

NOTES ON METHODOLOGY AND REVISIONS IN THE ESTIMATES

The new series on National Accounts Statistics (NAS) was introduced through a Press Release on January 30, 2015 with base year 2011-12 in place of previous series with base year 2004-05. Later, a brochure titled “Changes in Methodology and Data Sources in the new series of National Accounts (base year 2011-12)” was released on 26th June, 2015 incorporating details of both the database and the methodology employed in estimation of various aggregates. The estimates presented in this issue of NAS are based on the methodology given in the above-mentioned brochure.

The present issue on NAS contains statements on macroeconomic aggregates including sectoral analysis, accounts for Non-financial Corporations, Financial Corporations, General Government, Households and Rest of the World. Besides these, it also includes aggregates by economic activities and disaggregated statements.

REVISION IN ESTIMATES DUE TO FRESH/ REVISED DATA

The First Revised Estimates (FRE) and the estimates of macro-economic aggregates for the previous years and their disaggregated components published in NAS 2023 have undergone revision due to fresh/ revised data becoming available. Sources of data utilized in NAS 2024 for preparing estimates for the years 2020-21, 2021-22 and 2022-23 which have contributed the most in revision of the estimates, are given below:

A: Output and Value Added

1 Crops

- 1.1 Production estimates - For 2020-21, final estimates of revised prices of crops received during comparable discussion, have been used and latest CCS rates (2020-21) of by-products used. For 2021-22, final estimates of food grains, commercial and horticulture crops used from Ministry of Agriculture and Farmers' Welfare (MoAgFW) in place of 4th Advance and 3rd Advance estimates respectively and revision of production data on some State specific crops. For 2022-23, in case of crop segment, updated production data based on final estimates are used in FRE. For horticulture segment, updated production data based on 3rd advance estimates of horticulture crops used.
- 1.2 For 2021-22 and 2022-23, updated prices of agricultural commodities received from DESs of State/UTs have been used. For 2022-23, where price data were not available, corresponding WPI has been used for imputation of prices.

2 Livestock

- 2.1 For 2022-23, final estimates of production of milk, egg, meat and wool released by the Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry & Dairying have been used.

- 2.2 Revised prices of livestock products as received from DESs of State/UTs have been used for all the years. In a few cases, where prices of livestock products for 2022-23 were not available, corresponding WPI has been used for imputation.

3 Forestry & Logging

- 3.1 Latest data on production and price of Industrial Wood & Non-Timber Forest Products and data on prices of fuel wood received from DESs of State/UTs have been used for all the years. Use of final production data of TOF on basis of latest data available from Forest Survey of India (FSI) for the year 2022-23. In a few cases, where prices for 2022-23 were not received, corresponding WPI has been used for imputation.

4 Fisheries

- 4.1 Latest data on production and price of marine fish, inland fish & prawns received from Department of Fisheries, GOI, State Fisheries Departments and DESs of State/UTs have been used for all the years. In few cases, where prices for 2022-23 were not received, corresponding WPI has been used for imputation. Latest data on curing activities, received from the State DESs have also been incorporated.

5 Mining and Quarrying

- 5.1 Updated Mineral Production from “Monthly Statistics of Mineral Production”, published by Indian Bureau of Mines (IBM)
- 5.2 Annual Reports of the Mining Companies in Public Sector Enterprises.
- 5.3 Latest data from the Ministry of Corporate Affairs (MCA).
- 5.4 Latest deductible rate data of Minerals received from IBM.
- 5.5 Production of minor minerals other than sand from State Geological Departments.
- 5.6 Data on salt production and prices from the office of the Salt Commissioner.
- 5.7 The value of material inputs used in the construction sector for the estimation of sand.

6 Manufacturing

- 6.1 Latest data on Annual Survey of Industries from Ministry of Statistics & P.I.
- 6.2 Annual Reports of the Manufacturing Companies in Public Sector Enterprises.

- 6.3 Latest data from the Ministry of Corporate Affairs.
- 6.4 Budget documents of the Departmental Enterprises, including those of Railway Workshops.

