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Proposed Changes in Base Revision of Gross Domestic Product (GDP), Consumer Price Index (CPI) and Index of Industrial Production (IIP) series

National Statistics Office
Ministry of Statistics & Programme Implementation
Government of India

Highlights of Base Revision in Production Approach of compilation of GDP Series

1. National Accounts Division of Ministry of Statistics and Programme Implementation is responsible for compiling National Accounts Statistics, which *inter alia* includes GDP and other key macroeconomic aggregates, like, saving, investment and final consumption expenditure. The current series is based on 2011-12.
2. With the gradual improvement in the availability of basic data over the years, a comprehensive review of methodology for national accounts statistics has been undertaken by the Ministry with a view to revise the base year to a more recent year. Revision of base year of the national accounts is carried out periodically to consider the structural changes which have taken place so that a proper picture of the economy can be depicted. Moreover, the revision also facilitates inclusion of new data sources and alignment of compilation process with methodological improvements, standards and classifications.
3. To carry out the base revision exercise, an Advisory Committee on National Account Statistics (ACNAS) has been constituted to advise MoSPI, among other things, on inclusion of new data sources for improving the estimates of National Accounts and the methodology for compilation and presentation of National Accounts Statistics for purposes of economic analyses and policy formulation. The Committee has representation from various Central Ministries and Departments, State Governments, RBI, Academia and Research Institutions. On the recommendation of ACNAS, FY 2022-23 has been chosen as the base year of revised series and the estimates are scheduled to be released on 27th February, 2026.
4. As per System of National Accounts 2008 (SNA 2008), institutional sector approach is followed for compilation of National Accounts. The SNA divides the resident economic entities among five institutional sectors viz. Non-Financial Private Corporations Sector, Financial Corporations Sector, General Government Sector, Household Sector and Non-Profit Institutions Serving Household (NPISH) Sector based on characteristics and behaviour of the entities. Institutional sectors-wise proposed changes in the revised series are summarized below:

A. Non-Financial Private Corporations (NFPC) Sector

5. The estimates of Non-Financial Private Corporate (NFPC) Sector are compiled using the MCA-21 data in the current series. In the intervening period since the last base revision, a couple of new data sets, namely, frame of active companies (having enterprise-level details on Paid-Up Capital, Company category viz. Govt/Non-Govt. etc.), Management & Administration related data (MGT-7/7A) and frame of active Limited Liability Partnership (LLP) companies (having LLP-wise details on industrial activity, Obligation to Contribution, etc.) have become available. In the revised series, with a view to make the estimation process more robust, it was decided to make use of the additional available information. Accordingly, following major methodological improvements are being undertaken in the NFPC sector:
 1. **Segregation of activities in case of multi-activity enterprises**
6. While rebasing, MGT data is being used to segregate economic activities and

consequently the value added by each business activity of the enterprise. Activity-wise share of turnover available in MGT-7/7A Form is being used to calculate activity-wise turnover. Thereafter, 'Output-turnover Ratios' calculated on the basis of single activity companies for each industry are being applied to calculate activity-wise output. Similarly, activity-wise inputs is being derived using the 'Input-output Ratios' of single activity enterprises. The derived output and input are to be adjusted to arrive at the reported aggregate at enterprise level.

II. Change in the multiplier

7. Multiplier, based on Paid-up Capital (PUC), is used in the current series to derive the estimates of the non-reporting companies at overall level. In revised series, it is proposed to use multipliers at disaggregated level to account for the differences in capital intensity (measured by GVA to PUC ratio) across industries and size classes.

III. Use of LLP data

8. With the availability frame of active Limited Liability Partnerships (LLP), LLPs are being covered comprehensively in the new series. In order to account for non-reporting LLPs, multiplier based on variable 'Obligation to contribution', available in both frame and reporting set, is to be used.

