

COUNTRY REPORT



INDIA

By

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STATISTICAL SYSTEM IN INDIA

The Indian Statistical System functions within the overall administrative set up of the country. India has a federal structure of Government. The division of responsibility for administration between the Union Government and the State Governments is on the basis of three-fold classification of all subjects, namely, the Union List, the State List, and the Concurrent List. The last category represents the areas where both the Union and State Governments can operate. The subject Statistics is in this list. There is a further division of responsibility, by subjects or groups of subjects, among the different Ministries/Departments of the Union Government and among the Departments of State Governments, on the basis of their administrative functions.

In accordance with this structure, the Indian Statistical System is largely decentralised with elements of central supervision. All-India large-scale statistical operations, such as

Population Census, Economic Census, Agricultural Census and Livestock Census, and nation-wide sample surveys, including the Annual Survey of Industries and the Socio-Economic Surveys, as well as compilation of macro-economic aggregates like national accounts, All-India Price Indices and industrial production, are mainly Central activities, with substantial involvement of State agencies in data collection.

The Ministry of Statistics and Programme Implementation (MOSPI) is the nodal agency for all statistical activities at all-India level. The State Directorates of Economics and Statistics (DESs) carry out the responsibility of coordination of all statistical activities at the State level and keeping liaison with the MOSPI for the purpose of coordination at All-India level, and for maintaining norms and standards in the field of official statistics.

Legal Support for Collection of Data: The Central Government's Allocation of Business Rules, 1961 (as amended from time to time) provides for the roles and responsibilities of the MOSPI. The main Statistics Act under which data is collected by the MOSPI is the 'Collection of Statistics Act, 2008'. The other most important Act for collection of statistics on demographic aspects

of population is the 'Population Census Act 1948', which is administered by the Office of the Registrar General of India, functioning under the Ministry of Home Affairs. Besides these two important Acts, there are a number of Acts, Rules and Procedures being administered by various administrative agencies on their subjects, through which statutory returns are collected by these Ministries/Departments.

National Statistical System Training Academy (NSSTA): The National Statistical System Training Academy (NSSTA), a central training institution of the Ministry of Statistics and programme Implementation (MoSPI) is established in 2009 for providing to central and State officers with newer practices in the statistical applications in official statistics, techniques of data management, survey techniques, monitoring & Evaluation, management, Information technology, GIS, forecasting, SNA and administration of official statistical system.

STATUS OF NATIONAL ACCOUNTS COMPILATION IN INDIA

BACKGROUND

The first set of estimates of national income for the entire Indian Union was compiled by the 'National Income Committee', a

High Powered Expert Committee set up by the Government of India under the Chairmanship of **Prof. P.C. Mahalanobis in 1949**. The estimates of national income and details of methodology adopted by the Committee were published in the First and Final reports of the National Income Committee brought out in April 1951 and February 1954 respectively.

Following the methodology recommended by the National Income Committee, the Central Statistics Office, earlier called the Central Statistical Organisation (CSO) prepared the first official estimates of national income with base year 1948-49 at constant prices. The CSO published these estimates at constant (1948-49) prices alongwith the corresponding estimates at current prices and the accounts of the Public Authorities in the publication, "Estimates of National Income" in 1956. With the gradual improvement in the availability of basic data over the years, a comprehensive review of methodology for national accounts statistics has constantly been undertaken by the CSO with a view to updating the data base and shifting the base year to a more recent year.

The base year of national accounts were revised in the following chronological order:

- i. From 1948-49 to 1960-61 in August 1967;
- ii. From 1960-61 to 1970-71 in January 1978;
- iii. From 1970-71 to 1980-81 in February 1988;
- iv. From 1980-81 to 1993-94 in February 1999;
- v. From 1993-94 to 1999-2000 in January 2006;
- vi. From 1999-2000 to 2004-05 in January 2010; and
- vii. From 2004-05 to 2011-12 on January 30, 2015.**

Alongwith the shifting of base years of national accounts series, the CSO also had been making improvements in the compilation of national accounts series, in terms of coverage of activities, incorporation of latest datasets and latest international guidelines. The reason for changing the base year of the national accounts periodically is to take into account the structural changes which have been taking place in the economy and to depict a true picture of the economy through macro aggregates like Gross Domestic Product (GDP), National Income, consumption expenditure of Government and individuals, capital formation etc. For examining the performance of the economy in real terms, estimates of these macro-economic aggregates are prepared at the prices of selected year known as base year. The estimates at the prevailing prices of the current year are termed as “at current prices”, while those prepared at base year prices are termed as “at constant prices”. The comparison of the estimates at constant prices, which means “in real terms”, over the years gives the measure of real growth.

