldar, Chairman of SCIS and Secretaries of MOS&PI and DIPP, along with the concerned officers from MOS&PI and DIPP.

## 3.2 Steps involved

**(i)** As per the recommendations of the NSC, in its meeting held on 21st November 2008, a Provisional Item basket (PIB) was prepared taking the data of Annual Survey of Industries (ASI): 2004-05 and the results of the theoretical exercise was shown in the meeting of the SCIS held on 12th December 2008. The PIB consisted of 1038 individual items. The provisional weighting diagram was also prepared on the basis of the Gross Value Added (GVA) from the ASI (2004-05) following the recommendations of the Sub-group formed under the Chairmanship of Prof. C.P. Chandrasekhar. However, SCIS, in the same meeting, formed a small group comprising Prof. Biswanath Goldar, Chairman of SCIS and Secretaries of MOS&PI and DIPP, along with the concerned officers from MOS&PI and DIPP to take the final decision on the base revision.

**(ii)** **<u>Meetings of the small groups formed under SCIS for final decision on base revision</u>**

**a)** The first meeting of the group was held on 9th January 2009. It was decided in the meeting that all India IIP would directly be revised to 2004-05 instead of going for releasing the series based on 1999-2000, mainly due to the fact that a considerable number of years have already passed since 1999-2000 and the 1999-2000 series might not

be able to capture properly the present industrial structure of the economy.

**b)** The Second and the Third meetings between the two Ministries in the presence of Prof. Biswanath Goldar, Chairman of SCIS were respectively held on 23rd March 2009 and 23rd June 2009 to discuss the issues relating to the base revision and also to review the progress of dataflow for the new series, especially pertaining to DIPP, the major source agency.

**(iii)** The list of factories from the Annual Survey of Industries (ASI): 2004-05 data pertaining to the PIB was obtained from the CSO (IS Wing), Kolkata, who looks after the ASI database. The list of items along with their list of factories pertaining to the Provisional Item Basket (PIB) from the database of ASI (2004-05) was sent to all source agencies on the basis of the products under the purview of the each source agency.

**(iv) <u>Meetings with source agencies to review the progress of base revision</u>**

**a)** The small group formed under SCIS reviewed the progress of data flow and other related aspects of base revision in its second and third meetings held on 23rd March'09 and 23rd June'09 respectively.

**b)** Director General, CSO reviewed the progress of receipt of production data for revision of IIP with all source agencies excluding DIPP on 18th August, 2009.

**c)** The state of preparedness for the change of base year from 1993-94 to 2004-05 was discussed in the 17th meeting of SCIS held on 14th July, 2009.

**d)** Regular correspondences along with one-to-one meetings were conducted with different source agencies individually to finalize their respective item basket.

## 3.3 Approval of the SCIS

The results of the compilation of IIP (2004-05), were discussed in the 18th meeting of SCIS held on 26th March, 2010. The new series included Mining, Registered Manufacturing and Electricity sectors as its scope. The SCIS approved the new series with the modification in the sectoral weighting diagram to include manufacturing sector as a whole, instead of "registered manufacturing sector" only.

## 3.4 Approval of the Committee of Secretaries (COS)

### First meeting of the COS

After the approval of SCIS, the proposal required the approval of "Committee of Secretaries (COS)" since revision of base year has impact on policies/programmes of various concerned Ministries. A draft note for the purpose was prepared accordingly and circulated amongst concerned Ministries/Departments for their comments. The first meeting of the "Committee of Secretaries (COS)" was held on 10th September, 2010 at the Cabinet Secretariat. The representatives from all the concerned Ministries/ Departments, i.e. Ministry of Mines, Department of Food and Public Distribution, Ministry of Textiles, Ministry of Coal, Ministry of Petroleum and Natural Gas, Ministry of Steel, Ministry of Railways, Department of Industrial Policy and Promotion, Department of Commerce, Department of Chemicals and Petrochemicals, Department of Fertilizers and Ministry of Power, who provide the monthly data to compile the new series of IIP and also Ministry of Micro, Small and Medium Enterprises, Department of Economic Affairs and Planning Commission, were present in the meeting.

All concerned Ministries were in agreement for the revision of base year of IIP to 2004-05. However, M/o Textiles, Planning Commission and the Ministry of Micro, Small & Medium Enterprises (MSME) expressed concerns about the index with new base. M/o Textiles said that the decline in weights of textile products in the new series as compared to the existing series needs to be examined, as production of this sector has been increasing. Planning Commission underlined the need to identify the factors behind variation in the observed growth rates based on the current and the new series. They also stated that the weights assigned to various commodities be re-checked to ensure that they appropriately reflect the current industrial scenario. M/o MSME emphasized that the MSME sector should be adequately covered in the IIP. It was finally decided that CSO would resolve all outstanding issues in consultation with the concerned Ministries/Departments and submit a revised proposal for the consideration of COS.

### Alternative weighting diagram

To address the concerns regarding weighting diagram, an alternative weighting diagram was developed by CSO, in which the overall weight of the manufacturing sector was allocated amongst the industry groups i.e. National Industrial Classification (NIC) 2-digit codes in proportion to the total gross value added by the respective industry groups based on the total contribution of both registered and unregistered sector. GVA of registered manufacturing sector was taken from Annual Survey of Industries (2004-05) and that of unregistered manufacturing sector from the 62nd round of National Sample Survey (2005-06) on unregistered manufacturing enterprises. The alternative weighting diagram in detail is as under:

- Sectoral weight
  - Weight for Mining, Manufacturing and Electricity sectors arrived at on the basis of their percentage share in GDP at factor cost in 2004-05.

- Weights at 2-digit level
  - The weight of manufacturing sector distributed in proportion to the total GVA of industry groups from
    - ASI (2004-05) for registered manufacturing sector
    - 62nd round of National Sample Survey (2005-06) on unregistered manufacturing enterprises for unregistered manufacturing sector

- Weights at 3/4 digit level
  - 2 digit weights distributed to 3/ 4 digit levels in steps in proportion to their respective GVA figures at All India as per ASI 2004-05

- Weights at product/item group level
  - Finally 4 digit level weights distributed to selected products/item groups in proportion to their GVO as per ASI 2004-05

## Working group on IIP formed under the Planning Commission

To address the issue of volatility in the new series, Planning Commission set up a small Working Group under the Chairmanship of Dr. Saumitra Chaudhuri, Member, Planning Commission to examine the new series of IIP. The Group was entrusted the task of suggesting how, through a set of small changes, the new IIP series compiled and proposed to be released by the Central Statistics Office (CSO), would be more representative of the current industrial scenario. The working group, inter-alia, looked into the issues of weighting diagram and also the process of data collection and data reporting. CSO shared the alternative weighting diagram with the working group. The suggestions of the working group were also shared with the CSO with the request to recast the IIP series after taking into consideration the group's suggestion so that the implication of the recommended changes for the new IIP series could be tested before actual release of the index**.** Major recommendations of the working group were as under:

(i) Adoption of alternative weighting diagram that includes the contribution of unorganized sector in the distribution of weights at 2 digit industry level.
(ii) Deletion of certain item groups.
(iii) Change in unit of reporting of certain items.

### Second meeting of the COS

The revised proposal for the new series with base 2004-05, incorporating the alternative weighting diagram developed by CSO and changes in the item basket suggested by the working group on IIP formed under the Planning Commission, was again sent for the approval of "Committee of Secretaries (COS)". The second meeting of the COS was held on 10th May 2011 at the Cabinet Secretariat. The representatives from all the concerned Ministries/ Departments who provide the monthly data to compile the new series of IIP and also Ministry of Micro, Small and Medium Enterprises, Department of Economic Affairs and Planning Commission, were present in the meeting.

This revised proposal incorporating the alternative weighting diagram and recommendations of the working group set up by the Planning Commission totally addressed the concerns raised by Ministry of Textiles and Planning Commission during the First meeting of COS. MOS&PI also stated that the lack of data collection system for unorganized units is a serious bottleneck and coverage of MSME may not be feasible till this is resolved. All the concerned Ministries/Departments unanimously agreed to the revised proposal of new series with base 2004-05. It was finally decided to launch the new series of IIP with base 2004-05, with effect from the index for April 2011 to be released from June 2011 onwards, on 12th of every month. Also a decision was taken that M/o MSME, in consultation with Ministry of Statistics & PI will develop a separate index for MSME sector, that could be suitably dovetailed with the IIP.

## 3.5 The details of the final new series

### (a) Basic data

The basic data used for the base revision of all India IIP is the data of ASI (2004-05). However, for the purpose of distribution of weights at the industry level pertaining to the unorganized sector, the GVA figures available from the 62nd round of National Sample Survey (NSS) on unorganized manufacturing enterprises during July 2005 - June 2006 were used.

### (b) Scope and Coverage

Based on the recommendations of the 18th meeting of SCIS, the new series of IIP has been prepared comprising Mining, Manufacturing and Electricity sectors as its scope.

### (c) Classification used

The National Industrial Classification (NIC):2004 is used in the revised series, as the same is used in the ASI (2004-05).

## (d) Item Basket

**Manufacturing sector**

For manufacturing sector, the results of ASI (2004-05) have been used to identify the items to be included in the item basket for new series. Based on the criteria suggested by the Sub-group for revision of base year under Prof. C.P. Chandrasekhar, all those products that contributed 0.20% or more to the total value of production at 2-digit industry of NIC-2004 were considered for inclusion in the Item basket. Applying this criterion, a total of 1038 items qualified for the Provisional Item Basket (PIB), which accounted for more than 80% of GVO of manufacturing sector at all-India level. Relevant items from PIB along with the list of units/factories received from the ASI-2004-05 database were sent to the concerned Source Agencies for their feedback and finalization of their respective item basket. Finally 620 items were included in the item basket after due consultation with the source agencies, clubbed into 397 item groups. The criteria used for the finalization of items included in the new series were as under:-

- **(i)** The product/items which contributed 0.20% or more to total value of production at 2-digit industry of NIC-2004.
- **(ii)** The essential products like tea, coffee, salt and sugar were included.
- **(iii)** Source agencies were to identify any significant and upcoming items, which was not included in the PIB, so that the same can be incorporated.
- **(iv)** Efforts were made to capture the item/units having relatively larger share of production.
- **(v)** New items that had entered the market with significant market share driven by technological advancement, changed taste and preference of the consumer, improved standard of living, etc, were included.
- **(vi)** The overriding criterion was the regular monthly flow of production data.
- **(vii)** The items with single unit supplying data were excluded.
- **(viii)** Obsolete items from the item basket of the existing series were excluded.
- **(ix)** Important items from the existing series were included.

