Government of India
Ministry of Statistics and Programme Implementation

AGENDA

FOR

26TH CONFERENCE OF CENTRAL AND STATE STATISTICAL ORGANIZATIONS (COCSSO)

(15-16th November, 2018)

Theme: Quality Assurance in Official Statistics

at

Hotel D' Polo, Dharamshala, Himachal Pradesh

INDEX

Agenda Note for the 26th Conference of Central and State Statistical organisations during 15-16 November, 2018

I. Agenda No. 1 : Quality Assurance in Official Statistics

1.1 Introduction to the Topic

1.1.1   The issue of quality assurance in respect of official statistics produced and disseminated by various official agencies at the centre and in the States/UT's has been engaging attention of the Ministry of Statistics and Programme Implementation (MoSPI) for quite some time. In the era of instant information and technological change, policy makers, researchers and public at large are demanding more timely and relevant Statistics. In order to cater the demand, various official agencies brings out Statistics in more frequent manner. The question assumes significant importance in the changing scenario as to whether these statistical products are in conformity with pre defined quality standards. For this purpose, the United Nations' Statistical Commission in its 43rd session has endorsed the Generic National Quality Assurance Framework (NQAF) as a benchmark template which can be adopted by Statistical Organisations.

1.1.2   In consistent with Generic NQAF, the MoSPI, vide its notification dated 6th April, 2018 issued General Guidelines on Quality Assurance for Official Statistics (*http://mospi.nic.in/sites/default/files/main_menu/gazette_notification/notification_6a pr18.pdf*) with a view to align statistical products produced and disseminated by various Statistical agencies in accordance with the Generic National Quality Assurance Framework of the United Nations Statistical Commission. These guidelines are primarily meant for voluntary compliance by personnel dealing with statistical matters including administrative statistics. These guidelines are useful for producers of official statistics in designing any statistical collection or product and are also helpful to users in making informed decisions regarding the use of statistical products.

1.1.3   The demand for data/information is expected to increase manifold in the emerging socio economic scenario of the country, particularly in the digital world where dissemination and consumption of data is taking place at breakneck speed. Therefore Quality assurance in respect of statistical products in general and administrative statistics in particular is critical importance. Recognising this, the MoSPI has decided to accord priority to this important issue which is the touchstone of any Official Statistics. The "**Quality Assurance in Official Statistics"** is the current theme declared on Statistics Day (29 June, 2018). Accordingly, it has been decided to deliberate Quality Assurance in Official Statistics in a more elaborative way with Statistical agencies at the Central and in the States/ UT's in the 26th

COCSSO. In order to have fruitful discussions on the topic, write-ups/ inputs were sought from various divisions of MoSPI, Central Ministries/ Departments/other organisations and States and UT's. A consolidated statement is placed as **Annexure-I (Pages 5-100 of 174).**

1.2 **Presentation by some of the Central Ministries/Departments, State DES and other Organisations**

The following Central Ministries/Departments, State DES and other Organisations were requested make presentations during 15-16 November, 2018 in the 26th COCSSO. The presentations will be followed by discussions.

1. Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India

   (a) Coordination and Publication Division
   (b) National Accounts Division
   (c) Economic Statistics Division

2. Survey Design and Research Division, National Sample Survey Office Ministry of Statistics and Programme Implementation, Government of India
3. Ministry of Health and Family Welfare, Government of India
4. Ministry of Human Resource Development, Government of India
5. Department of Industrial Policy and promotion, Ministry of Commerce and Industry, Government of India
6. Reserve Bank of India
7. Labour Bureau, Ministry of Labour and Employment, Government of India
8. Directorate of Economics and Statistics, Government of Andhra Pradesh
9. Directorate of Economics and Statistics, Government of Maharashtra
10. Directorate of Economics and Statistics, Government of Puducherry
11. Directorate of Economics and Statistics, Government of Himachal Pradesh
12. Directorate of Economics and Statistics, Government of Chhattisgarh
13. Directorate of Economics and Statistics, Government of Kerala
14. Directorate of Economics and Statistics, Government of Uttarakhand
15. Directorate of Economics and Statistics, Government of Goa
16. Directorate of Economics and Statistics, Government of Bihar
17. Shri Pankaj K.P Shreyaskar, Director and Shri Mukesh, Joint Director, Coordination and Publication Division, National Sample Survey Office

II. Agenda No. 2   Statistical Issues

2.1   Following statistical issues may be discussed during the 26th COCSSO to evolve appropriate solutions on these issues thereof.

1. Support for Statistical Strengthening Project
2. Nodal Officer Report on Collection of Statistics Act, 2008

3. Draft National Policy on Official Statistics
4. Basic Statistics for Local Level Development (BSLLD)
5. State assistance in Annual Survey of Industries

The details of the above statistical issues are given at **Annexure-II (Pages 101-113 of 174).**

III. Agenda No. 3 Action Taken Report (ATR) on the Recommendations of 25th COCSSO

3.1 The 25th COCSSO held during 18-19 January, 2018 made 44 recommendations. Reports of the action taken on these recommendations were obtained from concerned offices. The ATR is placed at **Annexure-III (Pages 114-174 of 174).** Pending recommendations and further course of action may be discussed in the 26th COCSSO.

QUALITY ASSURANCE IN OFFICIAL STATISTICS

1. An Overview of Quality Assurance in Official Statistics

By Smt. Jayasree M.G[1]

Introduction

1.1   Quality, in general, is a multi-faceted and subjective concept. The International Organisation for Standardization (ISO) defines quality as "the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs" (ISO No 8402; 1986, 3.1). Two Divisions of the Ministry of Statistics and Programme Implementation (MoSPI) (viz. National Accounts Division and Survey Design and Research Division) are ISO 9001 certified at present, mainly due to improving documentation and reporting practices on quality indicators. Quality indicators are part of the monitoring mechanism under the ISO 9001 framework.

1.2   Government (at different levels) is the main producer and user of statistics. There are also users outside the Government. Quality of statistical products revolves around users' (current and potential) needs. With limited resources available, the major challenge, that the statistical system faces, is to produce and disseminate statistical outputs that satisfy users' needs.

Fundamental Principles of Official Statistics

1.3   It is globally recognized that official statistics are public goods and that they must comply with certain basic principles, such as professional independence, impartiality, accountability and transparency about methods of collection, compilation and dissemination of statistics. These principles are enshrined in the United Nations Fundamental Principles of Official Statistics (FPOS). The Government of India formally adopted the FPOS. The ten Principles briefly deal with the following quality aspects:

Principle1:   Relevance, Impartiality and Equal Access
Principle2:   Professional Standards, Scientific Principles, and Professional Ethics
Principle3:   Accountability and transparency
Principle4:   Prevention of Misuse
Principle5:   Sources of Official Statistics
Principle6:   Confidentiality
Principle7:   Legislation
Principle8:   National Coordination
Principle9:   Use of International Standards
Principle10:   International cooperation

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1.4   All the ten principles have a quality dimension in respect of statistical products. Consistent with the FPOS, international organizations (such as Eurostat, ECB, IMF, OECD and FAO) evolved quality dimensions, such as Relevance, Accuracy and Reliability, Timeliness and Punctuality, Coherence and Comparability, and Accessibility and Clarity, and the manner in which they should be organised.

1.5.   International experience indicates that there are multiple dimensions for quality like relevance, accuracy, reliability, timeliness, punctuality, accessibility, clarity, interpretability, coherence, comparability, credibility, integrity, methodological soundness and serviceability. The dimensions of quality are sometimes overlapping and interrelated and, therefore, adequate management of each of them is essential if data has to stand the test of usability. This necessitates measurement of quality from various angles. In April 2018, the MoSPI has notified guidelines whereby all Official statistical agencies in India were advised to look at each of their statistical products through the lens of a network called generic National Quality Assurance Framework (NQAF). Adherence to NQAF will promote quality awareness and culture in official statistical agencies.

Generic NQAF

1.6.   Generic National Quality Assurance Framework (NQAF) is a *Template* which consists of *19 (nineteen) Statements of quality* to assess the overall quality of a statistical product/ system. Quality statements are grouped in four broad categories, namely, (A) Managing the statistical system, (B) Managing the institutional environment, (C) Managing statistical processes and (D) Managing statistical outputs. Each of the quality statements are further divided into a number of elements of quality. The statements are generic in the sense that the national situations are widely varying and there cannot be a single solution suitable to all the countries. The generic NQAF has been prepared /recommended by the United Nations Statistical Commission (UNSC) based on extensive international consultations and best practices. The NQAF facilitates and provides guidance for evolving specific NQAFs by nations for their own purposes.

1.7   UN guidelines to formulate NQAF for a country/state recommended that *elements of quality* need be devised at national level, agency level, programme design and implementation stage and at evaluation stage post collection. Each of these levels/ stages should be considered from the perspective of data users, data providers, funding agency, media and other stakeholders to customise the elements of quality for a particular country. As a support for formulating the framework in a country context, the UN guidelines on Template have been given for each of the 19 statements. A Check list has also been provided in the NQAF guidelines which will enable to assess the system/ product. It is envisaged that on contextualising these 19 quality aspects of the generic framework by the official statistical agencies, the quality standards will be set. On implementation and continuous monitoring of the framework, quality of the statistical production will improve. Since the effort will also improve transparency in procedures being applied in the statistical production, the data users will be able to assess the product before using it.

Manner of working with the Generic NQAF

1.8   As already mentioned, the *check list* provided in the framework can be used to assess the existing statistical products / system. Against each element, assessment of the system / product can be done by marking 'Yes', 'No', 'Partially True' or 'Not applicable'. Percentage compliance to NQAF template, at each of the 250 element levels or 19 statement levels for each of the 4 groups can thus be generated using the *Check list*.

1.9   The agencies were advised to map each of their existing statistical products against the elements of NQAF and to assess voluntarily the degree to which the existing system /product complies with the NQAF. The gap in the quality frame work for a product can thus be easily identified. In short, the guidelines were intended to set standards to be followed in the production and dissemination of statistical products and to facilitate continuous improvement in the system.

1.10   The identified areas of gaps in quality can then be addressed by developing supporting mechanisms and the context in which the statistical system/ product is generated. As emphasized by the UNSC, quality assurance framework must not be seen as an end in itself, and that regular review and continuous improvements of the framework is essential. Accordingly, the standards of the existing system at system or product level can be re-worked so that each improved version is in more alignment with the prescriptions of the generic NQAF of UN.

Assessment of Indian Statistical System with NQAF Template

1.11   Since the statistical system in India is decentralised, quality standards should also be generated/ developed for all major statistical products in the system horizontally and vertically. The Guidelines on NQAF issued by MoSPI in April 2018 advised all the Central Ministries & States to assess the quality of their statistical products by mapping them with the quality parameters as per the template of NQAF. Similar assessment can also be done for an individual organization or for the system.

1.12   The check list comprises a set of protocols and practices, which if adhered to will not only assure quality of statistics but also enhance public trust in statistics. Given the fact that official statistics are produced by the Government, adherence to the protocols and practices under the NQAF provide professional independence to the statistical agencies to produce and disseminate statistics without any undue influences. As an elementary exercise, an assessment of the entire Indian Statistical System has been attempted here using the checklist. The results are summarised in the Table and the Chart given below.

