

FINAL REPORT OF THE COMMITTEE FOR SUB-NATIONAL ACCOUNTS

(Chairman: Dr. Ravindra H. Dholakia)



March, 2020



**NATIONAL STATISTICAL OFFICE
MINISTRY OF STATISTICS AND PROGRAMME
IMPLEMENTATION
GOVERNMENT OF INDIA**

Preface

The Sub-National Accounts Committee was formed by the Gazette Notification dated 27th June 2018 with the initial tenure of one year. The tenure of the Committee was extended for a period of another year till June 2020 through the Notification dated 26th July, 2019. The Committee submitted an interim report in September, 2019 based on the discussions in the first five meetings of the Committee.

First and foremost, the Committee would like to sincerely thank Ministry of Statistics and Programme Implementation for recognizing the need for the constitution of the Committee and providing the opportunity to explore and review the methodology for estimation of the Sub-National Accounts. The Committee would like to place on record its appreciation for the various State DESs for attending the meetings and thereby showing their commitment to the cause and mandate of this Committee. Their participation and cooperation in providing necessary information, besides contributing many valuable suggestions, enabled the Committee to carry out its task smoothly. I would like to express my gratitude to the non-official members-Prof. Goldar and Dr. Kulshreshtha for their active and efficient support. Shri Kolli attended only one meeting of the Committee and regretted his inability to continue on the Committee on health ground. The National Institute of Public Finance and Policy extended support to the Committee by nominating Prof. Bhanumurthy who regularly attended the meetings and contributed effectively. I also acknowledge the dedicated commitment and support by the RBI officials – Dr. Goutam Chatterjee, Dr. G.P. Samanta and Dr. O.P. Mall - at every stage of the Committee's deliberations and useful data collection on financial sector. I would also like to specially thank Prof. Deepak Sethia from IIM Indore, Smt. T. Rajeshwari from Ministry of Water Resources, Government of India and Shri Piyush Bajpai and his team from Nielsen India for presenting their research work on the subject to the Committee. I am also grateful to Prof. Deepak Sethia for useful discussion and help in the literature review pertaining to the expenditure side of GSDP.

On behalf of the Committee, I would also like to appreciate the active involvement by the Ministry officials, particularly Shri Pravin Srivastava, Dr. Mamta Saxena, Shri N.K. Sharma, Shri. S.V. Ramana Murthy, Shri Purnendu K. Banerjee, Shri Brijendra Singh, Smt. Kanchana V Ghosh, Shri Neeraj Kumar Srivastava, Shri S.I.S. Naqvi, Smt. C.H. Honey, Smt. Mini Prasanna Kumar, Smt. Ankita Singh and Shri Rajeev Kumar; for their participation in the meetings clarifying several technical points and for numerous suggestions in the course of a number of formal and informal meetings.

As Member-Secretary of the Committee, Shri N.K. Sharma has handled all the matters relating to the Committee including the final stages of the present Report very efficiently and meticulously. I acknowledge the efforts of Dr. Sudeepa Ghosh, Deputy Director, NAD for preparing the zero level draft of the report based on the minutes of the meetings of the Committee and the directions given by the members. I also appreciate special efforts and contribution made by Smt. Poonam Gupta, Deputy Director, NAD and her team for successfully conducting the meetings and providing the logistic support. This report owes a lot to the dedicated involvement and untiring

efforts put forth by all the officers of the National Accounts Division in all the meetings of the Committee and in seeking support from State DESs.

All members of the Committee have contributed immensely to the deliberations of the Committee. On behalf of the Committee on Sub-National Accounts, I submit this report and hope that the work of the Committee will help in improving the quality and reliability of the estimates of Sub-National Accounts substantially. The Committee has kept the users' perspective in mind throughout its work.

A handwritten signature in black ink, appearing to read 'RMD' with a stylized flourish underneath.

(Prof. Ravindra H. Dholakia)
Chairman

New Delhi
March, 2020

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Abbreviations

ACNAS	Advisory Committee on National Accounts Statistics
AIDIS	All India Debt and Investment Survey
ASI	Annual Survey of Industries
ASSSE	Annual Survey of Service Sector Enterprises
ASUSE	Annual Survey of Unincorporated Sector Enterprises
CACP	Commission for Agricultural Costs and Prices
CBRI	Central Building Research Institute
CCS	Cost of Cultivation Study
CFC	Consumption of Fixed Capital
CAG	Comptroller and Auditor General
CIFRI	Central Inland Fisheries Research Institute
CIN	Company Identification Number (also Corporate Identity Number)
CIS	Change in Stocks
CoE	Compensation of Employees
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption According to Purpose
COCSSO	Conference of Central and State Statistical Organizations
CPI	Consumer Price Index
CPI-C	Consumer Price Index Combined for rural and urban areas
CPI-IW	Consumer Price Index for Industrial Workers
CRA	Committee on Regional Accounts
CSO	Central Statistical Organization / Office
DDG	Deputy Director General
DDP	District Domestic Product
DES	Directorate / Department of Economics and Statistics
DGCIS	Directorate General of Commercial Intelligence and Statistics
DGVA	District Gross Value Added
ESD	Economics Statistics Division
FC	Finance Commission
FISIM	Financial Intermediary Services Indirectly Measured
GCF	Gross Capital Formation
GDHI	Gross Disposable Household Income
GDP	Gross Domestic Product
GFCE	Government Final Consumption Expenditure
GFCF	Gross Fixed Capital Formation
GG	General Government
GST	Goods and Service Tax
GSTN	Goods and Service Tax Network
GSVA	Gross State Value Added
GSDP	Gross State Domestic Product

GTI	Gross Trading Income
GVA	Gross Value Added
GVAPW	Gross Value Added Per Worker
GVO	Gross Value of Output
HCE	Household Consumption Expenditure
HDI	Human Development Index
HH	Household
HLCESI	High Level Committee for Estimating Saving and Investment
HSD	Horticulture Statistics Division
IBM	Indian Bureau of Mines
IC	Intermediate Consumption
ICAR	Indian Council of Agricultural Research
IGFRI	Indian Grassland and Fodder Research Institute
IIM	Indian Institute of Management
IIP	Index of Industrial Production
IARNIW	Indian Association for Research in National Income and Wealth
IOTT	Input-Output Transactions Tables
IPP	Intellectual Property Products
KVIC	Khadi and Village Industries Commission
LI	Life Insurance
MCA	Ministry of Corporate Affairs
MoAgFW	Ministry of Agriculture and Farmers' Welfare
MPC	Monetary Policy Committee
NAD	National Accounts Division
NVA	Net Value Added
NDE	Non-Departmental Enterprises
NIC	National Income Committee
NIPFP	National Institute of Public Finance and Policy
NPISH	Non Profit Institutions Serving Households
NSC	National Statistical Commission
NSDP	Net State Domestic Product
NSO	National Statistical Office
OS	Operating Surplus
PDS	Public Distribution System
PFCE	Private Final Consumption Expenditure
PLFS	Periodic Labour Force Survey
PLI	Postal Life Insurance
POSB	Post Office Savings Bank
RBI	Reserve Bank of India
RERA	Real Estate Regulatory Authority
RoI	Rest of India
RoW	Rest of the World
SDP	State Domestic Product
SSB	State Statistical Bureau

SSS	State Sample Survey
SUT	Supply and Use Table
TOR	Terms of Reference
UT	Union Territory
w.e.f.	with effect from

Chapter-1: Introduction

1.1 Background

1.1.1. The regional accounts are expected to play an important role in the formulation, implementation and evaluation of regional policies in a federal set-up like India. Very often, regional indicators derived from them are used for assessing performance of regional economies besides measuring geographical disparities in development. Objective, reliable, consistent, relevant and harmonized regional statistical indicators not only provide a firm foundation for policies aimed at reducing economic and social disparities among different regions of the country but also generate significant inputs for local public policies. The single most comprehensive indicator of the economic activities and hence the progress taking place in an economy is the aggregate income. Since the sub-national regional units like States and Districts are essentially open economies where not only factors of production, goods and services flow freely but also the factor payment flows are substantial across the boundaries, the difference between the income originating within the geographical boundaries and the income accruing to the normal residents of the regional units could be significant. On account of practical difficulties in data collection, the regional income in India has traditionally been estimated only as the domestic product originating within the geographical boundaries of the regional unit. Thus, the State Domestic Product (SDP) and District Domestic Product (DDP) are the only estimates of aggregate incomes at the respective regional levels in the country. These SDP estimates are of considerable importance to the individual States as a measure of their growth as well as of structural changes and shifts within the States. The international Standard System of National Accounts (SNA) 2008 does not provide any guidelines for the regional accounts, and hence, the member countries need to devise their own regional accounts and statistical indicators, taking into consideration their specific needs, circumstances, data systems and available resources.

1.1.2. The first Committee on Regional Accounts (CRA) was set up in May, 1972 with the following terms of reference as given in its First Report (CRA, 1974):

- (a) To consider and advise on the levels (State, District or other regions) at which Accounts should be prepared;
- (b) To devise a system of regional accounts and standard supporting and supplementary tables for adoption by all the states;
- (c) To suggest measures for building up regional accounts in the country taking into consideration the availability of data and requirements of Central and State Governments;

- (d) To examine the concepts, definitions and classifications for preparation of regional accounts and to lay down guidelines.

The CRA submitted its first report in 1974 and the final report on 1976.

1.1.3.The First National Statistical Commission (2001) Chaired by Dr. C. Rangarajan emphasized in one of its recommendations on the need for an institutionalized interaction between National Accounts Division (NAD) at the Centre and State Directorates/ Departments of Economics and Statistics (DESS) through periodical meetings to discuss the weakness in data and practical problems to resolve the issues in mutually agreed way so that the reliability, timeliness and credibility of the whole System of National Accounts can be improved.

1.1.4.Advisory Committee on National Accounts Statistics (ACNAS) in its meeting held on 21.03.2017 decided that the next base year for National Accounts be 2017-18. The Hon'ble Minister of Statistics and Programme Implementation also announced in the Press Release dated 15.02.2018 that the Ministry was proposing to initiate steps to revise the base years of Gross Domestic Product (GDP), Index of Industrial Production(IIP) and Consumer Price Index (CPI) to accommodate and factor the changes that take place in the economic scenario of the country. Further it was also mentioned in another press release dated 15.02.2018 that the new base year for GDP and IIP will be 2017-18 and for CPI it will be 2018.

1.1.5.However, later on, the 4th meeting of the Reconstituted ACNAS held on 30.10.2019, felt that 2017-18 was not an appropriate choice for base year, since it was not a normal year and requisite data was also not available. The ACNAS recommended that 2020-21 should be considered as the next base of National Accounts.

1.1.6.Whatever be the base year, the base year revision exercise involves, other than focusing on changing the prices of the base year and incorporation of the new activities and products in the market, a couple of other factors also such as changes in global prescriptions and new data sources. First and foremost, a comprehensive review of the existing methodology and the data sources used for the estimation is done. It is examined whether there is scope for further improvement of the methodology and/or concepts and definitions to arrive at more precise, realistic and useful estimates. Also, it is carefully assessed as to how far the relevant SNA guidelines can be implemented and adhered to. Last, but not the least, the existing data sources are thoroughly examined and possibilities of using new or different data sources are explored. Robust new data sources, if exist, are incorporated in the estimation procedure for the improvement of the estimates. In this context, it becomes imperative to examine the availability of data and methodological issues at the State level too and also to lay down specific guidelines for the improvement of the GSDP estimates.

1.1.7. Recognizing the importance of the SDP, the Committee for Sub-National Accounts was constituted through the Gazette Notification dated 27th June, 2018 (*Annex-I*) under the Chairmanship of Prof. Ravindra H. Dholakia, Retired Professor, IIM, Ahmedabad, with following terms of reference:

- (a) To review the concepts, definitions, classifications, data conventions, data sources and data requirements for preparation of State Domestic Product (SDP) and District Domestic Product (DDP) and to lay down revised guidelines.
- (b) To suggest measures for improving SDP and DDP in the country taking into consideration availability of the data and requirements of the Centre and States/Union Territories.
- (c) To suggest State level annual/benchmark surveys keeping in view the needs of the System of National Accounts especially in view of the next base year revision.

1.2 Composition of the Committee

1.2.1. The Committee for the Sub-National Accounts composed of:

- i. Prof. Ravindra H. Dholakia- Retired Professor, IIM (Ahmedabad)- Chairperson (Non-Official)
- ii. Prof. Bishwanath Goldar-Former Member, NSC- Member (Non-Official)
- iii. Shri Ramesh Kolli-Former Member, NSC- Member (Non-Official)
- iv. Dr. A.C. Kulshreshtha, Former ADG, CSO- Member (Non-Official)
- v. Representative of National Institute of Public Finance and Policy (NIPFP), New Delhi- Member
- vi. Officer-in-Charge, Department of Statistics and Information Management (DSIM), RBI-Member
- vii. Representative of NSSO, MoSPI- Member
- viii. Director, Directorate of Economics and Statistics, Gujarat - Member
- ix. Director, Directorate of Economics and Statistics, Kerala - Member
- x. Director, Directorate of Economics and Statistics, Rajasthan - Member
- xi. Director, Directorate of Economics and Statistics, Goa- Member
- xii. Director, Directorate of Economics and Statistics, Assam - Member
- xiii. ADG/DDG, NAD, CSO - Member Secretary

1.3 Comments and Interpretation of the TOR

1.3.1. The Committee is constituted to review the methodology of the State level estimation and suggest methodological improvements as these estimates would be very useful not only in measuring the effects of implementation of planned programmes, projects and policies, but also in providing important inputs for analyzing the situation, proper identification of

problems and designing necessary interventions. In view of such concerns, the TOR for the Committee needs to be considered in broader perspective. The estimates of the State Income should not only be the most appropriate, but also be available in time for their use in public policies. Given the usual lags in receiving comprehensive information and data for preparing firm estimates of State Income, this would require preparing different types of estimates in line with the national level estimates and adhere to the pre-announced calendar. Moreover, the quality of the estimates in terms of their reliability and robustness has to be ensured particularly because the estimates of income should reflect the ground realities and current developments at the regional level. The question of the frequency of estimates in terms of quarterly estimates at the State level or annual estimates at the District level has to be viewed from this angle. Finally, since the user perspective is getting increasingly recognized; only sectoral break up of GSDP from the supply side may not be sufficient to provide useful information for the State economy. The demand side of the story captured by the Expenditure side should also be attempted to provide the better picture of the State economy. The Committee interpreted its TOR to enhance the scope and coverage of the GSDP to include estimation of whatever components of aggregate expenditures as possible. The Committee worked with a clear focus on improving the State level Estimates which in turn would improve the estimates for the District Domestic Product (DDP) as they are primarily compiled using the allocation of the State level estimates.

1.3.2. Apart from these, in view of the up-coming base revision, suggestions from the States had to be sought so that the same could be borne in mind while finalizing the methodology of the new base at the National level. The base revision includes incorporation of the new data sets and refinement of methodology. The main purpose of the Committee was to come up with an approach of GSDP and DDP estimation in consultation with the State DESs, RBI, NAD, NIPFP etc. which will better reflect the State and the District Economy, so that the estimates are not only robust at the Central level but also at Sub-National level.

1.3.3. The Committee in its first meeting decided to have a discussion on the issues of the current approach followed for the estimation of the GSDP. Also suggestions were invited from the States in this regard. Additionally, it was decided to have detailed discussions on estimation methodology and data sources within each sub-sector. The Committee also decided to have focused discussions on the methodology for compilation of the estimates of the Expenditure side as well as the Advance and Quarterly estimates. Keeping in view the terms of reference of the Committee, it was also decided to devote time on the DDP estimates as well.

1.3.4. The Committee was formed initially with tenure of one year. During its first year, only three meetings could be held; focusing primarily on the importance of the State Income Aggregates and State specific issues and suggestions in various sectors in the current methodology. Since the Committee wanted to involve actively almost all State DESs in their

deliberations, delayed response from several States caused some delay. Moreover, there had been some initial loss of time for the Committee because of routine promotions and transfers of official members; and some pressing and time bound official commitments of officers from NAD, also contributed towards a relatively slow progress in its first year.

1.3.5. But, realizing the importance of the Committee and also to facilitate the Committee's elaborate discussions with the State DESs and experts before standards can be evolved for the compilation of the regional accounts, the tenure of the Committee was extended through Gazette Notification dated 26th July, 2019 (*Annex-II*) for a period of one more year w.e.f. 25th June, 2019. The extension stipulated that the Committee submit an interim report within three months; a draft report within further three months and the final recommendations within one year. Accordingly, an interim report, based on the deliberations of the first 5 meetings of the Committee was submitted in September, 2019. However, by December, 2019; the deliberations almost came to an end and as the recommendations were in the process of being concretized, the Committee decided to submit the final report, obviating the need for a draft report.

1.4 Brief Account of the meetings of the Committee

1.4.1. The Committee held eight meetings in all. A list of all members and number of officials from State DES and NAD who attended each meeting is given in *Annex-III* at the end. In the first meeting of the Committee, the importance of the Sub-Regional Accounts in the Regional policy formulation and its evaluation was highlighted. The Committee stressed the fact that SDP was vital from policy formulation as well as monitoring/evaluation perspective and that States/UTs are the major stakeholders for its compilation. Thus, an improved SDP estimation procedure is the need of the hour and that the National Income has to be now viewed in terms of the geographical dimension. It was pointed out that (a) the annual State borrowing limits are now linked to the magnitude of GSDP; (b) in the devolution of taxes from the Centre to States, a portion of divisible share gets determined by the distance of a State's per capita income (PCI) from the PCI of the reference State; and (c) GSDP is the normalizing denominator for States' fiscal and other indicators. Therefore, a proper estimation of GSDP for every State is essential. Robust GSDP estimation is also necessary for the annual budget making exercise and for deciding fiscal policy priorities for the State. It was emphasized that both the Centre and the State Governments need to work in a synchronized manner to improve the estimation procedure. The Committee is of the opinion that, wherever feasible, the estimation of GSDP needs to be dependent more on the bottom-up approach, similar to the methodology currently followed in respect of the Agriculture sector, with data emanating from the ground level rather than a top-down approach of allocating national aggregates often not reflecting fully the realistic situation of a State. Hence, in order to have less dependency on the Centre for the GSDP estimation, States'

actual data need to be incorporated to the extent possible so that the true picture of the State economy is appropriately portrayed.

1.4.2. The current methodology followed and formalized by the NAD to estimate GSDP with the base year 2011-12 in a document released in January 2019 is available on the website of MoSPI and was discussed at length stressing its limitations and the data gaps including possible new sources. The fact that in the current estimation procedure particularly after the base year 2011-12 revisions, there has been an increase in the proportion of allocation done to the States as compared to the earlier base years was stressed upon. Also currently, the States' activities are confined to the compilation of only the Gross and the Net SDP for different sectors to reflect the supply side. The Committee vigorously exhorted the States to enhance the scope of the Regional Accounts and start preparing other macro-economic aggregates/accounts such as Private Final Consumption Expenditures(PFCE), Government Final Consumption Expenditures (GFCE), Gross Capital Formation (GCF), Exports and Imports from the State. At the same time, the concerns of National Accounts Division (NAD) relating to systemic issues, development of infrastructure, capacity building and mobilization of resources in the States were also placed before the Committee.

1.4.3. In order to have suggestions from the States and to have an increased involvement of the States, the Committee mandated the States to contribute papers on the various themes provided to the States and to bring forth their views in suggesting improvements for the estimation of the State Domestic Product (SDP). The Committee allotted each State a particular economic sector as a theme (*Table 1.1* below). The idea was to get the suggestions and inputs from the States directly because they are the ones who are expected to have a thorough idea about the ground level realities of their State economy, data sources and areas requiring improvements.

1.4.4. The papers were required to cover: (a) Definition, scope and division of activities currently included in the estimation of GSDP in the sector; (b) Whether urban -rural and ownership based activities are considered in the sector and if so, what are their treatment?; (c) What should be their treatment if data constraints are somehow resolved?; (d) What are the current data constraints by sub-activities in the sector and how are they overcome or adjusted?; (e) Is there a better way of overcoming or adjusting for these data constraints?; (f) Are there any newer data sets available for the sector at the State or the District level?; (g) Are there any fresh Surveys required to be carried out for strengthening the data base in the sector? Should these Surveys be carried out at the State level with District as unit of analysis or be carried out at the national level with State as a unit of analysis?; and finally (h) what would the State recommend as a minimum improvement in the estimation of the GSDP in the sector during the forthcoming revision of the base-year?

1.4.5. The subjects allotted to the States are given in *Table 1.1* below:

Table 1.1: Allotment of Sector Papers to States / UTs for Submission and Presentation to the Committee		
	Sector	Group of States
1.	Agriculture(including Crop and Livestock)	Uttar Pradesh, Himachal Pradesh
2.	Forestry and Fishing	Meghalaya, West Bengal, Kerala
3.	Mining and quarrying	Rajasthan, Odisha
4.	Manufacturing	Maharashtra, Tamil Nadu
5.	Electricity, gas, water supply & other utility services	Gujarat, Andhra Pradesh
6.	Construction	Tripura, Haryana
7.	Trade, repair, hotels and restaurants	Punjab, Karnataka
8.	Transport, storage, communication & services related to broadcasting	Delhi, Telangana, Assam
9.	Financial services	Goa, Jharkhand
10.	Real estate, ownership of dwelling & professional services	Madhya Pradesh, Bihar, Puducherry
11.	Public administration	Andaman & Nicobar Island, Chhattisgarh, Jammu & Kashmir
12.	Other services	Uttarakhand, Sikkim, Manipur
13.	Sector-wise Estimation of FISIM and Consumption of Fixed Capital (CFC)	NAD, CSO

1.4.6. Apart from the above, the Committee had an ambitious plan of action charted out in the first meeting. These desired action points were:

- i. The Committee may submit an interim report within next two to three months spelling out the key requirements in terms of proposed initiatives and activities along with the corresponding resources needed, so that this may be shared with the Fifteenth Finance Commission.
- ii. The Committee may come out with sector-specific recommendations so that necessary actions may be initiated without waiting for the submission of final report.
- iii. Recommendation on specific 'release calendar' for releasing of estimates of State Income in line with the National level calendar.
- iv. Holding of a consultation workshop with all States / UTs.
- v. Specific recommendations needed on how to improve the Statistical System especially focusing on the smaller States/UTs.
- vi. Possible improvements and modifications in the allocation mechanism in estimation of State Income not completely avoidable in view of the new data sources.

- vii. Review methodologies for compilation of Sub-National estimates from some of the countries with similar federal structures like US, UK, Canada, Australia, European Union to learn and improve our methodology.
- viii. One or two States may be adopted by the Committee for preparing a template of Sub-National Accounts, particularly for the Expenditure side estimates.
- ix. Well defined structure of State Income Unit with dedicated Staff is required.
- x. The expenditure side of the Sub-National Accounts covering indicators like Private Final Consumption Expenditure (PFCE), Government Final Consumption Expenditure (GFCE) and Gross Fixed Capital Formation (GFCF); which are critical from the policy formulation viewpoint, need to be focused and made a regular part of Sub-National Accounts.
- xi. Estimation of Sub-National level Capital Stock and flow of capital formation is also important for assessment and improvement of Net Sub-National Income.
- xii. There is a need to lay down certain guidelines for different Sub-National level estimates of income like advance, quick, provisional, revised and final.

However, in view of the frequent transfers and routine promotions of officers from NAD involved in the work of the Committee and also the attitude and lack of commitment, interest and enthusiasm on the part of several State DESs, the Committee had to drop some of the more ambitious elements from the above proposed action plan.

1.4.7. In the second and the third meetings taking place after a considerable delay of six months, detailed discussions were held wherein presentations were made by the States on the different themes allotted to them. 30 papers (28 from States after several reminders and follow-ups and 2 from NAD) were discussed thoroughly during these meetings and States took the lead in providing the inputs for various sectors. Some of the initial broad suggestions/recommendations made by the Committee are as follows:

- i. The Committee suggested exploring the use of the GST data at the Centre as well as the States. Once the GST data is available, a mapping of the GST with the MCA data would help to have an idea about the private companies located in the States and contributing to the State economy. This data, if obtained, would be a very useful indicator for State-wise allocation.
- ii. The State DESs be encouraged to undertake studies, with either their own funds or with funds from the National Statistical Office (NSO). The NSO may write to the State DESs and the DESs may come up with further proposals to be presented and discussed. Since State DESs have a better understanding of the respective State economy and are more acquainted with the local data sources, they should take the lead in undertaking studies for improvement of the estimates of the States.
- iii. For preparing State-wise distribution of GVA for Companies, the NAD can supply a list of large companies which cover 70%-80% GVA of each compilation category at

all-India level to all the States/UTs. The States/UTs can intimate whether any branch of that company operates in their State/UT or not. This will provide a shortlist of Companies from which State-wise data on employment/wage-bill, revenue, etc. would be needed for State-wise distribution of all-India GVA of that company.

- iv. Usually, at the all-India level, the GVA of most enterprises will be positive. However, at sub-national level, all the branches/ States may not perform at the same level. Therefore, if the indicator selected for allocation is positive for all States (e.g., employment, wage-bill or fixed assets), then it cannot capture variations in levels of performance across States/ UTs, particularly, negative OS at some of the smaller jurisdictions. The problem on how to measure/treat OS at sub-national level when national level OS is positive needs to be looked into.

1.4.8. Apart from these, suggestions/preliminary recommendations were made in respect of various sectors/industries also, with the intention to explore more on the subject areas.

1.4.9. After the 2nd and the 3rd meetings, inputs were again sought from the States and NAD regarding the various preliminary recommendations put forth by the Committee. In the 4th and the 5th meetings, the agenda was to discuss point-wise the various initial recommendations put forth during the 2nd and the 3rd meetings and thereby to arrive at the final recommendations. The final recommendations, as per the deliberations, are provided in Chapter 7.

1.4.10. In the 6th Meeting of the Committee, the discussions primarily focused on the Agriculture sector along with the methodology for the State-wise allocation of Central product taxes and subsidies with an aim to arrive at the final recommendations. The estimation procedure for the compilation of the estimates at constant prices was also discussed since the real growth in an economy is judged at the constant prices which are relatively free from variations in prices¹.

1.4.11. In the 7th Meeting, the discussions centered on the compilation methodology of the Advance and the Quarterly estimates for the States. As on date, 22 States are regularly compiling the Advance Estimates and 3 States namely Andhra Pradesh, Uttar Pradesh and West Bengal are compiling Quarterly Estimates with the first two at 2011-12 base and the third one at 2004-05 base. These estimates provide a snapshot of the economy over a short term and are very important for gauging the performance of the State's economy provided they are made available in time and are derived from the current trends reflected by the ground reality. The methodology for estimating the Quarterly GSDP prescribed by the NAD

¹ It may be noted here that at the sub-national level, price effect can be removed only when the domestic product is evaluated at the same (all India average) prices prevailing in the base year for all the regions. However, as per the current practice, the domestic products of different regions are evaluated at regional prices in some sectors and national prices in the other sectors. It is hoped that the constant price estimates would eliminate the price effect to a large extent.

and followed by the State DESs is given in *Annex-IV* at the end. The views and concerns of different States were put before the Committee. Also the importance of estimating the expenditure side of the economy was stressed upon during the meeting and the compilation methodology for the States was discussed. In this regard, the Committee invited Prof. Ravindra H. Dholakia, Chairman; Prof. Deepak Sethia of IIM Indore; and Smt. T. Rajeshwari, Additional Secretary, Ministry of Water Resources, to make detailed presentation based on their published work on the expenditure side of GSDP.

1.4.12. In the 8th Meeting, the discussions focused on the State-wise estimation of the Capital Formation. A presentation was made by Smt. T. Rajeshwari, based on her recent paper. Moreover, the methodology of the compilation of the District Domestic Product prescribed by NAD and currently followed by the State DESs as provided in *Annex-V* was also discussed. The broad approach, methodology and data sources followed by the States for the estimation of the DDP along with their concerns and problems faced were also heard by the Committee. At present DDP is being compiled by 12 States at base 2011-12. Four States namely Jammu & Kashmir (since converted into two UTs), Jharkhand, Tripura and West Bengal are compiling DDP with 2004-05 base. Two States - Assam and Sikkim have committed to compile the DDP estimates at 2011-12 base shortly. Gujarat is currently compiling the DDP estimates at base 2011-12 but has not released the figures yet.

1.4.13. There was also a presentation made by the Nielsen India Private Ltd., a private agency involved in the compilation of the DDP for all districts in the country and making them available to users. They are preparing those estimates quite independently of the official estimates prepared by State DESs. As a result, they have the estimates even for the Districts in those States that do not officially prepare or release DDP.

1.4.14. The Committee has had 8 meetings wherein all the aspects of production estimates and expenditure estimates including the Quarterly and Advance estimates were discussed and deliberated in detail. The Committee with the primary aim of improving the Sub-National Accounts intended to have detailed discussions on the estimation of not only State Domestic Product, but also District Domestic Product. The concepts and methodology of the District Domestic Product was also taken up during the last meeting. Moreover, the allocation of central product taxes and subsidies so critical in estimating GSDP at market prices properly was also revisited in the last meeting of the Committee.

1.4.15. The present report is organized in seven chapters. The next chapter provides a brief history of past efforts in estimation of the State Income aggregates in the country largely extracted from the earlier reports to provide a perspective. The third chapter is devoted to the current practices of estimating GSDP by detailed sectors of activity and possible improvements recommended by the Committee. The fourth chapter discusses the frequency of preparation of GSDP estimates and their revisions made by the State DESs with the

current practices and possible improvements recommended by the Committee. The fifth chapter then considers the estimation of components of the expenditure side of GSDP where the current position is not at all satisfactory and needs substantial improvement and effort. The sixth chapter is devoted to the estimation of District Domestic Product by the State DESs and possible improvements suggested by the Committee. The seventh chapter provides summary of the final recommendations of the Committee based on the deliberations in its 8 meetings.

Chapter 2: Earlier Efforts in India

2.1 Brief History of Regional Accounts in India

2.1.1. The system of regional accounts as a concept is useful in providing a large database for compilation of income and other related macroeconomic aggregates for taking certain policy decisions at a level smaller than the country. It summarizes a large number of transactions taking place in the regional economy within each of the production and consumption sectors and between them. It covers activities right from the production of goods and services to their final disposal as is done in the System of National Accounts. Although a sub-national region can be a Zone or a State or a District or a Block or a Tehsil or a Village or rural areas or urban areas or cities, for the preparation of regional accounts in India, regions have been considered as coterminous with the geographical boundaries of urban and rural areas; and the States and Districts. However, more popular and useful definition of a region is in terms of States and Districts since they represent independent administrative units with popularly elected government of their own within the federal structure in the country. A very interesting brief account of the history of the national income accounts is provided in Sivasubramonian (2000) and of regional accounts in India is given in the CSO (2012) publication on *National Accounts Statistics – Sources and Methods, Chapter 6 on Regional Accounts*, available at (http://www.mospi.gov.in/sites/default/files/publication_reports/sources_method_2012%20%281%29.pdf).