New Base of National Accounts Statistics 2011-12

The Central Statistics Office (CSO) introduced the new series of national accounts statistics with base year 2011-12, in place of the previous series with base year 2004-05 on January 30, 2015, which provides the new series Estimates of National Income, Consumption Expenditure, Saving and Capital Formation. The new series on National Accounts Statistics has been introduced after a comprehensive review of both the database and the methodology employed in the estimation of various aggregates. Besides shifting the base year from 2004-05 to 2011-12, the series incorporates latest available data from surveys and

Censuses, new economic activities, expansion of coverage of activities, improvements in procedures and to the extent possible, the latest recommendations of System of National Accounts, 2008 in the compilation of national accounts.

Choice of Base Year:

In the past, National Accounts Statistics were revised decennially changing the base to a year, which ends with 1. With the informal/unorganised sector playing a major role in the Indian economy, this was primarily because in the base year estimates of national accounts aggregates, the work force estimates especially that for the unorganised sector were obtained from the **Population Census** conducted decennially in the years ending with 1. This practice continued upto the series with base year 1980-81.

Since the 1993-94 series, the CSO started using the work force estimates from the results of Quinquennial Employment and Unemployment Surveys of National Sample Survey Organisation (NSSO), which are conducted once in every five years, and consequently started revising the base years of national accounts statistics once in every five years coinciding with the years for which the NSSO conducts the Quinquennial Employment and Unemployment Surveys (EUS). The National Statistical Commission has also recommended that all economic indices should be rebased at least once in every five years.

The NSS 61st Round Quinquennial EUS conducted in the year 2004-05, on which the previous series of national accounts was based, was followed by a

quinquennial EUS in 2009-10. However, the year was not considered a “normal” year since it succeeded the global slowdown of 2008. Therefore, a fresh EUS was conducted in 2011-12. The results of this survey have been used for the compilation of the estimates in the new series with base year 2011-12.

SALIENT FEATURES OF NEW SERIES OF NATIONAL ACCOUNTS STATISTICS 2011-12:

A. IMPROVEMENTS IN COVERAGE

- i) **Corporate Sector** - In the 2004-05 series, the Private Corporate Sector in 2004-05 series was being covered using the RBI Study on Company Finances, wherein estimates were compiled on the basis of financial results of around 2500 companies. In the new series, comprehensive coverage of Corporate Sector has been ensured in mining, manufacturing and services by incorporation of annual accounts of companies as filed with the Ministry of Corporate Affairs (MCA) under their e-governance initiative, MCA21. Accounts of about 5 lakh companies have been analysed and incorporated for the years 2011-12 and 2012-13, while the number of common companies (companies for which accounts are available for the year 2012-13) is around 3 lakh for the year 2013-14.

- ii) **Financial Corporations**- Financial corporations in the private sector, other than banking and insurance, in the earlier series was limited to a few mutual funds and estimates for the Non-Government Non-Banking Finance Companies as compiled by Central Bank viz. Reserve Bank of India (RBI).

In the new series, the coverage of financial sector has been expanded by including stock brokers, stock exchanges, asset management companies, mutual funds and pension funds, as well as the regulatory bodies, SEBI, PFRDA and IRDA

iii) Local bodies and autonomous institutions - Earlier, estimates for local bodies and autonomous institutions were prepared on the basis of information received for seven autonomous institutions and local bodies of four States - Delhi, Himachal Pradesh, Meghalaya and Uttar Pradesh. In the new series, there has been an improved coverage of local bodies and autonomous institutions, covering around 60% of the grants/transfers provided to these institutions.

iv) Use of results of recent surveys and censuses and type studies - In the new series, efforts have been made to make use of as much current data as possible. Further, the results of latest available surveys have also been made use of. Some of the important sources of data, which have been used in the new series, are as follows:

- (i) NSS 68th round (2011-12) - Survey on employment and unemployment and consumer expenditure;
- (ii) NSS 67th round (2010-11) - Survey on Unincorporated Non-agricultural Enterprises (Excluding Construction);
- (iii) All India Livestock Census, 2012;
- (iv) NSS 70th round (2013) - All India Debt and Investment Survey and Situation Assessment Survey;
- (v) Population Census, 2011;

(vi) Study on yield rates of meat products & by-products of different livestock species conducted by National Research Centre on Meat, Hyderabad;

(vii) Study on the inputs in the Construction sector by Central Building

Research Institute (CBRI), Roorkee

(viii) Study on 'Harvest and Post-harvest losses of major crops and livestock products in India' conducted by Central Institute of Post-Harvest Engineering and Technology (CIPHET), Ludhiana.

v) Consultation with Expert Bodies - The Advisory Committee on National Accounts Statistics (ACNAS) under the chairmanship of Prof. K. Sundaram, constituted the following sub-committees to look into the issues in the compilation of national accounts and make necessary recommendations for the new series of national accounts:

a) Sub-Committee on Unorganised Manufacturing & Services Sectors

b) Sub-Committee on Agriculture and Allied Sectors
Chairman

c) Sub-Committee on Private Corporate Sector including PPPs

d) Sub-Committee on System of Indian National Accounts
Chairman

e) Committee on Private Final Consumption Expenditure
Chairman

B. IMPLEMENTATION OF 2008 SNA

While revising the base year, efforts have also been made to implement the recommendations of the System of National Accounts (SNA) 2008 to the extent data are available. Some of the recommendations which presently form part of the new series are:

- i. Valuation of various GVA, NVA and related aggregates at basic prices and GDP at market prices instead of factor cost.
- ii. Estimates of the institutional sectors - Non-financial and financial Corporations, General Government and households are shown separately, in view of their 'intrinsic difference in their economic objectives, functions and behaviour'.
- iii. Distinction between General Government and public corporations has been made and units have been allocated to institutional sectors so that general government and other public units can be identified separately.
- iv. Unincorporated enterprises belonging to households, which have complete sets of accounts, tend to behave in the same way as corporations. Therefore, as recommended by SNA 2008, such enterprises have been treated as quasi-corporations. Some examples of quasi-corporations in the Indian context are proprietorship and partnership enterprises, maintaining accounts.
- v. The head office has been allocated to the non-financial corporations sector unless all or most of its subsidiaries are financial corporations, in which case it is treated as a financial auxiliary in the financial corporations sector. In the 2004-05 series, the recommendation had been adopted for service sector wherein GVA estimates were compiled from enterprises in this sector. In the new series, this approach has been adopted for the mining and organised manufacturing sectors also.

- vi. Sub-sectoring of Non-Profit Institutions (NPIs) in the corporate and government sectors has been done in respect of autonomous bodies and Section 25 companies.
- vii. **Expenditure on Research & Development (R&D) has been capitalised in Government, Public Corporations and Private Corporations and hence has become part of capital formation.**
- viii. Output of Financial Intermediation Services Indirectly Measured (FISIM) has been calculated using a reference rate for the financial sector, except in the case of central bank (Reserve Bank of India).
- ix. Output of central bank (RBI) is measured at cost.
- x. Non-financial assets in the earlier series were classified as 'construction' and 'machinery'. In the new series, as recommended by SNA2008, non-financial assets have been classified as 'dwellings, other buildings and structures', 'machinery and equipment', 'cultivated biological resources' and 'intellectual property products'.
- xi. Consumption of fixed capital has been measured at the average prices of the period with respect to a constant-quality price index of the asset concerned.
- xii. Harmonisation between SNA and BPM in respect of the external sector transactions has been achieved since RBI has adopted BPM6 in its compilation.