**Mining sector**

The base of Mining index has also gone under revision by the IBM and the new base year of the Mining index is 2004-05. Sixty one (61) items have been identified by the Indian Bureau of Mines (IBM) for the Index of production of Mining sector (**Annexure-II**). The IBM provides the index relating to Mining sector, which is used along with the manufacturing and electricity sector indices to arrive at the General Index of Industrial Production.

**Electricity sector**

The Electricity sector consists of single item, i.e. total electricity generated. The information is taken from the website of Central Electricity Authority (www.cea.nic.in) under the Ministry of Power.

## (e) Weighting diagram

(i) The total weight in the new series of all India IIP has been distributed to Mining, Manufacturing & Electricity sectors on the basis of their share of GDP at factor cost during 2004-05 as per the new series of National Accounts Statistics with 2004-05 as base.

**Table 3.5.1: Sector wise number of items and item groups with weights**

| Sl. No. | Sector | No. of items | No. of item groups | Weight |
|---|---|---|---|---|
| 1 | Mining | 61 | 1 | 141.57 |
| 2 | Manufacturing | 620 | 397 | 755.27 |
| 3 | Electricity | 1 | 1 | 103.16 |
| 4 | Total | 682 | 399 | 1000 |

(ii) The weight of Manufacturing sector has been allocated amongst the industry groups i.e. National Industrial Classification (NIC) 2-digit codes in proportion to the total Gross Value Added (GVA) by the respective industry groups based on the total contribution of both registered and unregistered sector. GVA of registered manufacturing sector has been taken from Annual Survey of Industries (2004-05) and the unregistered manufacturing sector from the 62$^{nd}$ round of National Sample Survey (2005-06) on unregistered manufacturing enterprises**.** The 2-digit weights were further assigned in stages to 3/4 digit level of NIC-2004 in proportion to their respective GVA at all-India level from ASI (2004-05). Finally the 4-digit level weights were distributed to selected items in proportion to their Gross Value of Output (GVO).

## (f) Use of price deflator

Since the all India IIP is a quantitative index, the productions of items are being expressed in physical terms. So, for the items for which the unit of reporting is in value terms, the monthly figures of production are deflated by the suitable Wholesale Price Index (WPI) with base 2004-05 compiled by the Office of the Economic Adviser, Ministry of Commerce & Industry.

## (g) Source of data

For the old series (1993-94), CSO was receiving data from fifteen (15) source agencies. For the new series with base 2004-05, 14 out of these 15 source agencies are same as the 1993-94 series, except for the MSME sector. O/o the Development Commissioner (MSME) as source agency was dropped mainly due to unavailability of necessary data. On the other hand, Department of Chemicals & Petrochemicals and Department of Fertilizers have been included as independent source agencies because of their growing importance. Finally the total number of source agencies for the new series has become 16. The details of these source agencies along with their items, item groups and weights are given in Table 3.5.2 below:

**Table 3.5.2: Source agency wise number of items and weights**

| Sl. No. | Source Agency | No. of Items | No. of Item groups | Weight |
|---|---|---|---|---|
| 1 | Indian Bureau of Mines | 61 | 1 | 141.57 |
| 2 | Directorate of Sugar | 1 | 1 | 15.25 |
| 3 | Salt Commissioner | 1 | 1 | 0.53 |
| 4 | Directorate of Vanaspati | 11 | 11 | 9.17 |
| 5 | Tea Board | 1 | 1 | 6.51 |
| 6 | Coffee Board | 1 | 1 | 0.35 |
| 7 | Textile Commissioner | 44 | 13 | 52.10 |
| 8 | Jute Commissioner | 11 | 7 | 4.07 |
| 9 | Coal Controller | 3 | 3 | 2.96 |
| 10 | M/o Petroleum | 11 | 11 | 59.39 |
| 11 | Joint Plant Committee (Iron & Steel) | 47 | 21 | 92.07 |
| 12 | Railway Board | 6 | 6 | 2.20 |
| 13 | D/o Industrial Policy & Promotion | 430 | 268 | 456.26 |
| 14 | Deptt. Of Chem. & Petrochemicals | 47 | 47 | 41.87 |
| 15 | Deptt. Of Fertilizer | 6 | 6 | 12.54 |
| 16 | Central Electricity Authority | 1 | 1 | 103.16 |
| **Total** | | **682** | **399** | **1000** |

## (h) Use-based indices

The items included in the new series of IIP are categorized into various use-based categories i.e., Basic goods, Capital goods, Intermediate goods, Consumer durables and Consumer non-durables. The summary of different use-based categories is given in Table 3.5.3.

**Table 3.5.3: Details of use-based categories**

| Sl. No. | Use-based category | No. of item groups | Weight |
|---|---|---|---|
| 1 | Basic goods | 88 | 456.82 |
| 2 | Capital goods | 73 | 88.25 |
| 3 | Intermediate goods | 106 | 156.86 |
| 4 | Consumer goods | 132 | 298.08 |
| 4(i) | Consumer durables | 43 | 84.60 |
| 4(ii) | Consumer non-durables | 89 | 213.47 |

## 3.6 Linking Factor

In order to maintain continuity in the time series data on Index of Industrial Production (IIP), it is imperative to provide a linking factor so that the new series, when released, may be compared with the outgoing one. As a matter of policy, the Central Statistics Office (CSO) does not prescribe or recommend to data users any particular method of linking, for conversion of index figures from one series to another. The choice of the method to link various index series is left to be decided by the users. The CSO has been using the arithmetic conversion method. According to this method, the linking factors for conversion of indices from the base 2004-05 series to the earlier base 1993-94 and from the base 1993-94 to the base 1901-81 up to Sectoral level are as follows:

**Table 3.6.1: Linking factor of IIP**

| Sector | Average IIP in 2004-05 (with base year 1993-94) | Linking Factor [from 2004-05 to 1993-94] | Average IIP in 1993-94 (with base year 1980-81) | Linking Factor [from 1993-94 to 1980-81] |
|---|---|---|---|---|
| Mining | 153.4 | 1.534 | 231.5 | 2.315 |
| Manufacturing | 222.5 | 2.225 | 223.5 | 2.235 |
| Electricity | 181.5 | 1.815 | 290.0 | 2.900 |
| General Index | 211.1 | 2.111 | 232.0 | 2.320 |

The CSO does not convert the indices at further disaggregate level. The users are to satisfy themselves regarding the conversion factor they calculate. The CSO does not check / correct / verify any conversion factor or converted index figures done by any user / researcher.

## 3.7 Guidelines to the source agencies regarding supplying monthly data

### a. Format to supply the monthly item group level production data

| Sl. No. | Item | Unit of production | Total no. of Units selected for reporting monthly production data | Current month | | | |
|---|---|---|---|---|---|---|---|
| | | | | Number of Responding Units | Production of responding Units | Estimated production of non-responding units | Total Production (6) + (7) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

| Sl. No. | Item | Unit of production | Total no. of Units selected for reporting monthly production data | Previous month | | | |
|---|---|---|---|---|---|---|---|
| | | | | Number of Responding Units | Production of responding Units | Estimated production of non-responding units | Total Production (10)+(11) |
| 1 | 2 | 3 | 4 | 9 | 10 | 11 | 12 |

| Sl. No. | Item | Unit of production | Total no. of Units selected for reporting monthly production data | Previous 3rd month | | | |
|---|---|---|---|---|---|---|---|
| | | | | Number of Responding Units | Production of responding Units | Estimated production of non-responding units | Total Production (14) + (15) |
| 1 | 2 | 3 | 4 | 13 | 14 | 15 | 16 |

### b. Time frame

In the meeting with the data source agencies supplying monthly data for All India Index of Industrial Production (IIP) held on 1st June, 2011, it was decided that all data source agencies will provide data to CSO by 5th of following month for monthly release of IIP. It was also decided that Unit level data will be provided by all data source agencies, to CSO by 15th of every month.

