

## NOTES ON METHODOLOGY AND REVISIONS IN THE ESTIMATES

The present series on National Accounts Statistics was introduced through a brochure entitled “New series on National Accounts Statistics (base year 2004-05)” released on 5<sup>th</sup> March 2010 after a comprehensive review of both the data base and the methodology employed in estimation of various aggregates. The estimates presented in this issue of National Accounts Statistics (NAS) are based on the methodology given in the above-mentioned brochure.

Besides the usual statements on macro economic aggregates, domestic product, consumption, saving and capital formation, public sector transactions and disaggregated statements, this issue includes five special statements. The Statements S-1.1 and S-1.2 presents Macro Economic Aggregates & population at current and constant (2004-05) prices. The Statement S-2, as in the past gives depreciation as provided in the books of accounts for various institutions. The Statement S-3 gives value of output and domestic product from livestock sector utilising the input-output ratios as specially worked out for the Input-Output Transactions Tables. The special statements S-4, S-5 and S-6 give advance, quarterly estimates of Gross Domestic Product and quarterly estimates of Expenditures of GDP at market prices for the year 2012-13 at current and constant (2004-05) prices.

The sources of revisions in the estimates made due to availability of fresh/revised data are given below:

### REVISION OF ESTIMATES DUE TO FRESH/REVISED DATA

The first revised (earlier referred to as “quick”) estimates and the estimates for the previous years of macro economic aggregates and their disaggregated components published in NAS 2012 have undergone revision due to fresh/revised data becoming available. Sources of data utilised for the revision of the estimates are given below:

#### **A: Domestic Product**

##### ***1. Agriculture***

- 1.1 All India Final Estimates of Crops, 2010-11 and 2011-12.
- 1.2 Land Use Statistics - Area under Crops, 2009-10, 2010-11 as well as data received from states.
- 1.3 Revised Estimates of Production of Milk, Eggs and Wool –2010-11 and 2011-12 received from Department of Animal Husbandry & Dairying, Ministry of Agriculture.
- 1.4 Revised Estimates of Meat Production, received from State Governments for the years 2009-10 and 2010-11.
- 1.5 Revised Data on prices of agricultural commodities and livestock products from 2010-11 onwards received from State Governments.

## 2. ***Forestry & Logging***

Data on production and prices of industrial wood and minor forest products and data on prices of fuel wood for 2009-10 and 2010-11 received from Principal Chief Conservators of Forests/ State DESs.

## 3. ***Fisheries***

Data on production and prices of marine fish, inland fish and prawns for 2009-10 to 2011-12 received from the State Fisheries Departments, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and State DESs.

## 4. ***Mining & Quarrying***

- 4.1 Mineral Production, 2010-11 and 2011-12 from “Monthly Statistics of Mineral Production” March 2012, respectively issued by Indian Bureau of Mines (IBM).
- 4.2 Annual Reports of Coal India Ltd. and its subsidiaries.
- 4.3 Coal Directory of India.
- 4.4 Input-Output data from Oil and Natural Gas Corporation (ONGC) and Oil India Ltd. (OIL).
- 4.5 Input data from Neyveli Lignite Corporation.
- 4.6 Input data of Minerals for 2009-10 received from IBM.
- 4.7 Production of Minor Minerals, 2004-05 to 2011-12 from the State Geological Departments.
- 4.8 Data on salt production and prices from office of the Salt Commissioner.

## 5. ***Manufacturing( Registered)***

- 5.1 Annual Survey of Industries, 2004-05 to 2010-11, CSO, I.S. Wing, Kolkata.
- 5.2 Index of Industrial Production from the CSO
- 5.3 WPI from the Office of Economic Adviser, Ministry of Industry
- 5.4 Input-Output data on Defence (Manufacturing Units) from Ministry of Defence
- 5.5 Centre/State Budgets for Railway workshops, Annual accounts of Security printing and Minting Corporation of India Ltd. for Mints and Security Printing Press

## 6. ***Manufacturing ( Un-registered)***

- 6.1 Fourth All India Census on Micro, Small and Medium Enterprises 2006-07 conducted by the office of the Development Commissioner, Micro, Small and Medium Enterprises (MSMEs).
- 6.2 Report on Un-organised Manufacturing Sector in India by the NSSO, 2005-06, Report No.526 (62/2.2/3).
- 6.3 NSS/Population Census for Workforce (WF) estimates.
- 6.4 Index of Industrial Production from the CSO.
- 6.5 WPI from the Office of Economic Adviser, Ministry of Industry.