7 Electricity, Gas, Water Supply and Remediation

- 7.1 Data from latest annual reports of public sector companies.
- 7.2 Latest data on Private Corporations received from MCA.
- 7.3 Budget Documents of the Departmental Enterprises.
- 7.4 Number of Bio-gas plants from the Ministry of New and Renewable Energy.
- 7.5 Number as well as production of Bio-gas plants installed by Khadi and Village Industries Commission.
- 7.6 Latest data on Annual Survey of Industries from Ministry of Statistics & P.I.

8 Construction

- 8.1 Latest data from budget documents and annual reports of public sector undertakings.
- 8.2 Latest data on Private Corporations received from MCA.
- 8.3 Latest data on Annual Survey of Industries from Ministry of Statistics & P.I.
- 8.4 Data on area of plantation crops from State DESs.
- 8.3 Index of 8 core industries from the office of Economic Adviser.
- 8.4 Export-Import Data Bank, DGCIS, Ministry of Commerce & Industry.
- 8.5 WPI from the Office of Economic Adviser, Ministry of Commerce & Industry.
- 8.6 CPI from Ministry of Statistics & P.I.
- 8.7 Prevalent rates of GST, M/o Finance.

9 Trade, Repair, Hotels and Restaurants

- 9.1 Latest data from budget documents and annual reports of public sector undertakings.
- 9.2 Latest data on Private Corporations received from MCA.
- 9.3 Sales figure of motor vehicles from Society of Indian Automobile Manufacturer (SIAM).

- 9.4 WPI from the Office of Economic Adviser, Ministry of Commerce & Industry.
- 9.5 Trade & Transport Margin (TTM) weighted WPI.

10 Transport by other means

- 10.1 Latest data from budget documents and annual reports of public sector undertakings.
- 10.2 Latest data on Private Corporations received from MCA.
- 10.3 Sales trends figure of motor vehicles from SIAM.
- 10.4 WPI from the Office of Economic Adviser, Ministry of Commerce & Industry.
- 10.5 CPI (Transport & Communication) from Ministry of Statistics & P.I.
- 10.6 Cargo Traffic handled at Major and Minor Ports from the Ministry of Shipping.
- 10.7 Rate of growth of Airlines Passenger Traffic and Cargo handled from Directorate General of Civil Aviation (DGCA).

11 Railways, Storage, Communication, Public administration and Defence

Railways, Public administration and Defence:

- 11.1 Budget documents for the year 2023-24 giving actual figures for the year 2021-22 and Revised Estimates for 2022-23.
- 11.2 Annual Accounts of public and private corporations.

Storage:

- 11.3 Latest data from budget documents and annual reports of public sector undertakings.
- 11.4 Latest data on Private Corporations received from MCA.
- 11.5 WPI from the Office of Economic Adviser, Ministry of Commerce & Industry.

Communication:

- 11.6 Latest data from budget documents and annual reports of public sector undertakings.
- 11.7 Latest data on Private Corporations received from MCA.
- 11.8 Goods & Service Tax (GST), M/o Finance.
- 11.9 CPI (Transport & Communication) from Ministry of Statistics & P.I.

11.10 Minutes of Usage, TRAI.

12 Financial services

- 12.1 The NAS 2024 estimates for financial corporations have been updated based on analysis of latest available data and annual reports of financial agencies/ financial corporations and data on credits, deposits published by the RBI. Further, the estimate of the financial sector, at constant prices, uses the ratio of current and constant price estimates (unadjusted for FISIM) in the non-financial sectors as one of the deflators. The changes in these ratios for the years 2020-21 and 2021-22 have resulted in modifications in the constant price estimates for the financial services and sub-sectors within it.

13 Real Estate, Ownership of Dwellings, Professional Services

- 13.1 Latest data on budget documents and annual reports of public sector undertakings.
- 13.2 Latest data from the Ministry of Corporate Affairs.
- 13.3 Relevant CPI from Ministry of Statistics & P.I.

14 Other Services

- 14.1 Latest budget documents and annual reports of public sector undertakings.
- 14.2 Latest data from the Ministry of Corporate Affairs.
- 14.3 CPI (Education), CPI (Health), CPI (Recreation) and CPI (Miscellaneous services) from Ministry of Statistics & P.I.