# Chapter 4

# Comparison of the new series with the old series

## 4.1 Comparison of Item basket and weight

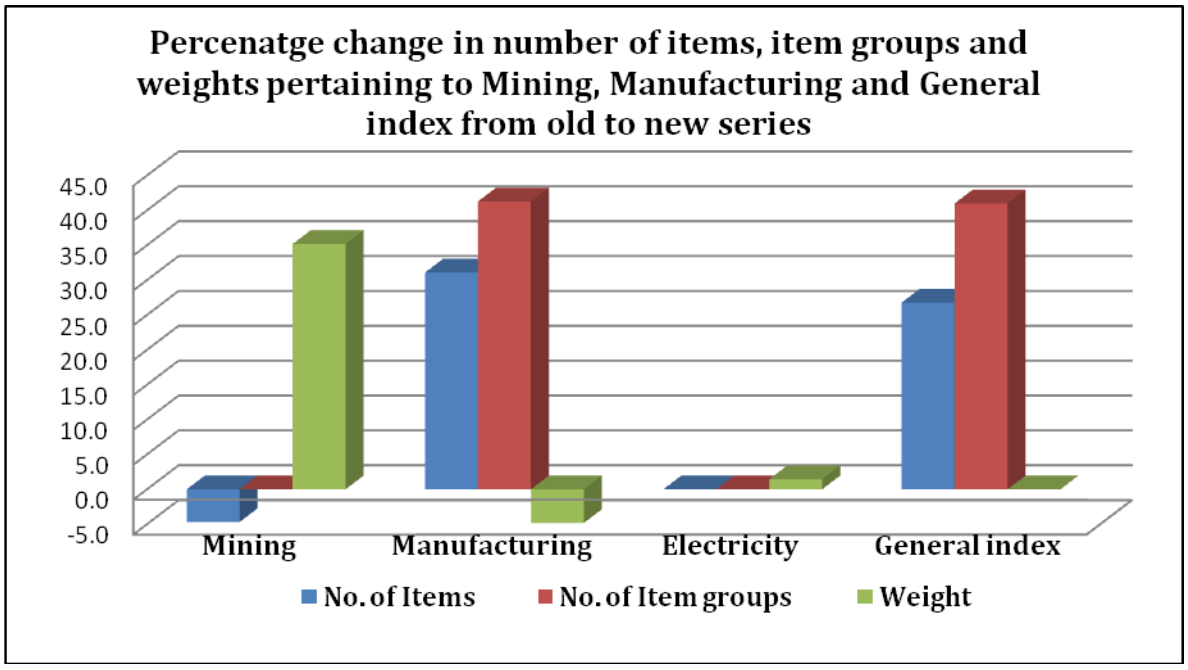
### (a) Sectoral comparison

Sector wise number of items, item groups and weights for the old series (base: 1993-94) and the new series (base: 2004-05) of IIP are given in Table 4.1.1 below:

**Table 4.1.1: Number of items, item groups and weights from both the series at sectoral level**

| Sl. No. | Sector | No. of Items | | No. of Item groups | | Weight | |
|---|---|---|---|---|---|---|---|
| | | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 1 | Mining | 64 | 61 | 1 | 1 | 104.73 | 141.57 |
| 2 | Manufacturing | 473 | 620 | 281 | 397 | 793.58 | 755.27 |
| 3 | Electricity | 1 | 1 | 1 | 1 | 101.69 | 103.16 |
| 4 | General index | 538 | 682 | 283 | 399 | 1000 | 1000 |

A graphical representation of the percentage change in the number of items, item groups and weights are shown in the following figure:




For the Mining sector, total number of items has decreased from 64 to 61, whereas the weight has increased from 104.73 to 141.57.

For manufacturing sector, the number of items and item groups has increased considerably from that of old series to ensure greater coverage of the industries in the new series. However, the sectoral weight has decreased from 793.58 to 755.27 in the new series. This is because of the percentage contribution of the Gross Domestic Product of the Manufacturing sector has decreased compared to other two sectors as per the National Accounts Statistics.

Out of 397 item groups of the Manufacturing sector, 265 item groups of the new series are common with the old series (1993-94), whereas 132 new item groups have been included in the new series and 22 item groups of the old series have been dropped (list of common, new and deleted item groups are at **Annexure-III, VI & V**). The main reason for excluding these item groups is that they have become obsolete. Other reasons for exclusion are non-availability of regular monthly production data, multiple products not separately indicated by companies and the monthly data being available only from a single unit.

There is not much change in electricity sector except for a minor increase in its weight.

## (b) Comparison as per Use-based category

Use based category wise number of items, item groups and weights for the old series (base: 1993-94) and the new series (base: 2004-05) of IIP are given in Table 4.1.2 below:

**Table 4.1.2: Number of item groups and weights from both the series as per Use-based categories**

| Sl. No. | Use-based category | No. of item groups | | Weights | |
|---|---|---|---|---|---|
| | | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 1 | Basic goods | 65 | 88 | 355.65 | 456.82 |
| 2 | Capital goods | 53 | 73 | 92.57 | 88.25 |
| 3 | Intermediate goods | 92 | 106 | 265.14 | 156.86 |
| 4 | Consumer goods | 89 | 132 | 286.64 | 298.08 |
| 5 | a. Consumer durables | 26 | 43 | 53.65 | 84.60 |
| 6 | b. Consumer non-durables | 63 | 89 | 232.99 | 213.47 |

## (c) Source agency wise comparison

Total number of source agencies to supply the monthly production data has increased from 15 to 16 in the new series as compared to that of the old series with the inclusion of D/o Chemicals & Petrochemicals and D/o Fertilizers and exclusion of DC (MSME).

**Table 4.1.3: Source wise number of items, item groups and weights from both the series**

| Sl.No. | Source Agency | No. of Items | | No. of Item groups | | Weight | |
|---|---|---|---|---|---|---|---|
| | | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 1. | Indian Bureau of Mines | 64 | 61 | 1 | 1 | 104.73 | 141.57 |
| 2. | Directorate of Sugar | 1 | 1 | 1 | 1 | 22.43 | 15.25 |
| 3. | O/o the Salt Commissioner | 1 | 1 | 1 | 1 | 0.52 | 0.53 |
| 4. | Directorate of Vanaspati, Vegetable Oils & Fats | 12 | 11 | 11 | 11 | 16.97 | 9.17 |
| 5. | Tea Board | 1 | 1 | 1 | 1 | 7.63 | 6.51 |
| 6. | Coffee Board | 1 | 1 | 1 | 1 | 1.00 | 0.35 |
| 7. | O/o the Textile Commissioner | 50 | 44 | 9 | 13 | 123.28 | 52.10 |
| 8. | O/o the Jute Commissioner | 7 | 11 | 5 | 7 | 5.90 | 4.07 |
| 9. | O/o the Coal Controller | 3 | 3 | 3 | 3 | 1.22 | 2.96 |
| 10. | M/o Petroleum | 16 | 11 | 14 | 11 | 23.87 | 59.39 |
| 11. | Joint Plant Committee (Iron & Steel) | 43 | 47 | 20 | 21 | 59.10 | 92.07 |
| 12. | Railway Board | 4 | 6 | 4 | 6 | 5.56 | 2.20 |
| 13. | D/o Industrial Policy & Promotion | 332 | 430 | 209 | 268 | 519.59 | 456.26 |
| 14. | Development Commissioner, MSME | 18 | - | 18 | - | 6.51 | - |
| 15 | D/o Chemicals & Petrochemicals | - | 47 | - | 47 | - | 41.87 |
| 16 | D/o Fertilizers | - | 6 | - | 6 | - | 12.54 |
| 17 | Central Electricity Authority | 1 | 1 | 1 | 1 | 101.69 | 103.16 |

The most significant source agency with the major contribution in the number of item groups and weight still remains the same viz. D/o Industrial Policy & Promotion (DIPP).

## 4.2 Comparison of growth rates

This section gives a comparative picture of growth rates of annual (April-March) indices from the year 2005-06 to 2010-11 between the new series (base: 2004-05) and the old series (base: 1993-94) of IIP at sectoral level and also as per Use based categories.

### (a) Sectoral level

**Table 4.2.1: Comparative annual growth of indices from both the series**

| Apr-Mar | Mining | | Manufacturing | | Electricity | | General | |
|---|---|---|---|---|---|---|---|---|
| | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 2005-06 | 1.0 | 2.3 | 8.9 | 10.3 | 5.2 | 5.2 | 8.0 | 8.6 |

| Apr-Mar | Mining | | Manufacturing | | Electricity | | General | |
|---|---|---|---|---|---|---|---|---|
| | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 2006-07 | 5.4 | 5.2 | 12.9 | 15.0 | 7.2 | 7.3 | 11.9 | 12.9 |
| 2007-08 | 5.1 | 4.6 | 9.2 | 18.4 | 6.4 | 6.3 | 8.7 | 15.5 |
| 2008-09 | 2.6 | 2.6 | 3.3 | 2.5 | 2.8 | 2.7 | 3.2 | 2.5 |
| 2009-10 | 9.9 | 7.9 | 11.0 | 4.8 | 6.0 | 6.1 | 10.5 | 5.3 |
| 2010-11 | 5.9 | 5.2 | 8.2 | 9.0 | 5.6 | 5.5 | 7.8 | 8.2 |

## (b) As per Use-based category

**Table 4.2.2: Comparative annual growth of indices for Basic, Capital and Intermediate goods from both the series**

| Apr-Mar | Basic goods | | Capital goods | | Intermediate goods | |
|---|---|---|---|---|---|---|
| | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 2005-06 | 6.6 | 6.1 | 14.2 | 18.1 | 2.8 | 6.6 |
| 2006-07 | 10.2 | 8.9 | 22.4 | 23.3 | 11.5 | 11.5 |
| 2007-08 | 7.0 | 8.9 | 19.1 | 48.5 | 8.8 | 7.3 |
| 2008-09 | 2.7 | 1.7 | 8.2 | 11.3 | -1.8 | 0.0 |
| 2009-10 | 7.2 | 4.7 | 20.9 | 1.0 | 13.6 | 6.0 |
| 2010-11 | 6.3 | 6.0 | 9.4 | 14.8 | 8.9 | 7.4 |

**Table 4.2.3: Comparative annual indices for Consumer, Consumer durable and Consumer non-durable goods from both the series**

| Apr-Mar | Consumer goods | | Consumer durables | | Consumer non-durables | |
|---|---|---|---|---|---|---|
| | 1993-94 | 2004-05 | 1993-94 | 2004-05 | 1993-94 | 2004-05 |
| 2005-06 | 11.6 | 10.7 | 13.6 | 16.2 | 10.8 | 8.6 |
| 2006-07 | 9.9 | 16.1 | 8.3 | 25.3 | 10.4 | 12.3 |
| 2007-08 | 5.9 | 17.6 | -1.8 | 33.1 | 8.6 | 10.2 |
| 2008-09 | 5.8 | 0.9 | 4.7 | 11.1 | 6.1 | -5.0 |
| 2009-10 | 6.2 | 7.7 | 24.6 | 17.0 | 0.4 | 1.4 |
| 2010-11 | 7.5 | 8.6 | 21.0 | 14.2 | 2.2 | 4.3 |

The comparative growth curves of monthly indices from the old and new series of IIP for Mining, Manufacturing and Electricity sectors and General index are at the **Annexure VI**.