## 7. ***Construction***

- 7.1 Sources listed at Serial No.2 and 5.
- 7.2 Finances of non- Government Companies, Reserve Bank of India.
- 7.3 Data on area on plantation crops from State DESs.

- 7.4 Data on Cement Consumption from Cement Manufacturers' Association.
- 7.5 Data on Iron and Steel from Joint Plant Committee.

## **8. *Electricity, Gas and Water Supply***

- 8.1 Annual Reports of State Electricity Boards/Central and State Companies.
- 8.2 Annual Reports of electricity generating companies in Private Sector.
- 8.3 Data on Value Addition of Wind Power from Directorate of Economics & Statistics (DESS).
- 8.4 Annual Reports of Gas Authority of India Limited (GAIL).
- 8.5 Annual Report of Indraprastha Gas Ltd (IGL).
- 8.6 Ministry of New and Renewable Energy.
- 8.7 Khadi & Village Industries Commission (KVIC).
- 8.8 Budget documents of Centre and States.
- 8.9 Annual Report of Kerala Water Authority.

## **9. *Trade, Hotels and Restaurants***

- 9.1 Changes in value of output of commodity producing sectors from 2009-10 onwards mentioned at Serial Nos.1, 2,3,4,5 & 6.
- 9.2 Additional annual reports of public sector undertakings for the year 2009-10 onwards.
- 9.3 Index of Unit Value of Imports from Directorate General of Commercial Intelligence & Statistics (DGCIS), Ministry of Commerce for the year 2010-11 and 2011-12.

## **10. *Railways, Communication and Public Administration & Defence***

- 10.1 Budget documents for the year 2012-13 giving actual figures for the year 2010-11 and Revised Estimates for 2011-12.
- 10.2 Annual Accounts of Mahanagar Telephone Nigam Limited (MTNL), Millennium Telecommunications Limited (MTL), Bharat Sanchar Nigam Limited (BSNL), Konkan Railway and DMRC for the year 2010-11 & 2011-12.
- 10.3 Use of 63<sup>rd</sup> round data in respect of private communication.

## **11 *Transport by Other Means and Storage***

- 11.1 Additional information on number of motor vehicles for the years 2010-11 onwards.
- 11.2 Additional Annual Reports of Public Sector Undertakings and Private companies engaged in road, water and air transport activities for the year 2009-10 onwards.
- 11.3 Budget documents containing data on ports, pilotage and lighthouses and other departmental enterprises engaged in road transport activities listed at Serial No. 10.1.
- 11.4 Additional Annual Accounts of Central and State Warehousing Corporations.
- 11.5 Cargo handled at major & minor ports.
- 11.6 Use of 63<sup>rd</sup> round data.
- 11.7 RBI Study of Sample Companies 2010-11 onwards.

**12. Banking and insurance**

The value added in the Banking and Insurance sector has been revised from the year 2010-11 due to availability all the three studies of RBI on Non Government Non Financial Institutions and also the availability of additional annual reports/accounts in respect of non-departmental financial enterprises. Private companies engaged in the insurance activity have been analysed and included in this sector. Revision in the estimates due to change in consumption of fixed capital.

**13. Real Estate, Ownership of Dwellings, Business Services and Legal Services Sector**

- 13.1 NASSCOM's data on production of software for the years 2009-10 onwards.
- 13.2 Data on repairs & maintenance of ownership of dwellings based on AIDIS for the years 2009-10 onwards.
- 13.3 Use of 63<sup>rd</sup> round data on services.

**14. Other Services**

- 14.1 CPI (AL) and CPI (IW).
- 14.2 Use of 63<sup>rd</sup> round data on service sector.

**B: Private Final Consumption Expenditure, Saving and Capital Formation****15. Private Final Consumption Expenditure.**

Estimates have been revised from 2009-10 onwards due to availability of fresh/revised data of output, change in stocks, export & import etc. The sources are Monthly Statistics of Foreign Trade of India and as listed at 1- 14 and 17.9.

**16. Saving**

- 16.1 Revised data on net deposits, investments in shares and debentures, net claims on Government, etc. for household sector received from RBI.
- 16.2 For revision in estimates of saving in physical assets, please see item 17.
- 16.3 Revised data on saving of private corporate sector received from RBI.
- 16.4 Saving of Co-operative Societies revised on account of revisions in GVA, trade and manufacturing.
- 16.5 Saving of Public Sector revised from 2009-10 due to revision of Consumption of Fixed Capital estimates and availability of additional/revised/fresh data in respect of Departmental Enterprises and Administrative Departments from budget documents, annual accounts of RBI.