2.1.2. The relevant part of the history for the present Committee is, however, the role played by the users of the regional accounts in its development in the country. The importance of the SDP was realized long back in the late 1950s and early 1960s by the Planning Commission which used per capita income at the region level as one of the criteria for determining the extent of Central assistance to each individual State. Nearly 20% of the total assistance to the States was based on the comparable estimates of the SDP. Prior to the Fourth Finance Commission there was an emphasis on the need for collecting reliable statistical data on SDP on a continuous basis and making them available to the Finance Commission (FC) at the very commencement of their work.

2.1.3. The development of the work on SDP in the individual States also raised the problem of comparability of the estimates among the States. The use of SDP for inter-regional comparison implied that the estimates are comparable. But for such a large number of States with varying levels of statistical development, it was extremely difficult to ensure strict comparability in the estimates prepared by different agencies even when the details of concepts and methodology are laid down. This was mainly because of the differences in the quality of data available in different regions and large number of assumptions involved

at different levels in the preparation of the estimates. In spite of their overall comparability in terms of concepts and definition, the estimates of State Domestic Product prepared by the individual State Statistical Bureaus (SSBs) suffered from this limitation. This problem was raised by the authorities like the Planning Commission as well as by independent bodies like the Fifth and Sixth Finance Commissions.

2.1.4. Considering this problem, the Planning Commission in 1961 suggested that the CSO should undertake compilation of comparable estimates of State Income for the commodity producing sectors on the income originating basis and these would be used by the Planning Commission for policy purposes. It was also suggested that the preparation of these estimates could be undertaken by the CSO in consultation with the SSBs who should be requested to supply any basic data which might be required for the purpose. Subsequently the subject was discussed by the Planning Commission in several meetings with the State governments. At the instance of the Planning Commission, a set of comparable estimates for five years 1960-61² to 1964-65 initially for the commodity producing sectors and subsequently for all sectors were prepared by the CSO in 1969. The estimates for the commodity producing sectors at the national level were even otherwise obtained as aggregates of the State level estimates prepared by the CSO. The preparation of State-wise estimates of the commodity producing sectors (except unregistered manufacturing industries), therefore, did not involve any special assumptions. For the rest of the sectors, however, except for the base year (1960-61), the estimates were prepared at the all- India level. The State-wise estimates for these sectors were, therefore, prepared by the CSO basically following the allocation method after the estimates at the national level were prepared. The indicators for the purpose were different for different activities depending on the type of activity as well as the data availability. These estimates took care of the State-wise differentials to the extent the base year estimates were prepared at the State level. For a strictly correct measurement of differential movement among States the base year State level estimates need to be moved by the corresponding indicators and the national totals built up as aggregates of the same. For the estimation of the State Income, however, State-wise physical indicators were used for allocation of the national totals and this method would measure differentials movements, to the extent, the State-wise indicators in individual years used for allocation reflected the differential movements for individual States. As noted above, such comparable estimates were used by the Planning Commission and Finance Commissions. Thus, the developments in regional accounts in India are largely driven by the users' demand.

² Although CSO (1982) states that the comparable estimates were prepared for only three years from 1962-63 to 1964-65, K.R.G. Nair (1983) claims that the CSO prepared the estimates for five years and the Fifth FC also reported comparable per capita SDP by States for 1960-61 to 1964-65 and the details of these estimates are also reported in Chavan and Chavan (1970).

2.1.5. The Sub-National Accounts statistics are an extension of the System of National Accounts to the regional level. These comprise at the national level of various accounts indicating the flow of all transactions within a time period between the economic agents constituting the economy and their stocks. These accounts include various aggregates like total output of the economy, the intermediate consumption, gross value added, final consumption expenditure, factor incomes, capital formation, capital stocks and Consumption of Fixed Capital (CFC). The regional accounts, on the other hand, are not so comprehensive due to severe data constraints.

2.1.6. The most important aggregate of the State Accounts is the SDP, also referred to as the State Income. The States Income Accounts can conceptually be prepared by adopting either of the two alternative approaches: (i) income originating; and (ii) income accruing. In the income originating approach, the region is defined in terms of its geographical boundary and hence measurement of income is through the value originating within the geographical boundary from the application of factors of production in domestic activities and represents value of goods and services produced within the State. It essentially measures the Domestic Income irrespective of who has produced it – whether the normal resident of the region or an outsider. On the other hand, the income accruing approach relates to the income accruing to the normal residents of a State, irrespective of where they produce or earn the income. It incorporates net factor income flows across the region and hence yields a realistic concept for disposable income that provides a better measure of the welfare of the residents of the State. However, owing to the non-availability of requisite data on interstate financial net flows of factor incomes and current transfers as well as physical net flows of goods and services, compilation of estimates of State income by income accruing concept has not been found feasible till now. Compilation of some of the other macroeconomic aggregates like personal disposable income, saving, etc. of the State accounts is also problematic, owing to the absence of requisite data.

2.1.7. As far as the District Income estimates are concerned, NCAER (1963) discussed the District Income of different States for the year 1955-56. The main objective was to build up suitable indicators for locating the backward regions of the economy so that special attention could be given to them in the allocation of the development projects. It was an exercise more to supplement efforts in this direction undertaken as a part of the Census of 1961 for developing as many indicators as possible for identification of backward Districts in the country.

2.1.8. The rest of the chapter discusses three most important Committees set up by the Central Government that recommended important initiatives and development of State Income accounts in the country respectively in the following three sections. The fifth section is then devoted to considering the present status of estimates of various regional

accounts aggregates prepared by different State DESs. The sixth and final section then considers brief review of the practices followed in developed countries such as Countries that follow EuroStat, United Kingdom and United States of America.

2.2 Committee on Regional Accounts – CRA (1972-76)

2.2.1. Based on the recommendations of the COCSSO, the Government of India in May 1972 set up a Committee on Regional Accounts (CRA) with the well-defined terms of reference given above in *Chapter 1, section 1.1.2, p.1*.

2.2.2. The CRA submitted its First Report to the Government in November 1974, and the Second/Final Report in September 1976. The Committee recommended a consolidated account for State consisting of accounts for the household sector and accounts pertaining to the public sector. It also defined the concepts, the scope and sources and methodology to estimate various components of the Accounts. The Report also addressed major gaps found in the existing data set and made recommendations to bridge those gaps for satisfactory measurement of State income and related aggregates. The Committee, moreover, was emphatic in recommending an accounting frame-work for only for a State level. It rejected the idea of recommending the same for a District or a smaller region.

2.2.3. The Committee was ambitious in recommending compilation of State level input-output tables and comparable estimates based on purchasing power parity of the rupee in different States on the lines of the United Nations project on International Comparison of National Accounts aggregates to remove the *price-level* differentials among States. These recommendations have not found favour with any of the State DES nor with NAD so far. However, its recommendation about compilation of District level estimates of GVA for, at least, commodity producing sectors has been taken up by several State DES and NAD. In fact, several States are compiling District Domestic Product estimates for all sectors.

2.2.4. The CRA in its First Report (1974) avoided presenting a set of regional accounts. The main problem noted by the Committee was in respect of savings, change in stocks and external trade and finances. The relevant data to address these concerns satisfactorily would be in terms of interstate flows of goods and services as well as financial flows on the current and capital account of regional balance of payments. The then existing statistical network was inadequate and incapable of capturing these transactions to any satisfactory level. As a result, the CRA considered it futile to recommend a full system of accounts at the State level incorporating both the demand and supply sides.

2.2.5. The standard tables recommended by the CRA cover all aspects of economic transactions other than interstate financial and physical flows of goods and services. The CRA in its final report recommended partial and incomplete regional accounts when

compared to the national counterpart. It covered only the supply side or production angle of the regional activities. Thus, the State Income was measured as SDP by industrial sectors at the factor cost. SDP at the market prices reflecting the demand side or expenditure side was not emphasized. This was perhaps because the interstate flows and transactions were considered almost impossible to capture in the statistical network. However, the CRA did recommend compilation of Private Final Consumption Expenditures (PFCE) and Gross Capital Formation (GFC) at the State level. The summary of the detailed recommendations of the CRA have been reproduced in the CSO (2012) at the link given below:

[http://mospi.nic.in/sites/default/files/publication_reports/sources_method_2012%20\(1\).pdf](http://mospi.nic.in/sites/default/files/publication_reports/sources_method_2012%20(1).pdf)

2.3 National Statistical Commission (1999-2001)

2.3.1. According to the National Statistical Commission (NSC) Report (2001), the action taken on the various recommendations of the CRA was as follows:

- All the States and UTs, with the exception of Dadra and Nagar Haveli, Daman and Diu and Lakshadweep, are preparing the estimates of GSDP and NSDP at current and constant prices.
- The State/UT of Andhra Pradesh, Assam, Bihar, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal are preparing the SDP estimates by areas (districts) by commodity producing sectors only and out of which the States/UTs of Andhra Pradesh, Bihar, Haryana, Karnataka, Kerala, Maharashtra, Rajasthan, Tamil Nadu, and West Bengal prepare the district estimates for all the sectors. The State of Arunachal Pradesh is in the process of preparing district-level estimates.
- The States/UT of Andhra Pradesh, Bihar, Goa, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal and Delhi are preparing the Economic and Purpose Classification of the Expenditure of Administrative Departments.
- None of the States/UT except Tamil Nadu (that too only at current prices) is known to have prepared the Final Consumption Expenditure.
- None of the States are preparing input-output tables.
- The States of Andhra Pradesh, Assam, Gujarat, Haryana, H.P., Karnataka, Kerala, M.P., Maharashtra, Meghalaya, Orissa, Punjab, Rajasthan and Tamil Nadu are preparing the estimates of Gross Fixed Capital Formation (GFCF)³. None of the UTs are preparing the GFCF estimates.

³Although the reference indicates that the Estimates of GFCF is being compiled by the States but the actual factual position was that the States were compiling GFCF estimates for public sector/ government sector only. The current status is given in the *Annex-VII* at the end of this report.

- None of the States/UTs appear to have been preparing the Consolidated Account of the Region and accounts for the Household sector. However, the States of Haryana, Himachal Pradesh, Kerala, Madhya Pradesh and Tamil Nadu are preparing the complete accounts of Public Administration and Local Bodies. Whereas the States/UT of Andhra Pradesh, Manipur and Rajasthan prepare the accounts of only Public Administration and the States/UT of Gujarat, Karnataka, Tripura and Pondicherry are preparing the Public Sector Accounts relating to administrative departments only.

(Source: <http://mospi.nic.in/137-regional-accounts>)

2.3.2. In addition to the above, the First NSC report also mentioned about the data gaps in the compilation of the Regional Accounts and also suggested measures for bridging the data gaps.

2.4 High Level Committee on Estimation of Saving and Investment (2007-09)

2.4.1. Subsequently in December 2007, the Central government appointed a High Level Committee on Estimation of Saving and Investment (HLCESI) under the chairmanship of Dr. C. Rangarajan who had also chaired the First NSC. One of the chapters in the report of HLCESI (2009) was devoted to the estimates of Gross Capital Formation (GCF) at the State level, where the CSO gave estimates of GFCF at current prices for the year 2004-05 for all (the then) 28 States and 7 Union Territories along with the national totals. It also presented the updated status report on the estimates of GFCF prepared by different States. The HLCESI had made several specific recommendations on the preparation of estimates of Saving and GFCF at the State level besides GSDP at market prices. These recommendations from their executive summary section are reproduced verbatim as under since they are the latest and very important for the work of the present Committee particularly for the estimation of expenditure side of GSDP –

- (a) The Steering Committee of the NSSO may be requested to launch annual survey of non-manufacturing enterprises or annual enterprise surveys focusing on larger enterprises which maintain annual accounts for collecting data on income, expenditure and capital formation. The surveys should be designed in such a manner that reliable estimates of capital formation are available, for each State - however small or big it is. This is particularly important for the north-east States and the newly formed States.
- (b) The present enterprise surveys should be conducted with suitable sample size (including a usable sample from each State) for estimation of capital formation at State level and by industry.
- (c) Regarding the estimation of State level capital formation, the HLC observed that most of the States compile GFCF for only public sector and the compilation is done by industry of

use. The State-wise data on public sector is available from the Gross Block of public enterprises survey. The main problem is getting the data on private investments made in the States. For this, only annual enterprise surveys can provide reliable estimates of regional capital formation. The Steering Committee of the NSSO, therefore, should be requested to launch annual enterprise surveys, which should provide reliable data on capital formation at State level and by industry. Other options to compile GFCF could be to use capital-output ratios of all-India or public sector within the State. With increase in coverage of companies in the MCA21, it should, however, be possible to get State-wise estimates of capital formation on the basis of location of companies, rather than on the basis of location of establishments, which is what is required at State level.

- (d) Regarding GSDP at market prices, the States should attempt to release this data by adding indirect taxes net of subsidies to the GSDP at factor cost (which follows income-originating concept). The data on indirect taxes net of subsidies for the States, including those of local bodies, part is available from the analysis of budget documents of the State Governments, and for the Centre's part of these taxes and subsidies (including indirect subsidies from the Centre in each State), which is difficult to estimate but possible, efforts should be made to estimate the same.
- (e) The States may also try to estimate savings by subtracting private final consumption expenditure and government final consumption expenditure from the estimated GSDP at market prices, after assuming that the net transfers and factor incomes from abroad and from other States is either negligible or making suitable adjustments from the data available at State level on bank deposits. This procedure gives a rough estimate of savings in the State, which can further be approximated to GCF, if one assumes the net capital inflow to the State is negligible. This is, however, a very crude and rough estimate of both savings and GCF in the State, but could be an indicative dataset. Another problem in this procedure is the lack of availability of data on private final consumption expenditure. States can derive this data from the NSS Consumer Expenditure surveys by suitably adjusting to the differences between consumption expenditure data shown in NSS and NAS. For estimating income accruals (if one follows this approach to estimate GSDP), the data on factor income flows across States is needed. Flows of goods and non-factor services don't create conceptual difficulty, but they create practical difficulty for estimation. However, such flows are now available to some extent from Railways and Road Transport operators. The international trade needs to be captured.
- (f) The HLC recommends that enterprise surveys should be conducted with suitable sample size for estimation of capital formation by industry and by States. Till such time, alternate methods like working out capital output ratios, using ASI data at two digit level

and studying its variations with all India capital output ratios may be tried for estimating capital formation at State level.

The full Report of the HCLESI (2009) is available on the following link -- http://www.mospi.gov.in/sites/default/files/publication_reports/HLC_report_25mar09.pdf

2.5 Present Status of the Estimates prepared by the State DES

2.5.1. The present Committee on the Sub-National Accounts started by taking a fresh stock of the data gaps as per the current methodology in the 2011-12 base and repeatedly emphasized that DES from every State is expected to participate in the deliberations of the Committee either by their physical presence or by sending their inputs in writing for consideration of the Committee at any stage of the Committee's tenure. During the course of deliberations, it was reiterated that it was in the interest of the States that the estimation of sub-national accounts is strengthened to become more realistic and reliable which requires that most of the estimates are prepared at the State level as far as possible. A view emerged in the deliberations of the Committee that robust estimates at the State level can only enable compilation of usable estimates at the District level when the latter are primarily developed adopting the allocation approach.

2.5.2. The Committee took the stock of all the statistical products such as IOTT, IIP, WPI, GFCE, GFCF, PFCE, Advance and Quarterly GSDP etc. or any additionality the States are currently bringing out and also where GSDP compiler in the State is functionally placed in the State administration (Finance Ministry, Planning Ministry, or any other Ministry). The Status of different estimates compiled by the States as on date is provided in the *Annex-VIII* at the end of the report. This has been circulated to all the States so that States which are lagging behind can be motivated by the active and the better performing States. Also neighboring States can help each other and come up with a better set of estimates by sharing their best practices. This process of mutual help would enable States to improve their Regional Accounts Estimates. The Committee suggested that the regional workshops conducted regularly by the NAD, MoSPI can be a good platform for this purpose.

2.6 Global Best Practices

2.6.1. Methodology adopted by the EuroStat

The Eurostat in its manual described three possible methods that can be used for the estimation of regional accounts indicators such as GVA in current year's and previous year's prices, GFCF, employment, primary and disposable income of households, and final consumption expenditure of households.

The methods are classified according to their suitability and data availability. These are categorized into three groups, as follows:

1. A-methods represent the actual values or approximate the ideal as closely as possible.
2. B-methods are acceptable alternatives: they are further away from the ideal but still provide an acceptable approximation.
3. C-methods are too far away from the ideal to be considered as acceptable and should be improved if possible.

For example, the use of labour figures for the estimation of GVA might be classified as a B- or C-method while being an A-method for employment.

The Eurostat uses the following methods for regionalization:

- (i) The bottom-up or ascending method of estimating a regional aggregate involves collecting data at the local KAU (Kind-of-Activity Unit) or the residence of households and aggregating these values to get a regional total. The method is called 'bottom-up' because the elements for compiling the aggregate are directly collected at the local KAU level or residence of the households. This method can be used for uni-regional enterprises or KAUs and households if full information is available.
- (ii) A pseudo-bottom-up method can be followed where data for the local KAU or residence of households are not available. Data for the local KAU can be estimated from enterprise, KAU or local unit data using regional indicators. The estimates can then be aggregated to obtain regional totals just as in a purely bottom-up method. This method can be used especially for multiregional enterprises or KAUs.
- (iii) The top-down method accommodates a situation in which data are only available at for instance NUTS (Nomenclature of Territorial Units for Statistics) 3 level or municipality and not for the local KAU or local unit. The national figure from the national accounts is distributed using regional data (indicators) which are as close as possible to the variable to be estimated. For example wages and salaries might be allocated to regions using the regional distribution of the total number of full time equivalents of employees, multiplied by the average annual earnings per employee from a different statistical source. This results in the regional distribution of total earnings of employees, which can be used as a regional indicator for the allocation of wages and salaries to regions.
- (iv) Mixed Method-The bottom-up method is rarely encountered in its pure form. There are always gaps in the data, which have to be filled using a pseudo-bottom-up and/or top-down approach which is called the mixed method.

More detailed information can be found at the Eurostat Manual on Regional Accounts Methods at the link given below:

<https://ec.europa.eu/eurostat/documents/3859598/5937641/KS-GQ-13-001-EN.PDF/7114fba9-1a3f-43df-b028-e97232b6bac5>

2.6.2. Methodology adopted by the UK:

The National Estimates published in the UK annual publication for National Accounts provides National (UK) totals required for the compilation of regional GVA, GDHI (Gross Disposable Household Income) and GFCF. It provides estimates of national output, income and expenditure. It covers value added by industry, full accounts by sector (including financial and non-financial corporations, central and local government and households) and capital formation. Data at component level are gathered from national SUTs and from various sector accounts compiler areas within ONS (Office for National Statistics).

A 'top down' approach is used to calculate regional figures, whereby the national control aggregate for a component of GVA, GDHI or GFCF is allocated to regions using the most appropriate measure of regional activity (known as the regional indicator) available. The regional or industrial estimates must sum to the national total. National controls data by component of income and by 112 industries are gathered from the supply and use tables (SUTs) for the years 1997 to t minus 2 years (where t is the current year). These are the years for which the SUTs have been balanced. Regional GVA is open to any revisions implemented nationally in the SUTs. Regional GVA(I) totals are published at t minus 1 year but published as "provisional" due to the national data being unbalanced for this year. The provisional national data used for the t minus 1 year estimates are taken from the GVA(I) by industry section estimates in Table 2.2 of the UK National Accounts, The Blue Book. Component totals at t minus 1 year are supplied by national accounts compiler branches. The data are fed into a forecast model, which produces component (by SUT 112 industry) estimates, which can be regionalized and then summed to produce a total GVA(I) estimate for each region. As these data have not been through the supply and use balancing process they are subject to the income statistical discrepancy and are therefore marked as provisional.

Regional indicators are obtained from a number of data providers including survey and administrative sources, in line with Eurostat guidelines. Their selection is dependent on availability, quality and timeliness. Each dataset is validated prior to its use in the compilation of the Regional Accounts estimates.

More detailed information is provided in the following links:

<https://www.ons.gov.uk/file?uri=/economy/regionalaccounts/grossdisposablehouseholdincome/methodologies/regionalaccounts/regionalaccountsmethodologyguidetcm77253851.pdf>

<https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/methodologies/regionalaccountsmethodologyguidejune2019#regional-gross-value-added-income-approach>

2.6.3. Methodology adopted by the USA:

In the USA, GDP by state is measured as the factor incomes earned and the costs of production, like gross domestic income (GDI) for the nation. Estimating GDP by state involves collecting and assembling data from Federal and State and local government agencies and bureaus, other Bureau of Economic Analysis (BEA) accounts, and private companies. These data are incorporated according to a national income accounting blueprint that assures consistency with GDP estimates of US BEA. The steps involved are:

1. Estimate labor income using data from BEA's State Personal Income (SPI) accounts.
2. Estimate non-corporate capital income also using data from BEA's SPI accounts.
3. Estimate business taxes less subsidies paid to business by government using data from the Census Bureau, other federal agencies, and State government agencies.
4. Estimate total GDP by State for goods-producing industries (crop and animal production, mining, construction, and manufacturing) based on value-added data from the Department of Agriculture and the Census Bureau.
5. Estimate corporate capital income for the services-producing industries (forestry, fishing, and related activities; utilities; wholesale and retail trade; transportation and warehousing, excluding postal service; information; finance and insurance; real estate, rental, and leasing; professional and technical services; management of companies and enterprises; administrative and waste services; educational services; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; and other services) using financial data reported by company for regulated industries and Census Bureau gross receipts and payroll data for non-regulated industries. For government enterprises, capital income is based on revenues and expenditures data from the Census Bureau.
6. Compute the remaining component, GDP by State or corporate capital income. For the goods-producing industries in step 4, the corporate capital income component of GDP by State is computed as the difference between GDP by State and the sum of labor income, non-corporate capital income, and business taxes less subsidies. For the services-producing industries in step 5, GDP by State is computed as the sum of labor income, business taxes less subsidies, and capital income.
7. Scale GDP by State components to the national estimates of GDP by industry components produced by BEA's Industry Accounts.
8. Compute Fixed Investment (FI) from research and development (R&D) expenditures and entertainment, literary, and artistic originals (EAO) expenditures separately.
9. Add fixed investment to GDP by State components to compute total GDP by State.
10. Finally, compute real GDP by State by applying national chain-weighted price deflators to current-dollar GDP by State estimates.
11. The estimates are prepared for benchmark years (every five years) coinciding with the BEA's census years and the estimates for non-benchmark years are generated

using interpolation and extrapolation techniques with indicator series that mirror the movement in the GDP by State components.

(Source: Gross Domestic Product by State Estimation Methodology, Bureau of Economic Analysis (BEA), US Department of Commerce, 2017 -- https://www.bea.gov/sites/default/files/methodologies/0417_GDP_by_State_Methodology.pdf)

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Chapter 3: Estimates of GSDP-Current Practice and Possible Improvements

3.1 GSDP Estimates at Current Prices

3.1.1. The GSDP estimates for all the States are compiled using the identical concepts and definitions of the National Accounts. The estimates are compiled industry-wise and also institutional sector-wise. The approach followed for the estimation of the GSDP is primarily direct approach (or the bottoms-up- approach) for the Agriculture sector and allocation method or the mixed approach (combination of direct and allocation method) for other sectors. The existing detailed methodology of compiling the GSDP estimates at the current prices and constant prices with the base year 2011-12 is given in a document released by the NSO in January 2019 which is available at the following link:

http://mospi.gov.in/sites/default/files/publication_reports/Methodology_GSVA_24jan19.pdf

3.1.2. After having detailed discussions on the current practices of compiling the GSDP estimates and listening to State DESs, considerable scope for improvements emerged in different sectors. The Committee made its final recommendations after detailed deliberations on the various preliminary recommendations made during its first three meetings which were tested with feedbacks from more responsive State DESs. The sector-wise final recommendations which would necessarily improve the State GSVA estimation procedure are as follows:

3.1.3. AGRICULTURE, FISHING and FORESTRY:

- (i) Ornamental plants and ornamental fishing, which have a high value addition, are perhaps not fully captured in the estimation of the agriculture aggregates. The States need to explore methodology including specific survey for capturing the same.
- (ii) Regarding value of agriculture on the river beds, talatis (village level revenue official) usually report these figures as argued by DES- Rajasthan. However, the Committee felt that the issue of proper estimation of agriculture outside the agricultural land including agriculture on the river beds needs to be looked into by State DESs.
- (iii) The Committee was informed about the new studies for updating a few of the rates/ratios used in the estimation, planned on Inland Fishing and Grass & fodder respectively through CIFRI and IGFRI-both ICAR units. It was also informed that the studies intend to provide estimates for major States

contributing towards output of these activities. Such updated rates/ratios may then be used for neighbouring/similar States.

- (iv) With respect to source data on production of Honey, NAD presented data published by Horticulture Statistics Division (HSD), MoAgFW vis-à-vis the data being used at present from the DES/KVIC. It is noted that the KVIC no longer publishes the data and the data sent by the State DESs is received by the NAD only after publication of 1st revised estimates (1st RE). Therefore, use of HSD data would enable NAD to use more up-to-date data for 1st RE and it would be more comparable with the advance estimate. Differences between HSD data and DES data can be reconciled by the States during their discussions with the MoAgFW, similar to that for the remaining horticulture statistics. As informed by DES (Delhi), the product honey has two by-products namely bee-wax and venom. The same is presently not separately estimated. The Committee feels that new data sources may be explored for this item. It is recommended that an exercise comparing the data of honey production and floriculture may also be carried out to check the robustness of the data being published by the HSD. If they are found to be following the same trend, then the Committee would recommend using HSD data on honey instead of using DES/ KVIC data.
- (v) The NAD also informed that the Agricultural Marketing Information System (AGMARKNET.GOV.IN), an initiative of Directorate of Marketing and Inspection, MoAgFW, has an online facility to record both the arrival quantity and the price data from agricultural markets of all States/UTs. The MoAgFW has shared day-wise and item-wise data for each market with respect to two variables namely Price and Quantity (market arrival). With a view to explore actual price received by the farmers during off-peak season and to compare it with the production and peak-season ex-farm price being used at present, NAD attempted a preliminary study using data for the year 2016-17. The following data related problems in AGMARKNET data are noted:
 - a. same record does not have information on both price and quantity,
 - b. data has howlers and therefore, needs cleaning before use.
 - c. since quantity data does not have information on variety/standard product description (SPD), juxtaposing price information on quantity would be a challenge.
 - d. multiple varieties have been reported for important crops in main seasons for many States and some assumptions will be necessary to compute average price of a day for a commodity.
 - e. total quantity of a crop reported in AGMARKNET is substantially lower than total production released by the MoAgFW for some of the major crops, namely paddy, wheat, mango, etc. Only for onion,

AGMARKNET data was about 70% of production reported by MoAgFW.

While these data problems are genuine and need to be resolved carefully, the Committee suggests the following exercises to be carried out by the NAD to arrive at a more meaningful improvement in the estimation of value of output:

- i. Find out self-consumption and PDS offtake data for paddy and wheat, adjust production data of MoAgFW for this and compare the remaining production with AGMARKNET, so that one can find as to how it contrasts with marketable surplus,
 - ii. compare weighted average price derived from AGMARKNET data with the peak-season farm harvest price provided by the State DESs, and
 - iii. compare peak-season price from State DESs vis-à-vis peak-season price derived from AGMARKNET.
- (vi) The Committee considered the issue of differences between the estimates provided by the States to the MoAgFW and the final estimates released by the Ministry as pointed out by DES- Rajasthan. It is felt that the only way-out would be to discuss and reconcile the estimates between MoAgFW and the concerned State/s.
- (vii) As the area under Kitchen Garden is being covered in the 77th round of NSS Land and Livestock Holding Survey, the Committee notes that the rates and ratios for this can be updated using this data for both rural and urban areas.
- (viii) To explore the possibility of estimating output of specie-wise fishing, NAD has circulated a format for collection of this data to all States. It has been done taking a cue from Tamil Nadu, which is compiling its District-wise output from fishing in this manner. The Committee recommends this for all States/UTs, so that the list of specie becomes more exhaustive and the All India estimates become more realistic. States may take initiatives to collect the same as Agriculture is a State subject and estimates such as this need to be made using bottom-up approach.
- (ix) The Committee feels that crop-wise inputs are the need of the hour, as data on crop-wise GVA is an essential prerequisite for the betterment of farmers. The NAD should communicate with all State DESs to obtain the ground level information on the crop-wise inputs from the State Agriculture Departments. Further, NAD may check its availability from the CACP, MoAgFW. The Committee also suggests that all the States should conduct field surveys through Agricultural Universities for generating estimates on crop-wise value of different inputs namely, seeds, fertilizer, pesticide, electricity, repair & maintenance, labour component, etc.
- (x) It is important to note that the NAD gets firm data on total use of different items of input namely fertilizer, pesticide, etc. from other sources. Therefore, whenever a State/UT is preparing crop-wise estimate of input or District-wise

estimate of input, they need to ensure that the total of these crop-wise or District-wise estimates add up to the State level firm figures used by the NAD. Further, periodic studies on inputs used for a few most important crops grown in a State can ensure continuous updating of the State level rates and ratios for inputs.

- (xi) As informed by DES (Delhi), the State is using Cost of Cultivation Studies for the information on the inputs for their Agriculture sector. It is recommended that other States should also try compilation using similar approach.
- (xii) The issue of inclusion of the rent charges for the tractors and bullock labour needed to be examined. Also the depreciation cost on these, which is currently not covered needs to be thought of.

3.1.4. MINING:

- (i) The Committee recommended sharing the list of the mining companies, both Government and private by NAD, with the States. The States will provide the list of minerals mined by these companies. Based on this data, company-wise and mineral-wise GVA estimates can be prepared for the mining companies.
- (ii) The Committee observed cases of the differences between the IBM data and the State data and recommended that such differences should be resolved by the States.
- (iii) The Committee was informed that the States have been intimated about the new list of the Minor minerals (copy of the gazette notification where some major minerals had been converted to minor minerals is placed in the *Annex-VI*) and they need to collect information and provide the same to NAD for incorporation. The Committee recommended the States to regularly collect information about the minor minerals including those newly added.