# Chapter 5

# Release of the new series and future improvements

## 5.1 Official release of the new series

As per the decision of COS the new series of monthly IIP with base 2004-05 was released on 10th June 2011 starting with the index for the month of April 2011.

## 5.2 Separate index for the MSME sector

In the meeting of Committee of Secretaries (COS) held on 10th may 2011 a decision was taken that M/o MSME will, in consultation with Ministry of Statistics & PI and other concerned Ministries/Departments, expedite setting up a mechanism for collection of data for the MSME sector and give adequate attention to coverage of unorganized units, as well as developing a separate index for the MSME sector, which could be suitably dovetailed with the IIP.

## 5.3 Recommendations of National Statistical Commission (NSC)

The National Statistical Commission set up by the Government in January 2000 under the Chairmanship of Dr. C. Rangarajan reviewed the statistical system and the entire gamut of Official Statistics in the country. The Rangarajan Commission submitted its report to the Government in August 2001. This commission also took note of technical as well as administrative deficiencies in IIP compiled by CSO and made some recommendations for improving it. Some of the major recommendations of the NSC on IIP are as follows:

a) *The base year of IIP should be revised quinquennially;*

b) *The item basket should be representative of the indices at 2-digit level;*

c) *The source agencies should strengthen their statistical set-up so as to be able to effectively monitor new units and new items;*

d) *The source agencies should establish contact with the Manufacturing Units through fax, e-mail, personal visits, etc.;*

e) *The source agencies should seek the cooperation of industrial associations, State Governments, etc. in improving the response from the Manufacturing units;*

f) *Inclusion of items reported by less than 5 factories to be generally avoided. However, if such items are included, source agencies must ensure 100% coverage in reporting of data by such units; and*

g) *Robust estimation procedure must be adopted by the source agencies to tackle the problem of non-response of the Manufacturing units.*

## 5.4 Seasonal adjustment of the IIP

As per the current practice the data is not seasonally adjusted in IIP. However, there is further scope of producing and disseminating an additional seasonally adjusted series only when there is clear statistical evidence and economic interpretation of the seasonal/calendar effects.

# Annexure

# Annexure

# Annexure-I

# Present Composition of Standing Committee on Industrial Statistics (SCIS)

No. M-12012/6/2009-ESD
Government of India
Ministry of Statistics and Programme Implementation
Central Statistical Organisation
(Economic Statistics Division)

8th floor, Jeewan Prakash Building
25, K.G,Marg, New Delhi-110 001,
Dated 11th March, 2010

OFFICE MEMORANDUM

In partial modification of the earlier notification No.A-60011/1/99-Admn.III dated 17th October,2006, the Standing Committee on Industrial Statistics is reconstituted as under:

1. **Composition**

| S.No. | Name of the member | Designation |
|---|---|---|
| 1. | Dr. Biswanath Goldar, Professor, Institute of Economic Growth, New Delhi | Chairman |
| 2. | Sh.R. Nagaraj, Indira Gandhi Institute of Development Research, Mumbai | Member |
| 3. | Dr.S.L. Shetty, Economic & Political Weekly Research foundation, Mumbai | Member |
| 4. | Director General, Central Statistical Organisation, New Delhi. | Member |
| 5. | Director General, National Sample Survey Organisation, New Delhi. | Member |
| 6. | Director General, Labour Bureau, Shimla | Member. |
| 7. | Addl. Director General, National Sample Survey Organisation, FOD, New Delhi. | Member |
| 8. | Addl. Director General, National Accounts Division, CSO, New Delhi. | Member |
| 9. | Sr. Economic Adviser, Deptt. of Industrial Policy and Promotion, Ministry of Commerce & Industry, New Delhi. | Member |
| 10. | Addl.Development Commissioner & Economic Adviser, O/o the Development Commissioner (Small Scale Industries), New Delhi. | Member |
| 11. | Planning Adviser, North Eastern Council, Deptt. of North East Region, New Delhi. | Member |
| 12. | Head of one of the participating (in the Annual Survey of Industries) State Statistical Bureaus other than from North East Region by rotation every two years | Member |
| 13. | Head of one of the non-participating (in the Annual Survey of Industries) State Statistical Bureaus other than from North East Region by rotation every two years | Member |
| 14. | Addl.Director General, Central Statistical Organisation (Economic Statistics Division), New Delhi. | Member Secretary |

II The broad terms of reference of the committee are:

(a) review of the system existing in India for collection, compilation, tabulation and dissemination of Industrial Statistics in all its form and content with special reference to the Annual Survey of Industries;
(b) review of statutory support for Industrial Statistics; and
(c) review of the role of different Govt. organizations on Industrial Statistics.

III. The tenure of the Chairman will be five years and that of the other non-official members (S.No.2 & 3 above) will be of three years. The representation of members from State Statistical Bureaus by rotation (S.No.12 & 13) would be decided by the Member Secretary in consultation with the Chairman.

IV. The non-official members would be entitled to TA/DA as per SR 190(a). They are also entitled for a sitting fee for attending meetings as per existing govt. rules. The expenditure of the Committee would be borne by the Ministry of Statistics and Programme Implementation.

V. The committee may co-opt any officer(s) or Expert(s) with experience in Industrial Statistics, as may be deemed necessary by it to help it to formulate its views and reports and such persons, if they are non-official members, would be entitled for TA/DA and sitting fee as prescribed in para IV above.

VI. This notification will come into force with immediate effect and thereafter the Standing Committee on Industrial Statistics constituted vide OM No. A-60011/1/99-Admn.III dated 17th October,2006 would cease to exist.

11/3/10
( D. Sahoo )
Dy.Director General(ESD)

To

Chairman and Members of the Committee

Copy for information to:-

1. Sr. PPS to CSI & Secretary, MOS&PI
2. PPS to DG, CSO,MOS & PI
3. PPS to DG& CEO, NSSO (MOS&PI)

11/3/10
( D. Sahoo )
Dy.Director General(ESD)

# Annexure-II

# Item Basket for Mining sector

| Sl.No. | Mineral | Weight |
|---|---|---|
| 1 | Coal | 309.308 |
| 2 | Lignite | 13.941 |
| 3 | Natural Gas (ut.) | 120.635 |
| 4 | Petroleum(crude) | 368.445 |
| 5 | Bauxite | 2.812 |
| 6 | Chromite | 10.279 |
| 7 | Copper Conc. | 2.235 |
| 8 | Gold | 1.930 |
| 9 | Iron Ore | 76.468 |
| 10 | Lead Conc. | 0.500 |
| 11 | Manganese Ore | 6.692 |
| 12 | Tin Conc. | 0.005 |
| 13 | Zinc Conc. | 3.063 |
| 14 | Apatite | 0.018 |
| 15 | Asbestos | 0.021 |
| 16 | Ball Clay | 0.151 |
| 17 | Barytes | 0.658 |
| 18 | Calcite | 0.019 |
| 19 | Chalk | 0.034 |
| 20 | Clay (others) | 0.064 |
| 21 | Diamond | 0.355 |
| 22 | Diaspore | 0.012 |
| 23 | Dolomite | 1.041 |
| 24 | Dunite | 0.003 |
| 25 | Felsite | 0.001 |
| 26 | Felspar | 0.056 |
| 27 | Fireclay | 0.114 |
| 28 | Fluorite(conc.) | 0.083 |
| 29 | Fluorite(graded) | 0.021 |
| 30 | Garnet(abr.) | 0.164 |
| 31 | Graphite | 0.042 |
| 32 | Gypsum | 0.643 |
| 33 | Jasper | 0.0005 |
| 34 | Kaolin | 1.414 |
| 35 | Kyanite | 0.008 |
| 36 | Laterite | 0.103 |
| 37 | Lime Kankar | 0.111 |

| Sl.No. | Mineral | Weight |
|---|---|---|
| 38 | Limeshell | 0.089 |
| 39 | Limestone | 16.984 |
| 40 | Magnesite | 0.335 |
| 41 | Mica (crude) | 0.033 |
| 42 | Ochre | 0.066 |
| 43 | Perlite | 0.0004 |
| 44 | Phosphorite | 3.518 |
| 45 | Pyrophyllite | 0.049 |
| 46 | Pyroxenite | 0.118 |
| 47 | Quartz | 0.053 |
| 48 | Quartzite | 0.094 |
| 49 | Salt (rock) | 0.004 |
| 50 | Sand (others) | 0.061 |
| 51 | Selenite | 0.005 |
| 52 | Shale | 0.051 |
| 53 | Silica Sand | 0.299 |
| 54 | Sillimanite | 0.122 |
| 55 | Slate | 0.002 |
| 56 | Steatite | 0.272 |
| 57 | Vermiculite | 0.007 |
| 58 | Wollastonite | 0.117 |
| 59 | Brick Earth | 22.455 |
| 60 | Building Stones | 21.342 |
| 61 | Road Metal | 12.478 |