**17. Capital Formation**

- 17.1 Sources mentioned at Serial Nos.5, 6, 7, 8.1, 10.1 and 10.2.
- 17.2 Monthly Statistics of Foreign Trade in India.
- 17.3 Annual Survey of Industries, 2009-10 and 2010-11, CSO, I.S. Wing, Kolkata.
- 17.4 Revised data on Capital Formation, Private Corporate Sector received from RBI.
- 17.5 Capital Formation of Public Sector revised data from 2009-10.
- 17.6 Whole Sale Price Index: Office of the Economic Adviser.
- 17.7 Index of Industrial Production (IIP) - Central Statistics Office.

- 17.8 Import and Excise Duties – Statistics of Customs & Revenue Collection of the Indian Union from Tax and Research Unit, M/O Finance.
- 17.9 Export Import Data Bank, DGCIS, Ministry of Commerce & Industry.

### **18. *Consumption of Fixed Capital***

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.

#### **C: Public Sector Transactions**

Statements on Public Sector Transactions have undergone revision from 2009-10 due to availability of additional/revised/fresh data in respect of Departmental Enterprises and Administrative Departments from budget documents, annual accounts of RBI, Employees Provident Fund Organisation (EPFO), research and inclusion of scientific institutions covered in 'Public Services in Autonomous Institutions and the annual accounts of Non-Departmental Enterprises.

#### **D: Factor Incomes by Organised and Un-organised sectors**

Detailed concepts of the estimation of factor incomes by organised and un-organised sectors are given in the publication 'National Accounts Statistics: Sources and Methods, 2012.

\*\*\*\*\*

REASONS FOR REVISION IN GROWTH RATE IN GDP, 2011-12 BETWEEN THE PROVISIONAL  
ESTIMATES RELEASED IN MAY 2012 AND FIRST REVISED ESTIMATES RELEASED IN JANUARY  
2013

Sector	GDP growth 2011-12		Reasons for variation
	May 2012	Jan 2013	
1. agriculture, forestry & fishing	2.8	3.6	Due to increase in production of food grains as reported by Ministry of Agriculture. As per the 4 <sup>th</sup> advance estimates used in January, 2013, the food grain production was 257.4 million tones as against 252.5 million tones in the 3 <sup>rd</sup> advance estimates used in the estimates released on 31 <sup>st</sup> May 2012
2. mining & quarrying	-0.9	-0.6	The revision in the estimates is mainly due to the availability of fresh data on major and minor minerals and the revision in the inputs of major and minor minerals. The May, 2012 estimates were based on the growth observed in IIP- Mining.
3. manufacturing	2.5	2.7	<ol style="list-style-type: none"> <li>1. Due to use of ASI 2010-11 provisional data for obtaining 2011-12 estimates in January, 2013. May 2012 estimates were based on IIP for manufacturing sector.</li> <li>2. Due to the revision in estimates of FISIM</li> </ol>
4. electricity, gas & water supply	7.9	6.5	Downward revision due to detailed analysis of the reports of state electricity boards/corporations and state budget documents. In January, 2013. IIP electricity was used in May, 2012 estimates.
5. construction	5.3	5.6	Upward revision due to availability of revised data from source agencies.
6. trade, hotels, transport, storage & communication	9.9	7.0	Revision in GVO of commodity producing sectors
7. financing, insurance, real estate & business services	9.6	11.7	Revision in estimates on account of analysis of detailed data on banking and insurance sector.
8. community, social & personal services	5.8	6.0	Revision in estimates is on account of detailed data being undertaken using the revised budget estimates of central and state governments as compared to the earlier estimates based on revenue expenditure from budget documents.
9. GDP at factor cost (1 to 9)	6.5	6.2	

REASONS FOR REVISIONS IN GROWTH RATE IN GDP, 2010-11 BETWEEN FIRST REVISED  
ESTIMATES RELEASED IN JANUARY 2012 AND ESTIMATES RELEASED IN  
JANUARY 2013