B. Financial Sector

9. Financial Sector estimates (comprises of 9 sub-sectors), as per SNA, are compiled based on actual receipts as well as implicit services known as Financial Intermediation Services Indirectly Measured (FISIM). For the revised series, the compilation of each sub-sector has been revisited to incorporate improvements. The salient features of improvements incorporated are as follows:
 - i. Data Sources used for compilation of estimates have been streamlined and updated. A major improvement is the use of Statistical Tables Relating to Banks in India (STBRI) for compilation of estimates for deposit taking corporations.
 - ii. Use of MCA data for private NBFCs to cover the sub-sector "Other Financial Intermediaries except Insurance Company and Pension Fund (ICPF) in a more comprehensive way.
 - iii. Use of ASUSE data for intermediate consumption along with updated AIDIS 2019 data for stock of loan and associated rate to improve the estimates of Moneylenders.
 - iv. Separate treatment of pension funds as contribution fund and its administrative fund in sub-sector "Pension Funds" and "Financial Auxiliaries" respectively. Inclusion of Coal Mines and Seamen Pension Funds in compilation of estimates for both these sub-sectors.
 - v. Use of ASUSE data for estimating the intermediate consumption of Insurance Agents covered under the sub-sector "Financial Auxiliaries".

C. General Government Sector

10. As government provides services on non-market basis, output of this sector is valued by the sum of the costs incurred in their production, namely, as the sum of Compensation of Employees, Intermediate Consumption and Consumption of Fixed

Capital. The major improvements proposed in estimation of this sector in the new series are summarized below:

- I. Adjustment for pension:** With rollout of NPS and coexistence of OPS, an adjustment method replaces the simplistic proxy used earlier. A tapering factor (1/39th per year based on length of service) reduces the portion of OPS pension treated as CE consistent with declining OPS coverage; where OPS remains active (some States/Armed Forces), no adjustment is proposed.
- II. Imputation of accommodation provided by government in lieu of HRA:** To improve the compilation of compensation to government employees receiving employer accommodation service, imputation has been done for the value of the housing service provided by Government to its employees. This ensures that the compensation of these employees and also the valuation of housing services provided by government is properly captured in estimates of Output for General Government.
- III. Improved coverage and regional spread**
 11. Coverage of autonomous bodies and local bodies has been increased thereby increasing the portion of direct estimate.

D. Household Sector and Non-Profit Institutions Serving Household (NPISH) Sector (Except Agriculture, Construction and Ownership of Dwellings)

12. In the current series, GVA estimates in respect of unincorporated segment of manufacturing and services sectors are compiled indirectly through Effective Labour Input Method (ELI Method) using the benchmark-indicator procedure. In this method, benchmark GVA estimates were prepared at detailed activity level for base year using estimated workforce (i.e. total of principal and subsidiary workers engaged in an activity) from Employment and Unemployment Survey (EUS) 2011-12 and value added per worker (VAPW) in corresponding activity using Enterprise Survey (ES) 2010-11. For subsequent years, base year GVA estimates have been extrapolated using appropriate indicators for a concerned economic activity.
13. Presently, MoSPI is undertaking the Annual Survey of Unincorporated Sector Enterprises (ASUSE) and Periodic Labour Force Survey (PLFS) annually. Due to availability of these two annual data sets, household sector will be dynamically captured as VAPW and workforce estimates will be derived from ASUSE and PLFS respectively. Therefore, household sector in the new series will better reflect the reality of the sector as opposed to the indicator-based extrapolation approach followed in the existing series.

E. Agriculture and Allied Sector

14. The major improvements proposed in estimation of this sector in the new series are summarized below:
 - I. Use of updated and dynamic input-output ratio:** In the revised series, attempts are being made to update these ratios, wherever possible, and also to incorporate some dynamic ratio in place of fixed ratio. Input-output ratio for compilation of GVA of forestry sub-sector based on budget analysis and input-output ratio for marine & inland fisheries in fisheries sub-sector based on the study conducted by Central Marine Fisheries Research Institute (CMFRI), Kochi and Central Inland Fisheries Research

Institute (CIFRI), Barrackpore, Kolkata have been updated.