Assessment of the Indian Statistical System w.r.t the NQAF guidelines

NQAF Statements		Number of elements falling under the category				Total no. of elements
		Yes	No	Partially True	Not applicable	
A	**Managing the statistical system**	**33**	**3**	**18**	**0**	**54**
NQAF1	Coordinating the national statistical system	9	1	6	0	16
NQAF2	Managing relationships with data	11	1	7	0	19

NQAF Statements		Number of elements falling under the category				Total no. of elements
		Yes	No	Partially True	Not applicable	
	users and data providers					
NQAF3	Managing statistical standards	13	1	5	0	19
B	**Managing the institutional environment**	**27**	**7**	**29**	**0**	**63**
NQAF4	Assuring professional independence	5	0	5	0	10
NQAF5	Assuring impartiality and objectivity	5	0	2	0	7
NQAF6	Assuring transparency	2	0	4	0	6
NQAF7	Assuring statistical confidentiality and security	8	0	4	0	12
NQAF8	Assuring the quality commitment	7	5	9	0	21
NQAF9	Assuring adequacy of resources	0	2	5	0	7
C	**Managing statistical processes**	**25**	**2**	**26**	**1**	**54**
NQAF10	Assuring methodological soundness	7	1	9	1	18
NQAF11	Assuring cost-effectiveness	5	0	7	0	12
NQAF12	Assuring soundness of implementation	9	0	5	0	14
NQAF13	Managing the respondent burden	4	1	5	0	10
D	**Managing statistical outputs**	**23**	**6**	**50**	**0**	**79**
NQAF14	Assuring relevance	3	2	4	0	9
NQAF15	Assuring accuracy and reliability	2	1	15	0	18
NQAF16	Assuring timeliness and punctuality	4	0	9	0	13
NQAF17	Assuring accessibility and clarity	13	1	6	0	20
NQAF18	Assuring coherence and comparability	1	0	12	0	13
NQAF19	Managing metadata	0	2	4	0	6
Overall Assessment		**108**	**18**	**123**	**1**	**250**
Overall Assessment in %		**43.4**	**7.2**	**49.4**	**-**	**68.1***

sum of 'yes' and 0.5 x' partially true'

1.13   It is seen that the overall frequencies for **Yes**, **No** &**Partially True** are 43.4%, 7.2% and 49.4% respectively for the statistical system. The average implementation percentage (i.e. weighted average of elements categorised as 'yes' and 'partially true') of the NQAF comes out to be 68.1 %. The Government agencies have to work towards bringing this average close to 100%.

1.14   The 'Nos' observed in the above assessment are mainly in respect of: legislative framework for establishment of NSO, agencies conducting training courses for users on interpreting statistics, involvement of users and data providers in the process for originating, developing and approving statistical standards, having documentation for each stage of production, identifying indicators (quality measures) for evaluating the quality of the main stages of production, training to staff on quality policy and auditing techniques, prescribing quality assurance plans, quality reviews by external experts, having adequate financial and human resources to implement the statistical work programs, and having Management information systems etc.

NQAF and Quality Indicators

1.15   The NQAF check list allows assessing the processes and the products against the set standards of quality at broader level. In fact, the "elements" are roughly the same as the "indicators" used to reflect good practice in other frameworks in terms of

relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clarity. However, specific measures are needed to characterise various aspects of quality in a product or a process. For example, quality indicators can give an indication of both output (e.g. error estimates) and process quality (e.g. response rates). The quality indicators for a product describe the product in terms of various quality components. Since it is informative to have associated quality indicators, transparency in the statistical production is increased; facilitating assessment and comparability of data. While implementing all quality elements envisaged in NQAF, data quality indicators need to be developed by survey managers, data collection specialists and methodologists. User inputs can also be beneficial in developing indicators. Further, quality targets can be set, based on the quality indicators, as a tool for monitoring quality developments over time. The generic NQAF template includes four process quality components also; methodological soundness, cost effectiveness, soundness of implementation, and respondent burden [NQAF10-13]. Process quality can be measured by using process variables and process descriptions. Process variables affect the product quality. For example, resources and time used, response rates and response burden and error rates (in editing) are process variables and these affect product quality.

1.16 As early as in 1980, RAND Corporation (Robert L Patrick, 1980) described about data annotation that enables a file to be maintained with descriptors which describe the quality of a file, the quality of a record, or describe the quality associated with a specific occurrence of a data element. Data quality indicators (DQIs) in this context are descriptors used in computer file systems to record the quality attributes of the data. They are process time variables and their setting can determine which values participate in a computation and how that computation proceeds.

Reporting Non- sampling errors under NQAF

1.17 The NQAF-15 provides *inter alia* for measuring, evaluating and systematically documenting sampling and non-sampling errors. Usually, sampling errors are reported in statistical outputs. For example, the National Sample Survey Office (NSSO) reports relative standard errors for important survey estimates. In the case of non-sampling errors, statistical agencies take steps to control them. Very rarely, the non-sampling errors are measured. In large scale sample surveys, such as the ones conducted by the NSSO, measuring non-sampling errors is not even attempted.

1.18 In a recent study (Phung, T. D., Hardeweg, B., Praneetvatakul, S., & Waibel, H., 2015), the causes for non-response and measurement errors in household panel surveys designed for assessing vulnerability to poverty in Thailand and Vietnam has been analysed. The study was designed to evaluate the relative importance of the type of errors using a model. Three specific recommendations have been arrived at in the study. First, it is more important to select interviewers who are familiar with local culture and customs of the surveyed households as long as they possess a minimum level of formal skills, rather than having well-educated outsiders. Second, in surveys that aim to collect sensitive information, familiarity with the household conditions, understanding amiability and trust are important. Hence, enumerators should be selected who understand the conditions of the rural households in a particular area. The third suggestion is that for the timing of rural household surveys, the seasonality of the cropping system should be taken into account in order to minimize time constraints of respondents.

1.19   Similar studies have taken place with the objectives to estimate components of non-sampling error in one study, and to test various means to improve response or accuracy of reporting in another independent study, during the period from 1976 to 1980 in Hongkong (Grootaert Christiaan, Cheung K F, Fung H W, Tam S M ,1982). Further, in the context of household sample surveys in developing and transition countries, UN report of 2005 explains various aspects of non-sampling error measurement, their evaluation and control.

1.20   Interestingly, studies were also held to quantify the non-sampling error in large data sets of administrative origin in US Census Bureau out of a total of 150 error types identified by the experts (Knott, C. L, 2006). Analytic Hierarchy Process (AHP) model was used for the purpose.

Approach for measuring non-sampling errors in large sample surveys

1.21   Sample surveys provide estimates of population parameters and their fitness to use. Along with the procedure followed in estimation of parameters, measures of sampling errors and non-sampling errors help users to assess the quality of the product and to assess fitness for use. Sampling errors are generated out of the sampling design for the survey. While steps adopted to control non-sampling errors are given in survey reports, relative standard errors (RSE) at appropriate level are furnished in the reports as a measure of reliability of the estimates. The RSE is computed by dividing the standard error of the estimate by the estimate and multiplying the ratio by 100 to convert it to a percentage. When the RSE of an estimate is large, the estimate is imprecise.

1.22   For measuring non-sampling errors, measuring enumerator/ agency bias is important. From the data collected, one can observe whether an enumerator has a tendency to report figures around a fixed figure formulated by him in his mind. For measuring agency bias, interpenetrating sub-sampling followed in NSSO surveys is useful.

1.23   Ideally, the sub-samples in interpenetrating framework can be used to measure and evaluate non-sampling errors. Continuous study in this direction will be beneficial. Usually, differences in data collected by enumerators engaged for the purpose and data collected by specially trained enumerators (to be taken as the standard or real data) are used to measure non-sampling errors. This means that respondents have to be interviewed twice. In large scale sample surveys, like that of the NSSO, where schedules of inquiry are very lengthy, re-interviewing respondents is practically ruled out.

1.24   The limitation in re-interviewing respondents can be addressed partially. Usually, Statistical agencies have a mechanism of field supervision, either concurrently or otherwise, on the data collected by enumerators. In organisations, such as the NSSO, specific norms exist for field supervision. This stage can be effectively made use of, for re-interviewing respondents and collecting data afresh on a limited set of items in the schedule of inquiry. By introducing an element of randomisation in field supervision, fresh data collection for a few important items would provide standard data for comparison with the data collected by enumerators and to measure non-sampling errors. This needs to be experimented and evolved over time.

Data Quality Rests on Usefulness and Confidentiality Protection

1.25   The NQAF provides for confidentiality of data and for providing access to microdata with adequate controls. The general prescription followed by MoSPI while disseminating unit level data has been to delete/ suppress identification particulars of respondents to protect their privacy and confidentiality. This step *per se* may not be adequate as indirect identification of the respondents may still be possible. For any meaningful data presentation to users, the geographical identifications like State, Sector and District are generally included in data files. However, there could be situations where the sample households/ persons under a particular category are too few for effective masking of identity.

1.26   In a recent 2015 interpretation of Carnegie Mellon University USA, (Duncan George T., 2015) it is mentioned that the data quality rests on the usefulness of data disseminated after enough privacy protection measures using Statistical Disclosure Control (SDC) measures. Under confidentiality clause, identifiable data provided for statistical purposes is protected from unauthorized disclosure. Organizations acting as brokers between respondents and data users seek to disseminate useful data products while keeping low the risk of confidentiality disclosure. Recognizing that de-identification of each data record is generally inadequate to protect its confidentiality against attack by a data snooper, agencies restrict the data they release for general use. Typically, these restricted data procedures have involved transformation or masking of the originally collected data through such devices as adding noise, top coding, data swapping, and recoding. Another approach to mask identity is to use the original data to determine a statistical model and use it to generate synthetic data. Generically, statistical disclosure limitation is a body of restricted data procedure that transforms data so that release of the transformed data adequately limits disclosure risk. Desirably, statistical analysis of the transformed data should lead to inferences similar to that obtained by analysis of the original data. The technical procedures for implementation of disclosure limitation involve a range of mathematical and statistical tools.

Conclusion:

1.27   Since India has a decentralised statistical system, working of the official statistical agencies can vary and as such quality standards have to be evolved product wise by the agencies. The NQAF provides guidance in all such endeavours. Continuous review of the system against the set standards and consistent efforts towards bridging the gap in quality by all agencies will gradually improve the system. The Guidelines notified by MoSPI in April 2018 will help focussing action towards this end.

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2. Adherence of the National Accounts Estimates to the National Quality Assurance Framework (NQAF)

-*S.V.Ramana Murthy and Sudeepta Ghosh*[2]

Introduction

2.1   The Ministry of Statistics and Programme Implementation vide a notification of 6th April, 2018 decided to promote the implementation of the Generic National Quality Assurance Framework (NQAF)[3] which was endorsed by the UN Statistical commission, by various Ministries and Departments in a phased and voluntary manner. According to the release, the Framework would be useful to producers of official statistics in designing a statistical product that is fit for a purpose. It would also be helpful to users in making informed decisions since the framework assess whether the statistics produced are fit for use, or are of an acceptable level of quality for their purposes. The template for NQAF consists of 19 core NQAF lines and the corresponding 250 elements to be assured as well as supporting mechanisms. The "elements to be assured" are listed in the Checklist under relevant NQAF lines. The National Accounts Division (NAD) of the Ministry sources its input from a vast number of agencies in the process of compilation of Macro aggregates of the country. An attempt has been made to understand the concept of adherence of quality in the 19 core NQAF lines.

National Accounts Statistics and DQAF

2.2   The National accounts Division is entrusted with the task of compiling the macroeconomic aggregates for the entire economy as well as for States. The National Accounts provides a comprehensive, conceptual and accounting framework for analysing and evaluating the performance of the economy. The National Accounts Statistics uses data to compile statistical estimates. The quality of the results is dependent not only on the quality of the underlying data but also on the quality of the statistical processes. Quality, according to the Data Quality Assessment Framework of the International Monetary Fund, is composed of the following dimensions:

Integrity: Ensures that the principle of objectivity in the collection, processing and dissemination of statistics is firmly adhered to.

Methodological soundness: Ensures that the methodological basis for the statistics follows internationally accepted standards, guidelines or good practice.

Accuracy and reliability: Ensures that source data and statistical techniques are sound and that statistical outputs sufficiently portray reality.

Serviceability: Ensures that statistics are relevant, timely, consistent and follow a predictable revisions policy and.

Accessibility: Ensures that data and metadata are easily available and that assistance to users is adequate.

[2] *The author's are Deputy Director General and Deputy Director respectively in the National Accounts Division, CSO, MOSPI.*

[3]*https://unstats.un.org/unsd/dnss/qualitynqaf/nqaf.aspx*

As far as the National Accounts Statistics of India is concerned most of the dimensions are well met. In the data collection methods, the underlying principles and also the data dissemination standards are well obeyed. The methodological aspect is well taken care of by following the international guidelines laid by System of National Accounts-2008. The data are released on a pre-decided time and the dates are strictly adhered to. Also the revision policy is well-documented and uploaded for the users and other stake holders. Since all the data and relevant methods and data sources are very easily available on the website of MOSPI (www.mospi@gov.in), so accessibility is also no major issue. Hence the conditions of DQAF laid by the IMF are very well complied with.