15 Private Final Consumption Expenditure

- 15.1 Estimates have been revised from 2020-21 onwards due to availability of fresh/ revised data of output, change in stocks, export & import etc. The sources are as listed at sl. no. 1 to 14, 17.7 and 17.8.

16 Saving

- 16.1 Revised data on net deposits, investments in shares and debentures, net claims etc. for household sector received from RBI.
- 16.2 For revision in estimates of saving in physical assets, please see Serial No. 17.
- 16.3 Revised data on saving of private corporations from MCA.

- 16.4 Saving of Public Sector revised from 2020-21 to 2021-22 due to availability of additional/revised/fresh data in respect of Departmental Enterprises and Administrative Departments from budget documents, annual accounts of RBI and subsequent revision of Consumption of Fixed Capital estimates.

17 Capital Formation

- 17.1 Sources mentioned at Serial Nos. 6 & 8, annual reports of NDEs and budget documents.
- 17.2 Latest data on Annual Survey of Industries from Ministry of Statistics & P.I.
- 17.3 Latest data on Private Corporations received from MCA.
- 17.4 Revised data of Capital Formation in respect of Public Sector.
- 17.5 WPI from the Office of Economic Adviser, Ministry of Commerce & Industry.
- 17.6 Index of Industrial Production (IIP), Ministry of Statistics & P.I.
- 17.7 Import Duties and Goods & Service Tax– Statistics of Customs Duties & Revenue Collection of the Indian Union, Ministry of Finance
- 17.8 Export-Import Data Bank, DGCIS, Ministry of Commerce & Industry.

18 Consumption of Fixed Capital

- 18.1 Estimates of consumption of fixed capital (CFC) have been revised due to revision of estimates of gross fixed capital formation as mentioned at serial no. 17.

Reasons of revision in GVA growth rate for FY 2022-23 (at 2011-12 prices) from the Provisional Estimates released in May-2023 to the estimates released in National Accounts Statistics (NAS)-2024

S. No.	Item	PE	NAS-24	Reason for Variation in NAS 2024
1	Agriculture, Livestock, Forestry and Fishing	4.0	4.7	For crop segment, updated estimates based on Final estimates are used in FRE in place of 3rd Advance estimates of MoAgFW used in PE. For horticulture segment, updated estimates based on 3rd advance estimates of horticulture crops used instead of 2nd advance estimate used in PE. For forestry, fishing and aquaculture, used latest production data.
2	Mining and Quarrying	4.6	1.9	Data from source agencies along with detailed analysis of NDE, Private Corporate sectors and State Geological Departments have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.
3	Manufacturing	1.3	-2.2	Data from source agencies along with detailed analysis of DE, NDE and Private Corporate sectors have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.
4	Electricity, Gas, Water Supply & Other Utility Services	9.0	9.4	Data from source agencies along with detailed analysis of General Government, DE, NDE and Private Corporate sectors have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.
5	Construction	10.0	9.4	Data from source agencies along with detailed analysis of DE, NDE and Private Corporate sectors have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.

6	Trade, Repair, Hotels, Restaurants, Transport, Storage, Communication & Services related to Broadcasting	14.0	12.0	Data from source agencies along with detailed analysis of DE, NDE and Private Corporate sectors have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.
7	Financial Services, Real Estate, Ownership of Dwelling & Professional Services	7.1	9.1	<p>(1) For Financial Services, FRE is based on annual reports and data released by RBI, IRDAI and other financial regulators, whereas the PE was based on benchmark indicator method.</p> <p>(2) For Real Estate, Ownership of Dwelling & Professional Services, data from source agencies along with detailed analysis of DE, NDE and Private Corporate sectors have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.</p>
8	Public Administration, Defence and Other Services	7.2	8.9	<p>(1) For Public Administration and Defence, in NAS - 24, results of detailed analysis of Budget documents (Centre and State Governments) and latest information of Local Bodies and Autonomous Bodies have been used for compilation of estimates, whereas PE were based on indicators.</p> <p>(2) For Other Services, data from source agencies along with detailed analysis of DE, NDE and Private Corporate sectors have been used for compilation of estimates for NAS-24, whereas provisional estimates were indicator based.</p>
9	TOTAL GVA at basic prices	7.0	7.0	