# Annexure-III
# List of common items of Manufacturing sector from both the series

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 1 | 15141 | Edible Hydrogenated Oil | 2.9802 |
| 2 | 15141 | Soyabean oil | 1.0839 |
| 3 | 15142 | Coconut oil | 0.2817 |
| 4 | 15142 | Groundnut Oil | 0.8830 |
| 5 | 15142 | Mustard/ Rapeseed Oil | 0.7779 |
| 6 | 15142 | Sunflower oil | 0.3464 |
| 7 | 15143 | Cotton Seed Oil | 0.8198 |
| 8 | 15143 | Rice bran Oil | 0.8370 |
| 9 | 15149 | De-Oiled rice bran | 0.4153 |
| 10 | 15204 | Milk Powder all kind | 1.1491 |
| 11 | 15311 | Atta | 0.9392 |
| 12 | 15311 | Bran | 0.3978 |
| 13 | 15311 | Maida | 1.5826 |
| 14 | 15311 | Sooji | 0.2404 |
| 15 | 15412 | Biscuits | 2.3732 |
| 16 | 15421 | Sugar (including sugar cubes) | 15.2456 |
| 17 | 15432 | Chocolate | 0.9008 |
| 18 | 15491 | Tea | 6.5091 |
| 19 | 15492 | Coffee | 0.3484 |
| 20 | 15494 | Malted Foods | 0.3348 |
| 21 | 15511 | Country Liquor | 0.5372 |
| 22 | 15519 | Industrial Alcohol (Rectified/Denatured Spirit) | 2.6500 |
| 23 | 15531 | Beer | 0.9935 |
| 24 | 15532 | Indian made Foreign Liquor | 1.7518 |
| 25 | 15541 | Aerated Waters & Soft Drinks | 2.4935 |
| 26 | 16003 | Cigarettes | 8.6849 |
| 27 | 17111 | Cotton cloth | 8.0393 |
| 28 | 17111 | Cotton yarn | 15.0780 |
| 29 | 17114 | Non-cotton yarn | 7.0720 |
| 30 | 17114 | Nylon yarn | 0.4085 |
| 31 | 17115 | Cotton knitted cloth | 0.8227 |
| 32 | 17117 | Non-cotton cloth | 3.8657 |
| 33 | 17118 | Synthetic yarn | 5.5129 |
| 34 | 17119 | Rayon yarn | 0.3498 |
| 35 | 17119 | Carpet backing cloth | 0.0034 |
| 36 | 17119 | D.W.Tarpaulin | 0.0227 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 37 | 17119 | Hessian | 0.7854 |
| 38 | 17119 | Sacking | 1.5588 |
| 39 | 17119 | Yarn, jute | 0.2171 |
| 40 | 18104 | Leather Garments | 7.5051 |
| 41 | 19122 | Leather Bags, Wallets, Purses | 0.6069 |
| 42 | 19129 | Leather Gloves | 0.1840 |
| 43 | 19201 | Footwear except leather | 2.0012 |
| 44 | 19201 | Leather Shoes | 0.7927 |
| 45 | 19201 | Shoe Uppers (Leather) | 0.9282 |
| 46 | 20211 | Block Board | 5.1051 |
| 47 | 20211 | Plywood | 2.3251 |
| 48 | 20213 | Particle Boards | 2.3259 |
| 49 | 21012 | Laminated/Coated Paper | 0.3739 |
| 50 | 21012 | Pulp Rayon Grade | 0.0528 |
| 51 | 21013 | Newsprint | 0.6022 |
| 52 | 21014 | Craft Paper(Kraft Paper) | 1.8564 |
| 53 | 21015 | Straw and Paper Boards of all kinds | 0.8398 |
| 54 | 21022 | Corrugated and other paper boxes | 2.0879 |
| 55 | 23101 | Coke, hard | 1.0961 |
| 56 | 23109 | Carbon Black | 0.7116 |
| 57 | 23109 | Coal meddling | 0.1549 |
| 58 | 23109 | Coal, washed | 1.7045 |
| 59 | 23201 | Bitumen | 0.7920 |
| 60 | 23201 | Diesel, High Speed | 21.1350 |
| 61 | 23201 | Diesel, Light | 0.5441 |
| 62 | 23201 | Fuel, Aviation Turbine | 2.7097 |
| 63 | 23201 | Furnace Oil | 3.8649 |
| 64 | 23201 | Gas, Liquidified Petroleum | 11.1964 |
| 65 | 23201 | Kerosene | 4.4625 |
| 66 | 23201 | Naphtha | 5.4323 |
| 67 | 23201 | Oil, Lubricating | 2.0489 |
| 68 | 23201 | Petrol (Motor Spirit) | 5.6067 |
| 69 | 23201 | Petroleum Coke | 1.6012 |
| 70 | 24111 | Caustic soda | 2.2336 |
| 71 | 24111 | Dissolved Acetylene Gas | 0.0216 |
| 72 | 24111 | Liquid chlorine | 0.4796 |
| 73 | 24111 | Oxygen | 0.1713 |
| 74 | 24111 | Soda ash | 1.4539 |
| 75 | 24112 | Sulphuric Acid, including Oleum | 0.3183 |
| 76 | 24112 | Titanium dioxide | 0.3198 |
| 77 | 24114 | Dyes | 1.3942 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 78 | 24116 | Acetic acid | 0.6127 |
| 79 | 24116 | Formaldehyde | 0.1761 |
| 80 | 24116 | Maleic anhydride | 0.0652 |
| 81 | 24116 | Methanol | 0.4553 |
| 82 | 24116 | Phenol | 0.3558 |
| 83 | 24118 | Fatty Acid | 0.5217 |
| 84 | 24118 | Glycerine | 0.0627 |
| 85 | 24123 | Caprolactum | 0.8176 |
| 86 | 24123 | Urea | 6.4322 |
| 87 | 24124 | Di Ammonium Phosphate (DAP) | 3.1858 |
| 88 | 24124 | Single Super Phosphate (SSP) | 1.2442 |
| 89 | 24132 | PVC Resins | 1.2379 |
| 90 | 24132 | Synthetic Resins | 0.9583 |
| 91 | 24134 | Benzene | 0.8732 |
| 92 | 24134 | Ethylene | 4.0019 |
| 93 | 24134 | High density polyethylene | 1.8377 |
| 94 | 24134 | Linear low density polyethylene | 1.1488 |
| 95 | 24134 | Mono ethylene glycol | 1.1662 |
| 96 | 24134 | Polystyrene | 0.6733 |
| 97 | 24134 | Synthetic Rubber | 0.2259 |
| 98 | 24211 | Endosulphan | 0.1948 |
| 99 | 24211 | Monocrotophos | 0.6913 |
| 100 | 24219 | Rubber Chemical | 0.4916 |
| 101 | 24222 | Paints of all kinds | 2.2465 |
| 102 | 24224 | Phthalic anhydride | 0.5494 |
| 103 | 24232 | Antibiotics & it's preparations | 23.8392 |
| 104 | 24232 | Vitamins | 3.0131 |
| 105 | 24241 | Synthetic Detergents | 1.8398 |
| 106 | 24241 | Toilet Soap | 1.9112 |
| 107 | 24241 | Washing Soap | 0.6664 |
| 108 | 24243 | Linear alkyl benzene | 1.7213 |
| 109 | 24245 | Tooth Powder | 0.0197 |
| 110 | 24246 | Tooth Paste | 0.6499 |
| 111 | 24247 | Hair Oil | 0.2495 |
| 112 | 24248 | Agarbattis and Dhoop | 0.4106 |
| 113 | 24291 | Safety Matches | 0.7892 |
| 114 | 24292 | Explosives | 0.7204 |
| 115 | 24295 | Adhesives | 1.2891 |
| 116 | 24295 | Gelatin | 0.4953 |
| 117 | 24298 | salt, processed | 0.5305 |
| 118 | 24301 | Polyester staple fibre | 0.7167 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 119 | 24301 | Viscose Staple Fibre | 0.3273 |
| 120 | 24304 | Nylon industrial yarn/tyre cord | 0.1348 |
| 121 | 25111 | Tube, Truck | 0.1617 |
| 122 | 25111 | Tyre, Car/Cab | 2.0075 |
| 123 | 25111 | Tyre, Jeep (including SUVs, MUVs) | 0.0397 |
| 124 | 25111 | Tyre, Motor Cycle | 0.1225 |
| 125 | 25111 | Tyre, Tractor Front | 0.4515 |
| 126 | 25111 | Tyre, Tractor, Rear | 0.2794 |
| 127 | 25111 | Tyre, Tractor, Trailer | 0.0117 |
| 128 | 25111 | Tyre, Truck/Bus | 2.3752 |
| 129 | 25113 | Tube, Cycle/Rickshaw | 0.1856 |
| 130 | 25113 | Tyre, Cycle/Rickshaw | 0.3588 |
| 131 | 25191 | Hose Pipe | 0.7801 |
| 132 | 25192 | Rubber transmission and V belts | 0.6480 |
| 133 | 25193 | Condoms | 0.5302 |
| 134 | 25202 | Plastic Film excluding Bopp Film | 1.9795 |
| 135 | 25209 | Biaxially Oriented Polypropylene (BOPP) Film | 2.5199 |
| 136 | 25209 | Plastic Sheets | 0.5707 |
| 137 | 25209 | PVC Pipes and Tubes | 1.8906 |