3.1.5. MANUFACTURING:

- (i) ASI frame with the CIN may be shared with the States; but the same cannot be made public on account of the confidentiality and privacy of the information. Alternatively, based on the ASI frame, the States could be provided with a list of manufacturing units that are located in the State and belong to the MCA list of companies.
- (ii) ASI schedule should bear information whether the company is a single establishment/multi-establishments in single State or multi-establishments in multiple States. The above information would enable direct estimation in many cases and in only 40%-50% of the cases, allocation may be resorted to where the enterprises are multi-establishment-multi-State type. The Committee also

- advised NAD to study the CIN mismatches between the ASI and MCA data and inform about the same to Industrial Statistics Wing.
- (iii) The Committee was informed about the fact that the MCA has agreed to share the list of the MCA data with some of the States. The primary idea behind it was to get an idea of the single establishments identified. In this regard, it was stressed by the Committee that the business registers should be regularly updated by the States so that an up-to-date frame is available. The proposal to conduct Economic Census every three years would go a long way in helping such efforts.
 - (iv) The Committee suggested the States to come up with proposals for updating the ASI frame.
 - (v) The information of the GST data – the format, content, classifications, geography, details about transactions, etc. - is yet to be made available. Moreover, GST would not provide mapped information about the products and the activities. The Committee suggested that the GST data needs to be explored further. The detailed usage of the GST data may be taken up in the next round of base revision exercises. The formats in which the data is required need to be sent to the GSTN so that the requisite data may be supplied in the needed format.
 - (vi) The Committee recommended that the MCA may be requested to provide the segregated list of the multi-establishment companies located in different States along with the information on employment in these companies and the single establishment companies including multi-establishment companies having all their establishments in the same State so as to have State-wise allocation of the Private Corporate estimate to be more precise. It was felt that doing so will help in the correct estimation of the Private Corporate sector and reduce the percentage of allocation.
 - (vii) The Committee recommended that the States must endeavor to compile their own IIP instead of using the All India IIP for making State-level estimates. This will help in better estimation. States may also take help of neighboring/structurally similar States in compiling State-wise IIP/Estimate. In this regard, the Committee was informed that the matter is being taken up by DES of all the States. At present, the weights for the IIP are ASI based, which has certain limitations. The Committee was, therefore, of the view that the possibility of using MCA data along with ASI for constructing weights may be explored. It was also suggested that for the computation of the quarterly estimates, the States should adopt similar methodology as that being used by the NAD for estimates at the All-India level. Hence the growth rates based on quarterly filing

would be more apt as compared to using IIP growth for the quarterly estimates⁴. However, the Committee suggested that the States should not immediately disrupt the current series. They can change the methodology during the next base revision.

- (viii) After making all efforts to get the direct estimates at the State level, the remaining part has to be based on allocation of the MCA aggregate for the same part. The Committee expressed concerns about such allocations of the MCA aggregates first State-wise and then compilation category-wise using ASI, as this might not be very precise. It, therefore, recommends examining the reverse exercise and, if found adequate, may be carried out during the base revision.

Apart from the above, the Committee was apprised of the fact that the entire cycle of the ASI data availability has changed and that the final estimates can be expected much early from 2019 onwards. Discussing the fluctuations in State-level GVA estimates in the ASI data, the Committee recognized the effect these may have on the estimates of manufacturing sector GVA at State-level, but felt that the possible alternate method of using 3 year moving average to smoothen out the fluctuations is not a very desirable method as it would defeat the very purpose of examining the actual performance of the establishment and capture fluctuations therein.

3.1.6. ELECTRICITY, GAS and WATER SUPPLY:

- (i) The Committee suggested encouraging those States which can compile the estimates directly as these estimates would be more appropriate. Also, it was suggested that the list of all Electricity companies be shared with the States by the NAD.
- (ii) In the case of the multi-state companies, the respective companies can be approached for providing ratios using which the State-wise distribution can be made. At present States like Delhi and Odisha are compiling their own estimates for the Private Sector Electricity. Similar approach, if adopted by other States, can improve the proportion of direct estimates and reduce the proportion of allocation-based estimates.

3.1.7. CONSTRUCTION:

- (i) The Committee was apprised about the study awarded to CBRI, Roorkee by NAD for revising the rates and ratios of the construction sector. It was informed that all the States are being covered in the study and the ratios and rates would be

⁴ An issue related with availability of required data needs to be pointed out. State-level data on quarterly filing may not be available since most of the companies are metro-based and some States have no listed companies. This problem also exists for the annual estimates and the solutions suggested to overcome it should also apply here.

estimated separately for each State. Thus the variations amongst States would be taken into consideration. The Committee was of the opinion that an indicator based on other materials like glass, plastic and wood in addition to steel and cement can be more useful for the allocation of the National level estimates. The results of the study can be used to improve the estimates.

- (ii) The Committee recommended exploring the feasibility of using the GST data, once it becomes available.
- (iii) The Committee felt that the GVA for the Construction sector is probably understating the actual growth. It was suggested that the Commodity Flow method may no longer be a very correct method for estimating GVA in the Construction sector. The Committee suggested that during the next base revision exercise, certain methodologies may be developed for making direct estimates of the Household sector. Hence an alternate method may be explored for the estimation of the HH part especially as the estimates of other institutional sectors such as the corporate, NDE and GG are estimated independently from the books of accounts. Also, a comparative study can be made using the estimates of the HH from the Commodity Flow and actual estimation.
- (iv) As far as the State level Private Corporate Sector estimates are concerned, the Committee felt that the States need to take initiatives in this regard and the same may be done by way of conducting surveys for improvement of their estimates. States can share their best practices with other States which will widen the scope of improvement for all States for mutual benefit.
- (v) In addition to this, it was also suggested that the information on the Road Statistics may also be explored for knowing about the details of the roads constructed.
- (vi) Also a suggestion was made regarding exploring the studies on rural and urban housing under Pradhan Mantri Awas Yojana.

3.1.8. TRADE, REPAIR, HOTELS AND RESTAURANTS:

- (i) GST registration data together with annual turnover data may be analyzed to make estimates for rural and urban sectors. Also the Registration details of GSTN data can be shared with the States to develop the District level estimates. In this regard, the Committee suggested exploring the GST data once it is received.
- (ii) The Committee is of the view that there is a need for mapping the GST with the MCA data for providing better means to allocate national aggregates to States. The Committee was apprised that the format for obtaining the GST data for this sector has been provided to Department of Revenue and NAD is in regular contact with them.

- (iii) The Committee considered the possibility of using the Gross Trading Index (GTI) for making GVA estimates and suggested that exercises using the GTI should be carried out before it is used for estimation purpose.
- (iv) The Committee suggested the possibility of using the latest Economic Census data, which is currently in field, especially for the trade sector once they are available.
- (v) For the Hotels and Restaurants sector, differential Weights based on domestic and foreign tourists may be used for State-wise allocation in line with the logic of effective labour input. In this context, the Committee advised to try and assess differential weights for the State-wise domestic and the foreign tourists' arrivals. Moreover, the Committee suggested ensuring that the home-stays in all the States are also captured.
- (vi) The Committee is of the view that the coverage of the commission agents etc. needs to be relooked. Some States may be asked to undertake Surveys for assessment of contribution of the commission agents. The results from the 73rd NSS round may also be explored in this regard.

Apart from the above, the estimates for the informal sector can be improved once the regular annual data from the ASSSE and the ASUSE is available. The Committee was informed that the same are in the pipeline and will commence soon.

3.1.9. TRANSPORT, STORAGE AND COMMUNICATION:

- (i) With regard to the surveys to be conducted for gauging the average life of vehicles, it was felt by the Committee that the stock of vehicle on the road is difficult to obtain since the data on the scrapped vehicles are not easily available. The Committee suggested that the States may initiate the calculation taking into consideration the legally stipulated age of the vehicles. They may then provide the same to NAD for calculation purpose. DES (Rajasthan) reported in the 6th Meeting that they could obtain the data on vehicles with valid permit to ply on road. The other States may also explore their data sources in this regard.
- (ii) The Committee suggested using total revenue collection from the GST data at the broad level of economic activity as a good indicator for the Quarterly estimates at the State level.
- (iii) The Committee suggested that the Data (on number) related to E-rickshaws, Ola/Uber taxi may be collected not through surveys but through the respective registration authorities because they have complete data on the number of taxis and auto rickshaws. Hence these can be appropriately covered in SDP based on their registration and operation.
- (iv) The Committee suggested that NAD should provide compilation of category-wise LI and the corresponding GVAPW to the States for the benchmark year.

- (v) Wherever the State-wise number of staff or preferably the wage-bill in a company is available, it may be used for allocation of GVA of that company, as long as better indicators are not available. The office of the Provident Fund Commissioner may be explored to find whether they have State-wise number of employees or the salaries of those employees for the Companies. The Committee also suggested exploring the Annual Survey of the Services sector in this regard.
- (vi) GVA of Courier Services is allocated on the basis of the GVA of the Department of Posts. It is most likely that Courier and Postal services may not behave identically and there may be substantial differences in their operations and productivities, and therefore a better indicator may be explored/identified for allocation of all India GVA of Courier Services to various States. Hence, the Committee advised to carry out the exercises of allocating the GVA of courier with a better indicator- such as GVA of Trade, Hotels and Restaurants or the GVA from the Manufacturing sector since the use of courier services is the most in these sectors.
- (vii) The issue relating to boatmen facilitating crossing rivers at certain points being inadequately captured in the GVA estimation process was also discussed. The Committee suggested that States may take the lead in identifying the number of workers in the sector.

3.1.10. FINANCIAL SERVICES:

- (i) With regard to the Chit funds and Self-Help-Groups, the Committee suggested examining the results of the 73rd round in the light of the AIDIS (77th round) before the same is considered for the National Accounts Statistics.
- (ii) The current practice of allocating the national GVA of the banking sector using indicators like credit disbursed was not considered appropriate by the Committee, particularly because direct estimates of a large part of such GVA is readily available at the State level. On specific request made to RBI, it provided banks' feedback on the status of data availability on wage-bill and operating surplus by major public and private sector banks by States. By using the data, the proportion of the allocated GVA can be substantially reduced in this sector. RBI should be requested to provide such data on Quarterly/Annual basis by States for public and private sector banks regularly. This would not only improve the quality of the estimates but would also bring down the proportion of allocated estimates.
- (iii) With regard to the money lender's bad debt/defaults etc., the Committee suggested doing exercises using the 73rd and 77th round of the NSS.
- (iv) Regarding the usage of the State-wise business of Postal Life Insurance (PLI) and Post Office Savings Bank (POSB) for the allocation of the all-India GVA of these

enterprises among States/UTs, the Committee suggested that instead of wages and salaries, which are currently used, the use of Business/Premiums could be a better indicator.

3.1.11. REAL ESTATE, OWNERSHIP OF DWELLINGS AND PROFESSIONAL SERVICES:

- (i) The Committee suggested that instead of using CPI (House rent) as an indicator for rent per household some other alternative may be thought of because the CPI (House Rent) is not strictly based on the house rent paid by households and non-household establishments. Also the inter-Census growth in the number of dwellings needs a relook. Every local government body has information on the houses and structures located in their territory on an annual basis. Similarly, States should identify the extent of urbanization regularly by using annual birth and death registration numbers in each local government jurisdiction.
- (ii) The Committee encouraged the States to get data from the respective State RERA for examining the usable data availability. DES(Rajasthan) managed to obtain data from RERA. Other States must also take initiatives in this regard.
- (iii) The Committee recommended all the States to have an updated business register collected and collated from local government bodies. Also the estimates from the PLFS can be explored in this area.

3.1.12. PUBLIC ADMINISTRATION:

- (i) Regarding revamp of the software for the local bodies/autonomous institutions, DES (Rajasthan) informed about the software prepared for analyzing local bodies' estimates. It was decided during the meeting that other States can replicate the work done by Rajasthan and develop their own software. Since the formats for the State local bodies and autonomous institutions are not uniform, single software designed by NAD will not serve the purpose. Hence States need to take individual initiatives in this direction.
- (ii) The Committee recommended DES (Rajasthan) to demonstrate BHAMASHAH software so that other States can take help in this regard. It was decided that the State Workshops can also be a platform for this presentation. Similar best practices of the States/Centre may be demonstrated to other States and if possible may be replicated for the improvement of the Statistical System.
- (iii) In order to minimize the extent of allocation, exact salary information of the autonomous institutions may be used. In this regard the Committee suggested the States to provide detailed information about the State's Autonomous Institutions.
- (iv) As the wage bills of Central Government employees are available State-wise, the NVA may be directly given to States else weighted average of different categories

of employees may be resorted to. Availability of State-wise wage bills with CGA/ other agencies may be explored. The Committee suggested taking up the matter with CGA for checking the data availability. NAD, MoSPI has taken up the matter with CGA asking for State-wise and Ministry-wise details of number of Central Government Employees as per pay levels.

- (v) The Committee was informed that the matter regarding obtaining the information on the local bodies had been taken up with M/o Urban Affairs and it was found that the data in the format required was not available. In this regard, the Committee suggested the States to come up with robust estimates of the same. DES (Rajasthan) reported in the 6th Meeting that all the required data from the local bodies had been collected by the State. Similarly, other States may also take lead in collecting data of the local bodies.

3.1.13. OTHER SERVICES:

- (i) The Committee suggested that for the sectors like health and education, States can have their own surveys. The States may add to the sample of the Centre and pool the two to make their estimates better. It was felt by the Committee that the States having a larger share in these sectors can take the initiatives in this regard.
- (ii) The GVA for the Education has not been adequately covered for the Manipur State (evidence has been gathered from the State's presentation before the Committee). Also several recreational parks present in the State are not being captured. Besides what they propose to capture in the next series, all States may carry out some State specific studies/surveys on the subjects such as private coaching, tuitions, recreation etc., which so far have not been captured. A bottom up approach would be more appropriate where data should flow from State level to National level. The Committee suggested having studies of these activities by the States. The Committee further suggested taking up the matter during base revision.
- (iii) The Committee suggested States to take a lead role in the compilation of the estimates for the entertainment sector and come up with better estimates.
- (iv) 'Medical tourism' is developing rapidly. The Committee recommended that the States may take initiatives in this regard and capture the same in the new series at appropriate place.

3.1.14. CONSUMPTION OF FIXED CAPITAL (CFC):

- (i) The Committee is of the opinion that a detailed examination of the methodology may be undertaken for the compilation of the all India CFC, which is not within the purview of this Committee. NAD may revisit the life-span of the various kinds

of assets (Asset Life Table), particularly, IPP keeping in view the new Law in respect of the IPP. A review of the indicators to allocate the CFC needs to be done and the possibility of using physical capital stock for allocation of CFC wherever possible may be explored- e.g. Farm House Survey in case of Livestock CFC distribution, number of registered vehicle information in case of Road Transport CFC distribution, etc. Currently, for most of the cases GVA/GVO of the States is being used. In case of the household sector, fixed assets of 67th round of NSS are being used. The Committee suggested exploring the methodology in-depth during the base revision exercise.

3.1.15. FINANCIAL INTERMEDIARY SERVICES INDIRECTLY MEASURED (FISIM):

- (i) It was informed that the FISIM to Intermediate Consumption (IC) ratio would be a better indicator as compared to the FISIM to GVA ratio as far as allocation of the FISIM to the States is concerned. But, since State-wise IC is not available, the old methodology may be continued till the time States compile their own IC. The Committee suggested that there is a need to compare the FISIM so computed with the GSVA of banking sub-sector for retaining consistency at State level. This is important in the light of substantial revision of method and data source recommended for the estimation of GSVA of the Banking sub-sector.

3.1.16. STATE-WISE ALLOCATION OF CENTRAL PRODUCT TAXES AND SUBSIDIES:

- (i) The Committee observed that the allocation of customs duty pertaining to manufacturing has been done at an aggregate level and opined that if the same could be done at 2 digit level of industrial classification, the estimates would be more refined as the industrial structure of each State would be taken into account.
- (ii) For allocating remaining central product subsidy, currently being allocated in GSVA excluding Public Administration proportions, it was suggested that sectors like other services, health and education may also be excluded in addition to Public administration since they are State subjects.
- (iii) Regular flow of data pertaining to GST collection State-wise being used for allocating total GST among States may be ensured.

3.2 GDP Estimates at Constant Prices

3.2.1. In any economy, the growth performance is judged only by the real growth rates, i.e. the growth rates at constant prices. The constant price growth rates reflect the actual dynamics sans the price effects. Hence, the methodology for compiling the estimates at the

constant prices is also vitally important and the Committee had detailed deliberations on it in its 6th meeting. The following points emerged from the discussions in this regard:

- i. The Committee was happy to note that DES-Rajasthan could obtain information from RERA that would be useful for estimating new construction activity. The other States may also take similar initiatives to improve the estimates of new construction. For the land transport sector also, DES (Rajasthan) could obtain data on vehicles with valid permit to ply on road. Similarly, it has also successfully collected all the relevant information from the local bodies. DES (Rajasthan) has also agreed to provide the format (for RERA, cooperative societies, valuation from construction activities) for collection of data, which can be useful for other States as well. The Committee appreciates the efforts and initiatives taken by DES (Rajasthan) and expects other States to take similar initiatives.
- ii. The Committee recommended exploring the production and prices for Coal and Petroleum for the base year to improve the estimates of the Fuel Minerals in Mining sector.
- iii. For the water supply, the Committee suggested exploring rural water supply as well.
- iv. For the water transport, the deflator used currently is CPI (Transport & Communication) as it is the closest proxy available. The Committee was informed that if in future separate indices for Transport are available, the same would be used.
- v. For the Air transport sector, the Committee suggested that airport-wise information of passengers and freight may be collected by the States.
- vi. For the Construction sector, the Committee suggested exploring the RBI Housing Price Index, which is based on the price of house in sale/purchase registration transaction for major cities.
- vii. For the Public administration, the deflator suggested by the Committee was CPI-IW instead of CPI-C as the price movement of Public Administration NVA (which is nothing but the CoE) is governed by the former through grant of dearness allowance.
- viii. The Committee suggested that for the Ownership of Dwellings, the current method of using the inter-censal growth on year-on-year basis may not be appropriate; instead information relating to RERA and on houses and structures obtained annually from all local government bodies may be explored.
- ix. For the Financial Sector, at the request of the Committee, RBI provided the availability status of State-wise data on number of employees, employee compensation, operating profits (net of losses) from all PSBs and major

private sector banks and the number of branches of scheduled commercial banks (SCBs) at State/District/revenue centre level. It is recommended that such data should be made available regularly on quarterly/annual basis that can serve the purpose to prepare the estimates at constant prices for the sector.

3.2.2. In addition to the above, the following general, albeit germane, suggestions were also made by the Committee:

- i. The Committee was of the opinion that the issue of manpower in the States may be addressed urgently. With the huge task of compilation of the State Income Estimates, shortage of manpower will deter their motivation towards active participation and the quality of the estimates can suffer. The Committee felt that if State DES be placed under the Ministry of Finance in the State, its functioning will be more strengthened. Similarly at the District level, it should be under the Collector and not DDO (as it is the current scenario) for better performance.
- ii. The Committee suggested urban and rural income estimates at the State level be prepared for all base years based on the methodology followed at the national level, which would be useful for State level policies.

Chapter 4: Frequency of Preparation of Estimates and their Revisions

4.1 Introduction

4.1.1. NAD introduced the advance estimates of national income in the year 1993, beginning with the estimates for the year 1992-93. These were essential for realistic presentation of the budget estimates along with the revised estimates for the current year that is not yet over. The same justification applies equally to the advance estimates of GSDP at State level. In order to have an idea about the immediate economic scenario of the State, short term macro-economic indicators like the Quarterly Estimates of GSDP are important. These are normally based not on full data set, but on numerous readily available indicators. The Committee is of the view that all States should also start compiling the estimates for the Advance GSDP estimates since they are necessary for their annual budget exercise, particularly for the revised estimates for the current year and for making realistic estimates for the budget for the next year. However, the need for quarterly estimates of GSDP at the State level is far less pressing as of now. The States that prepare such estimates or have decided to do so currently at least at a preliminary level may continue doing so, which can later on be improved with the enhanced data sources. For the rest of the States, preparation of the quarterly estimates of GSDP can wait at this stage.

4.1.2. The Committee felt that although the methodology for the compilation of the Quarterly and the Advance estimates is supplied by the NAD to the State DES, the extent of its usefulness has never been judged so far. Also, the Committee was apprised that regular sessions on the Quarterly and the Advance Estimation Methodology are being conducted during the State workshops. The methodology for the compilation of the Quarterly GDP at the national level as followed by the NAD is provided in *Annex-IV*. A similar methodology is expected to be followed by State DESs to prepare their quarterly estimates of the GSDP. The Committee suggested that all States should also prepare and publish advance release calendar for various types of estimates of GSDP in line with that of NAD for GDP and related aggregates.

4.2 Status of the Quarterly and Advance Estimates by the States

4.2.1. On taking the stock of the various estimates prepared by the States, it was found that at present, 22 States are compiling the Advance Estimates of GSDP. DES (Assam) has decided to compile Advance Estimates of SDP from next financial year i.e. 2020-21. The State is also planning to organize training cum workshop on its present methodology and compilation procedure amongst the officials of respective divisions and district officials.

Meanwhile, the concerned division has already started compiling Advance Estimates for 2019-20 on a trial basis. Bihar and Gujarat have compiled the estimates but are currently not releasing them. DES (Goa) does not compile Advance Estimates of GSDP as per any set methodology suggested by NAD but in order to meet the requirement of the State Finance Department for borrowing purpose, the DES projects the Estimates by using the sector-wise weighted average of past 3 years. These figures are supplied to the NSO also, for updating on the Official website of MoSPI.

4.2.2. As far as the Quarterly Estimates are concerned, only 3 States are compiling them- of which Andhra Pradesh and Uttar Pradesh are compiling at base 2011-12 while West Bengal is compiling at base 2004-05. DES (Assam) is moving ahead in the direction of compiling the Quarterly Estimates.

The current status of estimates prepared by all State DES is presented in *Annex-VIII*.

4.3 Issues discussed during presentations by States

4.3.1. The 7th Meeting of the Committee took up the question of the Advance and the Quarterly Estimates of GSDP at State level. States of Andhra Pradesh, Uttar Pradesh, Maharashtra, Rajasthan, Karnataka and Delhi were requested to present their approach for the compilation of the Advance and the Quarterly Estimates. The following points arose during the detailed deliberations:

- (i) DES (AP) in their presentation informed that the State compiles the estimates for 2 quarters only. Also, they have their quick surveys conducted every quarter for the Manufacturing sector covering industries having 100 or more workers. The State is also able to obtain the Central and the State GST. For the Corporate Sector, it was informed that the national level growth rates were used since separate State-wise information was not available. The selection of different indicators by the State is dependent on how well the indicator is depicting the true performance of the State. The State expressed their concern about the methodology for the compilation in the Construction sector, timeliness of availability of ASI data and pooling of data from the Central and the State samples.
- (ii) DES (UP) informed the Committee about its compilation of the monthly State IIP. The Committee felt that the State should re-examine the ratio of the 75%-25% for the organized and the unorganized part of the GVO Manufacturing used in the methodology for the Quarterly Estimates.
- (iii) DES (Maharashtra) informed about the Economic Survey of the State which they are publishing regularly. Currently the State is not compiling its own IIP and WPI but they are working on it. The Committee pointed out that the usage of IIP in

the Manufacturing sector was understating the performance and needs to be re-examined.

- (iv) It was mentioned by the DES (Rajasthan) that they are currently not computing the Quarterly estimates. But the State does have its own IIP and WPI with price quotations and weighing pattern different from NSO.
- (v) DES (Karnataka) mentioned in their presentation that they are neither using the MCA data nor conducting any quick survey for their advance estimates. The State compiles State WPI only for the Agricultural Commodities.
- (vi) DES (Delhi) mentioned that the State does have its own IIP but prefers using the All India IIP because of its stability.

4.3.2. Apart from the above, the discussions on the use of the quarterly estimates at the State level based on the time frame and the methodology of estimation indicated that the basic purpose of preparing these estimates at present is not served. While the quarterly estimates made properly with the current data from the respective States are expected to provide a good short term indicator and help to gauge the performance of the State in a short time span, the current estimation methodology followed by States, based on data availability at the State level and the time lag of getting those estimates, could be more misleading than providing suitable inputs for any meaningful policy formulation. The Committee recommended postponing the efforts to prepare quarterly estimates of GSDP till the timely availability of necessary data improves to the satisfactory level.

4.3.3. Since, all the States are not compiling the Advance and the Quarterly estimates, the Committee suggested having a methodological note on the Quarterly and Advance Estimates from NAD and all those States compiling the estimates to provide the basis for discussion and modifications in future. The Committee also suggested that the States should have a systematic revision policy and time schedule for the GSDP and related estimates in the form of a release calendar similar to the one announced by NAD, NSO.

4.4 Variation among the different sets of GSDP estimates published

4.4.1. In the 7th Meeting, DES (Maharashtra) in their presentation demonstrated the changes in the implied annual growth rate of GSDP from their different sets of estimates compiled (as shown in the *Table 4.1* below). It may be noted that the Advance Estimates and the 1st Revised Estimates are prepared in the same year; and the subsequent revisions are available with the lag of one year each. The Committee urged all the States to provide the revisions made in their advance, preliminary, first revised, second revised and final estimates of annual GSDP growth rates and deviation in the various sets of the estimates in a tabular form. This would enable examining the robustness of the estimates.

Table 4.1: Difference between implied annual growth rates of GSDP among different sets of estimates in Maharashtra

Maharashtra							
Table illustrating the changes in the different sets of estimates							
Year	3rd Revised	2nd Revised	1st Revised	Advanced	1st RE Vs Adv	2nd RE Vs Adv	3rd RE Vs Adv
2014-15	6.3	5.4	5.8	5.7	0.1	-0.3	0.6
2015-16	7.2	7.6	8.5	8	0.5	-0.4	-0.8
2016-17		9.2	10	9.4	0.6	-0.2	
2017-18			7.5	7.3	0.2		

4.4.2. Sixteen States have provided the information asked for -Andhra Pradesh, Bihar, Goa, Himachal Pradesh, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Nagaland, Rajasthan, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and Delhi. The comparison of the estimates for the year 2015-16 at current prices for these States has been shown in *Table 4.2* below.

4.4.3. From *Tables 4.1 and 4.2* below it can be seen that out of the aggregate of 45 consecutive revisions carried out by the 16 States for the year 2015-16, 22 are less than 1 percentage point; 32 are less than 2 percentage points; 36 are less than 3 percentage points; and only 9 are above 3 percentage points. This signifies that the estimates are robust and regular revisions give a scope for the finer refinement in the estimates. The data sources are also stable with minimal fluctuations. The detailed data on absolute GSDP estimates as revised from time to time from these 16 States is provided in the *Annex-VII* at the end.

Table 4.2: Percentage Difference between consecutive revisions in estimates of GSDP for the year 2015-16 at current prices made in selected States

States/UTs	GSDP at current prices (Rs. Crore)	% Difference
Andhra Pradesh		
Advance Estimate	603376	
First RE	609934	1.1
Second RE	600298	-1.6
Third RE	604229	0.7
Bihar		
Advance Estimate	486430	
First RE (Q)	413503	-15.0
Second RE (P)	381501	-7.7
Third RE (Final)	369469	-3.2
Revised as per new data received	371602	0.6
Goa		
Advance Estimate	-	
First RE (Q)	45002	
Second RE (P)	54275	20.6
Third RE (Final)	55054	1.4
Himachal Pradesh		
Advance Estimate	110511	
First RE	113667	2.9
Second RE	113355	-0.3
Third RE	114239	0.8
Jammu & kashmir		
Advance Estimate	119182	
First RE	117451	-1.5
Second RE	117187	-0.2
Third RE	117168	0.0
Kerala		
Advance Estimate	-	
First RE(Q)	588337	
Second RE(P)	557947	-5.2
Third RE (Final)	561994	0.7
Madhya Pradesh		
Advance Estimate	565053	
First RE (Q)	543975	-3.7
Second RE (P)	530443	-2.5
Third RE (Final)	541189	2.0
Maharashtra		
Advance Estimate	1969184	
First RE	2001223	1.6
Second RE	1986721	-0.7
Third RE	1966147	-1.0

States/UTs	GSDP at current prices (Rs. Crore)	% Difference
Nagaland		
Advance Estimate	20524	
R.E	19214	-6.4
Rajasthan		
Advance Estimate	674137	
First RE	672707	-0.2
Second RE	683758	1.6
Third RE	681485	-0.3
Tamil Nadu		
Advance Estimate	1176500	
Advance Estimate (Provisional)	1176500	0.0
Telangana		
Advanced/ Provisional Estimates	583117	
First RE	575631	-1.3
Second RE	577902	0.4
Third RE	577902	0.0
Tripura		
Advance Estimate	NA	
First RE	34368	
Second RE	35938	4.6
Third RE (Final)	35938	0.0
Uttar Pradesh		
Advance Estimate	1145234	
First RE	1153795	0.7
Second RE	1144494	-0.8
Third RE	1120836	-2.1
Provisional	1119862	-0.1
Revised Provisional	1137808	1.6
Uttarakhand		
Advance Estimate	185753	
First RE	184091	-0.9
Second RE	176171	-4.3
Third RE	175772	-0.2
Fourth RE	177163	0.8
Delhi		
Advance Estimate	558745	
First RE	551963	-1.2
Second RE	548081	-0.7
Third RE	550804	0.5

Chapter 5: Components of GSDP by Expenditure Side

5.1 Introduction

5.1.1. The GSDP can be compiled using three methods: Production Method, Income Method and the Expenditure Method. While the primary task assigned to the Committee is to focus on the production side of the estimation of the GSDP, the estimates from the expenditure side are equally important not only because they enable to check the robustness of the estimates of GSDP, but also because estimates of components of aggregate expenditure are useful for various public policy decisions. The difference between the estimates using the Production and Expenditure Approach is termed as the 'statistical discrepancies' or 'errors and omissions'. The lower the 'statistical discrepancies', the better are the estimates. As seen in *Chapter 2* above, the Committee on the Regional Accounts (CRA) set up in 1972 as well as the National Statistical Commission (NSC) appointed in 1999 and High Level Committee on Estimation of Saving and Investment (HLCESI) appointed in 2007 recommended compilation of the expenditure side of the State Accounts incorporating the inter-state flows. But, till date not much work has been done by official agencies in this direction. A few States took the initiative in the compilation of the capital formation for the public sector – largely the State government sector within their territory, but even that has neither been replicated by other States nor continued by the States themselves.