- II. New rates and ratios for calculating output of fodder and grass in crop sub-sector** will be used based on the study undertaken by the Indian Grassland and Fodder Research Institute (IGFRI), Jhansi
- III. Update in coverage of other crops:** In each 13 sub-categories, based on availability of crop-wise data for production and price, coverage will be increased vis-a-vis erstwhile coverage under 'other crops'.
- IV. Bifurcation of feed of livestock between crop and livestock sector:** For better coverage of feed consumption across livestock and crop sub-sectors in the new series, further bifurcation of adult male cattle and buffalo population in crop and livestock sub-sectors will be done.

F. Construction:

- 15. In the revised series, in place of estimating the total GVO of construction industry using commodity flow, the commodity flow is planned to be used to arrive at material inputs to Household sector only. Then estimate the material inputs available to the household sector is to be derived using residual approach i.e. by subtracting the value of material inputs used in construction activity by organized sector, (viz. General Government, Departmental enterprises, Non-departmental enterprises and Private Corporations). The material input to GVO ratio for the unincorporated sector will be estimated based on the rates and ratios derived from the Pilot Survey on Construction Sector carried out by National Sample Survey Office, MoSPI during 2025.
- 16. Results of recent surveys ASI, ASUSE, AIDIS, HCES and studies (State-wise Unit Cost for plantation crops from NABARD for plantation) will be used in estimating the ratios for inter-industry consumption at granular level, bifurcation of output from household sector into residential/non-residential/other construction works, kutcha/pucca construction etc.

G. Ownership of Dwellings

- 17. In the revised series, for rural areas the same user cost approach will be followed to derive the output of housing service which is named as "Ownership of Dwelling" in NAS. For urban areas, the number of dwellings is estimated using projected population figures of Ministry of Health and Family Welfare (MoHFW) along with average household size and the average rent per dwelling is derived from the HCES 2022-23. Once data from the next Population Census become available, the estimates for the number of dwellings will be updated accordingly.

H. Compilation of Constant Price Estimates

- 18. In 2011-12 series, a mix of double deflation, volume extrapolation and single deflation was used to arrive at constant price estimates. In 2022-23 series, effort has been made to do away with single deflation. Efforts have been made to increase the coverage of double deflation based on data availability. Most importantly, double deflation is proposed in major part of Manufacturing activities. The volume extrapolation is to be used where double deflation is not feasible.

Proposed changes in the upcoming Consumer Price Index (CPI) Series

1 About CPI

- 1.1 The Consumer Price Index (CPI) in India, compiled by the Ministry of Statistics and Programme Implementation (MoSPI), was introduced to provide a more comprehensive and timely measure of inflation reflecting the consumption patterns of different population groups. Historically, India maintained separate CPIs for various segments such as industrial workers, agricultural laborers, and rural laborers. However, recognizing the need for a unified and updated index, MoSPI launched the new CPI series in 2011 with a base year of 2010, later revised to 2012. This revamped CPI includes three indices—CPI (Rural), CPI (Urban), and CPI (Combined)—and is released monthly by the National Statistical Office (NSO). It captures price changes across a wide basket of goods and services, collected from over 1,181 villages and 1,114 urban markets nationwide, and serves as the primary measure for tracking inflation and informing monetary policy in India.
- 1.2 The Ministry of Statistics and Programme Implementation (MoSPI) is currently working on revising the Consumer Price Index (CPI) series with a new base year of **2024**. This update will incorporate data from the **Household Consumption Expenditure Survey (HCES) 2023–24**, ensuring that the item basket and expenditure weights reflect the most recent consumption patterns across rural and urban India. The revision aims to enhance the accuracy and relevance of CPI estimates, improve methodological transparency, and support more responsive economic policymaking.