Reasons of revision in GVA growth rate for FY 2021-22 (at 2011-12 prices) from the estimates released in National Accounts Statistics-2023 to the estimates released in National Accounts Statistics-2024

S. No.	Item	NAS 23	NAS 24	Reason for Variation in NAS 2024
1	Agriculture, Livestock, Forestry and Fishing	3.5	4.6	
1.1	Crops	1.7	3.2	<p>1. Updated production estimates (Final Estimates) of crop segment and Horticulture crops from MoAgFW in place of 4th Advance and 3rd Advance estimates, respectively.</p> <p>2. Used some State Specific Crops production data as received during/after comparable discussion with States.</p>
1.2	Livestock	6.0	6.4	Due to up-dation of milk production by Dept of Animal Husbandry & Dairying.
1.3	Forestry and Logging	2.4	0.6	Due to availability of potential production of Industrial wood from Trees Outside Forest (TOF) for the year 2022-23 from Forest Survey of India (FSI).
1.4	Fishing and Aquaculture	9.3	13.7	Upward revision of Production in inland and marine fish & curing activity after comparable discussion with States.

2	Mining and Quarrying	7.1	6.3	Revision in data from source agencies namely NDE, Private Corporate sectors and State Geological Departments. Use of latest deductible rate data of Minerals received from IBM and changes in estimates of FISIM.
3	Manufacturing	11.1	10.0	Revision in data from DE, NDE and Private Corporate sectors along with use of ASI 2021-22 results and changes in estimates of FISIM.
3.1	Food Products, Beverages and Tobacco	7.1	-4.2	Revision in data from institutional sectors along with use of ASI 2021-22 results.
3.2	Textiles, Apparel and Leather Products	27.0	18.7	Revision in data from institutional sectors along with use of ASI 2021-22 results.
3.3	Metal Products	11.8	18.6	Revision in data from institutional sectors along with use of ASI 2021-22 results.
3.4	Machinery and Equipment	12.3	9.2	Revision in data from institutional sectors along with use of ASI 2021-22 results.
3.5	Other Manufactured Goods	6.4	7.8	Revision in data from institutional sectors along with use of ASI 2021-22 results.
4	Electricity, Gas, Water Supply & Other Utility services	9.9	10.3	Revision in data from institutional sectors (General Government, DE, NDE, Private Corporate) along with use of ASI 2021-22 results.

5	Construction	14.8	19.9	Revision in value of output of construction sector due to use of updated ASI results and use of revised data from institutional sectors (General Government, DE, NDE, Private Corporate, Households) and changes in estimates of FISIM.
6	Trade, Repair, Hotels and Restaurants	9.1	12.3	
6.1	Trade & Repair Services	7.3	11.0	Revision in estimates of DE, NDE, Private Corporate and FISIM.
6.2	Hotels & Restaurants	43.8	36.8	Revision in estimates of NDE, Private Corporate. and FISIM
7	Transport, Storage, Communication & Services Related to Broadcasting	23.1	21.0	
7.1	Railways	26.4	21.4	Revision is due to use of information of “Actuals” from the budget documents of the Ministry of Railways in place of “Revised Estimates” and use of updated information from Non-Departmental Enterprises (NDEs) and Private Corporate.
7.2	Road Transport	35.4	34.2	Revision in DE, NDE, Pvt Corp estimates and FISIM.
7.3	Water Transport	4.0	6.4	Revision in estimates of DE, NDE, Private Corporate and FISIM.

7.4	Air Transport	58.6	58.5	Revision in NDE & Private Corporate estimates and FISIM.
7.5	Services Incidental to Transport	8.0	4.1	Revision in DE, NDE & Private Corporate estimates and FISIM.
7.6	Storage	32.3	30.8	Revision in NDE & Private Corporate estimates and FISIM.
7.7	Communication & Services related to Broadcasting	9.6	7.7	Revision in DE, NDE, Private Corporate estimates and FISIM.
8	Financial Services	0.7	0.9	Revision is due to the use of latest annual report/ data of financial corporations and use of updated price deflator based on non-financial sector.
9	Real Estate, Ownership of Dwellings & Professional Services	6.3	7.6	Revision in NDE, Pvt Corp, OD (GVA Rural) estimates and FISIM.
10	Public Administration and Defence	4.6	3.0	Revision is on account of a) use of information of “actuals” from the budget documents of the Central & State governments in place of “Revised Estimates”. b) Use of revised and additional data on Local Bodies and Autonomous Institutions.
11	Other Services	14.3	11.6	Revision in DE, NDE estimates and FISIM.
12	TOTAL GVA at basic prices	8.8	9.4	