National Quality Assurance Framework (NQAF)

2.3 The Template for a Generic National Quality Assurance Framework (NQAF) has been prepared the expert group on NQAF recommended by the United Nations Statistical Commission in 2010. The generic national quality assurance framework has the guide lines to assist countries that wish to formulate and operationalize national quality frameworks of their own. Although this is not mandatory to follow the guidelines but the adherence to the Framework would add on the effectiveness and accuracy of the system. According to the Template for a Generic National Assurance Framework, the NQAF focuses on the following five major facets:

    (i)   Quality Context
    (ii)   Quality concepts and frameworks
    (iii)   Quality assurance guidelines which in turn comprises of 19 NAQFs
    (iv)   Quality assessment and reporting
    (v)   Quality and other management framework

Detail Discussion on the parameters of Generic NQAFs in context of the National Accounts Statistics of India

(i) Quality context *(Circumstances and key issues driving the need for quality management, Benefits and challenges and Relationship to other statistical agency policies, strategies and frameworks and evolution over time)*: The statistical product of the NAD is of utmost importance for knowing the economic trends and for policy formulation. Its scope is not only limited to national level but is spread internationally. Hence the quality aspect needs prime focus in order to have a consistent credibility on the sets of estimates published. This led to the ISO-9001 certification of the National Accounts Division. With this a series of quality improvements occurred in the functioning of the NAD including maintenance of files and records, proper documentations and backups of the work done.

(ii) Quality concepts and frameworks *(Concepts and terminology and Mapping to existing frameworks):* The Quality concepts for all the respective units of National Accounts Division adhere to the Quality Manual of the NAD. All the activities carried out are well laid in the Annual Action Plan for the Organisation.

(iii) Quality assurance guidelines *(Managing the statistical system, managing the institutional environment, managing statistical processes and managing statistical outputs)*: This comprises of 19 different NQAFs. A detailed discussion on each of the NQAFs compliance pertaining to NAD is as follows:

NQAF 1: Coordinating the national statistical system :The main mandate of the National Accounts Division is the compilation and publication of the macroeconomic aggregates. There is coordination not only amongst the different Ministries and National Accounts in terms of data supply, discussions, clarifications and dialogues; but also with the other departments of Central Statistics Office viz. Economic and Statistics Division, Price Statistics Division, Training Division and Co-ordination and Publication Division. Apart from these, there is coordination from the States through the State Income Unit of DES. The coordination can be very well judged by checking the following support mechanism:

- *A statistical law or other formal provision that establishes the national statistical system and designates a coordinating body-* The compilation and the publication of the macroeconomic aggregates are done as per the recommendations of the NSC which is the apex body for all Statistical decisions. The timelines are pre-decided well in time and are strictly adhered to.

- *Guidelines, methodological manuals and handbooks on recommended practices-* National Accounts Division has guidelines and manuals providing the methodology for the computation work. The latest manuals in use are the Sources and Methods 2012 and the Brochure for the change in methodology for the new base 2015.

- *Regularly held meetings for members of the system to develop statistical standards and guidelines, exchange technical knowledge, identify good statistical practices, etc. (e.g. committees, working groups, etc.)-* Regular meetings of the advisory committee, several sub-committees on different sectors of National Accounts are held regularly. Also regular interactions with the state officials during Comparable Discussions and also during the workshops are done in a routine manner. Apart from these there is communications through emails, letters and telephones.

- *Training courses for members of the system to update knowledge on the contents and application of recommended standards, methodologies, etc-* Several training programs are conducted by various national and international organisations like, IMF, ADB, SARTTAC on the various topics of National Accounts. National Accounts Division also imparts training to state level officers, field level officers etc. These trainings strengthen the capacity development both at the Centre as well as at the State level.

- *Processes for identifying and resolving cases of duplication of efforts in the production of statistics*: Regular intra and inter organisation meetings help a lot in removal of the duplication in the production of the statistics.

- *Arrangements for facilitating regular and timely user-producer consultations and dialogues-* During every base revision there occurs methodological changes and other data changes. A data user conference is held to have a one-to-one discussion with the users. The format in which the estimates would be available in the new base is also displayed in the public forum and comments and feedbacks are invited. Also their feedbacks are taken positively and their needs are taken full care of.

- *Processes for the standardized evaluation of the quality of statistical outputs:* Technical assistance missions *of IMF,* advisory committee on National Statisticsreview the methodology adopted and suggests possible areas for improvement.

*NQAF 2- Managing relationships with data users and data providers***:** There is a constant maintenance of healthy relationship with the data users and data providers. The need of the data users are given priority and before making any change in the format in which the estimates are published the users are informed and their suggestions are sought. The data providers are also informed well in time about the data needs. If required templates in which data is required are also furnished to them for their ease. Before release of new series there are data users workshops where users are made aware of the changes in methodology and concepts.

NQAF 3-Managing statistical standards: This is done through regular interaction with the technical assistance team from IMF. The technical assistance team of IMF regularly visits the methodology followed and suggests accordingly measures towards improvement in accordance with the SNA-2008. Also discussions are held with the state level officials to have a one to one understanding of the state specific issues with regard to the state domestic product. Also all the relevant tables and the methodology are available in public domain in the Ministry's website ensuring full transparency of the statistical methodologies.

NQAF 4- Assuring professional independence : There is no political intervention in the compilation and methodological procedure for the estimates of National Accounts. The estimates are prepared in a transparent manner and are approved by the executive authority only. All the relevant documents are available at the designated release time on the website.

NQAF 5- Assuring impartiality and objectivity: All the releases of the estimates are done at a pre-fixed time bound manner and there is no question of objectivity. Any major change is done with the approval of the competent authorities and the same is communicated with reasons.

NQAF 6: Assuring transparency: There exists a transparent planning process. The metadata including the concepts, definitions are also well documented and are available to the website. The release dates and the revision policy are communicated to the public well ahead of the releases.

NQAF 7: Assuring statistical confidentiality and security: The confidentiality of any data is maintained and there is a legal binding to it. The individual's information of the household surveys are never disclosed. There are strict disclosure controls which are followed. A data dissemination policy is also in place.

NQAF 8: Assuring the quality commitment: Expert group meetings on relevant methodological aspects, timeliness and quality are held regularly. User-oriented quality reports are made available to the public. Also a well-documented note on the methods, concepts and definitions are available in the website and can be easily assessed. Some type studies are done periodically to assess the quality aspects.

NQAF 9: Assuring adequacy of resources: Regular trainings on the different topics of National Accounts are conducted both at the state and centre level. This enhances the capacity building of the national as well as the state accountants. Trainings are

conducted by several international agencies, by SARTTAC, NSSTA etc. adequate Human resources can be assured but the same level of resources required in terms of adoption of technology is lacking and such adoption of latest IT, hardware etc. is not there.

NQAF 10: Assuring methodological soundness: The National Accounts Statistics adheres to the guidelines provided by the United Nations System of National Accounts (SNA-2008). Also the methodologies are regularly reviewed by the technical assistance team of International Monetary Fund (IMF).

NQAF 11: Assuring cost-effectiveness: NAD has adopted the policy of e-filing and thus has taken the revolutionary step of towards making a paperless office. The latest Supply and Use (SUT) have the only being published electronically.

NQAF 12: Assuring soundness of implementation: The Press Releases dates pertaining to the National Accounts Division are pre-decided and all the timeliness are strictly followed. Till date there has been no delay in any of the Press Releases. This has enabled to reaffirm strong trust with us.

NQAF 13: Managing the respondent burden: Since the entire calculation of the estimates are based on the timely receive of the data, a guideline has been prepared for the communications (letters) and reminders. Also the data proving agencies are regularly contacted through emails and telephones.

NQAF 14: Assuring relevance: The National Accounts Statistics is based on the guidelines of the United Nations System of National Accounts-2008 which is the most updated version. This makes the NAS contextual and relevant.

NQAF 15: Assuring accuracy and reliability. The estimates are compiled using the latest methodology suggested by the United Nations's System of National Accounts-2008. Various types studies are conducted to assess quality.

NQAF 16: Assuring timeliness and punctuality: As already iterated the estimates of National Accounts strictly adheres to the Annual Release Calendar and has never failed in delivering its product in time.

NQAF 17: Assuring accessibility and clarity: All the estimates along with the methods and data sources are available in the website of MOSPI and is easily accessible to all.

NQAF 18: Assuring coherence and comparability: The National Accounts Statistics follows the International guidelines and hence the estimates are internationally comparable. Also the methodology framed for the states are also uniform which makes the state level estimates comparable too.

NQAF 19: Managing metadata: Apart from the Press Releases statements where only the highlights of the macroeconomic aggregates are published, a detailed metadata for each of the sector is published annually in the Publication "National Accounts Statistics".

2.4   Quality assessment and reporting *(Measuring product and process quality - use of quality indicators, quality targets and process variables and descriptions, Communicating about quality – quality reports, Obtaining feedback from users and Conducting assessments; labelling and certification Assuring continuous quality improvement)*: User feedbacks regarding the data quality are taken positively. If required some of them are also addressed in a press conference before the media by

the Chief Statistician of India. Also there is zeal to strive towards improvement. The division is in process to get the advanced version of the ISO certification which will a boost to the quality assurance. Awareness workshops on National Accounts are held whenever the new series is launched. Officers participate in seminars and debates and also contribute invited papers.

2.5 Quality and other management frameworks *(Performance management, Resource management, Ethical standards, Continuous improvement and Governance):* The work for the improvement of the quality and approach is a continuous endeavour of the organisation.

Challenges and Way Forward

2.6 National Accounts Statistics uses data from different sources and different agencies. Different sources are bound to have different levels of accuracy with presence of both sampling and non-sampling errors. Refinements in methodologies and concepts adopted while compiling All India estimates are sometimes cannot be replicated at the state level and have to do with certain assumptions which sometimes do not hold good. Ideally estimates should be compiled bottoms up which except in Agriculture is difficult to comply with.Some of the new initiatives that are in consideration are the preparation of an All business register frame to include household activities also. This would improve the estimates at the state level. The use of GST frame which is above a threshold of turnover. The generation of macro aggregates from the Supply use tables. Supply use tables give us an indication of the level of discrepancies/ differences in the supply and use of products when confronted against each other. Adjusting for prices on both sides one correct for data at least for the future and have an assessment of the quality of data input. The compilation of supply & use is highly data driven and is currently compiled with a lag. This should precede the release of First revised estimates and more emphasis has to be laid on this aspect. There are disparate sources collecting the same data, the challenge is to integrate data using latest Information technology, Artificial Intelligence and use of big data will also further improve the quality. This would require more coordination and sharing of data from various data collection agencies such as the tax authorities, the corporate affairs and state governments.

3.   Experiences of NSSO on Quality Aspects of Surveys

By: Coordination & Publication Division, NSSO

(a) Annual Survey of Industries

In order to ensure quality of data, each ASI return, after it has been uploaded on the web portal by the compiler SSO, is scrutinized by a peer-level SSO then by the SRO in-charge and finally by the Regional Head. The Regional Offices are required to ensure that thoroughly scrutinized returns are submitted to DPD (ISW).The provision of super scrutiny by the Zonal Offices and Hqrs. has been kept in the web portal. From every Regional Office, three returns are auto-selected by the web portal for super scrutiny every fortnight based on the highest GVAs of the returns completed and submitted on the web portal. The returns so super scrutinized are sent back with comments, through the web portal, to the compiler SSO who rectifies the return based on the comments offered by Hqrs/Zonal Office and then finally submits to the DPD (IS Wing).Web portal has in-built validation checks which are utilized by the compiler SSO and peer-level SSO for ensuring error free compilation.

FOD Hqrs. has made norms for conducting inspections of the ASI field work of the SSOs. The ISS Officers are required to inspect the ASI work as per these norms, so as to cover the work of all the SSOs involved in the ASI return. Inspection is not limited only to visiting the unit but also to see how the returns are getting compiled by the SSO and the factory. Imparting awareness and training to the factory management regarding self-compilation of returns and on using the web portal is also carried out by the inspecting officers.

(b) Socio Economic Survey

Use of modern day technology in collection, compilation, scrutiny, validation and analysis of data with a view to streamline entire process from preparation of survey instruments to release of reports. Automation is seen as a good alternative tool for data collection as it will reduce the non-sampling errors and time lag which will result in timely compilation of reports. Besides, automation would make the collection of data convenient.