5.1.2. In this context, the present Committee has examined possibilities to initiate compilation of the expenditure side estimates so that the work gets started which can subsequently be improved with better availability of data. The Committee decided to start by reviewing the estimation work done so far by States on any of the components of aggregate expenditures. It also reviewed the work done by individual researchers for Indian States. Finally, it noted availability of fresh data from official sources which are already in the public domain or are feasible to be collected for official use. For instance, DGCIS has started regularly publishing international export data State-wise and commodity-wise. A similar attempt can easily be made to do the same for the international import data as well. Similarly, the GST data on interstate flows of goods and services would be very useful. These data, if available, can be an important source for the compilation of the expenditure side of the GSDP.

5.2 Estimation of Expenditure Components Prepared By States

5.2.1. Out of the standard components of aggregate expenditures, Private Final Consumption Expenditure (PFCE) is the most important one in terms of its magnitude and weight at the national level. Presently only DES (Maharashtra) has compiled PFCE estimates for the year 2004-05 to 2008-09. For this, the State level Consumer Expenditure Survey (CES) estimates were used for apportioning the all India PFCE estimates for approximately 80% of the items. For those items which could not be derived using the CES study, DES(Maharashtra) used the State share (based on GSVA/GVA) provided by the then CSO to allocate the respective All India PFCE estimates.

5.2.2. As far as compiling State level Gross Fixed Capital Formation (GFCF) is concerned, comprehensive estimates for the year 2004-05 for private sector, public sector and supra-regional sectors for all (the then) 28 States and 7 Union Territories along with the corresponding national estimates were prepared and presented by the HLCESI (2009, p. 361). The methodology followed was similar to the one followed by Rajeshwari et al. (2009). Some of the States are currently compiling GFCF in respect of the public sector only. Assam has compiled the GFCF estimates for only public sector but they are currently attempting to cover the remaining sectors as well. Also a survey on GFCF has already been taken under State Sample Survey (SSS) scheme. A few States like Kerala, Punjab, and Rajasthan are compiling the estimates for the whole of their State economy. DES (Uttar Pradesh) is compiling GFCF for government sector and HH part of the private sector. The State has prepared the GFCF estimates for the year 2016-17. DES (Maharashtra) is currently preparing the GFCF estimates for Public Sector. GFCF estimates for the private sector are also attempted for the year 2011-12 & 2012-13 and have been submitted to CSO for comments. The detailed status of the estimates prepared by different State DES is provided in the *Annex-VIII*.

5.2.3. It can be seen from the *Annex-VIII* that every State DES is preparing regularly the Economic and Purpose Classification of expenditures on State Government's administrative departments from their State's annual budgets. Thus, estimates of State Government's Final Consumption Expenditure (SGFCE) should be readily obtainable on a time series basis from it. However, it forms only one of the three components of GFCE at the State level, the other two being Central Government's and Local Bodies' Final Consumption Expenditures. *Annex-VII* also shows that six out of 33 States/UTs are not able to either get or analyze their local bodies' budget expenditures and four out of the remaining ones are able to get only a partial picture. Moreover, none of the State DES is able to prepare a comprehensive estimate of GFCE including the Central Government's expenditures in their State.

5.3 Studies by Individual Scholars

5.3.1. The Committee considered studies by individual scholars on this aspect in its 8th Meeting. A detailed review of literature revealed only a few studies by individual scholars on estimates of expenditure side of GSDP and Capital Stock for Indian States. These studies are listed⁵ for quick reference in *Table 5.1* below. Most of the studies for the State level estimates of PFCE and GFCF cited in *Table 5.1* have only focused, and rightly so, on generating the estimates for the respective components at the State level consistent with the national level estimates. For estimating capital formation at the State level, the method used by the researchers is to follow the expenditure approach for each industry/sector separately and allocate the respective national estimates among States. This approach, moreover, uses the same sources of data (ASI, AIDIS, NSSO surveys, etc.) as used for deriving the national aggregates. For estimating PFCE at the State level, authors have used adjustments by items of consumption to make the NSS household consumption expenditure survey estimates comparable to the NAS estimates at the national level. These item-specific adjustment factors derived at the national level are then used for different States to arrive at their aggregate PFCE.

Table 5.1: List of Studies done in the area of the Expenditure Side of GSDP and Capital Stock at the State Level in India	
1	“Estimation of State level Private Final Consumption Expenditure”, T. Rajeshwari and Reena Singh- <i>Journal of Income and Wealth</i> , Vol 39(2) July-December, 2017
2.	“Regional Accounts of India: Methods, New Estimates, and Their Uses”, Deepak Sethia, <i>The Review of Income and Wealth</i> , 62(1), 2016, pp. 92-119.
3.	“Estimation of all India and State level Capital Formation from NSS 67 th Round Survey”, T. Rajeshwari, Reena Singh and Manmohan Singh, <i>Journal of Income and Wealth</i> , Vol 37(1), January-June-2015
4.	<i>Savings and Investment in Indian States: Implications for Growth and Public Finances</i> , Deepak Sethia, Doctoral Thesis Submitted to Indian Institute of Management, Ahmedabad; 2013.
4.	“Estimation of Fixed Capital Stock: Comparative Analysis for Punjab and Haryana States”, Amarjit Singh Sethi and Supreet Kaur, <i>Journal of Income and Wealth</i> , Vol 34(2), July- December 2012
6.	“Estimating PFCE at State Level,” S. Sharma, and J. Yadav <i>Presented at Annual Conference of Indian Association of Research in National Income and Wealth</i> , 2010, Trivandrum.
7.	“Estimates of Capital Formation at State level”, T. Rajeshwari, Anindita Sinha Ray and Harihar Sahoo, <i>Journal of Income and Wealth</i> , Vol 31(1), January-June-2009
8.	“Capital Formation in Punjab and Haryana – A comparative Analysis”, Amarjit Singh Sethi, <i>Journal of Income and Wealth</i> , Vol 31(1), January-June, 2009
9.	“Sources of Economic Growth and Acceleration in Gujarat”, Ravindra H. Dholakia,

⁵ Assistance provided by Prof. Deepak Sethia in this regard is gratefully acknowledged.

	<i>Economic and Political Weekly</i> , Vol 42(9) Mar (3-9), 2007, pp- 770-778.
10.	"State-wise Estimates of Financial Savings of Household Sector – An Exploratory Study", K.S. Ramachandra Rao, Ramesh Jangili and Abhiman Das, <i>Journal of Income and Wealth</i> , Vol 28(1), January-June-2006
11.	"Preliminary Estimates of Regional Accounts for Gujarat," Ravindra H. Dholakia, <i>The Journal of Income and Wealth</i> , 28, 2006, pp.3-14.
12.	"Capital Formation at State Level," P. Lakhchaura, <i>Ministry of Statistics and Programme Implementation Official Statistics Seminar Series</i> , Volume I, 2004, p.38-64.
13.	"A Proposed Method of Compiling Private Final Consumption Expenditure at State Level," A. Kar, T. Baskaran and A. K. Gupta, <i>presented to 18th Biennial Seminar on Income and Wealth</i> , IARNIW, Jaipur, January 16-18, 2004.
14.	"Estimating State Income at Market Prices in Gujarat," Ravindra H. Dholakia, S.V. Trivedi and R.J. Shah, <i>The Journal of Income and Wealth</i> , Vol.24, No.1 (Jan-June, 2002), pp.72-79.
15.	"First Estimates of State Level Stock of Capital for Major States in India," Ravindra H. Dholakia, <i>Indian Journal Regional Science</i> , Vol.27, Nos.1 & 2, 1995; pp.11-26.
16.	"A Study on Estimation of Different Macro-Economic Aggregates and the Growth of Economy of West Bengal," K.C. Majumdar, B. Roy, and P. Datta, <i>The Journal of Income and Wealth</i> , 7, 1984, p.24-35.
17.	"State Income Inequalities and Inter-state Variations in the Growth of Real Capital Stock in India", Bakul H. Dholakia and Ravindra H. Dholakia, <i>Economic and Political Weekly</i> , Vol. 15, September 20, 1980.
19.	"Standard Tables on State Accounts for Maharashtra," M.A. Telang, and S. M. Wagle, <i>The Journal of Income and Wealth</i> , 1, 1976, pp. 17-44.

5.3.2. In order to put all estimates of expenditure side of GSDP in an overall framework to make them more useful not only for policy making but also for research and analytical purposes, the Committee considered two alternative frameworks relevant for State level estimation. Out of all the studies quoted in *Table 5.1*, only Dholakia (2006) and Sethia (2016) attempt the overall framework for State level estimates of saving from the components of expenditure side of GSDP⁶. The Committee invited both of them to make detailed presentation to what is feasible for the State DES in the present context and when more and better data are available in future.

5.3.3.1. The purpose of the presentation by Ravindra H. Dholakia was to provide a framework for estimation of the expenditure side of GSDP and saving rate at the State level. The State's imports and the exports were segregated by him into domestic and international parts. It is clear that estimate of GSDP at market prices becomes a crucial element in estimating GSDP by the expenditure side but the current method to estimate the

⁶ It must be pointed out here that HLCESI (2009) quoted above in Chapter 2, section 2.4 does present a similar framework though not very formally and clearly, with the result that analytical use and interpretation of the estimate of saving remain vague.

same does not consider data availability at the State level. For Gujarat, he could obtain the data on local level indirect taxes by Districts. Also the Central Indirect Taxes consisting of Central Excise (now GST) and Customs Duty collected from producers and consumers of Gujarat were available for the State. It is hoped that Excise Commissionerate in States would have these data for GST. All States should explore the feasibility of obtaining the Local level taxes data as a part of strengthening data collection from local bodies. Similarly, local and State level subsidy needs to be estimated by States. Referring to the Letters to editor in EPW dated April 19, 2003 (p. 1518) by Prof. Nilakantha Rath, Dholakia further elaborated that for deriving the custom duty paid by the units working in a State, Ministry of Finance can be approached by the NAD, NSO. It was informed in the said letter that every custom office sends a single page statement relating to every individual import/export transaction, recording the item imported/exported, the value of import/export, the tax assessed and paid, the country/party from which imported/exported and the party which imports/exports it. From this information, it should be possible to obtain the State-wise customs duty and also the value of international imports made by units working in different States. In case, this information is not possible to obtain for whatever reasons, the Committee pointed out that ASI collects data on imports made by factories located in different States and thus direct imports by organized manufacturing could be made for each State using ASI data. Also, for single establishment companies, imports data should be available in MCA and this would provide State-wise imports. However, some components would be missed. If imports are made by traders and then sold to domestic buyers, this would be hard to trace. Also, for multi-establishment companies, while total imports are known, its distribution among different units located in different States is not known. Some adjustments based on assumptions would be required to bridge this gap.

5.3.3.2. The other components like PFCE and GFCE in Dholakia's study were derived by using NSS CES data and Economic & Purpose Classification of State Budgets. Investment expenditures in his study were derived by allocating national aggregates to States based on regressions for individual components of GCF. For deriving the Saving estimates at the State level, the expenditure equation for GSDP is modified to include flows of income and transfers from the Rest of the World (RoW) and the Rest of India (RoI). He argued that out of the six components identified, four components can be estimated with current data availability at the State level and hence, it is possible to estimate Saving less net Remittances from India and abroad for every State. Such an estimate of Saving at the State level in itself will be very useful.

5.3.3.3. The proposed framework for estimation for any State can be summarized as follows–

$$GDP_{mp} = C + I + G + X - M$$

$$GSDP_{mp} = C + I + G + X_f - M_f + X_d - M_d; \text{ where } f \text{ and } d \text{ are Foreign and Domestic Flows}$$

NOW,

$$GSDP_{mp} = GSDP_{bp} + \text{Indirect Product Taxes} - \text{Product Subsidies}$$

Indirect Taxes = (Local Indirect Taxes + District Indirect Taxes + State Indirect Taxes + Central Indirect Taxes) paid by people of the State

Subsidies = (Local & State Subsidy + Central Subsidy) given to people of the State

$$X_d - M_d = GSDP_{mp} - C - I - G - (X_f - M_f)$$

If we get firmer estimates of X_d and M_d from the GST data, we can get GCF (= I) as a residual. Alternatively, if we can estimate GCF also directly at the State level, this framework can be used to obtain an estimate of the Errors and Omissions. But so long as GST data are not available in usable form, this method provides only an approximation.

Estimates of Saving at the State level can be obtained as --

$$S = I + (X_f - M_f) + (X_d - M_d) + (G + \text{Subsidies} + \text{Domestic net Transfer Payments} - \text{Government Taxes from the State}) + (\text{net Factor Income from Abroad} + \text{International net Transfer Payments}) + (\text{net Factor Income from RoI} + \text{net Transfers from RoI})$$

Out of the six components above on the right hand side (RHS), first four components can be estimated directly at the State level.

Thus, we can estimate (S – net remittances from RoI and abroad) at the State level. If we can obtain net remittances from abroad and RoI at the State level, we can get saving estimate at the State level.

5.3.4.1. A somewhat different framework was proposed by Deepak Sethia of IIM Indore regarding expenditure side computation methodology based on his paper published in the *Review of Income and Wealth (2016)*. He has used a modified framework to overcome the constraints of export – import data availability for any State. His concept of saving at the State level excludes both the flows of Goods & Services and Incomes & Transfers. However, for his framework, the estimates of PFCE, GFCE and Investments as well as GSDP at market prices are the same and as critical as in the other framework given above. He suggested allocating All India PFCE estimates based on NSSO estimates at item group level with 81 comparable item groups based on annual and quinquennial rounds of NSSO surveys over 17 years. For the GFCE, he suggested that since wages accounts for nearly 70 percent of GFCE, the number of employees for the Central government or the wage bill of those

employees, and wage data (NVA) for the State and local governments can be used. It was observed that this computation could be done at the National level and the States cannot do it individually as envisaged by Dr. Sethia. Similarly, it is pertinent to take cognizance of inter-state variation in the prices for the consumption of government services. It is suggested by the Committee that the State-wise government service prices should be computed by the NAD, NSO.

5.3.4.2. For estimating the Investment or GFCF at the State level, Dr. Sethia followed the same broad expenditure approach at industry/sector level and allocated the national estimates by appropriate indicators derived from different sources as used in obtaining those estimates to the extent possible. His methodology was almost the same as other studies. He has summarized the whole method used by the four most relevant studies on GFCF at State level which we provide here as *Table 5.2* below.

Table 5.2: Methodology followed for estimation of capital formation in the private sector with indicators for interstate allocation by sectors

Industry	Lakhchaura (2004): For 1993-94 to 1999-00	Rajeshwari et al. (2009) : For 1999-00 to 2005-06	Rajeshwari et al. (2015): For 2010-11	Sethia (2016): For 1993-94 to 2009-10
agriculture	Results of AIDIS 1991-92 have been moved forward with the GSDP (excluding livestock). This survey provides fixed capital expenditure on different items of the farm business. For the livestock sector, the national total is allocated based on the number of livestock.	Results of AIDIS 2002-03 by NSSO in the 59th survey have been used to allocate national total among States for the household sector. For the private corporate sector, the allocation is based on State-level GVA for 2002-03. For the rest of the years, benchmark estimates are moved forward and backward with the growth rate of GVA in the agriculture sector	Results of AIDIS 2002-03 by NSSO in the 59th survey have been used as the benchmark separately livestock and remaining agriculture sector, which are moved forward with the growth rate of GVA in the respective sub-sectors.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with GSDP in the agriculture sector.
forestry & logging	GFCF by the public sector in the forestry sector.	The area under private forests from the Forestry Statistics in India, 1996 to allocate national total for all the years.	Based on State-wise proportions observed from Forestry Statistics of India, 2005*	Areas based approach used by Rajeshwari et al. (2009) is followed.

Industry	Lakhchaura (2004): For 1993-94 to 1999-00	Rajeshwari et al. (2009) : For 1999-00 to 2005-06	Rajeshwari et al. (2015): For 2010-11	Sethia (2016): For 1993-94 to 2009-10
fishing	GSDP in the fishing sector	State-wise fish production from the Department of Animal Husbandry, Dairying, and Fisheries.	State-wise fish production from the Department of Animal Husbandry, Dairying, and Fisheries.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.
mining & quarrying	State-wise output of minor minerals	Gross Value of Output (GVO) of the minor and major minerals for household and private corporate sectors, respectively.	Gross Value of Output (GVO) of the minor and major minerals for household and private corporate sectors, respectively.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.
registered manufacturing (captured through institutional approach)	State-wise capital formation from ASI.	State-wise capital formation from ASI.	State-wise capital formation from ASI.	GFCF based on ASI.
unregistered manufacturing	For 1994-95, the allocation was based on information on fixed assets owned in this sector from the NSSO 51st round survey on un-organized manufacturing. For subsequent years, projections based on GSDP of unregistered manufacturing.	Data on GVA and addition to fixed assets from the NSS 56th round has been used to prepare estimates for 2000-01, which are moved forward based on the growth rate of GVA. For 2005-06, estimates are based on data from the 62nd NSS round.	Based on the ratio of addition to fixed assets to GVA. Data are taken from survey results of NSS 67 th round on Economic Characteristics of Unincorporated Non-agricultural enterprises (excluding construction) in India for 2010-11.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.

Industry	Lakhchaura (2004): For 1993-94 to 1999-00	Rajeshwari et al. (2009) : For 1999-00 to 2005-06	Rajeshwari et al. (2015): For 2010-11	Sethia (2016): For 1993-94 to 2009-10
electricity gas & water supply	GSDP of electricity subsector.	For wind energy and biogas plants, all India estimates are allocated based on data from the Ministry of New and Renewable Energy. For the electricity sector, GSDP has been used as an indicator for allocation.	For and biogas plants, all India estimates are allocated based on data from the Ministry of New and Renewable Energy. For the electricity sector, GSDP has been used as an indicator for allocation.	Capital formation in this sector is dominated by the electricity sector, for which State- wise allocation based on GSDP is not considered suitable because GSDP is linked to past investment rather than current investments. The author used CMIE's data on investment in the private sector power projects under implementation to allocate the national total.
construction	GSDP of the construction sector.	Allocated based on information on new construction by NDCUs.	Allocated based on information on new construction by NDCUs.	Sectoral estimates at the national level are based on capital stock estimated using ICOR. Allocated national level estimates based on the difference between GSDP at constant price over the consecutive years. This approach assumes: i) uniform Capital output ratio for all States ii) COR of private and public sector is comparable.

Industry	Lakhchaura (2004): For 1993-94 to 1999-00	Rajeshwari et al. (2009) : For 1999-00 to 2005-06	Rajeshwari et al. (2015): For 2010-11	Sethia (2016): For 1993-94 to 2009-10
trade, hotels & restaurants	Addition to fixed assets obtained from Enterprise Survey 1996-97 to obtain benchmark ratios. Moved forward and backward with the GSDP estimates.	From the NSS 55th (1999-00) round on the informal sector, the ratio of fixed capital to value-added was obtained at the State level, and estimates of capital formation were prepared using respective GSDP estimates. For subsequent years, GSDP has been used to move forward the estimates.	Based on the ratio of addition to fixed assets to GVA. Data are taken from survey results of NSS 67 th round on Economic Characteristics of Unincorporated Non-agricultural enterprises (excluding construction) in India for 2010-11.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.
transport by other means and storage	Data on the closing balance of fixed assets for mechanized and non-mechanized transport from Enterprise Survey 1993-94 have been used to obtain GFCF for this sector. For air and shipping, GSDP for air transport and data on cargo handled have been used. In the case of storage, Enterprise Survey 1992-93 has been used.	From the NSS 55th (1999-00) round on the informal sector, the ratio of fixed capital to value-added was obtained at the State level, and estimates of capital formation were prepared using respective GSDP estimates. For subsequent years, GSDP has been used to move forward the estimates.	Based on the ratio of addition to fixed assets to GVA. Data are taken from survey results of NSS 67 th round on Economic Characteristics of Unincorporated Non-agricultural enterprises (excluding construction) in India for 2010-11.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.

Industry	Lakhchaura (2004): For 1993-94 to 1999-00	Rajeshwari et al. (2009) : For 1999-00 to 2005-06	Rajeshwari et al. (2015): For 2010-11	Sethia (2016): For 1993-94 to 2009-10
real estate, ownership of dwellings & business services	For real estate and ownership of dwellings, the results of AIDIS 1991-92 have been moved forward with the relevant price and quantum index separately for rural and urban areas. For the software sector, the allocation is based on the GSDP of the software sector.	For real estate and dwellings, allocation based on State-level data from AIDIS 2002-03. For business services, the ratio of fixed capital value-added was obtained at the State level from the NSS 55th (1999-00) round on the informal sector, and estimates of capital formation were prepared using respective GSDP estimates. For subsequent years, GSDP has been used to move forward the estimates.	For real estate and dwellings, allocation based on State-level data from AIDIS 2002-03. Estimates carried forward separately for rural and urban areas based on the growth of residential building and index of the cost of rural and urban housing. For business services: Based on the ratio of addition to fixed assets to GVA. Data are taken from survey results of NSS 67th round on Economic Characteristics of Unincorporated Non-agricultural enterprises (excluding construction) in India for 2010-11.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.
other services	Data on the addition to fixed assets has been taken from the Enterprise Survey Report on Establishments in Service Sector 1991-92. For subsequent years, benchmark estimates have been moved forward with sectoral value-added.	From the NSS 55th (1999-00) round on the informal sector, the ratio of fixed capital to value-added was obtained at the State level, and estimates of capital formation were prepared using respective GSDP estimates. For subsequent years, GSDP has been used to move forward the estimates.	Based on the ratio of addition to fixed assets to GVA. Data are taken from survey results of NSS 67 th round on Economic Characteristics of Unincorporated Non-agricultural enterprises (excluding construction) in India for 2010-11.	Estimates from Lakhchaura (2004) and Rajeshwari et al. (2009) are carried forward with the sectoral GSDP.

*This assumption should not make a significant difference to results given that forests account for a very small share of the capital formation in the private sector, and the constant ratio is followed at the national level as well.

Source: At the Committee's request, Dr. Deepak Sethia has kindly prepared this Table based on his doctoral Thesis (Sethia, 2013); and recent papers (Rajeshwari et al., 2015; Sethia, 2016).

From the detailed sector-wise comparison among the indicators used by the four studies to estimate State level GFCF from the literature as given in *Table 5.2*, it is clear that the Rajeshwari et al. (2015) is the only paper presenting the State level estimates for the 2011-12 base. Moreover, it is the latest and most comprehensive. Sethia's (2016) methodology differs only in the Electricity and Construction sectors from Rajeshwari et al. (2015). For the Construction sector, Rajeshwari et al. (2015) methodology seems more appropriate, whereas for the Electricity sector, Sethia's methodology of taking CMIE data on investments in the private sector projects under implementation to allocate the national totals is more appropriate. Thus, with this modification in the Electricity sector, Rajeshwari et al. (2015) estimation methodology needs to be adopted for estimating GFCF at State level. It also takes care of the data availability constraints at the State level and hence feasible for implementation.

5.3.4.3. The alternative framework to estimate Saving at the State level as summarized by Dr. Sethia is as follows –

$$\text{Gross National Saving (GNS)} = \text{Gross National Disposable Income (GNDI)} - C - G$$

$$\text{Where, GNDI} = Y + \text{NFI} + \text{NUT}$$

$$Y = C + I + G + X - M$$

$$\text{Hence, GNS} = Y + \text{NFI} + \text{NUT} - C - G = I + (X - M) + (\text{NFI} + \text{NUT})$$

Where, NFI = Net Factor Income from abroad; NUT = Net Unilateral Transfers from abroad; Y = Gross Domestic Product at market prices; C = Private Final Consumption Expenditure (PFCE); I = Gross Capital Formation (GCF); G = Government Final Consumption Expenditure (GFCE); X = Exports; and I = Imports.

Converting this national identity at the State level, we get Gross Domestic Saving at State level (GDS_S) as -- $\text{GDS}_S = \text{GSDP}_{\text{MP}} - C_S - G_S = I_S + (X_S - M_S)$; where subscript S is for State level.

5.3.5. The Committee recommends that both the frameworks presented above for estimating the expenditure side of GSDP are useful for different purposes of public policy making and, therefore, estimation based on both should be attempted by the State DESs. Fortunately, the latter (Sethia's) Framework can be seen as a sub-set of the former (Dholakia's) Framework and conceptually, the aggregates involved have the same definition and measurements. The difference is only in terms of the estimate of Saving at the State level and, therefore, both the estimates of Saving at the State level should be

generated by State DESs⁷. Moreover, the Committee recommends that the method followed by Rajeshwari et al. (2015) with the modification in the Electricity sector as considered by Sethia (2016) (*Table 5.2*) to estimate GFCF should be followed by all State DES.

5.3.6.1. The Committee also considered another presentation made on the methodology for the computation of the State level PFCE estimates making use of indicators from Household Consumer Expenditure Surveys (CES) of the NSSO for apportioning the national consumption estimates to the States, by Smt. T. Rajeshwari, Additional Secretary, Ministry of Water Resources (formerly DDG, NAD) and Smt. Reena Singh, DDG, FOD- based on their paper published in JI&W (2017). This method was suggested as an alternative to commodity flow method used for the estimation of the All India PFCE estimates. The commodity flow requires data on the inter-state trading of goods and data on consumption of residents of a State made outside the State or on consumption of non-residents made within the State which are not readily available. Hence the authors suggested direct method using indicators from Household CES of NSSO for apportioning the national consumption estimates to States for several items/ commodity groups. This method was argued to be the most suitable one for those item-groups, for which divergence between NAS and CES estimates is not very high (30% or less). For the rest of the items/commodity groups, it is recommended to explore alternative sources of data and methods. In this context, it is important to note that almost 25 percent of the discrepancy between NSSO and NAS estimates is accounted for by the transport sector. A separate survey, focused on estimating consumption of transport fuel and services should be designed and used along with the estimate of vehicles on road to obtain PFCE in transport sector. Dr. Sethia's method of estimating PFCE is similar but uses adjustment factors by items and commodity groups.

5.3.6.2. The major limitation of the Household Consumption Expenditure surveys is that they do not capture the information on the Non-Profit Institutions Serving Households (NPISH). The Committee suggested that these may be obtained through suitable surveys. Similarly, there are a few expenditure items which are missing from these surveys that need to be supplied by the NAD, NSO to the States. After considerable deliberation on the matter, it was finally recommended by the Committee that the best indicator for the allocation of the national estimate of PFCE to States is the NSSO surveys and that they

⁷ It should be pointed out here that the two estimates of Saving at the State level are conceptually different. The one based on Sethia's framework refers to the origin based regional Saving which is particularly important in a federal system because this Saving is conceptually used for various purposes before accruals such as federal redistribution by the Federal Government besides the regular domestic investments and private flows consisting of net factor income flows and net financial flows. On the other hand, the Saving used in Dholakia's framework is based on income accrual concept and is relevant for the welfare dimension with the regular interpretation of financing the business sector deficit, the government sector deficit and the surplus on current account of regional balance of payments.

should be used till the time more comprehensive surveys including NPISH are available for every State.

5.3.7. Finally, the Committee would like to make some generic suggestions which would help to improve the set of expenditure side estimates compiled by the States.

- (i) The Committee suggests contacting the DGCIS office for obtaining the data on imports by States on the same line as it provides the data on exports. Moreover, if States are in a position to identify the imports in their respective States by major items and industry, the information can prove to be very useful for generating the expenditure side estimates.
- (ii) The Committee was informed that the State-wise list of the Private Companies is available on the website of MCA (<http://www.mca.gov.in/MinistryV2/master+details.html>). The Committee suggests States to study these and vet its estimates using CMIE and other sources for their balance sheet data in order to get more realistic numbers. This would improve estimation of GSVA and GSDP at market prices and its components such as GCF, exports and imports at State level.

Chapter 6: Estimation of the District Domestic Product

6.1 Background

6.1.1. The information/statistics/indicators on economic activities in areas smaller than a State are often required by the Central and State authorities as well as research institutions for planning and policy purposes to know the development as well as standard of living of the people and their well-being at that level. A District has been recognized as the ideal geographical unit for such purposes because it has its own popularly elected body with clearly defined functions and duties in our Federal Structure. In terms of administrative structure and control system, it provides an excellent link between the State level and block/village level. In terms of geographical area or population, a District is neither too large nor too small. On an average, a District has about a thousand villages and a population of about 1.5-2 million. Finance Commissions and erstwhile Planning Commission always recognized District as an independent geographical unit requiring attention in public policy formulation and implementation. Estimates of income of a District i.e. District Domestic Product (DDP) is considered to be one of the most important indicator/barometer to measure the economic growth/development of a District and the estimates of per capita income of the District to measure the standard of living of the inhabitants of the District. Preparation of DDP estimates has gained added importance, as it is one of the three indicators to construct a composite Human Development Index (HDI) (other two being the life expectancy and the educational attainment) for inclusion in the Human Development Report being prepared by most of the States in India.

6.1.2. In order to measure and reflect the regional income inequality in the process of economic development of the country, NCAER (1963) took up a study of the District Income in the country as early as for the year 1955-56. The NCAER considered all Districts of 14 major States of the Indian Union for the year 1955-56 that marked the beginning of the Second Five Year Plan in the country. The most important finding of this study was that there was considerable inequality in income distribution by Districts; and although the backward Districts were present in every State, they were concentrated by and large in only three or four States. Similarly, there were better off Districts even in the least developed State. Since the study had attempted estimates of District Income by sectors, it identified not only the Districts which were overall relatively less developed but also relatively less developed within each sector of the economy.

6.2 Present Status of Estimation of DDP

6.2.1. Subsequently several States have undertaken an exercise to develop estimates of DDP based on available indicators. At present DDP is being compiled by 13 States at base 2011-12. Four States are under process of preparing and publishing their DDP estimates at 2011-12 base year. Gujarat is currently compiling the DDP estimates at base 2011-12 but has not released the figures as yet. Goa prepares the estimates of DGVA only for the primary sector and Maharashtra compiles the DGVA for all sectors at 2011-12 base. Four States, namely Jammu & Kashmir (now declared two separate UTs), Jharkhand, Tripura and West Bengal are compiling DDP at base 2004-05. Six small States and Union Territories of Andaman & Nicobar Islands, Chandigarh and Puducherry are not compiling DDP estimates. (See *Annex-VIII* at the end). In its 8th Meeting, the Committee invited the State DESs of Uttar Pradesh and Rajasthan to make presentation on the methodology used for the compilation of the DDP.