| 138 | 26103 | Glass Bottles | 2.5584 |
| 139 | 26915 | H.T.Insulators | 0.8997 |
| 140 | 26933 | Glazed Tiles /Ceramic Tiles | 3.5800 |
| 141 | 26942 | Cement all kinds | 24.0633 |
| 142 | 26960 | Granites | 1.1197 |
| 143 | 26999 | railway sleeper | 1.0396 |
| 144 | 27110 | Ferro chrome | 3.4280 |
| 145 | 27110 | Ferro manganese | 6.3869 |
| 146 | 27110 | Ferro silicon | 3.1885 |
| 147 | 27120 | sponge iron | 9.9512 |
| 148 | 27130 | pig iron | 0.7650 |
| 149 | 27141 | Carbon steel | 7.8075 |
| 150 | 27151 | Bars & Rods | 9.7746 |
| 151 | 27151 | CR Sheets | 5.6214 |
| 152 | 27151 | Other Ferro alloys | 1.0212 |
| 153 | 27151 | Stainless/ alloy steel | 6.4009 |
| 154 | 27152 | H R Coils/Skelp | 12.9560 |
| 155 | 27152 | Steel wires (wire drawing) | 2.0544 |
| 156 | 27161 | GP/GC sheets | 2.4532 |
| 157 | 27161 | H R Sheets | 3.0966 |
| 158 | 27161 | Plates | 12.5425 |
| 159 | 27172 | Tinplates | 0.2309 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 160 | 27190 | Pipes | 0.7091 |
| 161 | 27190 | Structurals | 0.9704 |
| 162 | 27201 | Copper Metal Cathode | 1.1621 |
| 163 | 27201 | Electric sheets | 1.3414 |
| 164 | 27201 | Wires (Copper) | 1.7468 |
| 165 | 27203 | Aluminium | 2.5860 |
| 166 | 27203 | Aluminium Foils | 1.0858 |
| 167 | 27203 | Aluminium Sheets/Plates | 1.8239 |
| 168 | 27203 | Aluminium Tubes/Pipes | 0.2271 |
| 169 | 27203 | Aluminium wires & extrusions | 3.5632 |
| 170 | 27310 | C.I. Castings | 1.6456 |
| 171 | 27310 | Steel Castings | 2.1462 |
| 172 | 28111 | Spun Pipes | 0.1343 |
| 173 | 28121 | Cylinders | 1.3742 |
| 174 | 28129 | Drums and Barrels | 0.1043 |
| 175 | 28129 | Tin Containers | 0.2559 |
| 176 | 28133 | Boilers | 4.0111 |
| 177 | 28910 | Electrical Stamping Lamination | 0.6543 |
| 178 | 28910 | Stampings & Forgings | 4.9174 |
| 179 | 28931 | Razor Blades/Safety Blades | 5.2665 |
| 180 | 28991 | Fasteners (excluding Zip-Fastener) | 5.6948 |
| 181 | 28997 | Aluminium Utensils | 0.7240 |
| 182 | 28997 | Pressure Cooker | 2.1342 |
| 183 | 29112 | Engines including Internal Combustion and Diesel Engine | 2.8835 |
| 184 | 29119 | Turbines & Accessories | 0.9113 |
| 185 | 29121 | Air & Gas Compressors | 1.9275 |
| 186 | 29121 | Pumps (including power driven pumps) | 1.3011 |
| 187 | 29121 | Sealed Compressors | 1.2542 |
| 188 | 29131 | Bearings (Ball/Roller) | 3.3536 |
| 189 | 29131 | Industrial Chains | 0.5959 |
| 190 | 29142 | Furnaces | 0.5482 |
| 191 | 29151 | Cranes | 0.2670 |
| 192 | 29151 | Lifts/Elevators & components thereof | 0.0784 |
| 193 | 29151 | Material Handling Equip. | 0.2022 |
| 194 | 29192 | Air Conditioner (Packaged) | 0.0870 |
| 195 | 29192 | Air Conditioner (Room) | 2.8741 |
| 196 | 29195 | Packaging Machinery | 0.5901 |
| 197 | 29211 | Agricultural Machinery | 0.1313 |
| 198 | 29211 | Tractors (complete) | 3.7665 |
| 199 | 29214 | Agricultural Implements | 0.4020 |
| 200 | 29229 | Machine Tools | 1.1681 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 201 | 29242 | Drilling Equipment | 0.8627 |
| 202 | 29244 | Earth Moving Machinery | 2.2868 |
| 203 | 29244 | Loaders | 0.1295 |
| 204 | 29251 | Dairy Machinery | 0.1953 |
| 205 | 29254 | Sugar Machinery | 1.1399 |
| 206 | 29258 | Food Processing Machinery | 0.2739 |
| 207 | 29262 | Textile Machinery | 1.7378 |
| 208 | 29291 | Plastic Machinery including Moulding Machinery | 2.5524 |
| 209 | 29294 | Printing Machinery | 0.8342 |
| 210 | 29296 | Cement Machinery | 1.2150 |
| 211 | 29303 | Fans | 0.3626 |
| 212 | 29306 | Chillers | 0.0773 |
| 213 | 29306 | Refrigerators | 0.9705 |
| 214 | 29308 | Washing Machines | 0.3610 |
| 215 | 30006 | Computers | 2.3317 |
| 216 | 30007 | Computer Peripherals | 0.4390 |
| 217 | 31102 | Transformers (P.D.T & Special Type) | 0.1072 |
| 218 | 31102 | Transformers (Small) | 2.4480 |
| 219 | 31103 | Electric Motors Phase-I | 0.8223 |
| 220 | 31103 | Electric Motors (excluding Phase-I) | 0.7889 |
| 221 | 31103 | Relays, Fuses and Switchgears | 2.1700 |
| 222 | 31200 | Air Break Switches / Circuit Breakers | 1.3579 |
| 223 | 31200 | Conductor, Aluminium | 2.0043 |
| 224 | 31200 | Electrical Switchboard | 0.4443 |
| 225 | 31300 | Cable, Jelly Filled | 0.4217 |
| 226 | 31300 | Cable, Rubber Insulated | 1.2276 |
| 227 | 31300 | XLPE Cable | 0.2025 |
| 228 | 31401 | Storage Batteries (Lead/ Acid) | 1.2802 |
| 229 | 31402 | Dry Cells | 0.8030 |
| 230 | 31501 | Incandescent Lamp | 0.2348 |
| 231 | 31503 | Fluorescent Tubes | 0.9012 |
| 232 | 31506 | Mercury Vapour Lamp | 0.0811 |
| 233 | 31901 | Generator/Alternator | 1.3179 |
| 234 | 31908 | Graphite Electrodes/Anodes | 0.4192 |
| 235 | 31908 | Welding Rods | 0.1261 |
| 236 | 32101 | Colour TV Picture Tubes | 1.6102 |
| 237 | 32102 | Power Capacitors | 0.2460 |
| 238 | 32109 | Printed Circuit Board/Plate | 1.7157 |
| 239 | 32204 | Telephone Instruments including Mobile Phone and Accessories | 2.1784 |
| 240 | 32301 | Colour TV Sets | 3.8056 |
| 241 | 33111 | X-ray equipment | 1.0298 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 242 | 33112 | Medical and Surgical Equipment (except x-ray) | 0.7021 |
| 243 | 33112 | Syringes | 0.7356 |
| 244 | 33121 | Valve | 0.4924 |
| 245 | 33122 | Electric meter of all kinds | 0.2138 |
| 246 | 33122 | Water meter of all kinds | 0.1257 |
| 247 | 33130 | Cooling Towers | 0.8911 |
| 248 | 33301 | Clock/Watch/Timepiece Movement | 0.0446 |
| 249 | 33301 | Watches | 0.2803 |
| 250 | 34101 | Commercial Vehicles | 19.3417 |
| 251 | 34103 | Passenger Cars | 19.7397 |
| 252 | 34104 | Utility/Multi-Purpose Vehicles | 0.5706 |
| 253 | 34300 | Auto Ancillary & Parts | 0.9115 |
| 254 | 34300 | Gear Boxes | 0.0799 |
| 255 | 35119 | Ship Building & Repairs | 1.0457 |
| 256 | 35201 | Locomotives all types | 0.3086 |
| 257 | 35202 | Coach, railway | 0.3952 |
| 258 | 35203 | Railway wagons | 0.3715 |
| 259 | 35203 | wheel , railway | 0.0476 |
| 260 | 35209 | Railway materials | 0.1650 |
| 261 | 35911 | Motor Cycles | 9.5225 |
| 262 | 35911 | Three-Wheelers (including passenger & goods carrier) | 3.2537 |
| 263 | 35912 | Scooter and Mopeds | 2.1398 |
| 264 | 35921 | Bicycles | 0.9603 |
| 265 | 36991 | Pens of all kind | 5.9101 |