(c) Periodic Labour Force Survey

(i) Scientific methodology based on Pilot Testing and feedback from the field for PLFS

Before taking up the survey, methodology for PLFS was adequately pilot tested and finalized after analysing the feedback from field personnel so that it would reduce non-sampling error, besides being technically sound. In this connection the schedules were also tested for ease of survey using tablet and the CAPI solutions provided by the World Bank.

(ii) Instruction Manual and Clarification from SDRD for Conceptual clarity and uniformity of approach in data collection

An instruction manual has been devised by SDRD. The field staff are instructed to carry it during canvassing for ensuring clarity of concepts while applying them during data collection. There is also a system of regular feedback from the field whereby all doubts on concepts are referred to SDRD and consolidated reply to field queries circulated to ROs apart from instructions.

(iii) Qualified Manpower for data collection and supervision

To ensure that suitably qualified manpower is engaged for the data collection, eligibility conditions including the desirable conditions are prescribed. Further, the manpower supplied by the agency are screened for suitability of the person for the job.

(iv) Training in data collection and in validation tools

FOD has well established system for imparting extensive and intensive training to its staff and periodically refreshing the knowledge of the staff through refresher courses. For PLFS following training activates were conducting:

a) AIWOT- All India Workshop of Trainers was conducted in October 2016 for training the trainers i.e supervisors in the concepts and methodology. Sample design concepts and definitions are clearly explained during AIWOT. Feedback is obtained on the detailed instructions and changes are incorporated in the schedules/ instructions accordingly. These supervisors are than deployed to impart training to the field personnel.

b) This survey deploys for the first time a CAPI system for data entry. In this system the validation rules and process are in the Tables for preventing the occurrence of basic errors. Training in the usage of tablets and the inbuilt validation rules was emphasized during the RTC held in April 2017.

c) In RRTC of SE, 4th day was planned for solving the issues faced in the field during survey of PLFS.

d) RRTC –Review Regional Training Conferences organized during October 2017 in all field offices for reorientation and making them aware of the errors like coverage mismatch and other inconsistencies.

e) Training Calendar was revised to include regular module on PLFS and regular training of FIS and FOs on conceptual clarity.

(v) Operational Guidelines for facilities the quality in data collection and improved supervision

Operational guidelines along with CAPI released on 13th June 2017.The FSP and CAPI manual were released along with the said Guidelines. To the maximum extent the FSP (field scrutiny program) is integrated in the validation rules integrated in the CAPI Solution installed in the tablets.

(vi) Team Approach for professional expertise being utilized for data collection

In PLFS, it has been decided and also stated in the operational guidelines that at least one suitable experienced permanent officer(SSO/AD) is part of the team in the initial days of the survey to guide the Field Investigators of the team in every aspect of the

data collection. This approach ensures that experience and profession expertize of the SSO/ JSO is utilised during the canvassing in the tablet for improved data quality even though data collection is done by contractual staff.

(vi) Strict Scrutiny for data quality

The system of 100 % Scrutiny and system of mandatory inspections by ISS Officers of AD level and above as per norms has been adopted. Every month the progress of inspections and super-scrutiny is recorded in the MPR and monitored by the FOD Hq. whenever the inspections or scrutiny fall below targets, explanation is sought from the ROs.

(vii) Inspections and Super-scrutiny

Norms have been laid down for inspection and super-scrutiny by officers of AD level and above for every quarter. Both concurrent inspections and back-checks are encouraged to improve data quality and as an educative tools for FIs. The inspection and super-scrutiny observations are consolidated and disseminated amongst ROs to improve awareness of the frequently occurring mistakes.

(viii) Critical Error Module for removing Critical Errors

Certain errors have been classified as being critical to the data cleaning process. The critical error program module was handed over to the PLFS centre for implementation. This has been tested for robustness, the inconsistencies communicated to DPD and removed. The errors are regularly communicated to the field .The concepts are explained and systematically implemented. This ensures that critical errors are removed before data finalization. Testing of more Advanced Versions of Survey Solutions 5.26 both for revisits and first visits for greater ease of canvassing and scrutiny and better flow of validated data from field for data processing was tested and reported for compatibility to DPD.

(ix) Validation program to remove errors

Software of RO level that was received during ARM in April 2018 was handed over to Zones for testing and finally communicated to the ROs during July 2018. All ROs have almost completed the removal of the validation errors apart from critical errors and FOD is in the process of completing the removal of inconsistencies apart from critical errors also. These approx. 67 consistency check rules based on SDRD instructions are being implemented to remove any intra and inter block inconsistency

(x) Template Stabilization Team for improving the validation in the tablets

Template Stabilization team has been constituted for modification in template/questionnaire of PLFS based on feedback received from field offices for strengthening the in-built validation and facilitating field scrutiny. These modifications have been conveyed to DPD. As a result, the demographic block Summary and a summary of CWS (current weekly status) for seeing the daily activity status for all the seven days at a glance were integrated in the tablet to reduce the probability of error.

(d) Agriculture Statistics

Based on the findings of the Improvement of Crop Statistics Scheme(ICS) implemented jointly by NSSO and State Govt., some of the areas which require specific attention of the State Governments for quality improvement of the agricultural statistics are described in forth-coming paras. Data, wherever required, to support the findings have also been presented in the form of following Tables.

   i.   The work-load of the primary worker namely Patwari, the village revenue agency in respect of major activities has increased so much that they find little time for area enumeration work. At all India level it is observed that 7villages are allotted to a Patwari for completion of area enumeration in each season. The Patwari is seen to be entrusted with multifarious activities and he is overburdened. It may be emphasized that the primary work of the revenue agency is to collect agricultural statistics which should not get a secondary status. A review of the work of the primary revenue agency may be made by the States to see if there could be some rationalization of their work to improve their efficiency.**(Table-A)**

   ii.   In order to improve the quality of the area statistics, it is essential that complete area enumeration should be done by the revenue agency in each girdawari. The time schedule provided in this regard for conducting the girdawari and submission of area statistics to the higher levels should be strictly adhered to. Analysis of five years All India figures reveals that only in 30-53 % of cases, the Timely Reporting Scheme (TRS) Girdawari is completed in time**(Table-B)**

   iii.   TRS envisages submission of relevant statements to the higher authorities so as to consolidate the area figures without delay. ICS data do not show an encouraging trend. The latest five years data reveal that in 27 to 47% of cases only, the TRS statements are submitted in time which totally defeats the objective of TRS. Timely submission of TRS statements are the essential requirement of the timely release of crop forecasts and any delay in this regard obviously affects the objectivity of the scheme. **(Table-C)**

Other related issues which require urgent attention on part of the State Governments are as follows:-

   i.   The crop statements submitted by patwaris are many times based on incomplete girdawaries.

   ii.   The village crop statements are not submitted in time and there are large percentages of non-response.

   iii.   The entries in the girdawari are found to be incorrect in a large number of survey numbers.

Adequate number of printing forms, maps and equipment should be procured in advance which are required for crop cutting experiments. In the absence of proper and standard equipment's the quality of the experiments suffers badly. While an untrained worker cannot conduct the experiment properly, supply of essential equipment and

their proper use is required for accuracy in measurements. This calls for strong administrative measures for effecting further improvement. (Table D)

In the process of locating the deficiencies in the system of crop statistics, the scheme for ICS has observed three types of errors in area reporting:-

- Non -reporting of crops actually grown.
- Reporting crops actually not grown. ,
- Reporting of Incorrect area of crops.

The latest five years data reveal that in about 9 to 29 % cases of the survey numbers, one or the other type of error occurs while reporting the area by primary worker. This is a discouraging situation and indicates that the training given to the primary worker (PW) is not adequate. (Table E).

In order to reduce such types of non-sampling errors, it is emphasized that sufficient training should be imparted to the primary village level agency. This would be important particularly for the newly recruited staff in different States.

Mistakes that occur in the process of selection of survey numbers, selection of fields, measurement of plots and selection of random numbers for location of plots have a direct impact on the objectivity envisaged and results in upsetting the representative character of the experiments. Instances of errors in reporting ancillary information provides adequate evidence about the casual approach adopted by the primary worker even in eliciting the relevant data. An analysis of the results of crop cutting experiment through the sample check under ICS reveals that about only46-61 % of experiments could be conducted without error at All India level. **(Table F)**

It is necessary that the departure from prescribed procedure for conducting Crop Cutting Experiments needs to be taken with seriousness and strong administrative measures coupled with intensive training of field staff is resorted.

Most of the delay in reporting of statistics is because of slow analysis and processing of data. Since Electronic Data Processing (EDP) facilities (computerization) are developing fast, it is felt that States should develop these facilities at the district/tehsil level. It would help the States to reduce the time for analysis and processing of data and thus reducing the delays in submission of results.

High Level Co-ordination Committees (HLCCs) on Agriculture Statistics headed by a senior officer of the State Government at the level of Secretary have been constituted at the State level. In the meeting of these committees, various issues relating to area forecasts, estimates of yield rates and crop production, the functioning of TRS/ EARAS and ICS schemes and other aspects of Agricultural Statistics are discussed. However, as per records with NSSO (FOD) AS Hqrs., Faridabad, meetings are not been convenedregularly in many States like Assam, AP, Bihar, Chhattisgarh, Gujarat, J&K, Kerala, Maharashtra, Odisha, Punjab, Tamil Nadu, Uttar Pradesh, West Bengal, Puducherry. These meetings, if held regularly, will prove very useful in sorting out problems on coordination of the efforts of the associated departments of the States and other operational problems and in taking steps for improving the

working of the system. The details of the last meeting held in each of the States covered under ICS Scheme are shown in **Table G.**

(a) ICS Scheme was operationalised by Ministry of Agriculture in 1973-74 with an objective of bringing about improvement in the quality of agricultural statistics, through joint efforts of Centre and State Authorities. NSSO (FOD) through its Agricultural Statistics Hqrs., Faridabad has been mainly responsible for planning and undertaking sample checks on Area Enumeration and Crop Cutting experiments done by the state primary workers in collaboration with the State Governments. This exercise mainly aims at locating deficiencies in the system of generation of Agricultural Statistics so that effective ways and means are devised to improve the situation.

(b) NSSO (FOD) is in the process of digitalizing the two paper based schedules to enable the field supervisor under the ICS Scheme to collect data from field directly on tablets. To start with, an in-house data entry software has been developed for Schedule AS 2.0 with the technical expertise available at NSSO. This software/e-schedule along with Instruction Manual and crop code list has already been sent for field data entry work from the Rabi season 2017-18 onwards.

To ensure early adoption of the digital schedule by all the State Governments, NSSO (FOD) has been extending all possible support for training to States authorities. States may also ensure that necessary instructions are sent down the line to all field functionaries. Further, NSSO (FOD) is also in the process of digitalizing Schedule AS 1.0, which is likely to be launched in the current Agriculture Year 2018-19.

Table –A :Workload of Patwari during 2016-17

Sl.No	State	No. of villages	Survey / Sub survey Nos. per village('000')	Geographical Area per village ('000' Ha.)
1	Andhra Pradesh	3	1.4	1.2
2	Assam	11	0.5	0.2
3	Bihar	18	1.4	0.2
4	Chhattisgarh	5	1.2	0.5
5	Gujarat	3	0.7	1.5
6	Haryana	4	3.1	1
7	Himachal Pradesh	11	0.9	0.2
8	Jammu & Kashmir	6	0.8	0.4
9	Jharkhand	24	1.1	0.4
10	Karnataka	5	0.7	1.0
11	Kerala	#	#	#

Sl.No	State	No. of villages	Survey / Sub survey Nos. per village('000')	Geographical Area per village ('000' Ha.)
12	Madhya Pradesh	5	0.7	1.0
13	Maharahtra	4	0.5	0.8
14	Odisha	8	1.0	0.2
15	Punjab	6	2.3	0.6
16	Rajasthan	7	0.8	1.0
17	Tamil Nadu	2	2.6	0.8
18	Telangana	3	1.8	0.7
19	Uttar Pradesh	7	0.7	0.3
20	Uttarakhand	13	1.5	0.2
21	West Bengal	3	1.0	0.1
22	Puducherry	10	1.2	0.4
All India average		**7**	**1.2**	**0.6**

 # In Kerala, each Investigator is assigned with one Investigator zone within which 500 sub-survey division numbers (100 key plots and to each key plot, a cluster consisting of five sub-survey division numbers) are enumerated by him in each season.