In view of the implementation of the above-mentioned recommendations of SNA 2008, specifically those stated at (ii), (iii) and (iv) above, the classification of enterprises in the new series has undergone change. The details of the institutional sector classification are given below:

I. Organised Sector

- a. General Government
- b. Public Financial/Non-Financial Corporations
 1. Departmental Enterprises (DE) or Departmental Commercial Undertakings (DCU)
 2. Non-Departmental Enterprises (NDE) or Non-Departmental Commercial Undertakings (NDCUs)
- c. Private Financial/Non-Financial Corporations
 1. Private Incorporated Enterprises
 2. Quasi-corporations
These include -
 - i. Crop production in plantations, other than those covered in private corporate sector.
 - ii. Unincorporated Enterprises covered in Annual Survey of Industries (ASI).
 - iii. Unincorporated enterprises of manufacturing that are not covered under Annual Survey of Industries (ASI) but maintain accounts.
 - iv. Co-operatives providing non-financial services.
 - v. Unincorporated enterprises providing non-financial services maintaining accounts.
 - vi. Unorganised financial enterprises.

The following points need to be noted with reference to this categorization of organised sector-

- In the earlier series, only quasi-corporations under i, ii and iv above were included in the organised sector.
- 'Registered Manufacturing' in the national accounts earlier referred to DEs and all factories registered under the

Factories Act under Section 2m(i) & 2m(ii) employing more than 10 workers with power or 20 workers without power.

Therefore, apart from factories of the Incorporated Enterprises, it also included factories of unincorporated enterprises which were registered under the Factories Act. The organised manufacturing sector in this series is a super-set of the registered sector.

II. Households or Unorganised sector

Enterprises not covered in 'I' above, i.e, all non-Government Unincorporated Enterprises that have not been classified as quasi-corporations

- Includes Non-Profit Institutions Serving Households (NPISH)

C. METHODOLOGICAL CHANGES IN COMPILATION

i) Estimation of GVA for the unincorporated manufacturing and non-financial enterprises

In the absence of annual enterprise surveys, the GVA estimates in respect of unorganised segments of manufacturing and services sectors are compiled indirectly through Labour Input Method (LI Method) using the benchmark-indicator procedure. In this procedure, the benchmark GVA estimates are initially prepared at detailed activity level for the base year of national accounts series using the estimated labour input (which is the total of principal and subsidiary activity of workers engaged in the activity) and the value added per worker (VAPW) in the activity. For

subsequent years, the GVA is estimated by extrapolation using appropriate indicators relevant to the economic activity. Therefore, for estimation of GVA for these unorganised segments of economy, data on labour input and VAPW are required for the base year. It is pertinent to mention here that the labour input used in the national accounts relates to the number of jobs performed in the economic activities, rather than the number of persons employed. This means that a person performing two jobs is counted twice in the labour input procedure. This labour input corresponds conceptually to the labour input used in estimating the value added per worker from the NSS enterprise surveys.

In the national accounts statistics, the estimates of value added are compiled at detailed activity level, known as 'compilation categories'. These compilation categories are determined by regrouping the economic activities at different levels described in the National Industrial Classification (NIC), 2008, which, in turn, follows the International Standards Industrial Classification of All Economic Activities, Rev.4 (ISIC Rev.4) of the United Nations. There are some differences in compilation categories in 2011-12 from 2004-05 due to change of NIC from NIC, 2004 to NIC, 2008. Major differences are given below:

- i. The activities, 'Recycling of metal waste and scrap + non-metal waste and scrap', which was earlier part of manufacturing and 'Sewerage and other waste management services' have been clubbed to form the category 'Remediation and other utility services', and will be reflected in the group 'Electricity, gas, water supply and other utility services'.
- ii. 'Repair of computers', which was earlier part of computer related activities, to be a part of 'Repair of personal and household goods' and reflected in 'Trade & Repair Services'.

- iii. 'Recording, Publishing and Broadcasting Services' to form a new category, and reflected in the group 'Communication & Services related to broadcasting'.
- iv. Sewage activities removed from services sector and made a part of Electricity, Gas, Water Supply and Utility Services.

In the new series, a new method called "**Effective Labour Input Method**" (**ELI Method**) has been adopted for the following enterprises:

- All unincorporated manufacturing enterprises, except those covered under the Annual Survey of Industries.
- Unincorporated service enterprises, except those of 'Trade & Repair Services'.
- 'Hotels and Restaurants', 'Non-mechanized Road transport' and 'Telecommunication'.