6.2.2. The estimates of District Income can conceptually be prepared by adopting the same two approaches, namely, income originating and income accruing as discussed earlier (*Chapter 2*, section 2.1.6). It is very well recognized that the welfare of the residents and standard of life of the population of a District is most aptly reflected by the estimate of the income accruing to the District. However, for a satisfactory measurement of income accruing to the residents of a District, firm estimates of the net income received are required. For a realistic measurement of net income received, account needs to be taken of net inflow/outflow of income between Districts. But in an open economy like a District in this country, it is very doubtful whether such an estimate can be compiled unless special effort is made for the collection of the requisite detailed data. From the two presentations made by the State DES to the Committee, it became clear that what can at best be attempted at the District level is estimation of income originating within the geographical boundaries of the District, which would be dimensionally and trend-wise very different from income accruing to the District. As a result, the analytical use of District Income estimated through income originating approach to measure the standard of life or the well-being of the District population would suffer from a serious limitation and could be misleading. However, the income originating within the District can serve the purpose of production and employment taking place in the District. Its use in HDI may, therefore, be justified to some extent.

6.2.3. The Committee noted a very interesting development in the data generation activity in the country in recent times. Since State DESs data on the District Incomes were not comprehensive covering all Districts in the country and were also not coming up regularly and in time to be relevant, a private sector company saw an opportunity to provide these

estimates in the market at a price. During the 8th meeting, the Committee invited a representative team from the Nielsen India Private Ltd., a private agency involved in the DDP estimation. The agency has been systematically involved with the District Income estimation in respect of all districts of the country. The team from the Nielsen Company made a brief presentation to the Committee mainly to familiarize it with the salient features of their methodology and concepts. They prepare DGVA estimates for each sector by distributing the State level GVA of the sector among all Districts in the State based on the availability of data for the sector. Since their basic method is to allocate the State GSDP estimates by sectors among Districts, they are primarily estimating income originating within the District. However, when one considers their allocation methodology and indicators, it is not unambiguous whether they track income originating or income accruing at the District level. Several of their data sources are the usual official data sources like population census, economic census, NSSO surveys, livestock census, ASI, etc. However, their data sources also include surveys undertaken by private agencies with 'transparent sampling design' on useful aspects like income, investment and saving behavior, etc. Moreover, they combine certain data sources that may be considered unusual from the national accounts perspective such as night lights data, remote sensing data on vacant spaces, constructed structures, land-use pattern, cropping pattern, road network, service network and so on. It is not necessary get into the finer points of their methodology here, but their effort and approach is worth commending. It does point to possibilities of using modern technology meaningfully and innovatively to tackle a few data gaps.

6.2.4. The NAD, MoSPI has prepared a methodology paper on estimates of DDP and has circulated it to all State DES to ensure that different States follow more or less similar method. This methodology is provided in *Annex-V* at the end. It was presented to the Committee by the representatives of NAD and was deliberated at length. The suggested methodology takes into account available data at the District level for the commodity producing sectors and the results of the surveys, both relating to socio-economic aspects and unorganized sectors of the economy, conducted by the National Sample Survey Office (NSSO) and State DESs. For many sectors of the economy, the methodology purposely avoids allocation of State estimates to Districts in proportion to the District-wise workforce, since such an allocation does not take into account the productivity differentials among Districts based on human capital characteristics and technological differences.

6.3 Recommendations of the Committee

6.3.1. After having detailed deliberations on the methodology paper by NAD (*Annex-V* at the end), the following recommendations relating to the improvements in the estimation of DDP were made:

- (a) For the Agriculture sector, the issue of inclusion of the rent charges for the tractors and bullock labour was raised. The Committee felt the need to relook on this aspect. Also the depreciation cost on these, which is currently not covered needs to be thought of. The GVA of the Canal irrigation can be distributed by the irrigation charges. Also, if the State specific ratios are available, then the same must be used for better estimation. For the FISIM part, the information related to cooperative credit to agriculture and cooperative loan for Animal husbandry can be made use of.
- (b) For the Railways sector, instead of using length of railway track, salaries by district can be a better indicator.
- (c) For the Road Transport sector, use of road length in kilometer can be a better method.
- (d) For Air Transport sector, air passengers and cargo handled can be used.
- (e) For the Storage sector, cold storage capacity can be a good indicator.
- (f) For Financial services, district-level business indicators, such as, bank credit and deposits as well as bank branch network details are available on quarterly/annual basis and operating surplus and wages can be explored.
- (g) For the Professional services- GST data can be used.
- (h) For Public Administration, Education and Health- Salary bill can be a better indicator.
- (i) Recreation- Population can be used as an indicator instead of workers.
- (j) For the constant price estimation, the State level indicators should be used.

6.3.2. The Committee is of the view that the District-wise estimates can be compiled once in the base year but the Annual series may not be very useful for the purposes of policy making per se. Indeed, the HDI is also computed once in a while and so can be the DDP. To cope up with the manpower shortage problem of the State, the entire effort in terms of time, energy and manpower devoted to preparation of DDP on annual basis can be diverted to the estimation of a good benchmark estimates at the District level and to other more pressing needs. This will also not require the efforts of compiling the estimates at the constant prices. The Committee stressed the fact that good quality State-wise estimates should be the prime focus in the present scenario, since, the District estimates are just the allocation of the State level estimates. The former cannot be improved unless the infirmities in the State estimation procedure are removed. Thus, the Committee recommends compiling the DDP estimates by all the States at least for the base year (which would also circumvent the complications involved in constant price estimates at that level of disaggregation). Subsequently, depending on the data, time and manpower availability, the States are welcome to compile an annual DDP series.

6.3.3. It was suggested that the methodology of pooling the State and the Central sample is more valid and justified than using only the Central sample because the latter comprises of a smaller sample size. Even if some poolability issue persists, the same can be sorted out in consultation with the NSO. The Committee suggests that all the States must make use of an identical and uniform methodology for pooling and NSO should be facilitating the same. In this regard, it was suggested to have an elaborate training program on the 'pooling' for the capacity building of both the NSO and the States.

6.3.4. In addition to the above, the Committee was informed about the proposal to carry out the regular surveys on the household income and savings. These surveys will definitely augment the existing data sources and enable to have better estimates both at the State and the District level.

6.3.5. The Committee suggested urban and rural income estimates at the State level be prepared for all base years based on the methodology followed at the national level, which would be useful for State level policies.

6.3.6. The matter regarding consideration of entire Delhi as a single district was raised by DES (Delhi) in one of the meetings. This aspect hampers the State from preparing the DDP estimates. The Committee felt that it is an issue of district bifurcation and reorganization that needs to be raised in an appropriate forum. It was suggested to have the matter discussed separately with NSSO or other appropriate authority.

Chapter 7: Summary of Recommendations

7.1 Introduction

7.1.1. The present chapter proffers the final recommendations of the Committee on Sub-National Accounts in the form of an executive summary. The recommendations are divided into the following eight categories: a) General; b) GSDP at Current Prices; c) GSDP at Constant Prices; d) New Surveys to be Mandatorily Undertaken by State DESs; e) Frequency and Revisions of GSDP Estimates; f) Expenditure Side Estimates; g) District Domestic Product; and h) Strengthening and Training of Manpower at State DES and NAD for GSDP Estimation. These recommendations are presented in the following sections.

7.2 General

7.2.1. A bottom up approach for compilation of National Aggregates from the corresponding State aggregates is deemed to be the ideal approach and should be followed to the extent possible in all sectors except the supra-regional activities. Actually, such is the status in respect of Agriculture, Forestry and Fishing. However, for structural, administrative and data availability reasons, allocation of National Aggregates amongst the States becomes imperative. It is nonetheless emphasized that States ought to evolve systems and processes so that such allocations are minimized.

7.2.2. Moreover, it was observed that often, the allocations are being made on the basis of number of employees, thereby omitting to take into account the structure and qualitative aspects of the employment. In all such cases, data on salary or employee compensation, rather than number of workers, should be adopted as the allocation criteria.

7.2.3. While examining various estimation and data availability issues, the one pertaining to the availability of a dynamically updated frame for undertaking survey/studies kept on recurring. Availability of such a dynamic and sector-specific Business Register is deemed to be *sine qua non* for evolving reliable population parameters. In today's digitally connected world and availability of large datasets like MCA, GST, CBDT etc. and a plethora of registrations required for starting a business, this should not pose any problems at least for relatively larger entities. These datasets need to be mined for use in the Official Statistics, including GSDP estimates.

7.2.4 The entire cycle of the ASI data availability has changed and the final estimates can be expected much early from 2019 onwards. Discussing the fluctuations in State-level GVA estimates in the ASI data, the Committee recognized the effect these may have on the estimates of manufacturing sector GVA at State-level, but felt that the possible alternate method of using 3 year moving average to smoothen out the fluctuations is not a very desirable method as it would defeat the very purpose of examining the actual performance of the establishment and capture fluctuations therein.

7.2.5. The GST data are yet to be made available for any regular use in estimation. Moreover, GST does not provide mapped information about the products and the activities. The Committee recommends that the GST data needs to be explored further. The detailed usage of the GST data may be taken up in the next round of base revision exercises.

7.2.6. GST registration data together with annual turnover data may be analyzed to estimate rural and urban incomes. At the national level, the rural – urban break up of GDP is estimated for every base year, the same should be done at the State level by all DES following the same methodology. This should be implemented from the time of the upcoming base year revision.

7.2.7. Registration details of GSTN data can be shared with the States to improve District income estimates.

7.3 Estimates of GSDP at Current Prices

7.3.1.AGRICULTURE:

- (i) State-wise inputs for the crops are not currently available. States should take the lead in this regard and try to estimate the same by either special surveys through agricultural universities or by using cost of cultivation data. State DES should generate reliable estimates of crop-wise value of inputs consumed such as seeds, fertilizers, pesticides, electricity and diesel, repairs and maintenance, labour component, etc.
- (ii) Ornamental plants and ornamental fishing having a higher value addition are not fully captured currently in the estimation of the agriculture aggregates. The States need to explore methodology for capturing the same.
- (iii) States should ensure capturing agricultural activities, outside agriculture land (e.g. on river beds) on the line of Rajasthan DES.
- (iv) The studies for updating rates and ratios used in estimation which are significantly back-dated, should be regularly undertaken for the methodology improvement and refinement.

- (v) Differences between HSD data and DES data, in respect of Honey production, should be reconciled by the States during their discussions with the MoAgFW.
- (vi) Following exercises, using data from AGMARKNET.GOV.IN may be carried out by NAD to get better idea about possible improvements in the estimation:
 - Find out self-consumption and PDS off-take data for paddy and wheat, adjust production data of MoAgFW for this and compare the remaining production with AGMARKNET, so that one can find as to how it contrasts with marketable surplus;
 - compare weighted average price derived from AGMARKNET data, after ensuring dynamic consistency of product varieties, with the peak-season farm harvest price provided by the DESs, and
 - compare peak-season price from DESs vis-à-vis peak-season price derived from AGMARKNET.
- (vii) For area under Kitchen Garden being covered in the 77th round of NSS Land and Livestock Holding Survey, the rates and ratios there from may be updated for both rural and urban areas.
- (viii) Output of specie-wise fishing should be estimated as being done in Tamil Nadu, which is compiling its district-wise output from fishing in this manner. It is recommended for all States/UTs, so that the list of species becomes more exhaustive and the All India estimates become more realistic.
- (ix) Firmer data on total use of a few items of input namely fertilizer, pesticide etc., at State level is available from other sources. Therefore, crop-wise/district-wise inputs within State should be ensured to match with the State level firm figure used by the NAD.
- (x) Further, periodic studies on inputs used for a few most important crops grown in a State can ensure continuous updating of the State level rates and ratios for inputs.
- (xi) The issue of inclusion of the rent charges for the tractors and bullock labour needed to be examined. Also the depreciation cost on these, which is currently not covered needs to be thought of.

7.3.2.MINING:

- (i) NAD should share with States the list of the mining companies, both Government and private.
- (ii) The States will provide the list of minerals mined by these companies. Based on this data, company-wise and mineral-wise GSDP estimates can be prepared for the mining companies.
- (iii) The differences between the IBM data and the State data do exist but should be resolved by the States to avoid any confusion and variations in estimates.

- (iv) The States should regularly collect information about the minor minerals including those newly added.

7.3.3.MANUFACTURING:

- (i) The Annual Survey of Industries (ASI) frame with the CIN should be shared with the States; but the same cannot be made public for preserving confidentiality and privacy of information. Alternatively, based on the ASI frame, the States could be provided with a list of manufacturing units that are located in the State and belong to the MCA list of companies.
- (ii) ASI schedule should bear information whether the company is a single establishment or multi-establishments in single State or multi-establishments in multiple States.
- (iii) The issue of CIN mismatches between the ASI and MCA data must be taken up with concerned agency for urgent remedial measures.
- (iv) States should examine the MCA data provided to them to get an idea of the single establishment companies identified. Business registers should be regularly updated by the States so that an up-to-date frame is available.
- (v) MCA may be requested to provide the segregated list of the multi-establishment companies located in different States along with the information on employment and/or wage-bill in these companies and the single establishment companies including multi-establishment companies having all their establishments in the same State, so as to reduce the share of the allocation of national aggregates.
- (vi) States must endeavor to compile their own IIP instead of using the All India IIP for better estimation. States may also take help of neighbouring/structurally similar States in compiling State-wise IIP. For this purpose, using MCA data (MGT-7) along with ASI for constructing State-wise weights may be explored.
- (vii) States should come up with their proposals for the updating of the ASI frame.
- (viii) Allocation of the aggregates from MCA first State-wise and then compilation category-wise using ASI may not be very precise. Instead, a reverse exercise needs to be explored after due examination and satisfactory resolution during the next base revision.

7.3.4.ELECTRICITY:

- (i) At present States like Delhi and Odisha are compiling their own estimates of the Private sector in Electricity. Similar approach if adopted by other States can improve their estimates.
- (ii) List of all Electricity companies should be shared with the States by the NAD. In case of the multi-state company, the respective companies can be approached for providing ratios using which the State-wise allocation can be made.

7.3.5.CONSTRUCTION:

- (i) Though the rates and ratios used in Construction at all-India level were updated in 2015, the State-wise allocations continue to be limited to the data on cement and steel. It is suggested that indicators incorporating other materials like glass, plastic and wood in addition to steel and cement can be more useful for the allocation of the National level estimates. The results of the ongoing CBRI, Roorkee study can be used to improve the estimates.
- (ii) Commodity Flow method adopted for Construction sector for computing GVA in HH may not be the correct method. During the next base revision exercise, alternate method may be explored for the estimation of the HH part (especially as the estimates of other institutional sectors such as the corporate, NDE and GG are estimated independently from the books of accounts) after making comparative study of the two estimates.
- (iii) States need to take initiatives for Construction GVA from Private Corporate segment (currently derived as residual) by way of conducting surveys for improvement of their estimates. States can share their best practices to other States which will widen the scope of improvement for all States for mutual benefit.
- (iv) Information on the Road Statistics may also be explored for knowing about the details of the roads constructed, besides examining data on rural and urban housing under Pradhan Mantri Awas Yojna.

7.3.6.TRADE, REPAIR, HOTELS AND RESTAURANTS:

- (i) Use of GST data, once received, should be explored as its use is likely to result in major refinement, both at the national and State level.
- (ii) Gross Trading Index (GTI), used earlier, may be re-examined for use as an allocation indicator.
- (iii) Results of the latest Economic Census, currently in field, may be examined for use as allocation indicator.
- (iv) The use of the All India indicator for all States in the Hotels and Restaurants sector does not adequately provide the true picture of the State economy.

Differential Weights based on domestic and foreign tourists may be used for State-wise allocation in line with the logic of effective labour input. Differential weights for the State-wise domestic and the foreign tourists' arrivals need to be evolved based on their expenditures and stay. The home-stays, a growing practice, also need to be fully captured.

- (v) Coverage of the commission agents etc. needs to be examined. Bigger States may undertake Surveys for assessment of contribution of the commission agents. The results from the 73rd round may also be explored in this regard.

7.3.7.TRANSPORT, STORAGE AND COMMUNICATION:

- (i) DES (Rajasthan) was successful in obtaining the State data on stock of vehicles with valid permit to ply on road. The other States may also explore their data sources in this regard. Else, the States may initiate the estimation taking into consideration the legally stipulated age of the vehicles and provide the same to NAD for calculation purpose.
- (ii) The Committee suggested that the data (on number) related to E-rickshaws, Ola/Uber taxi may be collected not through surveys but through the headquarters of the respective registration authorities because they have complete data on the number of taxis and auto rickshaws in the geography. Hence these can be appropriately covered in GSDP based on their registration and operation.
- (iii) Wherever the State-wise number of staff or the wage-bill in a company is available, it may be used for allocation of GVA of that company, as long as better indicators are not available. The office of the Provident Fund Commissioner may be explored to find whether they have State-wise number of employees and their salaries for the Companies. The same should also apply for ASSSE survey, when available.
- (iv) GVA of Courier Services is allocated on the basis of the GVA of Posts. It is most likely that Courier and Postal services may not behave identically and there may be substantial differences in their operations and productivities, and therefore, a better indicator may be explored and identified for allocation of all India GVA of Courier Services to various States. In this context, the GVA from Manufacturing, Trade, Hotels & Restaurants; and Real Estate, Ownership of Dwellings and Professional Services may be explored as a better indicator.
- (v) For adequately capturing the GVA of the boatmen facilitating crossing rivers at certain points, States may take the lead in identifying the number of workers in the sector.

7.3.8.REAL ESTATE, OWNERSHIP OF DWELLINGS AND PROFESSIONAL SERVICES:

- (i) Instead of using CPI (House rent) as an indicator for rent per household, some other alternative may be thought of. Also the inter-censal growth for the number of dwellings needs a re-examination. Local government bodies do have registration of dwellings and other structures and buildings. Similarly, the birth and death registration maintained at the local government bodies could be used to track the growth of population and urbanization at the State level.
- (ii) States should endeavor to get data from the respective State RERAs for examining the usable data availability, as done by DES(Rajasthan).

7.3.9.OTHER SERVICES:

- (i) For sectors like health and education, States should have their own surveys. The States may also add to the sample of the Centre and pool the two to make their estimates better. States having a larger share in these sectors should take the initiatives in this regard.
- (ii) Several recreational parks present in States are not being captured. Besides what States propose to capture in the next series, all States should carry out some State specific studies/surveys on the subjects such as private coaching, tuitions, recreation etc., which so far have not been adequately captured.
- (iii) States must take a lead role in the compilation of the estimates for the entertainment sector and come up with better estimates.
- (iv) 'Medical tourism' is developing rapidly. States should take initiatives in this regard and capture the same in the new series at appropriate place.

7.3.10.FINANCIAL SERVICES:

- (i) With regard to the Chit funds and Self-Help-Groups, the Committee suggested examining the results of the 73rd round in the light of the AIDIS (77th round) before the same is considered for the National Accounts Statistics.
- (ii) At the request of the Committee, RBI obtained the availability status of State-wise data on number of employees, employee compensation, operating profits (net of losses) from most of the public sector and major private sector banks and number of branches of all scheduled commercial banks. It is, therefore, recommended that NAD should obtain such State-wise information from RBI regularly on all PSBs and major private sector banks and use it for allocation among States.
- (iii) With regard to the money lender's bad debt/defaulters etc., the Committee suggested doing exercises using the 73rd and 77th round of the NSS to improve estimation in the sector.

- (iv) Regarding the usage of the State-wise business of Postal Life Insurance (PLI) and Post Office Savings Bank (POSB) for the allocation of the all-India GVA of these enterprises among States/UTs, instead of wages and salaries, which are currently used, the Committee recommends use of Business/Premiums as a better indicator.

7.3.11.PUBLIC ADMINISTRATION:

- (i) In order to minimize the extent of allocation, exact salary or employee compensation information of the autonomous institutions may be used. States should provide detailed information about their Autonomous Institutions to NAD.
- (ii) As the wage bill of Central Government employees are available State-wise, the NVA may be directly given to States else weighted average of different categories of employees may be resorted to. Availability of State-wise wage bills with CAG/ other agencies needs to be explored.
- (iii) Since the formats for the State local bodies and autonomous institutions are not uniform, single software designed by NAD will not serve the purpose. Hence, States need to take individual initiatives in this direction.
- (iv) Best practices of the States/Centre, like DES (Rajasthan)'s BHAMASHAH may be demonstrated to other States and if possible may be replicated for the improvement of the Statistical System.
- (v) The Committee suggested taking up the matter with CAG for checking the data availability by States on this sector.
- (vi) Information on local bodies was not found available with Ministry of Urban Affairs. However, DES (Rajasthan) was able to get all the required data from its local bodies collected by the State. Similarly, other States should also take lead in collecting data of the local bodies.

7.3.12.CONSUMPTION OF FIXED CAPITAL (CFC):

- (i) NAD may revisit the life-span of the various kinds of assets (Asset Life Table), particularly, Intellectual Property Products (IPP) keeping in view the new Law in respect of the IPP. A review of the indicators to allocate the CFC needs to be done and the possibility of using physical capital stock for allocation of CFC wherever possible may be explored- e.g. Farm House Survey of RBI in case of Livestock CFC distribution, number of effective vehicles on road information in case of Road Transport CFC distribution, etc. Currently, for most of the cases GVA/GVO of the States is being used. In case of the household sector, fixed assets of 67th round are being used. The Committee suggested exploring the methodology in depth during the base revision exercises.

7.3.13.FINANCIAL INTERMEDIARY SERVICES INDIRECTLY MEASURED (FISIM):

- (i) FISIM to IC ratio would be a better indicator as compared to the FISIM to GVA ratio as far as allocation of the FISIM to the States is concerned. But, since State-wise IC is not available as of now, the old methodology may be continued till the time States compile their own IC. Still, there is a need to compare the FISIM so computed with the GSVA of banking sub-sector for retaining consistency at State level, because GSVA of the banking sector is now proposed to be measured with more direct and better data at the State level.

7.3.14.CENTRAL PRODUCT TAXES AND SUBSIDIES:

- (i) The Committee observed that the allocation of custom duty pertaining to manufacturing has been done at an aggregate level and opined that if the same could be done at 2 digit level of NIC, the estimates would be more refined as the industrial structure of each State would be taken into account.
- (ii) Currently central product subsidy other than crops is allocated in proportions of GSVA excluding Public Administration. The Committee recommends that sectors like other services, health and education may also be excluded in addition to Public administration since they are State subject.
- (iii) Regular flow of data pertaining to State-wise GST collection should be used for allocating total GST among States.

7.4 Estimates of GSDP at Constant Prices

7.4.1. The Committee makes the following recommendations in this regard:

- (i) DES (Rajasthan) informed the Committee that the State had done some work and obtained information from RERA. The Committee recommends that the other States should take similar initiatives too. For the land transport sector also, DES (Rajasthan) reported that they could obtain data on vehicles with valid permit to ply on road. Also, the State has successfully collected all the relevant information from the local bodies. The State also agreed to provide the format (for RERA, cooperative societies, valuation from construction activities) for collection of data, which can be useful for other States as well. This appreciable effort and initiatives needs to be replicated by other States as well.
- (ii) The Committee recommended using the production and prices for Coal and Petroleum for the base year to improve the estimates of the Fuel Minerals in Mining sector.
- (iii) For the water supply, inclusion of rural water supply as well is suggested.

- (iv) For the water transport, the deflator used currently is CPI (Transport & Communication) as it is the closest proxy available. It is suggested that separate indices for Transport should be used.
- (v) For the Air transport sector, airport-wise information of passengers and freight should be collected regularly by the States.
- (vi) For the Construction sector, RBI Housing Price Index, which is based on the price of house in sale/purchase registration transaction for major cities, may be examined for use.
- (vii) For the Public administration, the deflator suggested by the Committee was CPI (IW) instead of CPI(C) as the movement of Public Administration NVA (which is nothing but the CoE) is governed by the former through grant of dearness allowance.
- (viii) For the Ownership of Dwellings, the current method of using the inter-censal growth on year on year basis may not be appropriate; instead information relating to RERA may be used.

7.5 A summary of the Mandatory New Surveys to be undertaken by the States

7.5.1. To make the estimates of State income more useful for policy purposes, it is of primary importance that the estimates for all sectors are based on current data instead of using ratios or indicators with dated information. Schemes of such improvements need to be taken up by all the States on uniform basis. In order to undertake such studies on regular basis, it is necessary for the States to have sufficient field agencies well versed with the concepts and definitions involved. To ensure uniformity all over the country, such surveys have to be coordinated by the Centre and launched simultaneously. Also, it has been repeatedly felt by the Committee that the GSDP and the DDP are the State subject and States must take the lead in their estimation. Surveys conducted by the States would reveal a much better picture of the State economy and none other than the concerned State should take initiative in this regard.

7.5.2. The following studies have been recommended by the Committee for all the States/UTs:

- (i) Hotels and Restaurants: States should conduct surveys for capturing the home-stays. Moreover, they should get estimates of differential spending by the domestic vs foreign travelers.
- (ii) Transport: States should initiate studies for estimating the number of vehicles on road by collecting data on the legally stipulated age of the vehicles/valid permit to ply on road and adjusting the stock of vehicles obtained by cumulative registrations.

- (iii) Other Services: For health and education, States can have their own surveys. The States may add to the sample of the Centre and pool the two to make their estimates better. States having a larger share in these sectors should take the initiative in this regard.
- (iv) Besides what they propose to capture in the next series, all States may carry out some State specific studies/surveys on the subjects such as private coaching, tuitions, recreation etc. which so far have not been adequately captured.
- (v) States may have a separate survey to compile realistic estimates for the entertainment sector and come up with better estimates.
- (vi) Medical tourism is developing rapidly. States may take initiatives in this regard and capture the same in the new series through specific surveys.
- (vii) Periodic studies on inputs used for a few most important crops grown in a State can ensure continuous updating of the State level rates and ratios for inputs. States may carry out studies specific to this.
- (viii) A separate survey, focused on estimating consumption of transport fuel and services should be designed and used along with the estimate of vehicles on road to obtain PFCE in transport sector.
- (ix) The major limitation of the Household Consumption Expenditure surveys is that they do not capture the information on the Non-Profit Institutions Serving Households (NPISH). The Committee recommends that these may be obtained through suitable surveys.

7.6 Frequency and Revisions of Estimates of GSDP

7.6.1. The Committee suggested using total revenue collection from the GST data at the broad level of economic activity as a good indicator for the Quarterly estimates at the State level for those States that prepare such estimates.

7.6.2. For the States preparing the quarterly estimates of GSDP, they should adopt similar methodology as that being used by the NAD for estimates at the All-India level (See, *Annex-IV* at the end). Hence the growth rates based on quarterly filing would be more apt as compared to using IIP growth for the quarterly estimates. In cases of data non-availability issues on listed companies, a solution similar to the one for the annual estimates should also apply here. States need not immediately disrupt the current series. They can change the methodology during the next base revision.

7.6.3. All the States/UTs need to have their own pre-release calendar which they must strictly adhere to. Also, all the States/UTs must have their own revision policy according to which the estimates can be revised. This will prevent adhocism in revisions of the estimates as well as avoid unwanted interferences from different stakeholders.

7.6.4. The Committee finds the need for quarterly estimates of GSDP at the State level far less pressing as of now. Given the quality of data and the methodology to prepare such estimates at present, the very purpose of such estimates is likely to be defeated. The States that prepare such estimates (presently only three) or have decided to do so currently (one State) at least at a preliminary level may continue doing so, which can later on be improved with the enhanced data sources and methodology. For the rest of the States, however, preparation of the quarterly estimates of GSDP can be postponed till the time the data availability required for such estimates improves to the satisfactory level.

7.7 Expenditure Side Estimates

7.7.1. All the States should start compiling the estimates of the Expenditure side of GSDP, viz. PFCE, GFCE, GFCF, GCF, exports, imports, etc. In order to estimate the expenditure side estimates and hence the savings at the State level, two alternative estimates of Saving at the State level based on the two approaches discussed in *Chapter 5* above should be followed since they have different interpretation and uses.

7.7.2. All States should explore the feasibility of obtaining the Local level taxes data as a part of strengthening data collection from local bodies.

7.7.3. It is suggested by the Committee that the State-wise government service prices should be computed by the NAD, NSO and passed on to States for their use.

7.7.4. The Committee recommends that the method followed by Rajeshwari et al. (2015) with the modification in the Electricity sector as considered by Sethia (2016) (*Table 5.2*) to estimate GFCF should be followed by all State DES. It also takes care of the data availability constraints at the State level and hence feasible for implementation.

7.7.5. For PFCE estimation, the Committee recommends that the best indicator for the allocation of the national estimate of PFCE to States available as of now is the NSSO HCF surveys and that they should be used as per the method suggested in the paper by Rajeshwari and Singh (2017) till the time more comprehensive surveys including NPISH and transport fuels and services are available for every State.

7.7.6. The Committee suggests contacting the DGCIS office for obtaining the data on imports by States on the same line as it provides the data on exports. Moreover, if States are in a position to identify the imports in their respective States by major items and industry, the information can prove to be very useful for generating the expenditure side estimates. The International Exports by States data are already available and can be used directly.

7.7.7. For estimating interstate flows of goods and services, the data on GST can be very useful as and when they are available.

7.7.8 Given the limitations of the current availability of data, there would be some gaps remaining in the estimation of expenditure side of GSDP. However, initiation of systematic efforts in this direction is required by estimating all those components of the expenditure side where the data availability is reasonably satisfactory. These estimates can later on be refined with new data sources and accordingly appropriate methodology.

7.8 District Domestic Product

7.8.1. The current methodology for the compilation of the DDP is provided in the *Annex-V*. The compilation procedure is primarily the allocation method except for the Agriculture sector where actual computation is made based on information at the district level. The Committee makes the following recommendations for improving the DDP estimation:

- (a) The GVA of the Canal irrigation can be distributed by the irrigation charges. Also, if the State specific ratios are available, then the same must be used for better estimation.
- (b) For the FISIM part, the information related to cooperative credit to agriculture and cooperative loan for Animal husbandry can be made use of.
- (c) For the Railways sector, instead of using length of railway track, salaries by District can be a better indicator.
- (d) For the Road Transport sector, road length in kilometer can be a better method.
- (e) For Air Transport sector, air passengers and cargo handled can be used.
- (f) For the Storage sector, cold storage capacity can be a good indicator.
- (g) For Financial services-District-level business indicators, such as, bank credit and deposits as well as bank branch network details are available on quarterly/annual basis; and operating surplus and wages can also be explored.
- (h) For the Professional services- GST data can be used.
- (i) For Public Administration, Education and Health- Salary bill can be a better indicator.
- (j) Recreation- Population can be used as an indicator instead of workers.
- (k) For the constant price estimation, the State level deflators can be used.