Table-B :Completion of TRS Girdawari (%)

Year	Autumn	Winter	Rabi	Summer
2016-17	45	49	51	37
2015-16	**46**	50	47	30
2014-15	44	51	49	37
2013-14	47	53	50	40
2012-13	46	52	50	44

Table-C :Submission of TRS statements in time (%)

Year	Autumn	Winter	Rabi	Summer
2016-17	44	44	47	27
2015-16	43	45	41	28
2014-15	42	43	37	27

Year	Autumn	Winter	Rabi	Summer
2013-14	46	43	39	27
2012-13	40	42	39	28

The following table gives the percentage of experiments without use and improper use of the crop cutting equipment during last 5 years as observed through ICS.

Table-D : Supply and Use of Equipment for Crop Cutting Experiments

Year	Percentage of experiments for which							
	Concerned primary workers not supplied with				Concerned primary workers did not use the supplied items			
	Tape	Pegs	Balance	Weight	Tape	Pegs	Balance	Weight
2016-17	19	62	35	38	19	9	17	16
2015-16	19	63	36	38	19	9	17	16
2014-15	19	66	36	38	19	10	19	18
2013-14	18	65	37	38	20	11	20	19
2012-13	18	64	37	38	19	12	20	19

Table-E :   Errors in Area Reporting (%)

Year	Autumn	Winter	Rabi	Summer
2016-17	29	17	14	9
2015-16	26	16	15	9
2014-15	20	17	14	10
2013-14	28	19	15	12
2012-13	25	20	14	13

The table below indicates the position of different types of errors observed during the conduct of crop cutting experiments in respective seasons

Table-F :Incidence of Errors in Conduct of Crop Cutting Experiments during 2016-17

Sl.No.	Season	% of expts. Where no error was noticed	% of expts. where error was noticed							
			e_1	e_2	e_3	e_4	e_5	e_6	e_7	e_8
1	**Autumn**	46	0	0	0	1	0	0	2	25
2	**Winter**	58	1	1	3	7	1	8	1	33
3	**Rabi**	56	0	0	4	5	1	10	1	35
4	**Summer**	61	0	0	1	1	0	3	1	37

e_1= *Error in selection of survey/sub-survey nos.*

e_2= *Error in selection of field within survey/sub-survey nos.*

e_3= *Error in measurement of field*

e_4= *Error in selection of Random Nos.,Location and Marking of plots*

e_5= *Error in weighment of produce*

e_6= *Error in reporting ancillary information*

e_7= *Inadequate arrangements for storing of produce for driage and incorrect reporting of constituents in crop mixture.*

e_8 = *Others.*

Table –G :Information regarding the dates of Last HLCC Meeting:-

Sl.No.	Name of the State	Date of HLCC Meeting
1.	Assam	08.10.2015
2.	Andhra Pradesh	06.10.2007
3.	Bihar	11.11.2014
4.	Chhattisgarh	22.05.2015
5.	Gujarat	04.08.2015
6.	Haryana	17.02.2017
7.	Himachal Pradesh	25.02.2016
8.	J&K	04.07.1996
9.	Jharkhand	22.12.2010

Sl.No.	Name of the State	Date of HLCC Meeting
10.	Karnataka	24.01.2017
11.	Kerala	04.03.2016
12.	Madhya Pradesh	10.10.2012
13.	Maharashtra	09.02.2016
14.	Odisha	16.10.2015
15.	Punjab	19.07.2005
16.	Rajasthan	24.04.2015
17.	Tamil Nadu	30.09.2002
18.	Uttar Pradesh	18.11.2014
19.	Uttarakhand	13.07.2013
20.	West Bengal	05.07.2011
21.	Puducherry	29.09.2008
22.	Telangana	05.11.2014

4. Experience of NSSO on Data Processing

By: Data Processing Division, NSSO

Data Processing Division of National Sample Survey Office with headquarter in Kolkata and five branches across India is mainly engaged in data entry and multi-level validation process of socio-economic survey. Till recent rounds of NSS socio-economic surveys, data was collected through paper schedule and subsequently transcripted into suitable database using in-house data entry software. Barring a few compulsory checks, data entry software did not hinder the flow of data entry. Subsequently, a set of trained data processing officials conducted offline validation checks to correct the discrepancies in data. As data collection and data validation were performed by two independent officials, it assured reliability and accuracy to a great extent. However, the involvement of so many layers of scrutiny caused time-lag.

Along with reliability and accuracy, utmost requirement of the day is timeliness and punctuality. Otherwise survey results will lose its relevance. Therefore, it is very much essential to make the data collection/ entry at the field level using some handheld device directly uploading the data into cloud server or enter and finalise the data at the field offices. However, care must be taken so that data portability issues can be minimised. As the data collection work has to be done throughout India including the remotest locations, data collection software is required to be an offline as well as online package. Maximum care needs to be taken while capturing the data because at the subsequent stages there will be very little scope to refer to the schedules again and update the information due to paucity of time.

All the validation checks may be incorporated within the data entry/collection package. However, the checks may be categorized based on the severity of the inconsistency: -

    i.   Error – it must be removed at the collection stage itself; otherwise the software will block further progress

    ii.   Warning (inconsistency) – these errors might exist in data in rarest occasions; so the data collection personnel and informant may be sensitized in the collection stage itself.

    iii.   Warning (values outside six-sigma limits) – these errors will occur in case of value figures

There may be provisions within the system so that each and every error has to be confirmed by the data collector before finalizing and submitting the data to the cloud server. An efficient monitoring system is an essential part of the system to ensure reliability of data along with timeliness. At any subsequent stage, the

supervisory officer might have access to the data through proper application and enough scope to validate, accept or reject the data collected by field official.

Managing respondent burden is also another aspect while designing e-schedules. Optimisation of e-schedule canvassing time along with all the run-time validation checks is necessary otherwise respondent bias will be very high towards the tail part of e-schedule. Overall, designing the schedule, its online data collection application or data finalization package needs to be user friendly and whole operation needs very close supervision.

5. Output quality and its special nature in a survey organisation such as NSSO

By: SDRD, NSSO

Introduction

5.1 Emphasis on quality is the very essence of progress. In a sense, the entire progress of mankind can be viewed as a march forward in terms of quality of different aspects of human life. This advance, in any age, is always due to the contribution of a small minority of individuals. It is unfortunate but true that the majority of men and women do not have the time or inclination to bring about improvements in quality in the processes in which they take part. The problems of quality in different processes can, however, be very different. In what follows, we shall talk about the special problems of quality of products of survey organizations such as the NSSO.

Defining quality of output of a survey organization

5.2 While quality of survey data may be difficult to achieve, it is relatively easy to define. A survey aims at estimating some broad or summary features of one or more populations. Over a short period such as a year, these features can be regarded as unchanging parameters. The quality of any estimate, obviously, is its closeness to the parameter it seeks to estimate. The problem of quality measurement stems from the fact that the parameters are unknown.

Non-observable nature of data quality

5.3 If we leave out purely decorative products, most things are judged by their performance. The quality of many things is manifested as soon as they are used. This applies to food products, other household consumables, tools and implements, and most services. On the other hand, with a sophisticated manufactured product such as a car, or refrigerator or microwave oven, it may take some time for quality deficiencies to come to light. In the case of data – and this includes not only observed data but compiled or estimated aggregates, averages and other summaries – the customer or user is usually placed in the second kind of situation. There is rarely a simple test of goodness of data. Bad quality data may look just as good as good data. And one may use or apply wrong data to arrive at misleading results and wrong policy implications for a long time, without knowing it.

5.4 Scope of assessing the quality of NSSO outputs

(i)*Sub-sampling:* To judge the extent of error due to sampling, Mahalanobis introduced the technique of interpenetrating sub-samples (IPNS). In the early years of NSS, surveys were occasionally also designed to measure and separate out investigator effects from the estimates. But such techniques obviously fail to protect the data from systematic respondent biases, such as general tendencies to under-report expenditures, savings and asset holdings. The same applies to investigator biases that are common to investigators generally.

(ii) External checks: Comparison with Census data: For certain parameters, the decennial Population Census provides counts for the Census years, and these can be used to make a projection comparable with the NSS estimates. The problem is that the Census counts are as likely to suffer from non-sampling errors as the NSS estimates, and cannot possibly claim to be a superior yardstick against which the quality of NSS estimates can be judged.

(iii) External checks: Comparison with administrative data: This is possible only in case of certain parts of the data of certain surveys. However, these possibilities have not been fully explored. For instance, in case of consumer expenditure surveys, the estimates of rail transport expenditure can be compared with data maintained by the Ministry of Railways, and estimates of expenditure on purchase of motor cars can be compared with data maintained by the Road Transport authorities. (See also Kar, et. al., 2001.)

(iv) Special investigations: Itis possible to check the quality of the data obtained from a particular village (say) in a particular round by re-surveying the village within a short period. This can be done to assess the extent of particular kinds of non-sampling errors, such as respondent biases, by making re-visits to consenting sample households. In case ofthe Urban Frame Survey, intensive checking of details of the blocks formed can be carried out on a sample basis.

(v) Monitoring and evaluation of work of primary field workers: Continuous monitoring of field work of primary field workers (JSOs/FIs) should be put in place. The system of concurrent inspection needs to be thoroughly followed; which will help the primary field officials to collect quality data and develop confidence among them.

(vi)Training programme for field officials: In the present system FIs are put to field work immediately after a very short duration training, viz. RTC/RRTC for a new survey. Obviously such short term trainings are not adequate for preparing an inexperience field personnel for such challenging field work. Hence intensive and regular training on survey instruments and data collection mechanism should be imparted to the Field Investigators (FIs) at the SRO/RO/ZO level. This would certainly have a positive impact on the capacity building and would contribute towards proper grooming the FIs. This would in turn definitely contribute to improve data quality. Further, field workers may be given adequate training on communication skill, behavioural skill etc so that collecting data from informants become smoother.

Improvement of quality

5.5   Fortunately, it is possible to bring about improvement in quality even when assessment of quality is difficult. For example, even a layman can understand that a doubling of sample size will improve the quality of most estimates, especially estimates of incidence of rare phenomena. Improvement of quality of inputs will always influence output quality. NSSO must therefore make its survey instruments 100% free from ambiguity and its data processing instruments perfectly tuned to the data. However, the extent to which product quality can be improved by such means is limited as long as reported data remains inaccurate.

Wrong reporting can be due to various reasons:

(i) Ignorance of what is to be reported

(ii) Deliberate evasion due to suspicion or fear

(iii) Unwillingness to make the effort necessary to recall and report the required information

(iv) Failure to recall in spite of the will to cooperate. It is difficult for NSSO to tackle these problems. However, a lot remains to be done to create confidence in the public regarding the activities of NSSO and thus reduce deliberate evasion.

Quantity vs. quality in survey output

5.6   Quantity, as we all know, is no substitute for quality. Like any other product, survey output may suffer in quality if the emphasis shifts to quantity of output generated. This may happen in several ways. One is when estimates are required for very small geographical regions, such as the smallest States and Union Territories of India. With given resources, the choice is then between producing poor quality estimates for these States/UTs, and providing them adequate sample size for reliable estimates at the expense of the quality of the national level estimates. Another is when surveys on many subjects are conducted in the same round, and the number of sample households for each schedule has to be restricted to a level that prevents good quality estimates from being generated. Finally, the effort to generate estimates more frequently, say, quarterly instead of annual estimates to study seasonal variations, may sometimes bring down the quality of the estimates and defeat the very purpose of the initiative.

Competition and data quality

5.7   In competitive markets, competition acts as a spur to improve quality. The producers who can bring about quality improvements will inevitably attract customers and improve their position while those who cannot will lose their market and fall behind. A national statistical organisation, unfortunately, always operates as a monopoly. Usually, there is no other organisation that can compete with it in terms of resources. Obviously, this is a mixed blessing. With NSSO sheltered from competition from other data producing organisations, its data receives no inbuilt stimulus for continuous quality improvement that it would otherwise have got.