# Annexure-IV

## List of new items included in Manufacturing sector the new series

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 1 | 15116 | Frozen Buffalo/Mutton Meat and edible Offals | 0.9672 |
| 2 | 15134 | Fruit Juices | 0.4275 |
| 3 | 15135 | Squashes, Jams, Jellies, Ketchups etc. | 0.2253 |
| 4 | 15137 | Fruit Pulp | 1.3143 |
| 5 | 15142 | Soyabean Extraction | 0.3166 |
| 6 | 15149 | Castor oil | 0.4236 |
| 7 | 15203 | Ghee | 0.8461 |
| 8 | 15204 | Butter | 0.2927 |
| 9 | 15204 | Flavoured Milk | 0.0286 |
| 10 | 15204 | Icecream | 0.1588 |
| 11 | 15204 | Milk, Skimmed, Pasteurised | 5.6709 |
| 12 | 15209 | Glucose (powder & liquid) | 0.1588 |
| 13 | 15312 | Rice | 6.5761 |
| 14 | 15321 | Starch | 0.7140 |
| 15 | 15331 | Cattle and Poultry Feed | 1.7000 |
| 16 | 15411 | Bread | 0.1837 |
| 17 | 15421 | Bagasse | 0.3388 |
| 18 | 15421 | Molasses | 1.0831 |
| 19 | 15433 | Instant Food Mixes (Ready to eat) | 1.3171 |
| 20 | 15493 | Cashew Kernels | 2.8271 |
| 21 | 15543 | Mineral Water | 0.3149 |
| 22 | 16002 | Biri | 5.0706 |
| 23 | 16006 | Zarda/ Chewing Tobacco | 0.8362 |
| 24 | 16008 | Gutka | 0.2410 |
| 25 | 16008 | Pan Masala | 0.8706 |
| 26 | 17114 | Viscose staple fibre_raw | 1.2596 |
| 27 | 17115 | Fabrics/cloth, rayon (knitted) | 0.1220 |
| 28 | 17118 | Acrylic fibre_fabric | 0.4567 |
| 29 | 17121 | Grey cloth (bleached / unbleached) | 9.0908 |
| 30 | 17139 | Staple fibre, polyester_raw | 0.0237 |
| 31 | 17223 | Woollen Carpets | 2.5812 |
| 32 | 17232 | Twine, jute (sutli) | 1.4791 |
| 33 | 17295 | canvas | 0.0078 |
| 34 | 17296 | Terry Towel | 2.3763 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 35 | 17297 | Elastic Tape | 0.5028 |
| 36 | 18101 | Apparels | 20.3155 |
| 37 | 19119 | Tanned or Chrome Skins and Leathers | 1.3076 |
| 38 | 20211 | Wood Veneer | 0.7533 |
| 39 | 21012 | Writing & Printing Paper | 3.7054 |
| 40 | 21098 | Computer Stationery | 0.4728 |
| 41 | 22110 | Books | 0.6979 |
| 42 | 22121 | Newspapers | 10.0865 |
| 43 | 23209 | Propylene | 4.0923 |
| 44 | 24111 | Aniline | 0.2338 |
| 45 | 24112 | Phosphoric Acid | 0.2226 |
| 46 | 24116 | Acetone | 0.1685 |
| 47 | 24116 | Purified terephthalic acid | 4.2279 |
| 48 | 24117 | Sodium Hydrosulphate/Sodium Hydrosulphite | 0.0560 |
| 49 | 24121 | Ammonia | 0.0634 |
| 50 | 24121 | Ammonia Sulphate(A/S) | 0.4186 |
| 51 | 24121 | Calcium Ammonium Nitrate(CAN) | 0.0586 |
| 52 | 24124 | Complex grade fertilizers | 1.1993 |
| 53 | 24131 | Poly butadiene rubber | 0.1409 |
| 54 | 24131 | Styrene butadiene rubber | 0.0375 |
| 55 | 24134 | Paraxylene | 1.9321 |
| 56 | 24134 | Poly vinyl chloride | 1.3808 |
| 57 | 24134 | Polypropylene ( including co-polymer) | 3.0237 |
| 58 | 24139 | ABS Resin | 0.1796 |
| 59 | 24211 | Acephate | 0.6888 |
| 60 | 24211 | Atrazin | 0.0026 |
| 61 | 24211 | Carbendzim(Bavistin) | 0.0619 |
| 62 | 24211 | Chlorpyriphos | 0.3881 |
| 63 | 24211 | Cypermethrin | 0.6158 |
| 64 | 24211 | Di ethyl easter technical( 2, 4-D) | 0.0062 |
| 65 | 24211 | Fenvalerate | 0.0379 |
| 66 | 24211 | Mancozab | 0.9176 |
| 67 | 24211 | Quinalphos | 0.0523 |
| 68 | 24211 | Triazophos | 0.2521 |
| 69 | 24223 | Printing Ink | 0.8070 |
| 70 | 24233 | Ayurvedic Medicaments | 2.6967 |
| 71 | 24243 | Ethylene oxide | 0.3296 |
| 72 | 24243 | Whitening Agents | 0.0918 |
| 73 | 24246 | Hair Shampoo | 0.2925 |
| 74 | 24295 | Empty Capsules | 0.4887 |
| 75 | 24297 | Guar Gum Splits | 0.6310 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 76 | 24297 | Leather Finishing Chemicals & Auxiliaries | 0.2863 |
| 77 | 24299 | Acrylonitrile | 0.3125 |
| 78 | 24299 | Butadiene | 0.8738 |
| 79 | 24303 | Acrylic fibre | 0.2090 |
| 80 | 24304 | Nylon filament yarn | 0.0709 |
| 81 | 24304 | Polyester filament yarn | 1.1900 |
| 82 | 25119 | Rubber Flaps | 0.0506 |
| 83 | 25199 | Rubber Tread | 0.4022 |
| 84 | 25201 | Polyester Chips | 1.9981 |
| 85 | 25202 | HDPE Woven Sacks | 0.6064 |
| 86 | 25202 | Plastic Bottles | 0.2334 |
| 87 | 25202 | Polythene Bags including Hdpe & Ldpe Bags | 1.7383 |
| 88 | 25204 | Pvc/Plastic Suitcases | 0.2092 |
| 89 | 25209 | Plastic Rope | 0.0961 |
| 90 | 26101 | Glass Sheet | 1.3334 |
| 91 | 26101 | Toughened Glass | 0.2612 |
| 92 | 26102 | Fibre Glass | 0.6292 |
| 93 | 26911 | Porcelain And Ceramic Sanitary Wares | 0.2459 |
| 94 | 26921 | Refractory Bricks | 3.1819 |
| 95 | 26922 | Magnesite, Dead Burnt | 0.0702 |
| 96 | 26960 | Marble Tiles/Slabs | 1.2398 |
| 97 | 26993 | Grinding Wheels | 2.9205 |
| 98 | 27141 | Semis | 1.2056 |
| 99 | 27201 | Copper and Copper Products | 5.4597 |
| 100 | 28112 | Steel Structures | 5.4773 |
| 101 | 28994 | Cock (Faucets) | 0.0993 |
| 102 | 29119 | Construction Machine/Equipment | 0.1490 |
| 103 | 29191 | Forklift | 0.1522 |
| 104 | 29198 | Heat Exchangers | 1.0215 |
| 105 | 29199 | Chemical Equipment and Systems | 0.1679 |
| 106 | 29199 | Electric Welding Machines | 0.0476 |
| 107 | 29249 | Mining Equipment | 0.1212 |
| 108 | 29299 | Driers | 0.3355 |
| 109 | 29303 | Industrial Blowers | 0.0050 |
| 110 | 29305 | Solar Power Systems | 0.2004 |
| 111 | 29308 | Mixers & Grinders | 0.0887 |
| 112 | 30003 | Calculators | 0.0241 |
| 113 | 30007 | Printers | 0.2582 |
| 114 | 31103 | DC Motors | 0.1724 |
| 115 | 31104 | UPS/Inverter/Converter | 0.9285 |
| 116 | 31109 | Battery Charger | 0.0323 |

| Sl.No. | NIC-04 | Item group | Weight |
|---|---|---|---|
| 117 | 31200 | Insulated Cables/Wires all kind | 1.1290 |
| 118 | 31300 | Fibre Optic Cable | 0.1207 |
| 119 | 31401 | Lead Oxide | 0.0268 |
| 120 | 31901 | Stabilisers | 0.1001 |
| 121 | 31904 | Magnets | 0.1360 |
| 122 | 32105 | IC Chips & Transistors | 0.1994 |
| 123 | 32109 | EPABX / PABX Systems | 0.0786 |
| 124 | 32309 | Amplifier | 0.0605 |
| 125 | 33201 | Lens of All Kinds | 1.1527 |
| 126 | 35203 | Railway axle | 0.0388 |
| 127 | 35923 | Parts - Bicycle | 0.0011 |
| 128 | 36101 | Wood Furniture | 2.4387 |
| 129 | 36104 | Coir Mats & Mattings | 2.3521 |
| 130 | 36911 | Gems and Jewellery | 17.6721 |
| 131 | 36934 | Sports Goods, Rubber | 0.6106 |
| 132 | 36997 | Tooth Brush | 0.9900 |

# Annexure-V

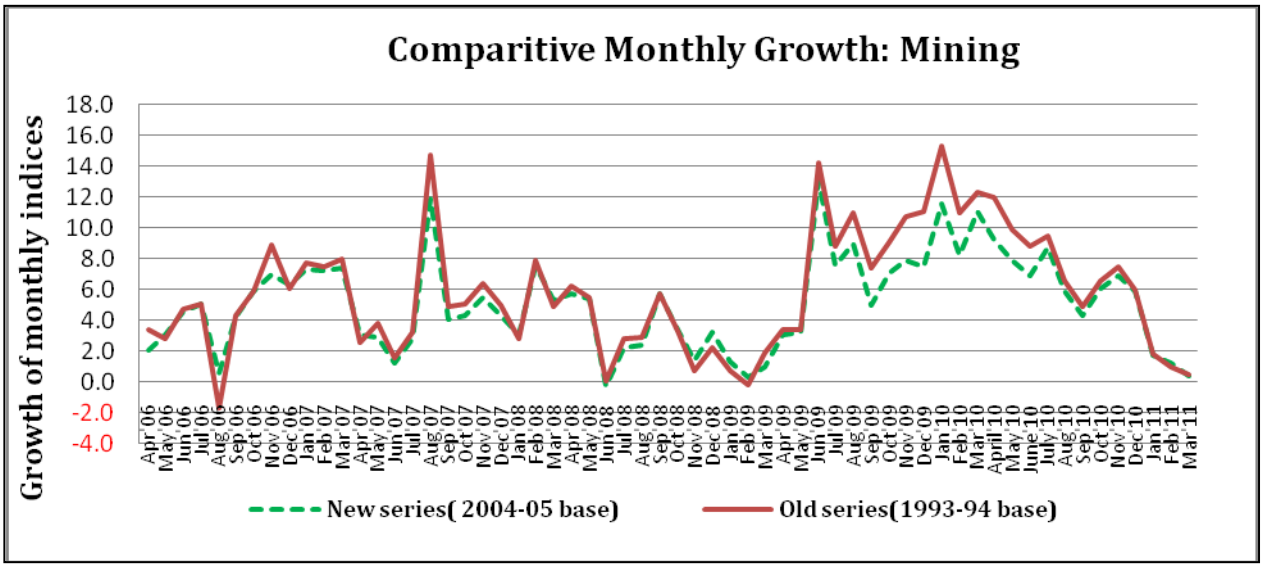
# List of items dropped from the old series