Reasons of revision in GVA growth rate for FY 2020-21 (at 2011-12 prices) from the estimates released in National Accounts Statistics-2023 to the estimates released in National Accounts Statistics-2024

S. No.	Item	NAS 23	NAS 24	Reason for Variation in NAS 2024
1	Agriculture, Forestry and Fishing	4.1	4.0	
1.1	Crops	2.8	2.6	Revision in production of some State Specific Crops, irrigation charges, diesel & FISIM.
1.2	Livestock	6.2	6.2	-
1.3	Forestry and Logging	5.8	5.8	-
1.4	Fishing and Aquaculture	3.8	3.8	-
2	Mining and Quarrying	-8.6	-8.2	Revision in data from source agencies namely NDE and State Geological Departments and changes in estimates of FISIM.

3	Manufacturing	2.9	3.1	Revision in data from DE, NDE along with use of ASI 2020-21 results and changes in estimates of FISIM.
3.1	Food Products, Beverages and Tobacco	-0.9	-0.2	Revision in data from DE, NDE along with use of ASI 2020-21 results and changes in estimates of FISIM.
3.2	Textiles, Apparel and Leather Products	-5.7	-9.4	Revision in data from DE, NDE along with use of ASI 2020-21 results and changes in estimates of FISIM.
3.3	Metal Products	14.3	15.3	Revision in data from DE, NDE along with use of ASI 2020-21 results and changes in estimates of FISIM.
3.4	Machinery and Equipment	-5.4	-4.5	Revision in data from DE, NDE along with use of ASI 2020-21 results and changes in estimates of FISIM.
3.5	Other Manufactured Goods	7.5	8.0	Revision in data from DE, NDE along with use of ASI 2020-21 results and changes in estimates of FISIM.
4	Electricity, Gas, Water Supply & Other Utility Services	-4.3	-4.2	Revision in data from institutional sectors (General Government, DE, NDE) along with use of ASI 2020-21 results.
5	Construction	-5.7	-4.6	Revision in value of output of construction sector due to use of updated ASI results and use of revised data from institutional sectors (General Government, DE, NDE, Households) and changes in estimates of FISIM.

6	Trade, Repair, Hotels and Restaurants	-21.2	-21.3	
6.1	Trade & Repair Services	-18.3	-18.4	Revision in estimates of NDE and FISIM.
6.2	Hotels & Restaurants	-53.7	-53.8	Revision in estimates of NDE and FISIM.
7	Transport, Storage, Communication & Services related to Broadcasting	-16.5	-16.9	
7.1	Railways	-20.1	-20.1	No Change.
7.2	Road Transport	-25.6	-26.4	Revision in estimates of NDE and FISIM.
7.3	Water Transport	-5.6	-5.8	Revision in estimates of NDE and FISIM.
7.4	Air Transport	-62.5	-62.5	Minor Revision in estimates of NDE and FISIM.
7.5	Services incidental to Transport	-10.9	-11.1	Revision in estimates of NDE and FISIM.
7.6	Storage	-2.4	-1.2	Revision in estimates of NDE and FISIM.

7.7	Communication & Services related to Broadcasting	0.8	0.8	Minor Revision in FISIM estimates.
8	Financial Services	5.1	5.1	Minor Revision is due to the use of latest annual report / data of financial corporations and use of updated price deflator based on non-financial sector.
9	Real Estate, Ownership of Dwellings & Professional Services	1.0	0.8	Revision in NDE estimates, OD (GVA Rural) estimates and FISIM.
10	Public Administration and Defence	-0.6	-0.6	Minor revision in the data of State Autonomous Bodies and Local Bodies.
11	Other Services	-13.1	-13.0	Revision in GG, NDE estimates and FISIM.
12	TOTAL GVA at basic prices	-4.2	-4.1	