Quality and packaging

5.8   It is good to insist that a survey report should be a quality document in looks as well as in content. There is no defence for a shoddily put together volume, with poorly aligned text and badly illustrated chapters. A lot of care needs to be put in to ensure that a report does not offend the eye. However, get-up can be overemphasized. No artwork can compensate for a badly composed text. Unfortunately, there is a growing tendency to devote more attention to the packaging of a report than to its basic content.

Instructions for data users

5.9 The more complex and sophisticated a product, the greater is the danger that it may be improperly used. Emphasis on the producer's part that the user is properly instructed in the use of the product is correctly regarded nowadays as a part of product quality. In NSSO, special care needs to be taken in preparing the instructions for use of unit level data. In addition to the estimation procedure, which many may find difficult to comprehend, step-by-step worked-out examples would be of great help. Specialised cells can be set up to respond to users' queries (though their duties should not include the checking of calculations made by users).

Summary

5.10 Data quality is not easy to assess. All possible ways of checking quality, even if in limited spheres, need to be explored by a survey organisation, including comparison with administrative data, and special post-survey investigations. Improvement of survey and data processing instruments will yield dividends, but the real problems lie in respondent ignorance, unwillingness and bias. It should be seen that attempts to get more data in a shorter time do not sacrifice quality. In the work of a national statistical organisation, the benefits of competition are absent, and quality initiatives must come from within. In preparing survey reports, good finishing should not take precedence over the content. In case of unit level data, provision of instructions for proper use of the product should be viewed as part of product quality. More over creating greater public awareness of NSSO through extensive publicity campaigns is also an important contributor of better quality of data.

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6. Institution for quality assurance in NSSO: A review and way forward

By: Pankaj K.P. Shreyaskar and Mukesh[4]

NSSO has a glorious past in the history of large scale sample survey in Indian Statistical system. NSSO has so far completed 75 rounds of large scale sample survey on various socio-economic subjects which are pivotal for the policy formulations in India. The credibility, scope and coverage of NSSO as survey agency, is widely acceptable by the stake holders spread across length and breadth of the globe. NSSO has been making all out efforts to keep itself abreast with the best practices worldwide so as to ensure the quality concerns of large scale sample survey. However, the challenges of maintaining the standards of survey data have always been a focal point for NSSO. In spite of constant efforts of maintaining the standards it has been perceived grappling with the quality concerns in recent past by the outside world. The well settled principles of quality assurance of sample survey like sub-sampling, external checks with census and administrative data, special inspections, monitoring and evaluation of work of primary field workers and training programme to field officials, are being exposed to various crevices in the wake of fast moving technological advancements and great expectations from survey results in India. The paper aims to present the institutional mechanism as traditional establishment for quality assurance in NSSO, the challenges that it is facing in this respect and also a prescription for a sustainable and relevant quality assurance framework.

Key Words: NSSO, Quality, Review, Assurance

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6.1 Introduction:

The National Sample Survey (NSS) initiated nation-wide, large-scale, continuous survey operation in 1950 with the objective of conducting large-scale surveys to provide data for national income estimation as required for planning and policy formulations , has since grown into one of the largest organisations of its kind and has expanded its activities in several directions. The exercise was started on the basis of a proposal from PC Mahalanobis to fill up data gaps for socio-economic planning and policymaking. In March 1970, the NSS was reorganised and all aspects of its work

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were brought under a single government organisation, the National Sample Survey Organisation, to impart objectivity and autonomy in the matter of collection, processing. At present NSSO carries out annual rounds of multi-purpose socio-economic surveys, undertakes field work for the Annual Survey of Industries, follows-up surveys of the Economic Census, sample checks on area enumeration and crop estimation surveys and prepares the urban frames useful in drawing of urban samples, besides collection of price data from rural and urban sectors. Its credibility, scope and coverage are widely accepted by the stake holders spread across length and breadth of the globe.

6.2 The National Sample Survey Office (NSSO) conducts nationwide sample surveys known as National Sample Survey (NSS) in the form of successive "rounds", each round usually of a year's duration covering several topics of current interest. The surveys are conducted through household interviews, using a random sample of households covering the entire geographical area of the country. The State governments were invited to participate with matching samples so as to enable the preparation of estimates at sub-state level which was not possible with the 'Central Sample' alone. Considering the demands for district level estimates, Kerala State has been participating in the National Sample Surveys from the very beginning with matching samples to provide more disaggregated results at regional level. The National Sample Survey covers the same topics/subjects at certain regular interval. NSSO has so far completed 75 rounds of large scale sample survey on various socio-economic subjects pivotal for the policy formulations in India.The information and data it generates are generally aimed at meeting two primary requirements of policymakers: (a) to be able to identify or characterise a problem; and (b) to be able to track certain parameters over time. In both cases, the requirements are usually met by cross-sectional, descriptive statistics. As such, therefore, there has been little or no effort at tracking of qualitative variables or of behaviour, except in so far as these can be estimated from econometric analysis using the auxiliary variables available in the surveys.

During last four years, surveys were conducted on '*Domestic Tourism Expenditure and Household Consumption Expenditure on Services & Durable goods*', '*Unincorporated Non-Agricultural Enterprises*' and '*Enterprise focussed Survey of Services Sector*'. Based on the experience and understanding acquired during the 'Enterprise Focussed Survey on Services Sector' carried out in 2016-17, the possibility of conducting an Annual Survey of Services Sector in line of Annual Survey of Industries is being explored. At present, the NSSO is undertaking surveys on Household Consumer Expenditure and Household Social Consumption on Education and Health. In second half of 2018, survey on two subjects, one on Disability and one on Drinking Water, Sanitation, Hygiene& Housing have been planned. To assess the conditions of farmers and villagers, a Situation Assessment Survey of Agricultural Households and a Debt & Investment Survey are proposed to be undertaken in 2019.

NSSO conducted a rapid survey on Swachhta Status during May-June 2015 covering 3788 villages and 2907 urban blocks. The survey gave the baseline position

of the situation on the availability and accessibility of toilets and solid waste and liquid waste management.

The data collected by NSSO on employment-unemployment in India is presently available at an interval of about 5 years. Considering the importance and the fact that the employment data is required more frequently for effected Policy interventions, NSSO launched the Periodic Labour Force Survey (PLFS) from April 2017. Now, the employment data for urban areas would be available every quarter, while that for rural areas on annual basis. This survey will also give data on distribution of workers by industry and occupation, as also on workers employed in informal sector, besides condition of employment of the workers.

NSSO has earned its credibility in the field of large scale sample surveys inter alia on the basis of a very well established institutional mechanism for ensuring quality in all its products as public goods. The institutional mechanisms for ensuring high standards in NSSO, are mainly the reliance on consistency with scientific principles and internationally recognised best practices, besides having complete documentation of the survey instruments. NSSO has been making all out efforts to keep itself abreast with the best practices worldwide in this area so as to ensure the quality concerns of large scale sample survey. However, the challenges of maintaining the standards of survey data have always been a focal point for NSSO. In spite of constant efforts of maintaining the standards it has been perceived grappling with the quality concerns in recent past by the outside world. Nevertheless, the well settled principles of quality assurance of sample survey like sub-sampling, external checks with census and administrative data, special inspections, monitoring and evaluation of work of primary field workers and training programme to field officials, are being exposed to various crevices in the wake of fast moving technological advancements and great expectations from survey results in India.

The paper is organised into five sections. The following section brings to the forth the extant Institutional mechanism of quality assurance in NSSO, both at the level of data collection as well as at the level of data processing. The next section explicates upon the challenges faced by NSSO and whereas last two sections reviews the way forward for NSSO and concludes the paper.

Institutional Mechanisms for Quality Assurance in NSSO

6.3   General Overview

The quality of a statistical product is defined as its 'fitness for purpose'. The definition has one main consequence that the quality of a statistic is seen as subjectively dependent on the purpose of the statistic, at the core of which is the user. Quality underpins every stage of producing statistics; ranging from initial design through to analysis, dissemination and evaluation. All official statistics producers must be open and transparent about the quality of their statistics, with users kept informed about the quality of the statistics they use. This is underpinned by the requirement under the Code that official statistics are produced to a quality that meets user needs, also known as their 'fitness for purpose'.

While quality of survey data may be difficult to achieve, it is relatively easy to define. A survey aims at estimating some broad or summary features of one or more populations. Over a short period such as a year, these features can be regarded as unchanging parameters. The quality of any estimate, obviously, is its closeness to the parameter it seeks to estimate. The problem of quality measurement stems from the fact that the parameters are unknown. If we leave out purely decorative products, most things are judged by their performance. The quality of many things is manifested as soon as they are used. This applies to food products, other household consumables, tools and implements, and most services. On the other hand, with a sophisticated manufactured product such as a car, or refrigerator or microwave oven, it may take some time for quality deficiencies to come to light. In the case of data – and this includes not only observed data but compiled or estimated aggregates, averages and other summaries – the customer or user is usually placed in the second kind of situation. There is rarely a simple test of goodness of data. Bad quality data may look just as good as good data. And one may use or apply wrong data to arrive at misleading results and wrong policy implications for a long time, without knowing it.

NSSO, MoSPI has maintained high standard in, planning & designing of its survey, collection of data, data verification & validation and generation of results based on its large scale multi-subject sample surveys over the years. Multiple level checks, beginning from the conceptualization of Survey to final dissemination of report in public domain, become the touch stone of authenticity and transparency in data generation by MOSPI. Independent body, namely, National Statistical Commission (NSC) guides and oversees the entire process of Socio-Economic Surveys of NSSO and approval of results based on the survey.

For ensuring adoption of appropriate scientific methods in conducting the survey and coverage of items relevant to the user Ministries & other users, National Statistical Commission (NSC) appoints for each Round, a Working Group comprising of eminent economists, statisticians, officers from user Ministries/Organisations and other domain experts to oversee the development of survey instruments and checking the reliability of survey results presented in NSS Reports. Besides considering other relevant information for formulating suitable survey instrument, the Working Group also takes into account the experiences of NSSO during last survey on similar subject to minimize the non-sampling errors.

The trainings of the Field Investigators are organized elaborately in local languages to ensure correct implementation of concepts and definitions while collecting data. There is also a system of inspection/supervision and scrutiny of data by senior officers to check and ensure the quality of data and monitor the working of Field Investigators during data collection. In addition, officers of the NSSO are adequately exposed to in-service training on subjects relevant to enhance their skills on surveys as well as general skills.

As per the survey process flow, for any NSS Socio Economic (SE) survey, Survey Design and Research Division (SDRD) prepares the survey instruments and also prepares the report, Field Operations Division (FOD) collects the data and Data Processing Division (DPD) is involved in the data processing activity of these SE

surveys. DPD makes its best effort through scrutiny, verification and validation of data to improve the quality of data. In the entire process of data validation, DPD closely interacts with FOD and SDRD for clarifications, wherever required. Data validation process in DPD is quite elaborate and involves pre-data entry scrutiny, post data entry scrutiny in the form of Computer Scrutiny Program for content checks, coverage checks, howler (extreme value) checks, consistency checks through computer edit rules etc. These validation rules are provided by SDRD, based on which the requisite software are developed in DPD. Thus DPD plays a significant role in improving the quality of data collected by FOD through various stages of validation.

Availability of qualified & trained staff with adequate experience is one of the important factors for ensuring the quality of data. NSSO has been constantly implementing measures required to ensure quality of data. The quality of data, being collected with the manpower, suitably supplemented by the enumerators appointed on contract basis against the vacant regular posts, is ensured by providing regular trainings to the enumerators and other officials involved in the data collection in local languages through Regional Training Camps (RTC), Review Regional Training Camps (RRTC), etc. to ensure correct interpretation of concepts and definitions. In addition, the contractual staffs are assigned data collection work under close supervision and technical guidance from the regular experienced staff of NSSO and further there is also a system of inspection by senior officers to check the quality of data and the working of Field Investigators during data collection.

For adoption of appropriate scientific methods in conducting the survey, NSSO appoints for each Round, a Working Group comprising of eminent economists, statisticians and other experts to oversee the development of survey instruments. Detailed instructions/guidelines for the field investigators are part of the survey instruments. These instructions/guidelines,along with the system of training mentioned above, ensure adequate probing by the enumerator wherever required.

NSSO does ensure the quality of data specifically at two levels- data collection and data processing. The data collection work of NSSO is mandated with Field Operations Division (FOD), whereas the data processing work is mandated with Data Processing Division (DPD).