2 Process of Base Revision

- 2.1 The process of base revision of the Consumer Price Index (CPI) commenced in early 2023. To guide and oversee this exercise, an Expert Group on Base Revision of CPI was constituted on 27th February 2023 under the Chairmanship of Shri Ashish Kumar, Ex-Director, UNSIAP and Ex-Director General, CSO. The Group comprises of eminent academicians, representatives from the Reserve Bank of India, the Ministry of Labour & Employment, the Ministry of Commerce & Industry, and senior officials from the Government of India.
- 2.2 So far, eleven meetings of the Expert Group have been held to deliberate on various methodological and operational aspects related to the base revision.
- 2.3 The base revision has been undertaken through a systematic, multi-stage process. The first stage was sample selection. The sample used in the Household Consumption Expenditure Survey (HCES) 2022-23 was adopted for this purpose. The subsequent stages included sample verification, identification of markets and dwellings for House rent collection, selection of the most popular shops for each item, and determination of the most representative item specifications. Following these preparatory steps, base prices were collected for the identified item specifications from the selected shops across the respective markets.
- 2.4 To incorporate the suggestions of the stakeholders and experts, various thematic consultations have been held with international organizations including IMF, World Bank, UNECE' group of experts on CPI, brainstorming sessions with banking and

financial institutions, State Government and Central Government Ministries during the base revision exercise. Three discussions papers on PDS and Housing compilation methodology were also published to invite suggestions and comments on the proposed methodology.

3 Key changes in the new series of CPI

3.1 The new CPI series involves a comprehensive revision of the **coverage, item basket, weights, and methodology** used in index compilation. The details of the key changes involved in the new series of CPI is listed below-

3.2 Enhancement in coverage

3.2.1 In the existing CPI series (Base: 2012=100), price data are collected across all States and Union Territories through personal visits by the field staff of the Field Operations Division (FOD), NSO, MoSPI, following a weekly roster. For the new CPI series (Base: 2024=100), price data are being collected from 1,395 urban markets spread over 434 towns and 1,465 villages. This represents an expansion of coverage by 281 urban markets and 284 villages compared to the previous series.

3.2.2 In the updated series of the Consumer Price Index (CPI), in addition to the price data collected from physical outlets as being done in the current series, prices are also being collected from e-commerce platforms in 12 selected cities having a population of more than 25 lakh as per the 2011 Census.

3.4 Refinement in methodology

3.4.1 Base revision of CPI not only includes changes in item basket, weights and base year, but also involves a comprehensive review of the entire methodology for CPI compilation to identify areas for further improvement. As part of this process, the Price Statistics Division, MoSPI has done a detailed due diligence of the existing methodologies. The methodologies were also reviewed and discussed with IMF expert, Dr. Brian Graf during the CPI Technical Mission held from 11th to 14th August 2025. A brief outline of the revised methodologies is provided below-

3.4.2 Index Compilation Methodology

3.4.2.1 In the new series of CPI, the short index formula will be adopted for the compilation of the Elementary Index, replacing the Jevons' long index formula used in the existing series. The short index formula is a chain-based approach, derived through a re-structuring of the long index formula, aimed at improving computational efficiency and transparency in index compilation.

Jevon's long index formula-

$$I_t = \prod \left(\frac{p_t^i}{p_0^i} \right)^{\frac{1}{n}} \times 100$$

$$I_t = \prod \left(\frac{p_{t-1}^i}{p_0^i} \times \frac{p_t^i}{p_{t-1}^i} \right)^{\frac{1}{n}} \times 100$$

$$I_t = \prod \left(\frac{p_t^i}{p_{t-1}^i} \right)^{\frac{1}{n}} \times I_{t-1}$$

$$I_t = \prod \left(\frac{p_t^i}{p_{t-1}^i} \right)^{\frac{1}{n}} \times \text{Index of previous month. This is the short index formula}$$

3.4.2.2 The short index formula eliminates the dependency on base prices each month for index compilation, which also facilitates easier incorporation of quality adjustments.

3.4.3 House Rent Index Compilation Methodology

3.4.3.1 Stakeholders and data users of the Consumer Price Index (CPI) have, from time to time, raised certain concerns regarding the existing methodology for compiling the Housing Index. It has been observed that three different methods were used for the calculation of the House Rent Index during the existing series:

- **January to May 2013:** Index was fixed at 100.
- **June to November 2013:** Fixed-base method was applied.
- **From December 2013 onwards:** Chain index method has been in use.