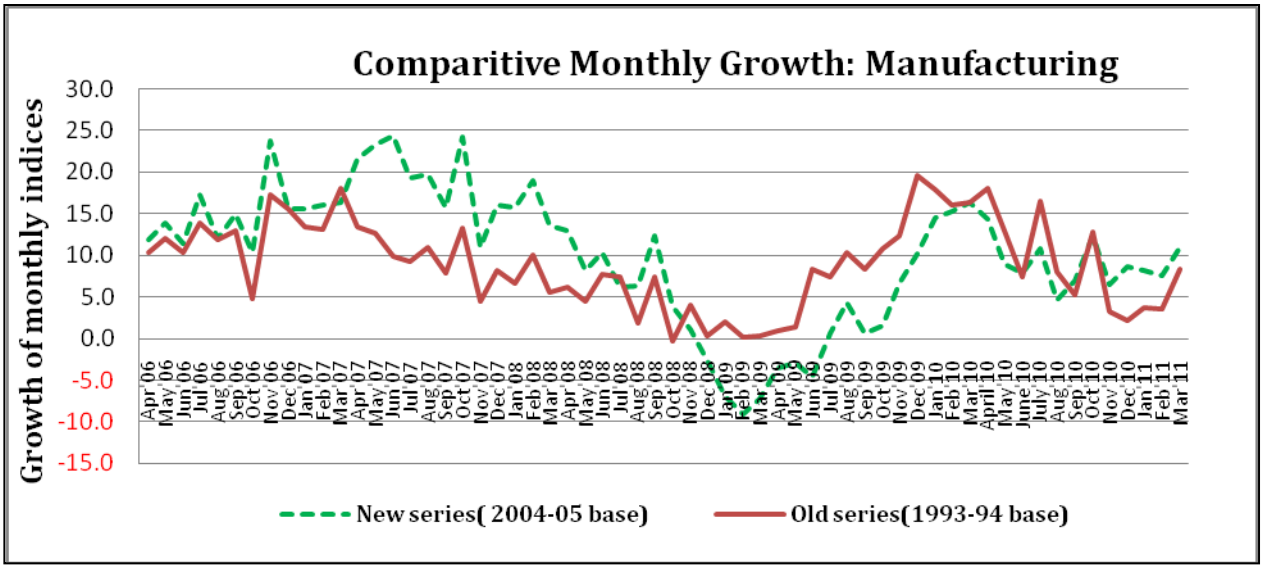
| Sl.No. | NIC-87 | Item Group | Weight |
|---|---|---|---|
| 1 | 2100 | Deoiled mustard cake | 0.1378 |
| 2 | 2113 | Till seed oil | 0.3784 |
| 3 | 3008 | Calcium carbide | 0.6283 |
| 4 | 3033 | Organic pigments | 2.8587 |
| 5 | 3034 | Optical whitening agent | 0.1776 |
| 6 | 3041 | Trimethoprim | 1.1974 |
| 7 | 3041 | Sulpha drugs | 1.8396 |
| 8 | 3060 | Viscose tyre cord | 0.6353 |
| 9 | 3080 | Fire works | 0.4369 |
| 10 | 3092 | Cine film & x-ray films | 1.4556 |
| 11 | 3140 | Low sulphur heavy stock | 0.9186 |
| 12 | 3140 | Natural gas | 3.8448 |
| 13 | 3160 | Di-methyl tetra phthalate (DMT) | 1.6296 |
| 14 | 3270 | Asbestos cement pressure and building pipes etc. | 0.3233 |
| 15 | 3270 | Asbestos cement sheets | 1.3600 |
| 16 | 3402 | Well/off shore platforms | 7.0987 |
| 17 | 3439 | Zip fasteners (SSI) | 0.2832 |
| 18 | 3562 | Parts & accessories (pumps & compressors) | 0.4241 |
| 19 | 3581 | Typewriters | 0.2843 |
| 20 | 3591 | Sewing machines | 0.8342 |
| 21 | 3664 | Tape recorders | 0.3461 |
| 22 | 3872 | Pencils (SSI) | 0.7136 |

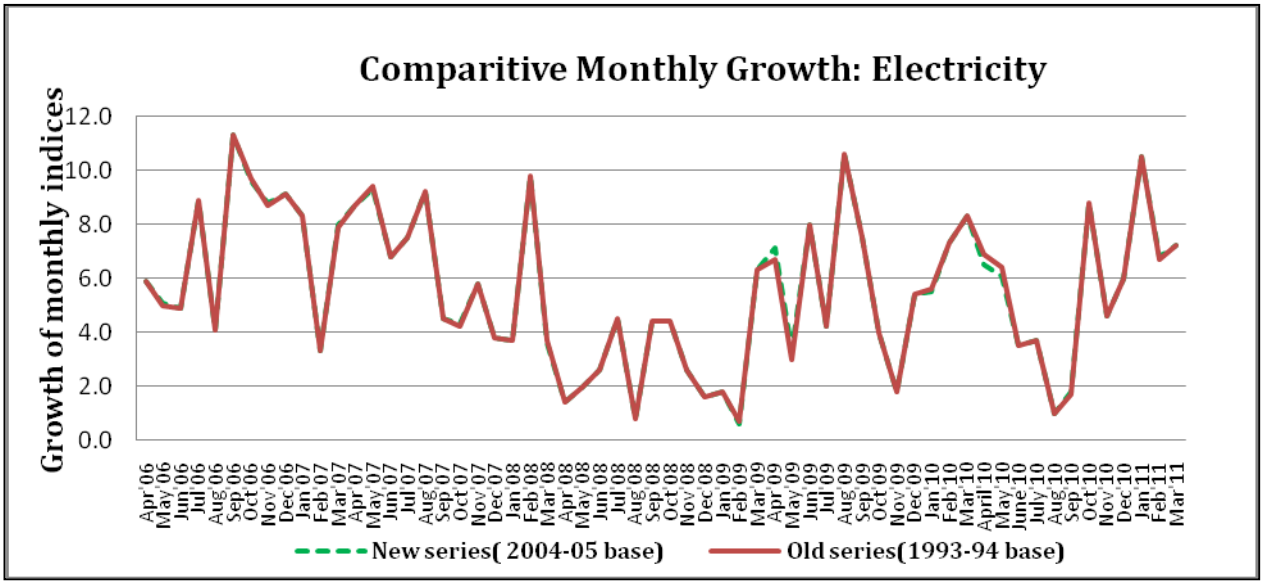
*SSI: Small Scale Industries*

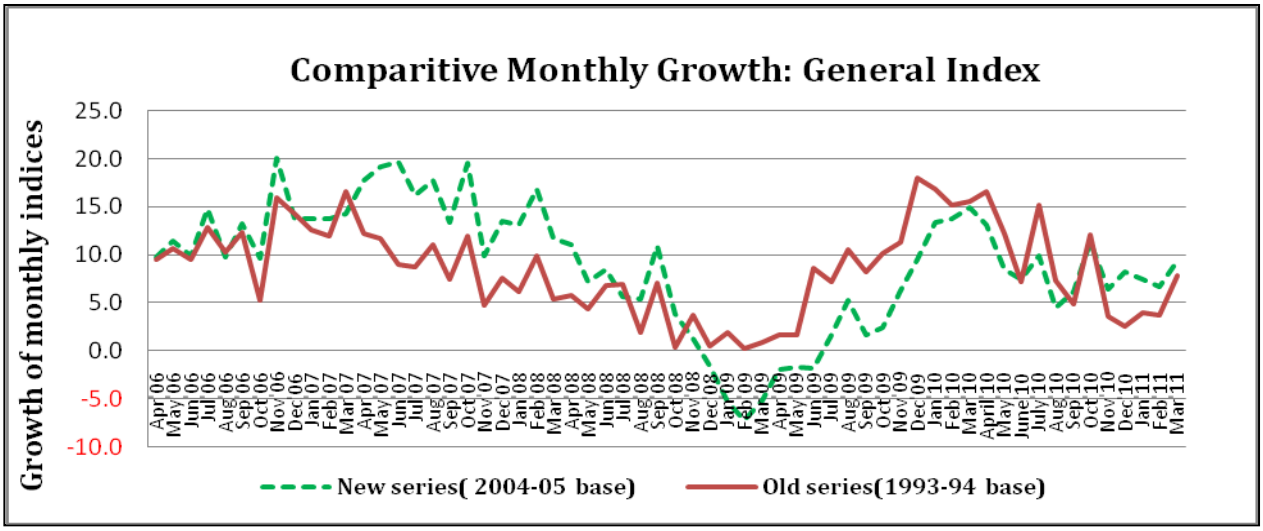
# Annexure-VI

## Comparative monthly growth curves




Comparitive Monthly Growth: Electricity
Growth of monthly indices
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Apr'06 May'06 Jun'06 Jul'06 Aug'06 Sep'06 Oct'06 Nov'06 Dec'06 Jan'07 Feb'07 Mar'07 Apr'07 May'07 Jun'07 Jul'07 Aug'07 Sep'07 Oct'07 Nov'07 Dec'07 Jan'08 Feb'08 Mar'08 Apr'08 May'08 Jun'08 Jul'08 Aug'08 Sep'08 Oct'08 Nov'08 Dec'08 Jan'09 Feb'09 Mar'09 Apr'09 May'09 Jun'09 Jul'09 Aug'09 Sep'09 Oct'09 Nov'09 Dec'09 Jan'10 Feb'10 Mar'10 April'10 May'10 June'10 July'10 Aug'10 Sep'10 Oct'10 Nov'10 Dec'10 Jan'11 Feb'11 Mar'11
New series( 2004-05 base)
Old series(1993-94 base)


Comparitive Monthly Growth: General Index
Growth of monthly indices
25.0
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
Apr'06 May'06 Jun'06 Jul'06 Aug'06 Sep'06 Oct'06 Nov'06 Dec'06 Jan'07 Feb'07 Mar'07 Apr'07 May'07 Jun'07 Jul'07 Aug'07 Sep'07 Oct'07 Nov'07 Dec'07 Jan'08 Feb'08 Mar'08 Apr'08 May'08 Jun'08 Jul'08 Aug'08 Sep'08 Oct'08 Nov'08 Dec'08 Jan'09 Feb'09 Mar'09 Apr'09 May'09 Jun'09 Jul'09 Aug'09 Sep'09 Oct'09 Nov'09 Dec'09 Jan'10 Feb'10 Mar'10 April'10 May'10 June'10 July'10 Aug'10 Sep'10 Oct'10 Nov'10 Dec'10 Jan'11 Feb'11 Mar'11
New series( 2004-05 base)
Old series(1993-94 base)