7.8.2. The Committee recommends compiling the DDP estimates by all the States for the base year (which would also circumvent the complications involved in constant price estimates at that level of disaggregation). Subsequently, depending on the availability of the required data, time and manpower, the States are welcome to compile an annual DDP series if the other pressing needs of data for the State are met.

7.9 Strengthening and Training of Staff at DES for GSDP Estimation

7.9.1. The State statistical system has a very crucial role to play in the policy formulation of the State which is directly linked to the development of the State. A robust statistical system in States is fundamental for a strong Statistical system in the nation. It is, therefore, the need of the hour to prioritize the strengthening, modernization and improvement of the Statistical System in States. It is also required to have a proper field structure in order to have a more efficient and systematic data collection.

7.9.2. The issue of both quantity and quality of manpower among the States has to be addressed urgently. With the huge task of compilation of the State Income and District Income estimates, shortage of qualified manpower will deter their motivation towards active participation and improving their quality, frequency and regularity.

7.9.3. The Committee feels that the location of the DES in the State administration is of strategic importance. From which ministry it operates in the State administration matters for it to be effective, responsive, accountable, efficient and useful. When physical and economic planning was decentralized in the country, the DES was kept under the Planning Department / Ministry in the State, because it was the main user of the statistics and the central point in States. However, under the changed environment, the central point in States has moved away to the Ministry of Finance, which has emerged to be the major user of the statistics in States. The Committee, therefore, recommends the DES to be moved under the Ministry of Finance in the State Administration.

7.9.4. In addition to the above, the most important aspect for a better Regional level estimates is the knowledge on which the estimation procedure is based. Unless the manpower at the DES level and below is well-versed with the concepts and definitions of the Regional Accounts, the quality of the estimates cannot be ensured and safeguarded. Hence, proper and regular training of the personnel at the State and the District level is the utmost requirement for having quality estimates in the long run. The State must seriously and rigorously invest in their capacity building and in creating an institutional memory of the organization so that the system can function without any hindrances. In this context, the most urgent need seems to have an elaborate training program on the 'pooling samples' for the capacity building of both the NSO and the States.

7.10 Concluding Remarks

7.10.1. The improvements in methodology, data sources, and scope of estimation suggested here would be absolutely futile unless the States take the required initiative in this regard. Some of the States do have a well-structured data collection mechanism but others do suffer not only because of the lack of data collection mechanism but also because of indifferent quality of some of the data collected through the routine administrative system. Also the absence of appropriate current data often leads to crude methods of estimation which affects quality and accuracy of the estimates. Despite this limitation, the Committee recommended compiling GSDP and Final Expenditure estimates for the States at least to make a beginning so that the initial hurdle of commencing the task of preparing more comprehensive set of accounts can be overcome. The same can then be improved over time.

7.10.2. The Committee is of the opinion that if the States are in a position to compile the complete sets of accounts as and when possible, then the ideal situation of following the 'bottoms-up' approach in most sectors can be followed and the All India Estimates would be more firm and realistic. The current practice of adopting the allocation method using proxy indicators or ratios though out of compulsion and reluctance can, then, be done away with wherever possible. With this, the Committee hopes to have addressed growing needs of the reliable, realistic and usable data at the State and the District levels that would make the governments more responsive and accountable for their policies, projects and schemes aimed at achieving economic progress and alleviating regional disparities.

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PART I—Section 1

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सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय

(केंद्रीय सांख्यिकी कार्यालय)

अधिसूचना

नई दिल्ली, 26 जून, 2018

फा.सं. पी-12021/1/2017-एनएडी (एनएससी)-6 एवं 7/एनएडी-8.— भारत सरकार उप-राष्ट्रीय लेखा समिति का एतद्वारा निम्नवत् गठन करती है:

- | | |
|---|----------------------|
| 1. प्रो. रविंद्र एच. ढोलकिया,
सेवानिवृत्त प्रोफेसर,
भारतीय प्रबंधन संस्थान,
अहमदाबाद | अध्यक्ष (गैर-सरकारी) |
| 2. प्रो. विश्वनाथ गोलदर
पूर्व सदस्य,
राष्ट्रीय सांख्यिकी आयोग | सदस्य (गैर-सरकारी) |
| 3. श्री रमेश कोल्लि
पूर्व सदस्य,
राष्ट्रीय सांख्यिकी आयोग | सदस्य (गैर-सरकारी) |
| 4. डॉ ए.सी. कुलश्रेष्ठ
पूर्व अपर महानिदेशक, सीएसओ | सदस्य (गैर-सरकारी) |

5. राष्ट्रीय लोक वित्त और नीति संस्थान (एनआईपीएफपी) का प्रतिनिधि, नई दिल्ली	सदस्य
6. प्रभारी अधिकारी सांख्यिकी और सूचना प्रबंधन विभाग (डीएसआईएम), भारतीय रिजर्व बैंक (आरबीआई)	सदस्य
7. एनएसएसओ, सांख्यिकी और कार्यक्रम कार्यान्वयन का प्रतिनिधि	सदस्य
8. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, गुजरात	सदस्य
9. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, केरल	सदस्य
10. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, राजस्थान	सदस्य
11. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, गोवा	सदस्य
12. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, असम	सदस्य
13. अपर महानिदेशक/उप महानिदेशक, एनएडी, सीएसओ	सदस्य सचिव

2. इस समिति के विचारणीय विषय निम्नलिखित हैं:

क) राज्य घरेलू उत्पाद (एसडीपी) तथा जिला घरेलू उत्पाद (डीडीपी) की तैयारी के लिए संकल्पनाओं, परिभाषाओं, वर्गीकरणों, आंकड़ा परिपाटियों, आंकड़ा स्रोतों तथा आंकड़ा अपेक्षाओं की समीक्षा करना तथा संशोधित दिशा-निर्देश निर्धारित करना।

ख) आंकड़ों की उपलब्धता तथा केंद्र एवं राज्यों/संघ-राज्य क्षेत्रों की आवश्यकताओं को ध्यान में रखते हुए, देश में एसडीपी तथा डीडीपी में सुधार हेतु उपाय बताना।

ग) राष्ट्रीय लेखा पद्धति की आवश्यकताओं की दृष्टि से, विशेषकर अगले आधार वर्ष संशोधन को ध्यान में रखते हुए, राज्य-स्तरीय वार्षिक/त्रैमासिक सर्वेक्षणों के लिए सुझाव देना।

3. यह समिति ऐसे अन्य राज्यों/संघ-राज्य क्षेत्रों से भी आवश्यकतानुसार समय-समय पर परामर्श कर सकेगी जो इस समिति में शामिल नहीं हैं। इस दिशा में, यह समिति अपनी प्रत्येक बैठक की कार्यसूची और कार्यवृत्तों को सभी राज्यों/संघ-राज्य क्षेत्रों के साथ, उनके विचार/सुझाव/सूचना के लिए साझा कर सकेगी।

4. इस समिति के गैर-सरकारी अध्यक्ष/सदस्य बैठकों में भाग लेने के लिए 3000/- रुपये प्रति बैठक की दर से शुल्क पाने के हकदार होंगे। व्यय विभाग के दिनांक 12.04.2017 के आदेश की अन्य शर्तें लागू होंगी। गैर-सरकारी सदस्यों के लिए यात्रा भत्ता/दैनिक भत्ता व्यय विभाग के दिनांक 14.09.2017 के आदेश से शासित होगा।

5. इस समिति के सरकारी सदस्यों के बैठक में उपस्थित होने के लिए यात्रा भत्ता/दैनिक भत्ता व्यय का वहन उनके अपने-अपने मूल मंत्रालय/विभाग/संगठन द्वारा किया जाएगा।

6. यह समिति, यदि आवश्यक हो, किसी अमुक तथा विभिन्न विषयों से संबंधित मुद्दे पर समस्या पर परामर्श चाहने के लिए सचिव, सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय की पूर्वानुमति से सरकारी/गैर-सरकारी व्यक्ति को सदस्य सहयोजित अथवा विशेषज्ञ/विशेषज्ञों को आमंत्रित कर सकेगी। यदि समायोजित सदस्य/विशेषज्ञ गैर-सरकारी सदस्य है तो वह/वे उपर्युक्त पैरा 4 के अनुसार यात्रा भत्ता/दैनिक भत्ता तथा बैठक शुल्क आदि पाने का हकदार होगा/होंगे।

7. समिति की बैठकें के आयोजन पर किए जाने वाले व्यय तथा गैर-सरकारी सदस्यों को किए जाने वाले भुगतान/प्रतिपूर्ति आदि का वहन सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय सीएसओ, नई दिल्ली द्वारा लेखा शीर्ष 3454 (मुख्य शीर्ष) के अंतर्गत किया जाएगा।
8. यह समिति एक वर्ष के अंदर अपनी रिपोर्ट प्रस्तुत करेगी। वह आवश्यकतानुसार अंतरिम रिपोर्टें भी प्रस्तुत कर सकेगी।
9. इस समिति को सचिवीय सहायता राष्ट्रीय लेखा प्रभाग, केंद्रीय सांख्यिकी कार्यालय, सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय द्वारा उपलब्ध कराई जाएगी।
10. यह अधिसूचना तत्काल प्रभावी होगी।
11. यह समन्वित वित्त प्रभाग दिनांक 12.06.2018 की डायरी संख्या 18699 के द्वारा उनकी सहमति से जारी किया जाता है।

अरुण कुमार यादव, संयुक्त सचिव

MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION

(Central Statistics Office)

NOTIFICATION

New Delhi, the 26th June, 2018

F. No. P-12021/1/2017-NAD(NSC)-6&7/NAD-8.—The Government of India hereby constitutes the Committee for Sub-National Accounts with the following composition:

1. Prof. Ravindra H. Dholakia Retired Professor, Indian Institute of Management, Ahmedabad	Chairperson (Non-Official)
2. Prof. Bishwanath Goldar Former Member, National Statistical Commission	Member (Non-Official)
3. Shri Ramesh Kolli Former Member, National Statistical Commission	Member (Non-Official)
4. Dr. A.C. Kulshreshtha Former ADG, CSO	Member (Non-Official)
5. Representative of National Institute of Public Finance and Policy (NIPFP), New Delhi	Member
6. Officer -in-Charge Department of Statistics and Information Management (DSIM), Reserve Bank of India (RBI)	Member
7. Representative of NSSO, M/o Statistics & Programme Implementation	Member
8. Director, Directorate of Economics and Statistics, Gujarat	Member
9. Director, Directorate of Economics and Statistics, Kerala	Member

10. Director, Directorate of Economics and Statistics, Rajasthan	Member
11. Director, Directorate of Economics and Statistics, Goa	Member
12. Director, Directorate of Economics and Statistics, Assam	Member
13. ADG/DDG, NAD, CSO	Member Secretary

2. Following are the **Terms of Reference of the Committee:**

- To review the concepts, definitions, classifications, data conventions, data sources and data requirements for preparation of State Domestic Product (SDP) and District Domestic Product (DDP) and to lay down revised guidelines
- To suggest measures for improving SDP and DDP in the country taking into consideration availability of data and requirements of the Centre and States/ Union Territories.
- To suggest State level annual/ benchmark surveys keeping in view the needs of the System of National Accounts especially in view of the next base year revision.

3. The committee may consult other States / Union Territories not included in the committee from time to time as necessary. In this direction, the Committee may share agenda and minutes of each of its meetings with all States / Union Territories for their view / suggestions / information.

4. The non-official Chairperson / members of the committee would be entitled to a sitting fee of Rs. 3000/- per day of sitting for attending the meetings. Other terms and conditions of the D/o Expenditure's order dated 12.4.2017 would be applicable. TA/DA to non-official members would be governed by the D/o Expenditure's order dated 14.9.2017.

5. The expenditure of the official members on TA/DA etc. for attending the meetings of the Committee will be borne by their parent Ministry/Department/ Organization to which they belong.

6. The Committee may, if necessary, with prior approval of the Secretary, Ministry of Statistics and Programme Implementation, co-opt member(s) or invite Government / Non-Government expert(s) for dealing with any specific issue and problem relating to different subjects to seek their advice. If the co-opted member(s)/expert(s) is/are non-official member(s), then they would be entitled for TA/DA and sitting fees etc. as prescribed in the above para 4.

7. The expenditure on conducting the meetings of the Committee and the payments/reimbursements etc. made to non-official members would be borne by the Ministry of Statistics and Programme Implementation, CSO, New Delhi under the Head of Account 3454 (Major head).

8. The Committee will submit its report within one year. They may also submit interim reports, as necessary.

9. Secretarial assistance to the committee will be provided by the National Accounts Division, Central Statistics Office, Ministry of Statistics & P.I.

10. The notification will come into force with immediate effect.

11. This issues with the concurrence of Integrated Finance Division vide its Dy. No. 18699 dated 12.6.2018.

ARUN KUMAR YADAV, Jt. Secy.

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L.-33004/99



भारत का राजपत्र The Gazette of India

असाधारण
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सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय

अधिसूचना

नई दिल्ली, 26 जुलाई, 2019

फा. सं. पी-12021/1/2017-एनएडी(एनएससी)-6 एवं 7/एनएडी-8.—भारत सरकार द्वारा दिनांक 26 जून 2018 की अधिसूचना के माध्यम से निम्नलिखित सदस्यों को शामिल करते हुए उप-राष्ट्रीय लेखा समिति का गठन किया गया है:

- | | |
|---|----------------------|
| 1. प्रो. रविंद्र एच. ढोलकिया,
सेवानिवृत्त प्रोफेसर,
भारतीय प्रबंधन संस्थान,
अहमदाबाद | अध्यक्ष (गैर-सरकारी) |
| 2. प्रो. विश्वनाथ गोलदर
पूर्व सदस्य,
राष्ट्रीय सांख्यिकी आयोग | सदस्य (गैर-सरकारी) |
| 3. श्री रमेश कोली
पूर्व सदस्य,
राष्ट्रीय सांख्यिकी आयोग | सदस्य (गैर-सरकारी) |
| 4. डॉ. ए.सी. कुलश्रेष्ठ
पूर्व अपर महानिदेशक, सीएसओ | सदस्य (गैर-सरकारी) |

3898 GI/2019

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- | | |
|--|------------|
| 5. राष्ट्रीय लोक वित्त और नीति संस्थान
(एनआईपीएफपी) का प्रतिनिधि,
नई दिल्ली | सदस्य |
| 6. प्रभारी अधिकारी
सांख्यिकी और सूचना प्रबंधन विभाग
(डीएसआईएम),
भारतीय रिजर्व बैंक (आरबीआई) | सदस्य |
| 7. प्रतिनिधि महानिदेशक (सर्वे),
सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय का प्रतिनिधि | सदस्य |
| 8. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, गुजरात | सदस्य |
| 9. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, केरल | सदस्य |
| 10. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, राजस्थान | सदस्य |
| 11. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, गोवा | सदस्य |
| 12. निदेशक, अर्थ एवं सांख्यिकी निदेशालय, असम | सदस्य |
| 13. अपर महानिदेशक/उप महानिदेशक, एनएडी, एनएसओ | सदस्य सचिव |
2. क्षेत्रीय लेखाओं के संकलन के लिए मानकों को विकसित किए जाने से पहले, राज्य सरकारों तथा विशेषज्ञों के साथ समिति की विस्तृत चर्चा को सुविधाजनक बनाने के लिए समिति का कार्यकाल 25 जून, 2019 से समान शर्तों तथा निबंधनों पर एक वर्ष की अवधि के लिए बढ़ाया जाता है।
3. समिति अपनी अन्तरिम रिपोर्ट तीन महीनों में; अगले तीन महीनों के भीतर एक मसौदा रिपोर्ट और एक वर्ष के भीतर अंतिम संस्तुति (रिकमंडेशंस) प्रस्तुत करेगी।
4. इसे दिनांक 27.6.2019 के नोट # 17, फाइल संख्यापी-12021/1/2017-एनएडी (एनएससी)-6 और 7/एनएडी-8/भाग-(1) के माध्यम से एकीकृत वित्त प्रभाग की सहमति से जारी किया जाता है।

अरुण कुमार यादव, संयुक्त सचिव

MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION

NOTIFICATION

New Delhi, the 26th July, 2019

F. No. P-12021/1/2017-NAD(NSC)-6&7/NAD-8.—The Government of India constituted the Committee for Sub-National Accounts with the following composition vide notification dated 26th June, 2018:

- | | |
|---|----------------------------|
| 1. Prof. Ravindra H. Dholakia
Retired Professor,
Indian Institute of Management,
Ahmedabad | Chairperson (Non-Official) |
| 2. Prof. Bishwanath Goldar
Former Member,
National Statistical Commission | Member (Non-Official) |

3. Shri Ramesh Kolli Former Member, National Statistical Commission	Member (Non-Official)
4. Dr. A.C. Kulshreshtha Former ADG, CSO	Member (Non-Official)
5. Representative of National Institute of Public Finance and Policy (NIPFP), New Delhi	Member
6. Officer -in-Charge Department of Statistics and Information Management (DSIM), Reserve Bank of India (RBI)	Member
7. Representative of DG (Survey), M/o Statistics & Programme Implementation	Member
8. Director, Directorate of Economics and Statistics, Gujarat	Member
9. Director, Directorate of Economics and Statistics, Kerala	Member
10. Director, Directorate of Economics and Statistics, Rajasthan	Member
11. Director, Directorate of Economics and Statistics, Goa	Member
12. Director, Directorate of Economics and Statistics, Assam	Member
13. ADG/DDG, NAD, NSO	Member Secretary

2. To facilitate the Committee's elaborate discussions with the State governments and experts before standards can be evolved for the compilation of the regional accounts, tenure of the Committee is extended for a period of one year w.e.f. 25th June, 2019, with the same terms and conditions.

3. The Committee will submit its interim report within three months; a draft report within further three months and the final recommendations within one year.

4. This issues with the concurrence of Integrated Finance Division *vide* its Note #17, File No P12021/1/2017-NAD(NSC)-6 & 7/ NAD-8/Part-(1) dated 27.6.2019.

ARUN KUMAR YADAV, Jt. Secy.

Annex-III

List of Members Present in Different Meetings of Committee on Sub-National Accounts

Members\Dates	10/8/18	11/2/19	12/2/19	9/8/19	4/9/19	20/9/19	23/10/19	13/12/19
1. R.H. Dholakia	P	P	P	P	P	P	P	P
2. B.N. Goldar	P	P	A	P	P	A	P	P
3. A.C. Kulshreshtha	A	P	P	P	P	P	P	P
4. Ramesh Kolli	P	A	A	A	A	A	A	A
5. N.R. Bhanumurthy	P	A	A	P	P	P	P	P
6. RBI	P	P	P	P	P	P	P	P
7. NAD/NSO	17	22	19	19	20	17	24	21
8. DG(Survey)	P	A	A	A	A	A	A	P
9. DES Kerala	P	A	A	P	P	A	A	P
10. DES Assam	P	A	A	A	A	A	A	A
11. DES Goa	P	P	P	P	A	A	P(2)	P
12. DES Gujarat	P	A	A	A	P	P	A	P
13. DES Rajasthan	P(2)	A	A	A	P(2)	P(2)	P(2)	P
14. DES from Other States	--	UttaraKhand (5); Delhi (3); Tamil Nadu (2); UP (4); Manipur; Maharashtra; Karnataka; Telangana; Sikkim	UttaraKhand (5); Delhi (3); Maharashtra; Tamil Nadu; UP (4)	A	Delhi (2)	Mahar- ashtra; Delhi (2)	UP (4); Delhi (2); Maharashtra (2); AP; Karnataka	UP (2); Delhi (2)
15. Other Invitees	--	--	--	--	--	--	D. Sethia; T. Rajeshwari; Reena Singh	T. Rajeshwari; @
TOTAL	29	46	37	26	31	27	46	36

@ In the meeting on 13/12/2019, four members- A.K. Jha, P.Bajpai, K. Nanda, and A. Yadav; from Neilsen India Pvt. Ltd. were also invited to make a presentation before the Committee.

METHODOLOGY OF COMPILING QUARTERLY GDP ESTIMATES

The Central Statistical Organisation (CSO) introduced the quarterly estimates of Gross Domestic Product (GDP) on 30.6.1999. Quarterly Releases include GDP estimates compiled through production approach (QGDP) and quarterly expenditures of GDP (QGDE) compiled through expenditure approach. The QGDP estimates from the production side is estimated as QGVA at basic prices + net taxes on products. The differences between the QGDP estimated by economic activity as QGVA at basic prices plus net taxes on products and the QGDE estimated from the expenditure side is shown as discrepancy. QGVA estimates at constant prices are compiled first. The production approach used for compiling the QGVA estimates is broadly based on the benchmark-indicator method. In this method, for each of the industry-groups, estimates of GVA are compiled by extrapolating value of output or value added at constant prices of the previous year with relevant volume/physical indicators. In case of indicators like Government expenditure, financial results of listed companies etc., which are in nominal terms, these are deflated by appropriate price indices. The price indices/ indicators used are as same as that used in compilation of the annual estimates. Annual forecasts of GVA estimates and corresponding estimates for all quarters of the current year are prepared all the time (even while preparing Q1 estimates, projections for Q2, Q3, and Q4 are made, based on available data on forecasts, targets, and other auxiliary information) for the current year to make them consistent with the annual forecasts of GVA. In general terms, quarterly estimates of Gross Value Added (GVA) are extrapolations of annual series of GVA.

The QGVA estimates at current prices are compiled by superimposing appropriate Wholesale Price Index/Consumer Price Index on the QGVA estimates at constant prices, at major industry group level. This is done by estimating the industry wise Implicit Price Deflators (IPDs) for each quarter, using the relevant price indexes, for the reference quarter. The IPDs are worked out as ratio of GVA at current prices and GVA at constant prices. The QGVA estimate at current prices for each industry equals the product of QGVA for the quarter at constant prices and the IPD for the quarter of that industry. Details of the methodology of compiling QGVA estimates at current and constant prices are described below:

QUARTERLY ESTIMATES OF GVA BY PRODUCTION APPROACH

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
1	Crops	Quarterly production from Ministry of Agriculture for principal crops. Using the season-wise production data and the Indian Crop Calendar, the Ministry of Agriculture prepares the estimates of quarterly agriculture production of different crops. This method assumes that the entire production of a particular state/season/crop occurs in the harvesting period. By adopting this method, the total estimated agriculture production during the four quarters of a financial year (April to March) will be different from the one relating to the agriculture year (July to June). However, for annual national accounting purposes, CSO has been adopting the total crop production in an agriculture year as that in the financial year. The two estimates of annual crop production differ to the extent of the difference in production during April-June period of the two successive years. Therefore, in order to ensure consistency between the quarterly GVA estimates and the annual GVA estimates, the agriculture production estimates in the four quarters of a financial year are adjusted on a prorata basis to that of the total production in the agriculture year.	Superimposing appropriate WPI on estimates at constant prices.	<p>QGVA is estimated separately for (a) Principal Crops for which quarterly production data is available. The commodity-level value of output for the reference quarter is estimated by extrapolating the estimated commodity-level value of output at constant prices of the same quarter of the previous year with the growth in production of particular commodity during reference quarter</p> <p>(b) Other crops for which quarterly production data is not available, the annual estimate is prepared using log-linear estimation or targets announced by the Ministry of Agriculture. The annual estimated production of such crops is equally apportioned between quarters.</p> <p>Input: Previous years' input output ratio</p> <p>GVA = Output-Input</p>

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
2	Livestock	Targets/ projections of Milk, egg, meat and wool production from Ministry of Agriculture, Department of Animal Husbandry	Superimposing appropriate WPI on estimates at constant prices.	<p>In the case of livestock products, quarterly estimates of production are available for four major items, namely, milk, egg, meat and wool, from the Department of Animal Husbandry and Dairying, Ministry of Agriculture. These estimates are compiled through special tabulations of the questionnaires on annual Integrated Sample Survey. This survey is conducted in three seasons, namely, summer, rainy and winter, primarily to estimate the yield rates of production per different categories/ages/breeds of animals. This season-wise data which is available with a time lag is used for compiling quarterly estimates. Hence, using growth in production as reflected in the annual Targets/ projections of major livestock products annual GVA estimates are first compiled. These estimates are apportioned among quarters on the basis of latest available quarterly distribution. In the case of other livestock products for which targets or production data is not available, previous year's value of output is extrapolated to the current year on the basis of log-linear estimation technique. The annual estimate is apportioned equally between quarters.</p> <p>Input: Previous years' input output ratio</p> <p>GVA = Output-Input</p>

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
3	Forestry & Logging	Benchmark estimates	Superimposing appropriate WPI on estimates at constant prices.	<p>Previous year's value of output of industrial wood, fuelwood and minor forest products is extrapolated to the current year on the basis of past growth trends.</p> <p>This annual estimated figure is apportioned equally to the four quarters of the year. The estimates of input are derived on the basis of previous year's input-output ratio.</p> <p>GVA=Output- Input</p>
4	Fishing & Aquaculture	Production of Marine fish and Inland fish from Department of Animal Husbandry, Dairying & Fisheries	Superimposing relevant WPI on estimates at constant prices.	<p>The quarterly value of output for the reference quarter is estimated by extrapolating the estimated output at constant prices of the same quarter of the previous year with the quarterly production growth.</p> <p>Input: Previous years' input output ratio GVA=Output- Input</p>

4

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
5	Mining & quarrying	<p>Monthly data on Coal, Crude oil and Natural gas, from DIPP, Ministry of Commerce and Industry and Ministry of Petroleum & Natural Gas, Monthly IIP data from Quick Estimates of IIP released by CSO, MOS&PI</p> <p>Financial performance of companies listed with stock exchanges(BSE/NSE)</p>	Superimposing relevant WPI on estimates at constant prices.	<p>The quarterly production data in respect of coal, crude petroleum, natural gas and the IIP for mining sector are used to extrapolate the value of output of coal, crude petroleum and other major and minor minerals of the same quarter of the previous year (<i>excluding output in the private corporate sector which is estimated separately</i>)</p> <p>Quarterly GVA of Private corporate sector of this industry in the previous year is extrapolated by quarterly growth observed in the indicator based on Staff costs, Profit before tax and depreciation worked out from quarterly financial results of listed companies obtained from BSE/NSE. As growth estimated for private corporate sector is in nominal terms, they are deflated by using appropriate WPI.</p> <p>Inputs: Input-output ratios of the previous year are used separately for fuel minerals and other minerals.</p> <p>GVA=Output-Input</p>

5

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
6	Manufacturing	Monthly Index of Industrial Production (IIP) from Quick Estimates of IIP released by CSO, MOS&PI Financial performance of companies listed with stock exchanges(BSE/NSE)	Superimposing appropriate WPI on estimates at constant prices.	<p>For the organised sector, value added in the reference quarter is estimated by extrapolating the estimated GVA in same quarter of previous year with quarterly growth observed in the indicator based on Staff costs, Profit before tax and depreciation worked out from quarterly financial results of listed companies from BSE/NSE. The private corporate sector estimates which are in nominal terms are distributed across different compilation categories as per the latest available ASI results. These estimates are then deflated by using appropriate WPI for different compilation categories.</p> <p><u>Quasi corporate and unorganized sector</u> The value added at 2- digit level (NIC) for the reference quarter is estimated by extrapolating the estimated value added at 2-digit level at constant prices of the same quarter of the previous year with the growth observed in IIP for manufacturing sector at 2-digit level during reference quarter. The quarterly value added is the sum of value added estimated at 2-digit level.</p>

6

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
7	Electricity, Gas, water supply and other utility services	Monthly Index of IIP of Electricity from Quick Estimates of IIP released by CSO, MOS&PI	Superimposing appropriate WPI on estimates at constant prices.	<p>Electricity: The indicator for the electricity sub-sector is the monthly Index of Industrial Production for Electricity segment. The value added for the reference quarter is estimated by extrapolating the estimated value added at constant prices of the same quarter of the previous year with the growth observed in IIP Electricity during reference quarter.</p> <p>Gas, Water supply and other utility services In respect of this sub-sector, no data is available on quarterly basis. As quarterly data is not available, the annual forecast is first made using the past trends and the same is apportioned equally among the four quarters of the year.</p>

7

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
8	Construction	Joint Plant Committee data for steel consumption, Cement production from DIPP, Ministry of Commerce and Industry and Monthly IIP data from Quick Estimates of IIP released by CSO, MOS&PI	Superimposing WPI on estimates at constant prices	<p>QGVA is compiled separately for accounted and Unaccounted construction. Major items taken into account for compiling QGVA from accounted construction are Cement, Steel, Bricks and tiles, Fixtures and fittings, Bitumen and Bitumen mixtures and Glass and Glass products .</p> <p>Value added in the reference quarter is estimated by extrapolating the estimated QGVA in same quarter of previous year with quarterly growth observed in the production of cement and cement products (using the indicator cement production), iron and steel (using the indicator steel consumption), bricks and tiles and glass and glass products (using IIP for non- metallic mineral products), Bitumen and Bitumen mixtures (using IIP for coke and refined petroleum products) and timber and round wood (using the indicator IIP-wooden fixtures) during the reference quarter.</p> <p>For unaccounted construction including plantations and mineral exploration, the value added is first estimated for the entire year using past trends. Thereafter, the annual estimate is apportioned equally to four quarters.</p>

8

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
9	Trade & Repair services	Sales tax from web site of CAG, Office of Accountant Generals of State Governments, CAG website Financial performance of companies listed with stock exchanges(BSE/NSE)	Superimposing WPI of Traded commodities	Indicators for compiling QGVA estimates are quarterly sales tax growth and quarterly private corporate growth. WPI of Traded commodities are used for deflation.
10	Hotels and Restaurants	Financial performance of companies listed with stock exchanges (BSE/NSE)	Superimposing WPI of Traded commodities	Indicator for compiling QGVA is the quarterly private corporate growth. WPI of Traded commodities are used for deflation
11	Railways	Net Tonnes Kilometers & Passenger Kilometers, Ministry of Railways	Superimposing CPI transport	The data on the two key indicators of this sector, namely, passenger kilometers and net tonne kilometers are available on quarterly basis. The two indicators are combined into one indicator with the weights as earnings from passengers and freight. The value added for the reference quarter is then estimated by extrapolating the estimated value added at constant prices of the same quarter of the previous year with the growth observed in this combined indicator in the reference quarter.