3.4.3.2 It was observed that a sharp increase in both the index and inflation occurred after May 2013, resulting in a sudden upward shift. This escalation was largely due to the assumption of a fixed index value of 100 up to May 2013. Furthermore, users, including the Reserve Bank of India, highlighted distortions arising from concessional or employer-provided dwellings. For instance, when an employee receives a salary increment, the corresponding increase in House Rent Allowance (HRA) is reflected as higher rent, thereby inflating the index. Conversely, when the same dwelling is subsequently allotted to a junior employee with lower HRA, the recorded rent declines, creating a misleading impression of negative inflation, which does not represent an actual fall in rent levels.

3.4.3.3 A discussion paper comprising the detailed methodology was released on **30th October 2025** for feedback from stakeholders and data users. Same may be seen at www.mospi.gov.in for more details on housing methodology.

3.4.4 Incorporation of free PDS items in CPI compilation

3.4.4.1 The challenge of addressing treatment of free food items distributed through Public Distribution System (PDS) items in the Consumer Price Index (CPI) compilation came into focus with the implementation of a new integrated food security scheme under the **National Food Security Act (NFSA)**. Starting from January 1, 2023, the Central Government initiated this scheme to provide free food grains for one year to beneficiaries under the **Antyodaya Anna Yojana (AAY)** and **Priority Households (PHH)** categories.

3.4.4.2 In the existing series, in the State/UTs where free distribution scheme is implemented for all sections of the society (i.e. APL, BPL and AAY), the weights of these items are pro-rata distributed on the other items of the section (i.e. major cereals and products) within the State/UT. This is one of the three methods prescribed in the *Consumer Price Index Manual: Concepts and Methods 2020* (page 35). However, concerns were raised that this approach may not adequately reflect the inflationary impact of free food grain distribution.

3.4.4.3 Given that CPI serves a dual purpose in India—guiding monetary policy and acting as a key indicator for cost-of-living adjustments, wage indexation, and social welfare policy formulation, the experts emphasized the need to appropriately account for the scale and influence of the free PDS scheme within the CPI framework.

3.4.4.4 To ensure methodological consistency and robustness of the CPI series throughout its life cycle, MoSPI has developed a revised approach for treating free PDS items which involves compiling a combined index for PDS and other sources. **A detailed discussion paper outlining the proposed methodology was released on 4th October 2025 for feedback from data users and stakeholders. Same may be seen at on www.mospi.gov.in.**

4. Inclusion of new data sources

- 4.1 In the updated series of the Consumer Price Index (CPI), in addition to the price data collected from physical outlets as being done in the current series, prices are also being collected from e-commerce platforms in 12 selected cities having a population of more than 25 lakh as per the 2011 Census.
- 4.2 For certain categories, efforts are on to use administrative data exclusively. MoSPI is actively coordinating with the Ministry of Railways for rail fares, the Ministry of Petroleum and Natural Gas for fuel prices (petrol, diesel, LPG), and the Department of Posts for postal tariffs.
- 4.3 For airfares, telecom services, and OTT platforms, price data is proposed to be compiled from online sources using web-based methods. The adoption of these alternative and digital data sources is expected to substantially improve the representativeness, reliability, accuracy, and overall quality of the CPI.

5 Adoption of COICOP 2018

- 5.1. As a step towards standardization and enhancing global comparability of the index, in the new series of the Consumer Price Index (CPI), the Classification of Individual Consumption According to Purpose (COICOP) 2018 will be adopted. While the overall COICOP structure will be retained, certain terminological adaptations will be made to better reflect Indian consumption patterns without affecting comparability.

6. More Granular Data Dissemination

- 6.1. In the new series, All-India and State-wise item-level CPI will be released for the Rural, Urban, and Combined sectors — a significant enhancement over the existing series, where only the All-India item-level index for the Combined sector was published.
- 6.2 With the adoption of COICOP 2018, indices will also be released at the Division, Group, Class, and Sub-class levels for both All-India and State-wise. In addition, the General CPI, Consumer Food Price Index (CFPI), and the corresponding inflation rates will also be disseminated at the All-India level.