6.4 Quality Assurance at the level of data collection

Field Operations Division (FOD) has its headquarters at Delhi/Faridabad and a network of six Zonal Offices, 52 Regional Offices and 118 Sub-Regional Offices spread throughout the country, is responsible for the collection of primary data for the surveys undertaken by NSSO. Primarily data are collected through nation-wide household surveys on various socio-economic subjects, Annual Survey of Industries (ASI), rural and urban price and crop statistics through supervision of the area enumeration and crop estimation surveys of the State agencies. It also maintains a frame of urban area units for use in sample surveys in urban areas.

Primary data collection work for any round of NSS Survey is carried out by the Junior Statistical Officers (JSOs) and/or Field Investigators (FI) who are professionally

trained in data collection work. Field work of a particular FSU is allotted both to primary field worker (JSO/FI) and supervisory officer (SSO/FO). Before actual start of the field work every Regional Office of NSSO organizes Regional Training Conferences (RTCs) and instructions as well as mandate of the survey are explained to the field functionaries. Further one whole day is kept reserved for field training where every SSO/JSO/FI is sent to a dummy sample FSU and actual schedules are canvassed under supervision of experiences SSOs. This whole exercise of organizing RTCs is of great importance as it is common platform where SSOs/ JSOs/ FIs raise their concerns / doubts regarding understanding of the instructions and the same is addressed by senior officers there and then. Thus, it ensures that before actual commencement of the field work, every field functionary develops a clear understanding about the survey instruments and is ready for error free field data collection. After completion of RTC at Regional Office, some days are further devoted exclusively for the training of the newly recruited JSOs/Field Investigators at concerned SRO/NSRO to attune them adequately to take up the field work.

To ensure quality of data collected, particularly by new JSOs/Field Investigators, Team Approach is also adopted by Regional Offices as far as possible. An experienced JSO/SSO/FO is sometimes included in the team as team leader, at least during the first sub-round of the survey. The SSOs/ FOs are entrusted with the task of first level supervision of fieldwork by way of inspections through field visit and scrutiny of filled-in schedules. Selection of households for detailed enquiry thoroughly checked by SSO/FO and inspecting SSO/ FO invariably certify that sample selection is done correctly. The norm of 100% inspection was followed during both the sub-rounds.

Regional Officers regularly conduct inspection of at least one FSU under each SRO in their region during each sub-round. Regional Head also over sees the quality of fieldwork of the primary workers through inspections, scrutiny and analyzing the inspection notes by other senior officers or SSOs. In case the SSO/FO is part of the team, the FSU is inspected by the ISS officers. Inspecting officer, at the start of his inspection, is mandated to ensure that the schedules canvassed up to the previous day have been finalized in all aspects by the primary field worker. Inspecting officer may also scrutinize some of the schedules canvassed by the JSO/ FI before commencement of the inspection and record his/ her observations in the inspection note. Detailed guidelines are issued by Headquarters' office regarding inspection norms, quality of inspection notes drawn, points to remember during inspection etc. so as to ensure that no stone is left unturned for ensuring quality of data being collected.

6.5   Quality Assurance at the level of data processing

Data Processing Division (DPD) of National Sample Survey Office with headquarters in Kolkata and five branches across India is mainly engaged in data entry and multi-level validation process of different survey of NSSO. The process of data entry, errors checking, scrutiny and validation is called data processing. Till the 75th rounds of NSS surveys, data was collected through paper schedule and subsequently transcribed into suitable database using in-house data entry software. Barring a few compulsory checks, data entry software did not hinder the flow of data entry. Subsequently, a set

of trained data processing officials conducted offline validation checks to correct the discrepancies in data. As data collection and data validation were performed by two independent officials, it assured reliability and accuracy to a great extent.

The data processing division through its data processing centre has a well in advance process to ensure quality of data processing at multilevel staring from receipt of filled-in schedules to release of unit level data. First the Documents Control Section of D.P. Centre do check the FSU serial number, correct state codes, number of schedules received for different types of schedules and tally with the information given in the summary block(block 6 of schedule 0.0). Then the hot scrutiny perform means any mistake in the filled-in schedules which may affect a large number of schedules or having any conceptual errors should be brought to the notice of the senior officers. The next step is the LOT preparation, means one LOT will consist of all the schedules of one FSU. Each LOT will accompany a FLY-SHEET, which indicates the composition and details of different stages of processing. A movement register is to be maintained by DCS to keep an account of the movement of LOTs to/from different sections. After the LOTs are entered in the receipt register, these are sent to Scrutiny section for the Pre-data-entry scrutiny and therefore to the data transcription section for data entry and verification. After completion of data entry, data verification is done by using the software sequentially block by block starting from schedule 0.0 and thereafter all other detail schedules of FSU. Data validation is performed through different phases of operation starting from content check (phase 1 validation), coverage check (phase 2 validation) and howler check (phase 3 validation).

The installation of the data entry and updation software is fully automatic and it is installed separately for each round and in fact within the round separately for each schedules. The whole work structure of the data processing may be seen below in flow chart.
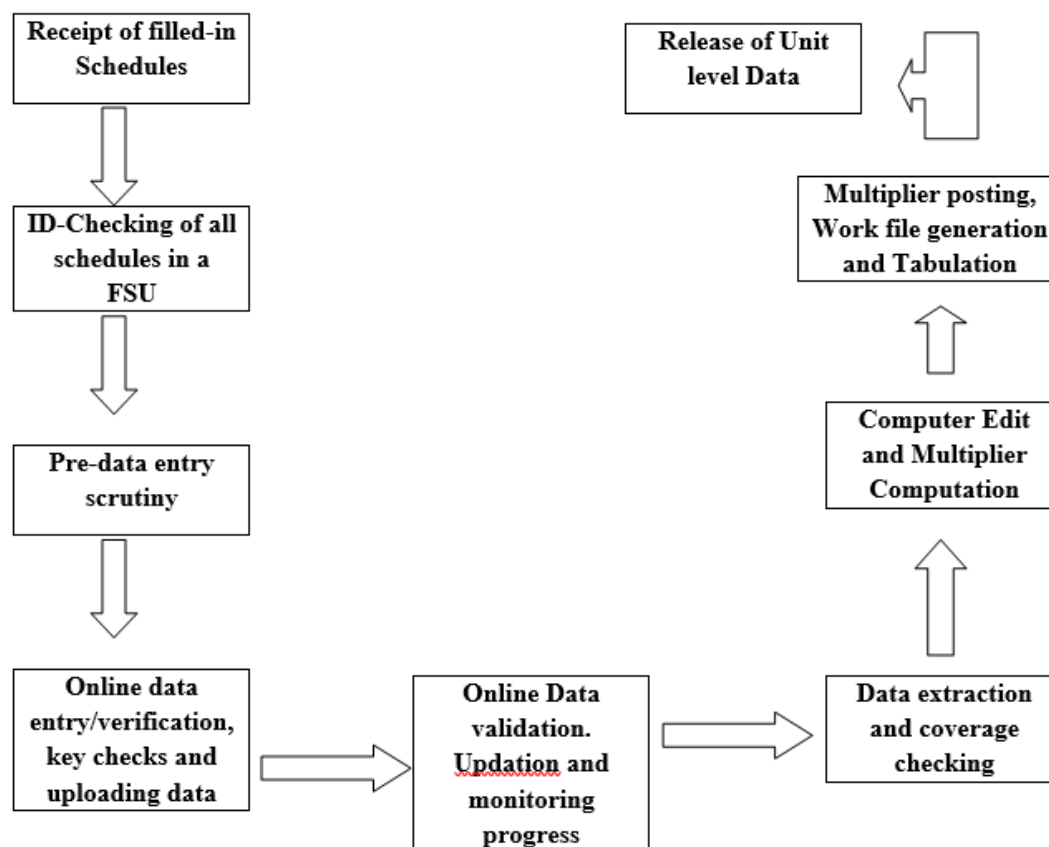
6.6 Issues and Challenges

The quality and reliability of the National Sample Survey (NSS) data have been under constant debate within the NSSO and outside. Though there have been significant improvement in the surveys, concerns about their reliability and the relative merits of NSS and other sources remain.

These concerns arise from (a) differences between the NSS estimates and those obtained from other sources, namely, data compiled by government agencies and surveys conducted by other organisations; (b) the quality of field work and the accuracy of information provided by respondents; and (c) the effect of changes in scope sampling and questionnaire design and field procedures.

No matter how well surveys are designed, the quality and veracity of information depends much on how questions are framed; how informants understand the questions; and whether they are willing and able to give accurate information. These sources of error that affect all systems of getting data are difficult to eliminate and measure. While sample surveys have the merit of being economical and are not subject to biases of the kind affecting data collected by executive agencies, they are not free from errors arising from deficiencies in the conduct of fieldwork and inability or unwillingness of informants to give correct information.

The NSS field investigators are given special training and detailed instructions in every survey before fieldwork begins. Nevertheless, the scale of the surveys requires a

large number of investigators dispersed widely all over the country. Though there are well defined, explicit procedures for supervision and checking of their work, it is difficult to ensure that they are enforced uniformly and strictly everywhere. That the field work depends wholly on a permanent cadre of government staff with limited opportunities for career advancement and that too unrelated to performance compounds the difficulty.

There is also evidence of systematic differences in the quality of fieldwork between the Central and State level organisations. Though both are supposed to adopt identical procedures estimates from State samples are known to differ significantly and systematically from those obtained from Central samples. While the reasons for these differences have not been properly investigated and corrected, there is good reason to believe that State bureaus are not as strict in supervision and checking as the Central organisation of NSS. In fact, most State bureaus publish only a fraction of the planned tabulations and even these are not easily accessible. Most of the detailed discussions based on NSS data rely on estimates from the Central sample.

Over the years, several improvements have been made but methodological research on questionnaire design, relative merits of single and multi-purpose enquiries; the characteristics of respondents and their ability to give needed data; reference periods; field work procedures and related aspects has been neither sustained nor adequate. This requires close collaboration and interaction with academic institutions such as ISI which has greatly weakened during the last three decades.

A more general criticism - which applies not only to the NSS but to the statistical system as a whole - is that information is collected without adequate attention to the purposes they are meant to serve and the cost involved.; that only a fraction of the information collected is utilised; and that it takes an inordinately long time to publish them.

The National Sample Survey Office (NSSO) is facing a shortage of investigators for conducting surveys, raising questions about the quality of data being generated from these surveys. The Field Operations Division (FOD) of the NSSO, which is responsible for collecting primary data, has significant vacancy at various levels including the junior and senior statistical officers. Data from NSSO is central to policy making in India as it happens to be an official source of key socio-economic indicators (consumption, employment etc.) collected via large-scale sample surveys.

"The ground-level staffs of NSSO need to be strengthened but the process is hindered due to time-consuming appointment procedures. Staff constraints had prevented the NSSO from increasing the sample size, that is, the number of people surveyed. The higher the number of people surveyed, the lower is the margin of error, and more reliable is the data. Manpower shortage also limits the office from taking up new surveys. The quality of data, therefore, suffers both on account of insufficient sample sizes as well as relatively untrained field staff,"

The schedules/questionnaires used for collecting statistical information should, as far as possible, be short and simple. It needs to be ensured that data on items that are not included in the tabulation programme are not collected. This would not only help to

reduce delays in compilation and processing but also would minimize informant fatigue and resistance to supplying information

6.7   Some initiatives taken, many more needed

Along with reliability and accuracy, utmost requirement of the day is timeliness and punctuality. Otherwise survey results will lose its relevance. Therefore, it is very much essential to make the data collection/entry at the field level using some handheld device directly uploading the data into cloud server or enter and finalise the data at the field offices. Usages of modern technology in collection, compilation, scrutiny, validation and analysis of data, with a view to streamline entire process from preparation of survey instruments to release of reports would help the NSSO reduce its survey cycle. Automation is seen as a good alternative tool for data collection as it will reduce the non-sampling errors and time lag which will result in timely compilation of reports. Keeping this in view, NSSO has already launched since April 2017 its Periodic Labour Force Survey (PLFS), on the Computer Assisted Personal Interviewing (CAPI) solutions replacing the traditional approach of using paper schedules for filling-in information at the field level. The CAPI solution would enable the data collectors to directly entering them into Tablets from the field. By combining the tasks of data collection and data entry, this process will save substantial time. NSSO has planned for using the same survey solutions even in its socio economic surveys during 77th NSS round (January, 2019-December, 2019). Further, proposed three new surveys namely, Annual Survey of Service Sector Enterprises (ASSSE), Annual Survey of Unincorporated Sector Enterprises (ASUSE) and Time Use Survey (TUS) has been planned to be undertaken through the Browser Based CAPI Solution by NSSO.