Sector	GDP growth 2010-11		Reasons for revisions in the estimates
	Jan 2012	Jan 2013	
1. agriculture	7.8	8.8	Revision due to availability of latest data in agriculture and livestock from State DESs
2. forestry & logging	2.9	2.2	Revision due to latest data received from State DESs.
3. fishing	3.0	5.4	Revision due to latest data received from State DESs and Fisheries Department, Ministry of Agriculture.
4. mining & quarrying	5.0	4.9	Marginal revision
5. registered manufacturing	7.8	10.9	Upward revision due to the availability of ASI 2010-11 provisional results.
6. unregistered manufacturing	7.1	7.2	Marginal revision
7. electricity, gas & water supply	3.0	5.2	First Revised Estimates released in January 2012 were based on growth rate. Estimates prepared in January 2013 are based on analysis of annual accounts state electricity boards/corporations and state budget documents.
8. construction	8.0	10.2	Due to use of ASI results for the year 2010-11
9. trade	9.1	11.5	Increase in GTI index due to 5% increase in GVO (mainly due to 8% increased revision in Manufacturing (Regd.) sector).
10. hotels & restaurants	7.7	10.8	Increase in GTI index due to 5% increase in GVO (mainly due to 8% increased revision in Manufacturing (Regd.) sector).
11. railways	6.8	5.9	Revision due to updated indices.
12. transport by other means	8.4	8.2	Revisions are due to changes in mechanized quantum index, index of cargo handled, rate of growth in Pvt. Air lines passenger & cargo handled and public sector estimates.
13. storage	7.9	2.2	Changes are due to public sector estimates, Storage index, FISIM index and FISIM.
14. communication	27.2	25.4	1. Revision due to updated indices. 2. Due to drop in corporate growth rate of RBI.
15. banking & insurance	14.5	14.9	Receipt of some additional annual reports
16. real estate, ownership of dwellings, business & legal services	6.9	6.0	Due to change in Pvt. Corp. Growth Rate, production figure of software export & domestic software from NASSCOM, drop in GVA (Rural) figures for ownership of dwelling and repair & maintenance(urban) is revised.
17. public administration & defense	1.3	0.0	Revision due to incorporation of actual estimates in place of revised estimates.
18. other services	7.3	8.0	Due to change in Public sector estimates related to education, health & sanitation.
19. GDP at factor cost	8.4	9.3	

REASONS FOR REVISIONS IN GROWTH RATE IN GDP, 2009 -10 BETWEEN  
ESTIMATES RELEASED IN JANUARY 2012 AND ESTIMATES RELEASED IN  
JANUARY 2013

Sector	GDP growth 2009-10		Reasons for revisions in the estimates
	Jan 2012	Jan 2013	
1. agriculture	0.7	0.4	Based on actual data received from State DESs during discussion
2. forestry & logging	2.8	2.9	Based on actual data received from State DESs during discussion
3. fishing	3.0	3.2	Based on actual data received from State DESs during discussion
4. mining & quarrying	6.3	5.9	The downward revision in the estimates is due to the revision in the inputs of major and minor minerals.
5. registered manufacturing	11.7	14.1	Upward revision due to the availability of ASI 2009-10 final results.
6. unregistered manufacturing	5.4	5.4	No revision
7. electricity, gas & water supply	6.3	6.2	Revision is marginal.
8. construction	7.0	6.7	Marginal decline due to use of revised value of output of iron and steel and timber.
9. trade	8.3	8.5	Increase in GTI index due to increase in GVO of Forestry, Fishing & Manufacturing (Regd.) and partly due to revised MS Ratios. Also marginal increase (0.5%) in Imports.
10. hotels & restaurants	2.8	1.9	Drop in Corporate Growth Rate of RBI used for estimating the private corporate part.
11. railways	9.4	8.8	Revision due to updated indices.
12. transport by other means	7.2	7.3	Changes are due to revision in index of cargo handled and public sector estimates.
13. storage	8.7	19.3	Revisions are in public sector estimates, Storage index, FISIM Index and FISIM.
14. communication	31.7	31.5	Revision due to updated indices.
15. banking & insurance	11.3	11.4	Revision is marginal
16. real estate, ownership of dwellings, business & legal services	7.8	8.3	Due to Changes in Pvt. Corp. Growth Rate, production figure from NASSCOM, increase in GVA (Rural) and Repair & Maintenance (Urban) for ownership of dwelling.
17. public administration & defense	18.2	17.6	Revision due to discussion of SDP estimates.
18. other services	7.2	7.2	No change.
19. GDP at factor cost	8.4	8.6	