9

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
12	Other Transport (i) Road transport (ii) Water Transport (iii) Air transport (iv) Services incidental to transport	Road: Number of commercial vehicles on road, estimated using the data on sales of commercial vehicles Water: Cargo handled at major ports Air: passenger kilometers flown and freight tonne kilometers flown (both domestic and international) Services: Combined growth of water and land transport Source: SIAM(Society for Indian Automobiles Manufacturers), M/o Shipping, Infrastructure Report of PI wing of MOS&PI	Superimposing CPI transport and communication on estimates at constant prices.	<i>Road Transport:</i> For the QGVA estimates, indicators used are stock of commercial vehicles on road (estimated by adding sales of commercial vehicles in the quarter to earlier stock). <i>Air Transport:</i> For air transport the indicators used are passenger kilometers and freight tonne kilometers flown. The value added for the reference quarter is then estimated by extrapolating the estimated value added at constant prices of the same quarter of the previous year with the combined growth observed in physical indicator (passenger and freight traffic) during reference quarter. <i>Water Transport:</i> For water transport, growth observed in cargo handled at major ports is used as an indicator. For services incidental to transport, combined growth of water and land transport is used to extrapolate the previous years' quarterly estimates. Storage - As quarterly data is not available, value added is first estimated for the entire year using the growth rate observed in the last few years. Thereafter, the annual estimate is apportioned equally into four quarters.

10

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
13	Communication & services related to broadcasting	Number of Telephone and cellular subscribers, & Minutes of usage(MOU), Service tax Sources: TRAI and Department of Telecommunication, Service tax from CBEC, Company Finance Data from BSE/NSE	Superimposing CPI transport and communication on estimates at constant prices.	Annual estimates are first compiled using, private corporate growth from listed companies, Minutes of usage (for telecommunication) and service tax (courier and cable services). The annual estimates are quarterized using growth in number of subscribers.
14	Real estate, ownership of dwellings and professional services	Financial results of listed companies relating to real estate & computer and related services from BSE/NSE	Superimposing WPI/appropriate CPI on estimates at constant prices.	In the case of Real estate and Professional services, the key indicator used is the quarterly growth observed in the indicator based on Staff costs, Profit before tax and depreciation worked out from quarterly company finance data of listed companies. Deflator used is WPI. In the case of Ownership of Dwellings, annual estimates are compiled using the information on growth in rural and urban dwellings and are distributed equally in the four quarters.

11

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
15	Financial services	Monetary and other Financial Institutions: Aggregate deposits and bank credits as obtained from RBI monthly Bulletin Insurance: Net premium received on life and non-life insurance business Data on linked and non-linked Life insurance received from LIC of India and IRDA for non-life insurers	Superimposing GVA deflator of non financial sector on constant prices.	The indicators used for compiling quarterly estimates are quarterly data on aggregate deposits and credits (deflated) and net premium received on life and non-life insurance business. Deflator used is GVA deflator of non financial sector
16	Other services	CAG and CGA website/Department of Expenditure, Ministry of Finance, government revenue expenditure net of interest payments, Service tax; growth in consumer expenditure on health and education and non- food items group from NSS consumption expenditure surveys.	Superimposing appropriate CPI on estimates at constant prices.	For public sector quarterly growth observed in government revenue expenditure net of interest payments and subsidies (deflated by CPI (Combined) is used as indicator. For private sector, annual forecast is first made using indicators like growth in consumer expenditure on education, health, non-food items and service tax to extrapolate GVA of education, health, and other services of the previous year. Relevant CPI is used for deflating current price estimates. This annual estimate is apportioned equally into four quarters.

12

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
17	Public administration and defence	Revenue expenditure net of interest payments of Central and State Governments and subsidies deflated by the consumer price index. Controller General of Accounts, Ministry of Finance, Office of Accountant Generals of State Governments, CAG website	Superimposing CPI (combined) on estimates at constant prices.	The value added for the reference quarter is estimated by extrapolating the estimated value added of the same quarter of the previous year with the growth observed in government revenue expenditure net of interest payments and subsidies (deflated) during reference quarter. The current price estimate so obtained is deflated by using CPI (Combined).

13

QUARTERLY ESTIMATES OF GDP BY PRODUCTION APPROACH

QGDG estimates are compiled by summing QGVA at basic prices and net taxes on products. Methodology of compiling taxes on products and subsidies on products are given below:

S.No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
1	Taxes on products	Monthly data on customs, excise, sales tax and other taxes from Controller General of Accounts, Ministry of Finance, Office of Accountant Generals of State Governments and CAG website.	Quarterly current price estimates of taxes on products are compiled using monthly data on tax revenue.	Constant price estimates of taxes on products are compiled by volume extrapolation. Volume extrapolation is done separately for different product taxes using volume growth of taxed goods and services and aggregated to get the total volume of taxes.
2	Subsidies on products	Expenditure on major subsidies is used as an indicator.	Annual estimate is first compiled by extrapolating the previous year's estimate worked out on the basis of actual analysis of central and state budgets with growth observed in major subsidies. Annual data on subsidies so estimated are distributed between quarters on the basis of Government revenue expenditure.	Current price estimates are deflated using GVA deflators.

14

QUARTERLY ESTIMATES OF GDP BY EXPENDITURE APPROACH (QGDE)

S. No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
1	PRIVATE FINAL CONSUMPTION EXPENDITURE	Growth in consumption of food items, IIP, Output of services.	First, the annual estimates of the reference year at current prices are compiled. For compiling commodity-wise estimates of PFCE, physical indicators are used for each commodity of expenditure. These indicators in respect of agricultural commodities are based on trends in consumption (worked out from commodity flow estimates of previous years). For manufactured goods, key indicator used is the IIP. For services, indicator used is the output of services, as estimated for compiling Gross value added (GVA) of services. The indicator growth is applied on the previous year PFCE estimates to get the annual estimates. Appropriate price indices (CPI) are superimposed to obtain the current price estimates. For the commodity-wise quarterly estimates of PFCE, the annual current price estimates are apportioned to quarters on the basis of proportions derived from bench mark estimates in the case of food items, (Quarterised PFCE data for the year in which the consumer expenditure survey was conducted, forms the benchmark estimates.) For other items, the distribution is on the basis of quarterly proportion of output/GVA of relevant groups.	Current price estimates are deflated using weighted average of CPI and WPI

15

S. No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
2	GOVERNMENT FINAL CONSUMPTION EXPENDITURE	Monthly data on central government expenditure net of interest payments available from the website of Controller General of Accounts (CGA), Department of Expenditure, Ministry of Finance.	Quarterly estimates of GFCE for the reference quarter are obtained by extrapolating the estimated GFCE of the same quarter of the previous year with growth observed in the combined quarterly revenue expenditure of Central and State governments net of interest payments and subsidies.	Current price estimates are deflated using weighted average of CPI and WPI.
3	GROSS FIXED CAPITAL FORMATION	IIP for capital goods available from the use-based classification superimposed by WPI of appropriate group and (b) data on imports/exports of machinery and equipment, growth in GVA in Software services as estimated using quarterly company finance data from BSE/NSE	<p>GFCF is compiled separately in respect of construction and machinery component. For the quarterly GFCF in respect of construction, the indicator used is the quarterly growth in GVA of construction sector at current prices. For the quarterly GFCF estimates in respect of machinery and equipment, the indicator used for compiling current price estimates is the quarterly production of capital goods available from the use-based classification of Index of Industrial Production (IIP) superimposed by WPI of appropriate group and data on imports/exports of machinery and equipment. For estimating the GFCF in respect of intellectual property products like software, growth in GVA as obtained from quarterly company finance data of listed companies is used as an indicator.</p>	<p>Quarterly estimates of GFCF construction at constant prices is obtained by using quarterly growth in GVA construction at constant price available from production side.</p> <p>For quarterly estimates of GFCF in respect of machinery and equipment, key indicator used is the quarterly production of capital goods available from the use-based classification of Index of Industrial Production (IIP).</p>

16

S. No	Item	Indicator/ Source of data	Method of estimation	
			At current prices	At constant (2011-12) prices
4	CHANGE IN STOCKS	Benchmark estimates	Average growth of agriculture, manufacturing and mining industry at current prices is used to extrapolate the annual figure at current price of the previous year. This annual estimate is apportioned into quarters on the basis of estimated GVA of manufacturing sector at current prices	Average growth of agriculture, manufacturing and mining industry at constant prices is used to extrapolate the annual figure of the previous year. This annual estimate is apportioned into quarters on the basis of estimated GVA at constant prices.
5	VALUABLES	Net imports of valuables mainly covering gold and silver, and gems and jewellery available from DGCIS and Growth in relevant IIP	Estimate of Valuables (mainly covering gold and silver, and gems and jewellery) is compiled by using growth in net imports of gold and silver as indicator	The constant price estimates is compiled by using appropriate price deflators.
6	NET EXPORTS	Data on Invisibles from Balance of Payments data released by RBI and quarterly data on merchandise trade from Ministry of Commerce (DGCIS)	Quarterly data on Invisibles from Balance of Payments data released by RBI and quarterly data on merchandise trade from Ministry of Commerce	For estimating exports and imports at constant prices weighted GDP deflators are used

17

METHODOLOGY FOR COMPILATION OF DISTRICT INCOME

Recently, many States have expressed the need for fresh guidelines for preparation of DDP, in order to ensure uniformity of concepts and methodology. The present draft Guidelines under new series with base 2011-12 for estimation of District Domestic Product (DDP) have been prepared based on the methodology in the old series (2004-05) given in the publication "Sources and Methods - 2012". Many States have also undertaken exercises to develop estimates of DDP based on available indicators. The inputs received from some States have also been incorporated in the draft.

Concepts and Definitions

The estimates of District Income can conceptually be prepared by adopting two approaches, namely, income originating and income accruing. In the Income originating approach, the measurement corresponds to income originating to the factors of production physically located within the geographical boundaries of district and represents net value of goods and services produced within the district. It is the income originating as a result of the utilization of the physical assets and the labor force of the region, even though some of the income might flow to residents outside the region. The income accruing approach relates to the income accruing to the normal residents of a district. In other words, it is the income received by the residents of a region, even though some of it might have originated outside the region. Since this measures the income that becomes available to the residents of a district, it provides a better measure of the welfare of the residents of the region. Therefore, for a realistic measurement of income received, account needs to be taken of net inflow/outflow of income between districts. But in an open economy like that of a district in this country, it is very doubtful whether such an estimate can be prepared unless special effort is made for the collection of this data.

Presently, DDP estimates are compiled by following the income originating approach. For estimating the District Domestic Product, the economy is divided into various economic activities like agriculture, forestry, fishing, mining, manufacturing, construction, electricity, transport, communication, trade etc. In the commodity producing sectors like agriculture, forestry, fishing, mining and manufacturing(registered), the estimates of DDP are prepared using the production approach i.e. gross value added = value of output minus value of inputs used in the process of production. In the services sectors like trade, transport, hotel and restaurants etc., the estimates for the public sector are prepared by income approach, i.e., gross domestic income = compensation of employees plus gross operating surplus. For the unorganized sectors like manufacturing unregistered and the unorganized segments of the remaining sectors of the economy i.e. unorganized trade, unorganized hotels and restaurant, unorganized road transport, unrecognized educational institutions, unorganized medical and health services, etc. the estimates of GVA are compiled as a product of work force and gross value added (GVA) per worker. While the GVA per worker

is derived from the follow-up surveys of economic censuses carried out by the NSSO, the work force is estimated from the quinquennial surveys of employment and unemployment of the NSSO and the population censuses.

Supra regional sectors: There are certain activities which are supra regional in nature i.e. they cut across the boundaries of the States/districts, for example, the activities of railways, communication, banking and insurance and central government administration. The estimates for these supra-regional activities are compiled for the economy as a whole and allocated to the States and further to the districts on the basis of relevant indicators.

The estimates of district domestic product are prepared by the State DESs broadly by compiling the actual estimates for the agriculture, forestry, fishing, mining and registered manufacturing sectors, and the public sector component of all other sectors, from the district level available data; and by allocating the State level estimates to the districts on the basis of work-force data for other sectors. The agencies/personnel responsible for collecting district level data are mainly District Statistical Office (DSO), District Forest Officer, District Fisheries Deptt, etc. It has been observed that the availability of district-wise basic data required for estimation of income at the district level is still not satisfactory in most of the States. The data in respect of commodity producing sectors viz. Primary Sectors and Manufacturing (regd.) sector are available but in respect of remaining sectors, it is very scanty. As such, wherever district-wise basic data are available, the same are utilised to compute the direct district income estimates following the State level methodology. In case of non-commodity producing sectors, where district-wise basic data are not available, the State level estimates are allocated to the districts on the basis of suitable district-wise indicators. Further, in some of the commodity producing sectors, though district-wise production data are available, the corresponding prices are not available. In such cases, district-wise production and State average prices are utilised for preparation of District Income estimates. Similarly, wherever, certain ratios/norms, yield rates, etc. are used for the State estimates and which are normally not available at the district level, the State level ratios/yield rates, etc. are utilised for district income estimates also.

Methodology

Agriculture and Livestock

Agriculture (Crop Sector)

Value of Output

As in the case of State level estimates, the estimates at district level are compiled by 'production approach'. But district level data on production and prices are generally not available uniformly for all the crops. Hence, for estimation purpose, crops are classified in different categories as follows:-

Crops for which reliable district-wise data on area, production and prices are available: In such cases district-wise value of output for each crop may be compiled by using district-wise production and prices. The wholesale prices of primary market during peak marketing period are used in this context.

Crops for which though district-wise production is available, corresponding district-wise prices are not available: For this category of crops, district-wise value of output may be computed by using district-wise production and neighboring district prices, if available. In case neighboring district prices are also not available, regional prices may be used. If these are also not available, the State prices may be utilized.

Crops for which district-wise data, both on production and prices, are not available but area figures are available: In such cases, district-wise value of output of these crops may be compiled by allocating the State level value of output on the basis of district-wise area under the crops.

Miscellaneous and unspecified crops for which production and price data are not available even at the State level but district-wise area is available: In such cases, the value of output may be worked out by multiplying the district-wise area by the State level value per hectare of similar crops.

By-products or miscellaneous type of products- wherever possible, cost of cultivation studies (CCS) data may be used, otherwise data from latest studies may be used. In case such data are not available, State level ratios, whether in relation to output or in relation to area as used in current series of estimates of SDP, may be adopted uniformly for all the districts. The type of by-products may vary from State to State or even district to district.

For the quantity of food grains, which are procured on Government account, the prices are different from the prevailing market rates. As such, adjustments are made in the value of such agricultural produces by evaluating separately the quantity procured and sold in primary market by their respective prices.

Value of Inputs

As in the State level estimates, to arrive at the district-wise Gross Value Added (GVA) from agriculture sector, value of various input items are to be first deducted from the Gross Value of Output of this sector and then the gross product from operation of Government Irrigation System is added to that. The deductible inputs are same as used at the State level viz. i) Seed, ii) Chemical Fertilizers / manure iii) feed of livestock (male adult Buffalo and Cattle), iv) Pesticides v) Diesel oil vi) electricity, vi) Irrigation charges, vii) market charges for crops, viii) Repairs and Maintenance for crop sector (ix) FISIM.

To work out the value of these input items at the district level, the State level estimates arrived at independently under the Current series of State income estimates may be distributed to various districts on the basis of certain proportions as indicated below:-

Seed: The district-wise value of seed may be estimated as follows:

The State level value of seed distributed according district-wise gross cropped area in district. Alternatively, State level seed rates may be used to get district-wise seed requirement and State prices may be used to compile the value of seed requirement at district level.

Chemical Fertilizers /Organic Manure: State level value may be distributed to districts in proportion to total quantity of chemical fertilizers distributed as obtained from the Fertilizer Association of India (FAI).The district-wise estimates of value of output of dung manure as estimated in Livestock sector may be used.

Feed of livestock for crop sector: District-wise value of feed of livestock for crop sector may be estimated by State level value of feed for crop sector distributed according district-wise population of Adult cattle male and Adult buffalo male.

Pesticides and Insecticides: The State level value may be distributed to the districts in proportion to district-wise gross cropped area. However, if district-wise pesticides data is available than the same may be used.

Diesel Oil Consumption: State level value of consumption of diesel oil by tractors and oil engines may be distributed to districts according district-wise gross cropped area.

Electricity: The State level value may be distributed on the basis of district-wise number of private and Government electric tube-wells/lift irrigation points and energized pump-sets

Irrigation Charges: The district-wise irrigation charges, as collected from the district administration (D.C.'s) may be used for this purpose. In the absence of such data, the State level value may be distributed to the districts in proportion to the area irrigated by Government canals.

Market Charges: The State level norms (3.22 % of GVO) in respect of Agriculture (Proper) sectors may be used for district income estimates also.

Repair and Maintenance of fixed assets: District-wise data on fixed assets as available from All India Debt and Investment Survey (AIDIS), may be used.

FISIM: State level value of FISIM is distributed on the basis of total value of output of the district.

After evaluation of district-wise input values, it should be adjusted using the ratio of State Input value / sum of district Input value.

$$D_i = d_i * \frac{S}{\sum d_i}$$

where, d_i = i^{th} district estimate

S = State Estimate

D_i = Adjusted i^{th} district estimate

$\sum d_i$ = Sum of all district estimate

Gross Product from Operation of Government Irrigation System: This is added to the gross value of output of Agriculture after deducting the value of inputs. The State level value of contribution by Government Irrigation system may be distributed among the districts in proportion to the district-wise area irrigated by Government canals.

Livestock

Value of Output

Similar procedure as adopted at the State level is followed at the district level also. District-wise estimates of number of different categories of animals and poultry may be worked out from the results of latest two livestock census assuming linear/compound growth rates and utilised along with relevant yield rates to obtain the estimates of production of various livestock products and by-products and poultry meat.

The results of Integrated Sample Survey (ISS) conducted by State Animal Husbandry Department provide State/District level data on production of milk, meat, wool and egg. It also provides estimates of category-wise number of slaughtered animals. Wherever, ISS results are available only for the State, the estimates for district may be obtained by allocating the same to the districts on the basis of relevant livestock population. To estimate district-wise production of all other items (i.e. other than milk, meat, egg and wool), State level yield rates and ratios may be utilized along with district estimates of number of relevant population of animals/poultry.

District-wise value of output may be estimated by evaluating the production obtained as above, by the corresponding district prices, wherever available. In the absence of district level prices, the State prices may be utilized for evaluating the district production. The totals of the value of output thus worked out may be then adjusted to the State level estimates.

In case of other animal products, the State level estimated value may be distributed between the districts in proportion to the number of animals in each category separately.

District-wise increment in stock for each category of animal/poultry may be estimated as at the State level and these may be evaluated by corresponding district prices. After

evaluation of district-wise increment, it should be adjusted using the ratio of State increment/ sum of district increment using the same formula as Inputs.

The value of silkworm cocoons arrived at the State level, after adjusting the cost of rearing silkworm cocoons, are allocated to districts in proportion to the area under Mulberry in each district. In case data available from Director of Sericulture and Khadi & Village Industries Board, value of silkworm Cocoons and Honey may be arrived at district level with this data.

Value of Inputs

Feed of livestock: For distribution of feed of livestock between crop sector and livestock sector, it is assumed that feed of livestock used for crop production would be total feed consumed by Adult Buffalo (Male) and Adult Cattle (Male). From the total feed of the livestock, the value of feed consumed by the livestock used for crop production is subtracted to arrive at the value of the feed consumed by the livestock for the livestock sector. District-wise value of feed of livestock for livestock sector may be estimated by State level value of feed for livestock sector distributed according to district-wise population of Adult Buffalo (Male) and Adult Cattle (Male).

Market Charges: The State level norms in respect of Livestock sectors may be used for district income estimates also.

Repair and Maintenance of fixed assets and operational cost: District-wise data on fixed assets as available from All India Debt and Investment Survey (AIDIS)/Livestock Census may be used.

FISIM: State level value of FISIM may be distributed on the basis of total value of output of the district.

Forestry and Logging

Major Forest Products: The district-wise value of output of timber is worked out using the district-wise production and prices for different varieties. In case of firewood, (wherever NSSO results on consumption data are utilized) the district value of output is obtained by allocating State level estimates to the district in proportion to district-wise rural population.

Minor Forest Products: The district-wise value of output is worked out using the district-wise production and prices of different varieties. In the absence of district-wise data the State level value of minor forest produce is allocated to districts in proportion to the forest area in different districts.

In case of Trees Outside Forest, district-wise value of output may be obtained by allocating State level estimates of production to the district in proportion to district-wise area under Miscellaneous Tree Crops and Grooves and using corresponding State level prices.

Repairs, Maintenance and other Operational Costs: State level ratio may be utilised for working out district-wise estimates of repair, maintenance and other operational costs.

Fishing & aquaculture

In the case of Marine fishing, the district-wise value of output may be estimated by multiplying the district-wise production by corresponding district prices. Similar procedure is followed in estimating district-wise value of output of inland fish also. The district-wise production of marine and inland fish is likely to be available through district fishery officer. But, if the district-wise prices are not available, then district-wise value may be worked out using district-wise production and State level prices. To work out the value of subsistence fish and operational costs including repairs and maintenance, the State level norm/ratios may be used for district income estimates also.

Mining and Quarrying

For major minerals, including Petroleum & NG the district-wise value of output as collected from Indian Bureau of Mines, Nagpur, may be used to allocate the estimates of the States district-wise. District-wise value of production of coal obtained from Coal India Ltd. can be used to allocate the State level estimates amongst the districts.

For minor minerals, the district-wise value of output may be collected from the State Mines and Geology Department. If the data are not available, the value of output of minor minerals may be worked out in proportion to the royalty value. For working out input costs, the State level input rates may be adopted for district estimates. The input rates are the same as that of All India.

Manufacturing

The district-wise estimates of value added from registered manufacturing sector are available from Annual Survey of Industries (ASI) in respect of some smaller States/UTs, for which ASI covers the factories on census basis. In other major States ASI data is being collected on a sample basis. In some of the major States, apart from the ASI samples, States are also canvassing the ASI schedule as a part of the State sample sector. These two samples may be pooled to arrive at district level estimates of GVA. These district-wise GVA may be used as an indicator to allocate the State level estimates of GVA among the districts. For the States where ASI results are not available, the distribution of the workforce in the Manufacturing sector may be used as an indicator to allocate the State level estimates district-wise.

For Private Unincorporated Enterprises, the district-wise projected working force and the value added per worker from the latest NSS surveys may be used to distribute the State level GVA of this sub sector. From the total of GVA, FISIM is deducted using the State level ratio of FISIM to GVA. To work out FISIM, State level proportion to GVA may be adopted.

Electricity, Gas, Water Supply and Other Utility Services

Electricity: The State level value added from this sub-sector may be distributed to districts in proportion to district-wise workforce. If District-wise value of electricity consumption is available, the same may be used to allocated State level GVA from electricity.

Gas: State level value added from bio-gas may be distributed according to number of Bio-Gas plants in each district obtained from KVIC, M/o New and Renewable Energy. For remaining gas sector, the State level estimates may be allocated to the districts on the basis of workforce.

Water supply: State level value added may be allocated to districts in proportion to the district-wise salaries and wages collected from local bodies located in the district for the GG part and in the proportion of the workforce for the remaining part.

Remediation (recycling): District-wise estimates can be obtained from the ASI results.

Remediation (sewerage & sanitation): State level value added may be allocated to districts in proportion to the district-wise estimates of workforce

Construction

The estimate of State income from this sector may be allocated to the districts on the basis of working force for public (except local bodies) and private sector separately. In respect of local bodies, direct district-wise data as available may be utilized. However, National Building Organization (NBO) is in process of maintaining a database on number of building permits and completion certificates for different cities with States/UTs. Once the database is updated, the same could be examined for use in DDP estimation.

Transport, Storage, Communication & Services related to broadcasting

Transport

Railways: State level estimates, as provided by CSO, may be allocated to districts in proportion to the workforce engaged in Railways at district level.

Transport by other Means- Road Transport - Public Sector: The value added from this sub-sector at the State level may be allocated to districts on the basis of district-wise workforce (public) in this activity.

Transport by other Means- Road Transport - Private Sector: The value added from private sector may be allocated to districts on the basis of district-wise workforce in private sector.

Water Transport: State level estimates may be allocated to the districts in proportion to the workforce.

Air Transport: The State income from this sub-sector may be allocated to the districts on the basis of district-wise workforce.

Un- Organized Transport: The State level estimate may be allocated to districts in proportion to gross value of output of commodity producing sectors.

Storage

Warehousing (State and Central): State level estimates may be allocated to districts on the basis of average storage capacity.

Cold Storage: State level estimates may be allocated on the basis of district-wise workforce.

Storage not elsewhere classified: State level estimates may be allocated to districts on the basis of workforce.

Communication

State level estimates may be allocated to districts in proportion to the workforce.

Trade, Repair, Hotels and Restaurants

The domestic product relating to 'Trade, Repair, Hotels and Restaurants' may be estimated district-wise separately for public and private sector. SDP relating to public sector may be allocated to districts on the basis of district-wise working force in the public sector. SDP relating to the private segment of the economy relating to this sector may be allocated by district in proportion to the workforce.

Financial Services

The State income estimates of this sector may be allocated to the districts on the basis of district-wise working force in these activities. If district-wise data on bank credits/deposits is available, the same may be used.

Real Estate, Ownership of Dwellings and Professional Services

Real Estate: State level estimates from these sub-sectors may be allocated to districts in proportion to the workforce in these activities.

Ownership of Dwellings: State level estimates may be allocated to districts in proportion to number of dwellings (Rural/Urban) in each district based on census data.

Professional Services: State level estimates from these sub-sectors may be allocated to districts in proportion to the workforce in these activities. In case of legal services, State level estimate may be allocated to the districts in proportion to district-wise number of advocates registered in Bar Council. In case the data from Bar Council is not available district-wise, workforce engaged in legal services may be used for allocation purpose.

Public Administration and Defence

The State income estimates of Central Government Administration, as provided by CSO and those of State government administration may be distributed in proportion to the number of central/state government employees in each district. In case of local bodies district-wise data may be collected from local bodies and used.

Other Services

Education: State level estimates may be allocated to districts on the basis of number of employees (Teaching and Non-Teaching) in each district.

Human Health activities and care services with / without accommodation: In case of Public Sector, State level estimates may be allocated to districts on the basis of public sector work force in medical and health profession. In case of Private Sector, State level estimates may be allocated to the districts on the basis of private sector workforce engaged in these activities.

Recreational, cultural and sporting activities:

State level estimates may be allocated to the districts on the basis of workforce.

Activities of membership organisations:

State level estimates may be allocated to the districts on the basis of workforce.

Personal Services & Other Services not elsewhere classified: State level estimates may be allocated to the districts on the basis of workforce.

Private households with employed persons:

State level estimates may be allocated to the districts on the basis of workforce.

Consumption of Fixed Capital

Sector-wise ratio of consumption of fixed capital to Gross value added may be adopted for the district level estimates.

Estimates at Constant Prices

The methodology for working out estimates at constant prices is more or less the same as that for current prices in the sectors of Agriculture and Livestock, Forestry and Logging, Fishing, Mining and Quarrying, Manufacturing (unregistered), Construction, Real Estate, Ownership of dwellings and professional services and Trade, Hotels and Restaurants. In the sectors where estimates are worked out by 'Production approach' the current year production is evaluated on the basis of base year prices to obtain the value of output at base year prices.

For the remaining sectors, the District Income estimates at constant prices may be worked out using the State level deflator of current to constant prices. Depending on the availability of data this procedure is adopted.

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L.-33004/99

भारत का राजपत्र

The Gazette of India



सत्यमेव जयते

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)
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खान मंत्रालय

अधिसूचना

नई दिल्ली, 10 फरवरी, 2015

का.आ. 423(अ).—केन्द्रीय सरकार खान और खनिज (विकास और विनियमन) अधिनियम, 1957 (1957 का 67) की धारा 3 के खंड (ड.) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए अधिसूचना द्वारा पहले से ही खनिज घोषित खनिजों के अतिरिक्त निम्नलिखित खनिजों को इससे पूर्व उक्त खंड के अधीन गौण खनिज घोषित करती है :

- (i) अगेट ;
- (ii) बॉल क्ले
- (iii) बैराइट्स
- (iv) कैल्केरियस सैण्ड ;
- (v) कैल्साइट ;
- (vi) चॉक ;
- (vii) चिनी मिट्टी ;
- (viii) अन्य क्ले ;
- (ix) कोरुण्डम ;
- (x) डायस्पोर ;
- (xi) डोलोमाइट ;
- (xii) ड्रानाइट अथवा पायरोसेनाइट ;

- (xiii) फेलसाइट ;
- (xiv) फेल्सपार ;
- (xv) अग्निसह मृत्तिका ;
- (xvi) फुस्काइट क्वार्ट्जाइट ;
- (xvii) जिप्सम ;
- (xviii) जस्पर ;
- (xix) कयोलिन ;
- (xx) लेटेराइट ;
- (xxi) चूना कंकड़ ;
- (xxii) अभ्रक ;
- (xxiii) ऑकर ;
- (xxiv) पाइरोफाइलाइट ;
- (xxv) क्वार्ट्ज ;
- (xxvi) क्वार्ट्जाइट ;
- (xxvii) बालू (अन्य) ;
- (xxviii) शेल ;
- (xix) सिलिका बालू ;
- (xxx) स्लेट ; और
- (xxxi) स्टोटाइट अथवा टैल्क अथवा सोपस्टोन ;

[फा. सं. 5/1/2015-एम. VI]

आर. श्रीधरन, अपर सचिव

MINISTRY OF MINES**NOTIFICATION**

New Delhi, the 10th February, 2015

S.O. 423(E).—In exercise of the powers conferred by clause (e) of section 3 of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957), the Central Government hereby declares the following minerals to be minor minerals in addition to the minerals already declared by notification as minor minerals hereinbefore under the said clause:

- (i) Agate;
- (ii) Ball Clay;
- (iii) Barytes;
- (iv) Calcareous Sand;
- (v) Calcite;
- (vi) Chalk;
- (vii) China Clay;
- (viii) Clay (Others);
- (ix) Corundum;
- (x) Diaspore;
- (xi) Dolomite;
- (xii) Dunite or pyroxenite;
- (xiii) Felsite;

- (xiv) Felspar;
- (xv) Fireclay;
- (xvi) Fuschite Quartzite;
- (xvii) Gypsum;
- (xviii) Jasper;
- (xix) Kaolin;
- (xx) Laterite;
- (xxi) Limekankar;
- (xxii) Mica;
- (xxiii) Ochre;
- (xxiv) Pyrophyllite;
- (xxv) Quartz;
- (xxvi) Quartzite;
- (xxvii) Sand (Others);
- (xxviii) Shale;
- (xxix) Silica Sand;
- (xxx) Slate; and
- (xxxi) Steatite or Talc or Soapstone.