In the Labour Input Method (LI Method), as was being used in the earlier series, while compiling GVAPW from the Enterprise Survey, it is assumed that there is equal contribution from all categories of workers engaged in an economic activity i.e. the productivity of an employer, a casual wage worker, or a family worker is equal. The new method addresses differential labour productivity issue by assigning weights to the different categories of workers engaged in an economic activity based on their productivity. The weights were compiled using the data on establishments covered in the NSS 67th round Survey on Unincorporated Enterprises, 2010-11 (hereinafter referred to as ES). A nested Cobb-Douglas function has been used for computing the weights of different categories of workers.

ii) **Other changes in the compilation procedure**

Some of the other key changes that have been incorporated in the new series of national accounts are described in the following paragraphs.

- (1) **FISIM-** In the earlier series, output of Financial Intermediation Services Indirectly Measured (FISIM), which gives an estimate of the 'net interest margin' of the financial corporations, was based on the difference between total property receipts (dividend+ interest+ net profit on sale of investments) and total interest payments by the financial corporations. In the new series, as recommended in the SNA 2008, the estimates of FISIM have been compiled, using the Reference Rate (RR) approach.
- (2) **Output of (Central Bank) RBI.** The estimates of GVA of the Central Bank, i.e., the Reserve Bank of India (RBI), in the earlier series were computed using a mix of market and non-market approach. The issue department of the RBI was considered as non-market and a part of the General Government. The banking operations of the RBI were considered as market operations. In the new series, the entire operation of the RBI has been considered as non-market, as recommended in the SNA 2008 and the value of its output has been computed using the cost approach².
- (3) **Unorganised financial enterprises (other than insurance agents).** In the financial services, in the 2004-05 series, the GVA of the unorganised sector was estimated as a fixed ratio (1/3rd) of the GVA of Government Companies and the Non-Government Non-Banking Financial Companies (NGNBFCs). This sector consisted of private moneylenders and unincorporated financial enterprises. In the new series, the estimates for private moneylenders have been derived

using the information available from the NSS 70th round All India Debt and Investment Survey (AIDIS), 2013, RBI's annual publication - Basic Statistical Returns of Scheduled Commercial Banks in India, RBI's "Report of the Technical Group to review legislations on moneylenders", 2007 and NSS 67th round Survey on Unincorporated Enterprises, 2010-11. For the remaining unorganised financial enterprises, the estimates of GVA have been derived from NSS 67th round Survey on Unincorporated Enterprises, 2010-11.

- (4) **Sand.** The estimate of 'extraction of sand' as part of minor minerals in the earlier series was found to be negligible as compared to its apparent use in construction. Therefore, in the new series, an indirect estimate of the value of output of 'extraction of sand' at basic prices has been derived through the value of commodities used for 'construction'.
- (5) **Inclusion of construction materials as basic materials.** Two new construction materials, namely, bitumen & bitumen mixtures and glass & glass products have been included in the list of basic materials used for estimation of value of output of construction activity. The output for these items has been derived from the Annual Survey of Industries, 2011-12. In addition, for the output of glass & glass products, information has also been taken from the manufacturing enterprises covered in NSS 67th round Survey on Unincorporated Enterprises, 2010-11. Due adjustments are then made on these estimates of output for excise duty, net imports and import duty, as also the value of these products used in the manufacturing sector as inputs, to derive the estimates of these two materials as used in construction.
- (6) **Use of Consumer Price Indices - Rural/Urban/Combined.** Price indices are used for compiling the estimates in two

cases - (i) as a deflator when current price estimates are available through firm data sources (e.g. annual financial reports) and (ii) for converting the constant price estimate to that at current prices, when quantum indicators are used in compilation. In the earlier series, CPI-AL/IW was being used as an indicator for the movement in retail prices. In the new series, these have been replaced by the broader based CPI-Rural/Urban/Combined, which have since become available.

CHANGES IN GVA ESTIMATES, BY INDUSTRY, GDP AND NATIONAL INCOME

The consequential impact in the estimates of Gross Domestic Product by Economic Activity and other income aggregates like gross and net national income, per capita national income and growth pattern of macro aggregates due changes made in the new series in terms of methodology and in sources of data, have also been discussed below;

Overall Estimates of Gross Domestic Product (GDP)

The estimates of GVA by economic activity for the year 2011-12, according to the new series and the 2004-05 series, have been presented in Table 1. **It may be noted that estimates of GVA had been prepared at factor cost in the earlier series, while these are being prepared at basic prices in the new series.** Further, the classification of economic activities across industry groups has also been change in accordance with NIC 2008. Therefore, though the estimates have been presented side by side, these are not strictly comparable. The key industries with

significant change are 'manufacturing', 'trade & repair services' and 'other services'.