7. Use of modern technology

- 7.1 For enhancing accuracy and deriving better insights from data, leveraging latest available technology in price collection and index compilation is being considered. Price collection module on Computer Assisted Personal Interviews (CAPI) and a cloud based compilation software are in advanced stage of development using Python as coding platform, on Django framework and PostgreSQL as database. Natural Language Processing (NLP) using rule based, AI/ML and statistical methods approach is being used for price data scrutiny. Efforts are underway to develop an effective and robust system to generate accurate and reliable indices.

Proposed changes in Index of Industrial Production in New Base

The Index of Industrial Production (IIP) released by Ministry of Statistics and Programme Implementation (MoSPI), tracks short-term fluctuations in India's industrial output and is an important measure of activity in the Mining, Manufacturing, and Electricity sectors. It is released every month by compiling production data from 14 source agencies, covering 407 item groups across these sectors. MoSPI also publishes indices based on use-based categories such as Primary Goods, Capital Goods, Infrastructure/Construction Goods, Intermediate Goods, Consumer Durables, and Consumer Non-Durables.

The MoSPI is currently revising the IIP base year to 2022–23. This revision aims to improve the index by updating sectoral coverage, revising item weights, enhancing factory representation and adopting improved methodologies. The update is also being aligned with the base year revision of the National Accounts to maintain consistency across major macroeconomic indicators.

Key Improvements in the New IIP

The new IIP series will feature a comprehensive updation of its components including an updated product basket that reflects the latest patterns of industrial production and revision of sectoral & item weights to better capture the current structure of India's industrial economy. Some of the major enhancements proposed for the revised IIP series include:

1. Expansion of Scope and Coverage

The item basket is being updated to address both outdated products and emerging industrial innovations. This involves removing items that are no longer relevant and introducing modern products.

In line with International Recommendations for the Index of Industrial Production 2010 guidelines, the IIP is expected to represent a wider range of sectors, including Mining & Quarrying, Manufacturing, Electricity, Gas, Water Supply, and Waste Management. For the first time, the revised IIP will incorporate data on minor minerals and gas supply, drawing information from major producing states and concerned ministries to ensure more comprehensive sectoral coverage.

2. Handling of “Not Elsewhere Classified” Items

The IIP item basket is derived from the Annual Survey of Industries (ASI) and its classification system. To improve clarity and accuracy, MoSPI carried out an extensive review of 276 items listed under the “not elsewhere classified” category by revisiting the relevant factories. As a result, the new index ensures that 95% of their weights are assigned to specific items, with only 5% redistributed, significantly enhancing information content. This greatly improves the detail and reliability of the information captured in the index.

3. Substitution of Factories

Currently, once a factory is included in the IIP frame, it remains in the sample—even if it ceases operation, changes product line or persistently fails to report. This results in imputation of data or zero reporting, reducing the representativeness and quality of the index.

The new IIP proposes a systematic unit substitution methodology. Non-operational factories will be replaced with active units of similar production scale. Replacement requires 12 months of overlapping data to ensure consistent index movement. This improves data completeness, reduces imputation reliance and better reflects current industrial activity.

4. Seasonally adjusted Series

As often the interest is to capture underlying trends and cycles in output for analytically meaningful forecasting, MOSPI is working in collaboration with TAC-IIP towards putting in place a system to additionally provide a de-seasonalised IIP in line with international practice.

5. Chain Based Indices

As part of the ongoing revision of the IIP, decision on adopting the chain-base method is under examination. The methodology for introducing a chain-base index has been reviewed. The chain-based approach is being considered because it allows the index to better capture structural shifts, emerging industries, and changes in production patterns by updating weights more frequently. This helps maintain the relevance and representativeness of the index over time, especially in a rapidly evolving industrial landscape.

Comments and suggestions may be sent at;
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