[F.No. 5/1/2015-M. VI]

R. SRIDHARAN, Addl. Secy.

DIFFERENCES IN GSDP ESTIMATES (BASE YEAR 2011-12) DURING CONSECUTIVE REVISIONS MADE BY THE STATES

(Rs. Crore)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Andhra Pradesh								
at Current Prices								
Advance Estimate	NA	NA	NA	NA	603376	699307	803873	933402
First RE	NA	NA	NA	532922	609934	695491	809548	*
Second RE	NA	NA	468494	526470	600298	697508	*	*
Third RE	379402	411404	464272	524976	604229	*	*	*
at Constant (2011-12) Prices								
Advance Estimate	NA	NA	NA	NA	493641	547021	607388	680332
First RE	NA	NA	NA	444752	490134	546104	612793	*
Second RE	NA	NA	411886	441741	491697	550467	*	*
Third RE	379402	380629	407114	444564	498607	*	*	*
* Yet to be finalised								
Bihar								
at Current Prices								
Advance Estimate					486430			
First RE (Q)				410862	413503	438030	487628	557490
Second RE (P)	247287	282168	329475	373920	381501	425888	484740	
Third RE (Final)	247144	282368	317101	342951	369469	422316		
Revised as per new					371602			
at Constant (2011-12) Prices								
Advance Estimate					349558			
First RE (Q)				317016	326535	331572	361504	394350
Second RE (P)	247287	255934	274319	304766	300566	324778	356768	
Third RE (Final)	247144	256851	269650	279482	295622	323004		
Revised as per new					296488			
Goa								
at Current Prices								
Advance Estimate	-	-	-	-	-	-	-	-
First RE (Q)	-	-	-	-	45002	64544	70267	77413
Second RE (P)	-	-	-	40633	54275	62661	70493	-
Third RE (Final)	-	-	35921	47814	55054	63460	-	-
at Constant (2011-12) Prices								
Advance Estimate	-	-	-	-	-	-	-	-
First RE (Q)	-	-	-	-	37520	51692	55079	66781
Second RE (P)	-	-	-	34611	44717	51847	56762	-
Third RE (Final)	-	-	31568	40116	46091	51482	-	-

(Rs. Crore)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Himachal Pradesh								
at Current Prices								
Advance Estimate	63084	72076	82585	95587	110511	124570	135914	151835
First RE	63812	73710	85841	101108	113667	124235	136542	153181
Second RE	66448	76259	92589	104177	113355	125122	140613	Not Yet Revised
Third RE	72720	82820	94764	103772	114239	125634	Not Yet Revised	Not Yet Revised
Figure in Italics bold are of Base 2011-12 series, rest are of Base 2004-05 series for DES H.P.								
Jammu & kashmir								
at Current Prices								
Advance Estimate	68185	77558	87319	102681	119182	131536	140887	154441
First RE	74910	86537	97400	99924	117451	126231	142292	
Second RE	77945	87144	95174	98370	117187	126847	138488	
Third RE	78256	87138	95619	98367	117168	125379		
Kerala								
at Current Prices								
Advance Estimate							686116	
First RE(Q)				519896	588337	617035	686764	781653
Second RE(P)	364048	412313	462916	526002	557947	616357	701577	
Third RE (Final)	364048	412313	465041	512564	561994	634886		
at Constant (2011-12) Prices								
Advance Estimate							517325	
First RE(Q)				432361	467243	480878	513696	559412
Second RE(P)	364048	387693	405309	432237	447692	479290	520579	
Third RE (Final)	364048	387693	402781	419956	451210	485302		
Madhya Pradesh								
at Current Prices								
Advance Estimate					565053	640484	707047	809327
First RE (Q)				484538	543975	639220	728242	
Second RE (P)			435790	481982	530443	648849		
Third RE (Final)	315562	380925	439483	479939	541189			
at Constant (2011-12) Prices								
Advance Estimate					420733	465212	499102	535362
First RE (Q)				387114	414607	465136	500151	
Second RE (P)			364443	383994	407970	471016		
Third RE (Final)	315562	351683	365134	383944	418856			

(Rs. Crore)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Maharashtra								
at Current Prices								
Advance Estimate					1969184	2267789	2496505	2660318
First RE				1792122	2001223	2257032	2411600	
Second RE				1773744	1986721	2188532		
Third RE				1780721	1966147			
Final	1280369	1459629	1649647	1779138				
at Constant (2011-12) Prices								
Advance Estimate					1647045	1815498	1959920	2088835
First RE				1524846	1659776	1826296	1942769	
Second RE				1530211	1660387	1806581		
Third RE				1543211	1654209			
Final	1280369	1357942	1451615	1543165				
Nagaland								
at Current Prices								
Advance Estimate	NA	NA	NA	20099	20524	21119	23623	26637
R.E				17727	19214	21488	24095	26635
at Constant (2011-12) Prices								
Advance Estimate	NA	NA	NA	12140	15920	14917	16352	17147
R.E				14648	14337	15511	16182	17139
Rajasthan								
at Current Prices								
Advance Estimate	436465	494004	594701	612194	674137	749692	840263	924251
First RE	434366	493007	548391	606465	672707	759235	823291	929124
Second RE	434837	493551	551031	615695	683758	743646	835558	
Third RE	434837	493551	551031	615642	681485	758809		
Tamil Nadu								
at Current Prices								
Advance Estimate	751486	854825	968530	1072678	1176500	1302639	1461841	1664159
Advance Estimate	751486	854825	968530	1072678	1176500	1270490	1427074	1605893
at Constant (2011-12) Prices								
Advance Estimate	751486	791824	851976	893915	967562	1036762	1116334	1207526
Advance Estimate	751486	791824	851976	893915	967562	1009145	1090802	1179843
Telangana								
at Current Prices								
Advanced/ Provisional	361701	404105	460172	522001	583117	654294	752230	865688
First RE	361701	404105	460172	522001	575631	659074	753811	
Second RE	361701	404105	460172	505664	577902	659033		
Third RE	359434	401594	451580	505849	577902			
at Constant (2011-12) Prices								
Advanced/ Provisional	3,61,701	3,70,432	3,94,248	4,29,001	4,68,656	5,11,286	5,64,539	6,18,544
First RE	3,61,701	3,70,432	3,94,248	4,29,001	4,64,389	5,11,286	5,59,750	
Second RE	3,61,701	3,70,432	3,94,248	4,16,332	4,64,542	5,08,156		
Third RE	3,59,434	3,70,113	3,89,957	4,16,332	4,64,542			

(Rs. Crore)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Tripura								
at Current Prices								
Advance Estimate	NA	NA	NA	NA	NA	NA	46133	50545
First RE	NA	NA	NA	29667	34368	39612	44161	NA
Second RE	NA	NA	NA	27422	35938	39514	NA	NA
Third RE (Final)	19208	21663	25593	29533	35938	39514	NA	NA
at Constant (2011-12) Prices								
Advance Estimate	NA	NA	NA	NA	NA	NA	32253	37465
First RE	NA	NA	NA	25086	27820	29146	33601	NA
Second RE	NA	NA	NA	24814	26787	30578	NA	NA
Third RE (Final)	19208	20873	22819	26965	26787	30578	NA	NA
Uttar Pradesh								
at Current Prices								
Advance Estimate					1145234	1308114	1339452	1542432
First RE					1153795	1275141	1375607	1622089
Second revised				1041997	1144494	1132560	1376324	1668229
Third RE				1043371	1120836	1250213	1447816	
Provisional	721396	812210	946508	1042882	1119862	1248374	1460443	
Revised Provisional	724050	822393	940356	1011790	1137808	1290289		
at Constant (2011-12) Prices								
Advance Estimate					888121	982862	1029095	1109408
First RE					914748	967517	1036149	1164121
Second revised				833160	914988	966619	1042113	1137469
Third RE				853872	901257	974120	1077538	
Provisional	721396	749404	784879	852453	901645	974073	1079879	
Revised Provisional	724050	758205	802070	834432	908241	1007010		
Uttarakhand								
at Current Prices								
Advance Estimate					185753	195192	217609	237147
First RE	116165	132919	149873	164931	184091	195606	214033	245895
Second RE	115524	131835	149817	161985	176171	191886	214933	
Third RE	115328	131613	149074	161439	175772	192397	222836	
Fourth RE					177163	195125		
Delhi								
at Current Prices								
Advance Estimate					558745	622385	686017	779652
First RE	343260	391071	446807	494460	551963	616826	690098	
Second RE	343767	391238	443783	492424	548081	615605		
Third RE	343798	391388	443960	494885	550804			
Fourth RE	343798	391388	443960	494803				
at Constant (2011-12) Prices								
Advance Estimate					456020	498217	556800	602708
First RE	343260	365264	389677	420902	460217	514871	554908	
Second RE	343767	366538	391718	422920	474058	511504		
Third RE	343798	366628	392808	428899	475623			
Fourth RE	343798	366628	392908	428355				

STATUS OF DIFFERENT ESTIMATES COMPILED BY THE STATES

Sr. No.	States/Uts	Advance	Quarterly	DDP
1	Andhra Pradesh	Yes	Yes	Yes, with the base year 2011-12 and released up to 2018-19
2	Arunachal Pradesh	No	No	No
3	Assam	The State DES has taken initiative to compile Advance Estimates on SDP from next financial year i.e. 2020-21. The DES, Assam is going to organize training cum workshop on its present methodology and compilation procedure amongst the officials of respective division and district officials. Meanwhile, the concerned division has already started to compile Advance Estimates for 2019-20 on a trial basis.	The State DES has taken initiative to compile Quarterly Estimates on SDP from next financial year i.e. 2020-21. Meanwhile, the concerned division has already started to compile Quarterly Estimates on present methodology for 2019-20 on a trial basis.	The State DES has already complied the DDP estimates for all 33 districts of the State on the present base year 2011-12 from 2011-12 to 2017-18 by segregating state level estimates to district estimates by adopting suitable indicators. The DES, Assam is going to publish shortly .
4	Bihar	Compiled but not released	No	Yes with base year 2004-05 and released upto 2011-12. Preparation of DDP from 2011-12 with base year 2011-12 under process.
5	Chhattisgarh	Yes	No	DDP from 2011-12 to 2014-15 base year 2011-12 is under preparation
6	Goa	The DES does not compile Advance Estimates of GSDP as per any set methodology suggested at the National level. However, in order to meet the requirement of the State Finance Dept. for borrowing purpose, the DES projects the Estimates by using the sector-wise weighted average of past 3 years. These figures are supplied to the NSO also, for up-dating on the Official website of MoSPI.	No	The DES has initiated compilation of data for estimating DDP of Primary Sector for the year 2016-17.
7	Gujarat	Compiled but not released	No	Prepared estimates for the years 2011-12 to 2015-16 with new base year 2011-12. However, the estimates are not released in public domain.
8	Haryana	Yes	No (Taken up)	The DDP is being compiled with base year 2011-12. The latest estimates of DDP compiled by DES Haryana is for the year 2017-18
9	Himachal Pradesh	Yes	No	The DDP has been prepared from 2011-12 to 2017-18 with base year 2011-12 at current prices
10	Jammu & Kashmir	Yes	No	Yes, compiled with base year 2004-05 and released upto 2010-11.
11	Jharkhand	No	No	DDP is prepared with the base year 2004-05 and released up to 2009-10
12	Karnataka	Yes	No	DDP has been released upto 2016-17 with the base year 2011-12
13	Kerala	Yes	No	DDP is prepared with the base year 2011-12 and release up to 2018-19(IQ)
14	Madhya Pradesh	Yes	No	DDP is prepared with the base year 2011-12 and release up to 2016-17

Sr. No.	States/Uts	Advance	Quarterly	DDP
15	Maharashtra	Yes	No	Due to methodological changes in base year 2011-12, DDP not compiled at present. However, GDVA is prepared with the base year 2011-12 and released up to 2017-18.
16	Manipur	Yes	No	No
17	Meghalaya	Yes	No	No
18	Mizoram	No	No	No. Standard Methodology of NAD, NSO, MoSPI and proper training are being awaited.
19	Nagaland	Yes	No	No
20	Odisha	yes	No	DDP at base 2004-05 has been released upto 2011-12. DDP for 2011-12 to 2015-16 at 2011-12 base, under preparation.
21	Punjab	Yes	No	DDP is being compiled at base 2011-12, upto 2016-17
22	Rajasthan	Yes	No	Preparing DDP since 1981. Latest release year 2016-17(A) at 2011-12 Base year both at constant and current prices.
23	Sikkim	No	No	DES started compiling the estimates of DDP from the Base year 2011-12 onwards which is in the process of government approval and hope to release it as soon as approved.
24	Tamil Nadu	Yes	No	DDP is prepared with the base year 2011-12 and the estimates are released up to 2016-17.
25	Telangana	Yes	No	DDP is being compiled with the base year 2011-12 and estimates have been released up to 2017-18.
26	Tripura	Yes	No	The DDP estimates with 2004-05 base compiled but due to re-organisation of districts in 2013, the DDP estimates with 2011-12 base has not been made.
27	Uttar Pradesh	Yes (Revised advanced estimates of 2018-19 released).	Yes(First quarter estimates of 19-20 released)	DDP is prepared with the base year 2011-12. Estimates till 2016-17 are available on Department website and work regarding DDP estimates for the year 2017-18 is under process.
28	Uttarakhand	No	No	DDP is prepared with the base year 2011-12.
29	West Bengal	Yes	Yes, but at base 2004-05	DDP and quarterly estimates is compiled at base 2004-05.
30	Andaman & Nicobar Island	No	No	No
31	Chandigarh	No	No	No
32	Delhi	Yes	No	No
33	Puducherry	Yes	No	Action Initiated under SSS Scheme.

Sr. No.	States/Uts	GFCF	Economic& purpose classification of exp. of admn. Deptt.	PFCE
1	Andhra Pradesh	At present GFCF in respect of public part is prepared from the state budget documents, local body a/c & NDEs	Yes, prepared for state budget documents .	No
2	Arunachal Pradesh	No	Yes, through budget software of budget analysis as supplied by NAD	No
3	Assam	Initially DES, Assam has complied the GFCF of the State for only public sector. Now, initiative has been taken to cover the remaining sectors. A survey on GFCF has already been taken under SSS scheme.	The DES, Assam is regularly exercising the Economic & Purpose Classification of Govt. Budget. However, due to some technical problems report could not be published in time.	Not yet taken-up.
4	Bihar	At present GFCF in respect of public part is prepared from the state budget documents, local body a/c & NDEs	Yes through budget software of budget analysis as supplied by NAD.	Proposed. Will explore after NSS 75th round survey results of state sample is released.
5	Chhattisgarh	No	Yes	No
6	Goa	No	Yes, prepared for State budget documents .	No
7	Gujarat	GFCF prepared for govt. sector only	Yes	No
8	Haryana	Yes	Yes	No
9	Himachal Pradesh	GFCF is prepared for Public sector only	Yes	No
10	Jammu & Kashmir	GFCF is prepared for the government sector only	Yes, through budget software of budget analysis as supplied by NAD.	No
11	Jharkhand	Will try only public sector	Yes	No
12	Karnataka	GFCF is prepared for state budget only	Yes	No
13	Kerala	GFCF is prepared for the whole state economy	Yes	No
14	Madhya Pradesh	GFCF is prepared for the Govt. sector	Yes prepared for state budget document	No
15	Maharashtra	DES is preparing the GFCF estimates for Public sector. GFCF estimates for private sector are also attempted for the year 2011-12 & 2012-13 and have been submitted to CSO for comments.	Yes	DES has compiled PFCE estimates for the year 2004-05 to 2008-09. For this, the State level CES estimates were used for apportioning all India PFCE estimates. The state share (based on GSVA/ GVA) provided by CSO was applied on all India PFCE estimates.

Sr. No.	States/Uts	GFCF	Economic& purpose classification of exp. of admn. Deptt.	PFCE
16	Manipur	No	Yes	No
17	Meghalaya	No	Yes	No
18	Mizoram	No. Technical help is needed.	Yes	No. Technical help is needed.
19	Nagaland	GFCF is prepared only for govt. sector	Yes	No
20	Odisha	GFCF for the year 2011-12 to 2015-16 for public sector has been released	Yes	No
21	Punjab	Yes DES Punjab is compiling the estimates of GFCF for the whole economy of the State.	Yes	No
22	Rajasthan	Yes, DES Rajasthan is compiling the estimates of GFCF for the Public and Private sector.	Yes	No
23	Sikkim	Started the work taking public part only and hope to complete in next year.	Yes	No
24	Tamil Nadu	GFCF is prepared for public sector based on budget documents and NDEs and Local body accounts.	Yes	No
25	Telangana	Yes, it is being done with regard to public part from analysis of the State Budget and annual accounts of Local Bodies, Autonomous Institutions and Non Departmental Enterprises, etc.	Yes, it is being done as part of Budget analysis and communicated to the MOSPI, every year.	No
26	Tripura	GFCF is prepared for public sector.	Yes	No, due to shortage of staff
27	Uttar Pradesh	GFCF is prepared for govt. sector and hhlds part of private sector (GFCF of 2016-17 prepared).	Yes	NO
28	Uttarakhand	GFCF prepared for govt. sector only.	Yes	No
29	West Bengal	GFCF is prepared for the govt. sector only.	Yes	No
30	Andaman & Nicobar Island	GFCF in respect of public part is prepared from the state budget documents, local body a/c & NDEs.	Yes, through budget software of budget analysis as supplied by NAD.	No
31	Chandigarh	No	Yes	No
32	Delhi	GFCF is prepared for public sector only.	Yes	No (However, Participating in NSS Survey on Consumer Expenditure).
33	Puducherry	GFCF is prepared for govt. sector only.	Yes	No, Pooling is being undertaken from 76th round.

Sr. No.	States/Uts	Input Output table	SUT	Consolidated A/c of region & A/c of other institutional sector	Analysis of A/c of admn. deptt. & local bodies
1	Andhra Pradesh	No	No	No	Yes, through budget documents and annual A/c of L B
2	Arunachal Pradesh	No	-	No	No
3	Assam	The DES, Assam has taken-up a survey on Input Output Transaction Table (IOTT) under SSS scheme.	Not yet taken-up.	Due to some technical problems, the DES , Assam could not continued this process. However, effort are being made to continue.	Due to some technical problems, the DES , Assam could not continue this process. However, efforts are being made to continue.
4	Bihar	No	-	No	Yes, through budget documents only and annual A/c of L B is not being analysed at present
5	Chhattisgarh	No	No	No	Yes, through budget documents and annual A/c of L B
6	Goa	No	-	Yes. The DES has initiated the analysis of annual a/cs of NDCUs from the year 2018-19. Out of the list of 18 NDCUs provided by MoSPI, 15 Units are active. As on date, analysis of 6 units is completed .	Yes. The DES has initiated the analysis of a/cs of autonomous bodies by importing the software used by DES Telangana. The data will be forwarded to NAD-MoSPI for verification.
7	Gujarat	No	-	No	Yes
8	Haryana	Last prepared for the year 2007-08	Last prepared in 2009-10	No	No
9	Himachal Pradesh	Initiated the process of outsourcing to NCAER New Delhi	No	No	Yes
10	Jammu & Kashmir	No	No	Yes. The DES is analysing the annual accounts of state NDCUs.	Accounts of Administrative Departments and DCUs prepared only.
11	Jharkhand	No	No	No	Will try
12	Karnataka	No	No	No	Accounts of only admn. Deptt is prepared
13	Kerala	No	No	No	Yes
14	Madhya Pradesh	No	-	No	Yes through budget documents and annual A/c of local bodies.

Sr. No.	States/Uts	Input Output table	SUT	Consolidated A/c of region & A/c of other institutional sector	Analysis of A/c of admn. deptt. & local bodies
15	Maharashtra	No	No	No	Yes
16	Manipur	No	No	Partially Yes	Yes
17	Meghalaya	No	No	No	Yes
18	Mizoram	No. Technical help is needed.	-	No. Technical help is needed.	Yes
19	Nagaland	No	-	No	YES
20	Odisha	No	No	No	Yes
21	Punjab	No	-	No	Yes
22	Rajasthan	No	No	Analysis of Accounts of Autonomous bodies is done	Yes
23	Sikkim	No	No	No	No
24	Tamil Nadu	No	No	No	Yes done
25	Telangana	No	No	No	Yes
26	Tripura	No, due to shortage of staff and non-availability of State specific methodology	-	No, due to shortage of staff	A draft analysis of Administrative Budget for the year 2015-16 to 2018-19(BE) has been prepared
27	Uttar Pradesh	No	No	No	Yes
28	Uttarakhand	IOT is out sourced to external agency to formulate IOT for the year 2017-18 under SSS project	-	No	Yes
29	West Bengal	No	No	No	Yes
30	Andaman & Nicobar Island	No	No	No	Yes, through budget documents and annual A/c of L B (In absence of actual expenditure Grant-in-Aid releases to PRI's is used in estimation).
31	Chandigarh	No	-	No	Yes
32	Delhi	No	No	No	Yes
33	Puducherry	No	No	No	Action Initiated under SSS Scheme.

Sr. No.	States/Uts	IIP	WPI	GFCE	Revision Policy of Estimates, if any
1	Andhra Pradesh	Yes	No	No	No
2	Arunachal Pradesh	No	No	No	-
3	Assam	The DES is regularly compiling IIP of the State.	Regularly compiling WPI of the State for agricultural commodities. A survey on WPI for non-agricultural commodities has been taken up under SSS scheme. The DES is regularly compiling WPI of the State for agricultural commodities. A survey on WPI for non-agricultural commodities has been taken up under SSS scheme.	DES, Assam is compiling the GFCE of the State for Govt. sector only.	No
4	Bihar	No	No	No	No
5	Chhattisgarh	Electricity and Mining IIP are prepared with base year 2011-12	No	No	At the time of budget session.
6	Goa	Yes. The reports for the years 2014-15, 2015-16, 2016-17 and 2017-18 are under approval. Preparation of report for the year 2018-19 is in process.	No	No	-
7	Gujarat	Compiled and disseminated to concerned Govt. offices and HoDs.	No	for Govt. sector	-
8	Haryana	Yes	WPI of 20 agricultural commodities is compiled.	No	No
9	Himachal Pradesh	Yes Quarterly	Initiated	No	No policy
10	Jammu & Kashmir	Yes, it is being compiled monthly with base year 2011-12.	No	GFCE of the State is compiled for the Government sector only.	Yes, revised after comparable discussions with NAD, CSO.
11	Jharkhand	No	No	No	No
12	Karnataka	Yes *IIP is prepared using 2004-05 base year. The revision of Base Year to 2011-12 is sent to CSO (ESD) for verification.	Yes *For 33 agricultural commodities only.	Yes	-
13	Kerala	Yes	-	-	-
14	Madhya Pradesh	Under process	No	No	Once in a year before State Govt. Budget.
15	Maharashtra	No	No	No	No revision policy, but annual estimates are revised three times.

Sr. No.	States/Uts	IIP	WPI	GFCE	Revision Policy of Estimates, if any
16	Manipur	No	No	No	No policy
17	Meghalaya	Yes	No	No	-
18	Mizoram	Under process.	No. Technical help is needed.	No. Technical help is needed.	-
19	Nagaland	No	No	No	GSDP advance estimates revised in June/July.
20	Odisha	Yes	No	GFCE (from Budget Analysis of Odisha Govt. Budget)	No
21	Punjab	Yes	No	No	No
22	Rajasthan	Yes	Yes	No	No revision policy but generally revise once in a year.
23	Sikkim	No	No	No	-
24	Tamil Nadu	Yes compiled with base 2011-12	Yes compiled with base 2011-12	-	-
25	Telangana	Yes, it is being compiled with base 2011-12 and is being released, every month.	No	Yes, it is being done as part of Budget analysis and communicated to the MOSPI, every year.	Estimates will be revised as per NSO's calendar, MOSPI.
26	Tripura	Compiled and processed to Government for release	No	No	As per direction and guideline of MOSPI.
27	Uttar Pradesh	Yes. On base year 2011-12 of electricity ,mining and manufacturing.	Yes. On base year 2011-12(item basket 286 items)	Yes	Yes after comparable discussions with NSO.
28	Uttarakhand	No	No	No	No
29	West Bengal	Yes	No	Yes	Yes
30	Andaman & Nicobar Island	No	No	No	Yes, revised after comparable discussions with NAD, NSO.
31	Chandigarh	No	No	No	-
32	Delhi	Yes	No	Yes (Only for State Govt and Local Bodies by analysing the Budget Documents).	Estimates are being revised once in a year.
33	Puducherry	Yes	Action Initiated under SSS Scheme.	No	No Separate UT Revision Policy.

Sr. No.	States/Uts	Release Calendar of Estimates, if any	Links to the website, if any	Where exactly the DES is placed in the state? Finance Ministry/ Planning Ministry/any other Ministry?	Any Additional Estimates/ Study etc
1	Andhra Pradesh	1st Quarter Estimates -7th Sept 2nd Quarter Estimates - 7th Dec Advance Estimates (AE)-7th March First Revised Estimate (FRE)-7th February Second Revised Estimate (SRE)-7th February Third Revised Estimate (TRE) - 7th August	http://desap.in	Planning department, Finance Ministry	Mandal Domestic Product (MDP) and Constituency Domestic Product (CDP).
2	Arunachal Pradesh	-	No	Other Ministry	No
3	Assam	A tentative Action Calendar of estimates has been prepared.	The DES, Assam has taken initiative to link data sources under Macro Fiscal Project (MFP) with line department as well as district level offices. A compilation module has been developing through MFP under web address: desassam.in	The DES, Assam is under Transformation and Development Department. Earlier it was known as Planning and Development Department.	Some important studies/surveys like (i) Type Studies for updating rates and ratios used in GSDP Estimation for Subsistence Fishing, (ii) Development of a Tourism Convenience Index for the major Tourism, (iii) Study of Areas under permanent and semi permanent horticultural crops in Assam etc under SSS scheme.
4	Bihar	Trying to follow CSO calendar, no State specific calendar	No	No	No
5	Chhattisgarh	No	http://descg.gov.in	Ministry of Planning, Economics and Statistics	No
6	Goa	-	-	Planning & Finance Ministry	-
7	Gujarat	-	Yes	General Administration Department Planning Division	-
8	Haryana	Estimates are prepared once in a year during the last week of February	No	Planning Ministry	No
9	Himachal Pradesh	Along with Annual Budget of the State.	ecostat.hp@nic.in	Ministry of Finance	1. Horticulture Census.(To be Outsourced to Horticulture Deptt.) 2.Satellite Accounts of Tourism and Education.(To be outsourced to NCAER New Delhi).
10	Jammu & Kashmir	The estimates are published in the Economic Survey.	www.ecostatjk.nic.in	Finance and Economic Affairs	-
11	Jharkhand	No	No	Planning-cum-Finance Department.	No
12	Karnataka	-	des.kar.nic.in	Planning Department	-
13	Kerala	-	www.ecostat.kerala.gov.in	Planning and Economic Affairs department	-
14	Madhya Pradesh	Once in a year before State Govt. Budget	www.des.mp.gov.in	Planning, Economics & Statistics Deptt.	No

Sr. No.	States/Uts	Release Calendar of Estimates, if any	Links to the website, if any	Where exactly the DES is placed in the state? Finance Ministry/ Planning Ministry/any other Ministry?	Any Additional Estimates/ Study etc
15	Maharashtra	No. The estimates are published in budgetary publication Economic Survey of Maharashtra.	https://mahades.maharashtra.gov.in/	Planning Department	Collection of farm activities data for estimating crop wise-district wise GVA.
16	Manipur	No	No	Other Ministry	None
17	Meghalaya	-	Nil	Planning Department	No
18	Mizoram	-	-	Planning & Programme Implementation Department	-
19	Nagaland	For GSDP advance estimates, second week of February annually.	www.statistics.nagaland.gov.in	Separate dept. having separate Secretary for DES	CPI
20	Odisha	Release calendar for Advance Estimate	http://www.desorissa.nic.in	Planning & Convergence Ministry	Type study on Livestock product. Report has not been finalised.
21	Punjab	March	esopb.gov.in	Finance Ministry	No
22	Rajasthan	No	www.statistics.rajasthan.gov.in	-	For compilation of DDP estimates, Conducted Study on 1. Banking and Insurance sector ; 2. Railway sector; 3. Study on Input cost of Agriculture crops other than covered in CCS; and 4. Study on private part of education sector.
23	Sikkim	-	-	Planning Department	-
24	Tamil Nadu	-	-	Planning & Development Department	-
25	Telangana	Advance Estimates in February and Provisional Estimates in July.	http://ecostat.telanganagov.in/telangana/Home	Planning Department	-
26	Tripura	No	www.ecostat.tripuragov.in	Planning Department	Yearly release of Economic Review in State Assembly.
27	Uttar Pradesh	Yes	www.updes.ip.nic.in , mail-upesd@up.nic.in	Planning Ministry	Work on Preparation of IOTT Table for state under progress through outsourcing (GIDS Agency).
28	Uttarakhand	No	http://des.uk.gov.in/pages/show/60-state-domestic-product-estimates	Planning	Under SSS, ongoing studies are Health Satellite account, Tourism Satellite Account, Health Compendium 2018-19; Input Output Table formulation; Education Satellite account; Education compendium 2018-19; SDG index and monitoring framework in the State.

Sr. No.	States/Uts	Release Calendar of Estimates, if any	Links to the website, if any	Where exactly the DES is placed in the state? Finance Ministry/ Planning Ministry/any other Ministry?	Any Additional Estimates/ Study etc
29	West Bengal	Yes	www.wbpspm.gov.in/	Department of Planning & Statistics	-
30	Andaman & Nicobar Island	No	No	Separate Department	No
31	Chandigarh	-	-	-	No
32	Delhi	Yes	http://des.delhigovt.nic.in/wps/wcm/connect/DOIT_DES/des/home/	Planning	Analysis of annual accounts of State level Autonomous Institutes are also being done.
33	Puducherry	No	https://statistics.py.gov.in/state%20accounts%20main.htm	Finance Department	Nil