Table 1. Estimates of GVA by economic activity at current prices, 2011-12

(At factor cost for old series and at basic prices for new series)

(Rs Crore)

S. No.	Item	2004-05 Series	2011-12 Series	% Difference
1.	Agriculture, forestry and fishing	1499098	1505580	0.4
1.1	crops	960445	986604	2.7
1.2	livestock	340124	324013	-4.7
1.3	forestry and logging	131667	129105	-1.9
1.4	fishing and aquaculture	66862	65858	-1.5
2.	Mining and quarrying	222716	262813	18.0
3.	Manufacturing	1236182	1482158	19.9
4.	Electricity, gas, water supply & other utility services*	135670	194403	43.3
5.	Construction	689798	774093	12.2
6.	Trade, repair, hotels and restaurants	1457565	882957	-39.4
6.1	Trade & repair services	1330489	792996	-40.4
6.2	Hotels & restaurants	127076	89962	-29.2
7.	Transport, storage, communication & services related to broadcasting	614707	530163	-13.8
7.1	Railways	62710	61210	-2.4
7.2	Transport by means other than railways	456754	336109	-26.4
7.3	Storage	5496	5292	-3.7
7.4	Communication & services related to broadcasting	89747	127553	42.1
8.	Financial services	481495	480232	-0.3

S. No.	Item	2004-05 Series	2011-12 Series	% Difference
9.	Real estate, ownership of dwelling & professional services	900029	1059342	17.7
10.	Public administration and defence	498346	492405	-1.2
11	Other services	656085	531398	-19.0
12.	TOTAL GVA	8391691	8195546	-2.3

** Does not include other utility services in 2004-05 series. Other utility services in 2004-05 series were covered partially under manufacturing and partially under 'other services'.*

SPECIFIC SECTORS

Ownership of dwellings

As per the production boundary defined for national accounts, 'production of housing services for owner occupiers' own final consumption' has to be taken into consideration in the estimation of GDP. Therefore, this economic activity apart from capturing the housing services generated from rented residential houses, also includes the imputed value of owner occupied dwellings. Services rendered by non-residential buildings are considered to be a subsidiary activity of the industries, which occupy the buildings and therefore, are not included in this sector.

In the old series, GVA estimates for the ownership of dwellings of urban areas were estimated as the gross rental (actual rent paid and imputed rent for owned dwellings) of the residential census houses less the cost of repairs and maintenance. The user cost approach was used for estimating the value added from rural dwellings. The same methodology has been followed in the new series also, duly updated with the latest

Data on dwellings and rent per dwelling for urban areas has been taken from the Population Census, 2011 and the results of NSS 68th round Consumer Expenditure Survey respectively. For estimating the services in the rural areas, the user cost approach has been updated using the AIDIS, 2013, Population Census 2011. The estimates of GVA for the year 2011-12 in the new series have gone up to Rs. 548351 crore at basic prices as against Rs. 440398 crore at factor cost in the old series.

DATA DISSEMINATION/RELEASES

Release release	Time-lag	Date	of
1. Advance Estimates of national income before the year		7 th Feb.	2 months
2. Provisional Estimates of national income		31 st May	2 months
3. Estimates of GDP for Q1 (Apr-Jun)		31 st August	2 months
4. Estimates of GDP for Q2 (Jul-Sep)		30 th Nov.	2 months
5. Estimates of GDP for Q3 (Oct-Dec)		7 th Feb.	2 months
6. Estimates of GDP for Q4 (Jan-Mar) months		31 st May	2

CHALLENGES THAT NEED TO BE ADDRESSED IN FUTURE

1. Regular of flow of data and updating methodology for valid estimates of unincorporated enterprises including financial services.
2. Reliable information for estimates of Intellectual Property Products (IPP).
3. Evaluation of “Valuables”.
4. Valid source of information for estimating fixed assets like dwellings, other buildings & structures.
5. Methodology for estimating Cultivated Biological Resources (CBR)
6. Valid estimate of “Net Return to Fixed Capital” in evaluation of Output for own final use.