The scope of data quality in NSSO may constantly be adjudged on the following items:

(i)Sub-sampling: To judge the extent of error due to sampling, Mahalanobis introduced the technique of interpenetrating sub-samples (IPNS). In the early years of NSS, surveys were occasionally also designed to measure and separate out investigator effects from the estimates. But such techniques obviously fail to protect the data from systematic respondent biases, such as general tendencies to under-report expenditures, savings and asset holdings. The same applies to investigator biases that are common to investigators generally.

(ii)External checks: Comparison with Census data: For certain parameters, the decennial Population Census provides counts for the Census years, and these can be used to make a projection comparable with the NSS estimates. The problem is that the Census counts are as likely to suffer from non-sampling errors as the NSS estimates, and cannot possibly claim to be a superior yardstick against which the quality of NSS estimates can be judged.

(iii)External checks-Comparison with administrative data: This is possible only in case of certain parts of the data of certain surveys. However, these possibilities have not been fully explored. For instance, in case of consumer expenditure surveys, the estimates of rail transport expenditure can be compared with data maintained by the

Ministry of Railways, and estimates of expenditure on purchase of motor cars can be compared with data maintained by the Road Transport authorities.

(iv)Special investigations: It is possible to check the quality of the data obtained from a particular village (say) in a particular round by re-surveying the village within a short period. This can be done to assess the extent of particular kinds of non-sampling errors, such as respondent biases, by making re-visits to consenting sample households. In case of the Urban Frame Survey, intensive checking of details of the blocks formed can be carried out on a sample basis.

(v)Monitoring and evaluation of work of primary field workers: Continuous monitoring of field work of primary field workers (JSOs/FIs) should be put in place. The system of concurrent inspection needs to be thoroughly followed; which will help the primary field officials to collect quality data and develop confidence among them.

(vi)Training programme for field officials: In the present system FIs are put to field work immediately after very short duration training, viz. RTC/Review RTC for a new survey. Obviously such short term trainings are not adequate for preparing inexperience field personnel for such challenging field work. Hence intensive and regular training on survey instruments and data collection mechanism should be imparted to the Field Investigators (FIs) at the SRO/RO/ZO level. This would certainly have a positive impact on the capacity building and would contribute towards proper grooming the FIs. This would in turn definitely contribute to improve data quality. Further, field workers may be given adequate training on communication skill, behavioural skill etc so that collecting data from informants become smoother. Fortunately, it is possible to bring about improvement in quality even when assessment of quality is difficult. For example, even a layman can understand that a doubling of sample size will improve the quality of most estimates, especially estimates of incidence of rare phenomena. Improvement of quality of inputs will always influence output quality. NSSO must therefore make its survey instruments 100% free from ambiguity and its data processing instruments perfectly tuned to the data. However, the extent to which product quality can be improved by such means is limited as long as reported data remains inaccurate.

Wrong reporting can be due to various reasons:

(i)Ignorance of what is to be reported

(ii)Deliberate evasion due to suspicion or fear

(iii)Unwillingness to make the effort necessary to recall and report the required information

(iv)Failure to recall in spite of the will to cooperate. It is difficult for NSSO to tackle these problems. However, a lot remains to be done to create confidence in the public regarding the activities of NSSO and thus reduce deliberate evasion.

In competitive markets, competition acts as a spur to improve quality. The producers who can bring about quality improvements will inevitably attract customers and improve their position while those who cannot will lose their market and fall behind.

A national statistical organisation, unfortunately, always operates as a monopoly. Usually, there is no other organisation that can compete with it in terms of resources. Obviously, this is a mixed blessing. With NSSO sheltered from competition from other data producing organisations, its data receives no inbuilt stimulus for continuous quality improvement that it would otherwise have got.

It is good to insist that a survey report should be a quality document in looks as well as in content. There is no defence for a shoddily put together volume, with poorly aligned text and badly illustrated chapters. A lot of care needs to be put in to ensure that a report does not offend the eye. However, get-up can be overemphasized. No artwork can compensate for a badly composed text. Unfortunately, there is a growing tendency to devote more attention to the packaging of a report than to its basic content.

The more complex and sophisticated a product, the greater is the danger that it may be improperly used. Emphasis on the producer's part that the user is properly instructed in the use of the product is correctly regarded nowadays as a part of product quality. In NSSO, special care needs to be taken in preparing the instructions for use of unit level data. In addition to the estimation procedure, which many may find difficult to comprehend, step-by-step worked-out examples would be of great help. Specialised cells can be set up to respond to users' queries (though their duties should not include the checking of calculations made by users).

6.8   Conclusion

Data quality is not easy to assess. All possible ways of checking quality, even if in limited spheres, need to be explored by a survey organisation, including comparison with administrative data, and special post-survey investigations. Improvement of survey and data processing instruments will yield dividends, but the real problems lie in respondent ignorance, unwillingness and bias. It should be seen that attempts to get more data in a shorter time do not sacrifice quality. In the work of a national statistical organisation, the benefits of competition are absent, and quality initiatives must come from within. In preparing survey reports, good finishing should not take precedence over the content. In case of unit level data, provision of instructions for proper use of the product should be viewed as part of product quality. More over creating greater public awareness of NSSO through extensive publicity campaigns is also an important contributor of better quality of data.

A strong database enumerating the levels and trends of a nation's material and social resources has always been a requisite for the formulation of government policies. NSSO has a long tradition of both data collection and dissemination, made even more extensive by the requirements of planned economic development. Sound statistics lead to informed decision-making and effective formulation and monitoring of public policies. NSSO had a head start in data collection over many other countries–both developed and developing. NSSO does not lack in expertise or in understanding. All that is needed is to integrate and consolidate the available expertise and resources to initiate concerted action. Indian Statistical System is still very responsive to data demands of users be it Government or non-government organisations. Though the

data situation in India is improving, the rapidity of change needs to be further increased to meet the challenges of the constantly evolving situation.

Reference:

1. Training Manual on Data processing of different rounds of National Sample Survey Office, Ministry of Statistics and Programme implementation, Government of India.

2. Instructions to field staff, Volume 1 of different rounds of National Sample Survey Office, Ministry of Statistics and Programme implementation, Government of India.

3. Instructions to field staff, Volume 2 of different rounds of National Sample Survey Office, Ministry of Statistics and Programme implementation, Government of India.

4. Kar, Aloke, D.P.Mondal, P.D.Gupta and A.C.Kulshreshtha (2001): Cross-Validation Study of Estimates of Private Consumption Expenditure Available from Household Survey and National Accounts, Report, CSO and NSSO, Government of India.

7. Meta Data Indicator's Framework- Common Minimum Metadata Indicators

By: Economics Statistics Division, CSO

Introduction

7.1   Data warehouse and other data sharing platforms are going to be vital for the official statistics. To facilitate data sharing, Metadata standards are to be followed. The Inter-Ministerial Committee (IMC) on Data Exchange and Developing an Integrated Statistical Database constituted by MoSPI under the Chairmanship of Director General, CSO had in its report submitted to the Government in December 2016, recommended a metadata indicators' framework namely Common Minimum Metadata Indicators (CMMI) on the lines of DQAF of IMF, customizing the same for the Indian context, to the extent possible. The CMMI list recommended by IMC consists of 6 sections, 18 sub-categories and 41 indicators for defining a standard framework for developing metadata of all official statistics in the country.

Common Minimum Meta Data Indicator (CMMI)

7.2   A large number of countries producing economic statistics calibrate their data using Data Quality Assurance Framework (DQAF) of the IMF. The DQAF essentially is built on the premise that defining the data on the basis of certain indicators can produce the entire plethora of information about the data and the conditions under which the data was produced. The DQAF is based on the indicators divided in various sections, sub-sections and individual attributes.

7.3   In the Indian context, the Inter Ministerial Committee (IMC) on "Data Exchange and Developing an Integrated Statistical Database" under the Chairmanship of DG, CSO had deliberated on the matter and developed a metadata indicators' framework namely Common Minimum Metadata Indicators (CMMI) on the lines of DQAF of IMF. CMMI list in its current form containing 6 sections, 18 sub-categories and 41 indicators:

Common Minimum Metadata Indicators (CMMI) Framework

Section 1: *Pre-requisites*	Legal Environment	1.1 Existence of a statutory act/Binding provision for data collection
		1.2 Existing provision for sharing of data
		1.3 Ensuring confidentiality of data providers
	Available Resources	1.4 Institutionalized Manpower and resources available for data management
		1.5 Sources of funds for statistical activities
	Quality management	1.6 Existing policy of quality or standards

Section 2: *Integrity*	Transparency	2.1 Guideline and Rules Concerning
		    i) Access to statistics for government users
		    ii) Access to statistics for private users
		    iii) Alignment of statistical policy with organization policies

	Professional-ism	2.2 Professional Capacity and existence of dedicated statistical unit(s) or centre(s)

		2.3 Commentary on selection of data source methodology
Section3: *Methodology*	Concepts and definitions	3.1 Definitions, meanings of data elements and processes 3.2 Documentation for access to concepts and definitions related to data produced 3.3 Systems of public knowledge and scrutiny
	Scope of statistics	3.4 Scope, Coverage & Exclusions
	Classification	3.5 Product/Activity/ Other classification in use
Section 4: *Accuracy and Reliability*	Source data	4.1 Collection Mechanism 4.2 Data timeliness 4.3 Norms and specifics of derived products
	Statistical techniques	4.4 Estimation procedures 4.5 Forecast or any other statistical techniques in use
	Data validation	4.6 Validation techniques 4.7 Monitoring of process elements
Section 5: *Serviceability*	Periodicity	5.1 Frequency of data 5.2 Alignment with international recommendations (SDDS) 5.3 Demand based scenario
	Timeliness	5.4 Timeliness commitment for data release – release calendar 5.5 Alignment with international recommendations (SDDS)
	Consistency	5.6 Ensuring temporal and cross sectional consistency 5.7 Comparison with alternative data
	Revision	5.8 Basis of revision schedule 5.9 Extent and nature of revision allowed
	Usage	5.10 Targeted uses and users of data 5.11 Reports/Studies/Projects undertaken for review
Section 6: *Accessibility*	Data	6.1 Presentation and outlay of statistics 6.2 Existence of an IT platform for compilation and dissemination 6.3 Storage of data in physical/electronic form 6.4 Modes of dissemination-Physical/Electronic 6.5 Existence of an advanced release calendar 6.6 Dissemination through payment basis 6.7 Clarification on disaggregated/Unit level data
	Dialogue with users	6.8 Existence of mechanism for feedback on Data/statistics 6.9 Conducting workshop/trainings on a regular basis

7.4   The aforesaid recommendation is accepted by the Ministry of Statistics & Programme Implementation (MoSPI) for implementation. State Govts.can use the same framework for all the statistics/indicators generated by them to ensure common quality standards across the country.

8. Assuring Statistical Confidentiality and Security: RBI experience

By: Dr Anil Kumar Sharma[5]

Information Confidentiality & Security: Core Principles of Information Security includes

- **Data Confidentiality**: Preventing the disclosure of information to unauthorized individuals or systems. This is achieved through the process of **ENCRYPTION (non-readability) of Data while in transit or at rest**.
- **Data Integrity:** Ensuring the accuracy and consistency of data over its entire lifecycle. This means that **data cannot be modified in an unauthorized or undetected manner.**
- **Data Availability:** Information must be available when it is needed. This means that the computing systems used to store and process the information, the security controls used to protect it, and the communication channels used to access it must be functioning correctly. **High Availability (24X7).**
- **Data Authenticity:** Ensuring authenticity of parties involved in the transaction. Some systems use **Digital/Electronic Signature Certificates** to ensure the authenticities of parties involved.
- **Non-Repudiation**: In law, non-repudiation implies one's intention to fulfil their obligations to a contract. It also implies that one party of a transaction cannot deny having received a transaction nor can the other party deny having sent a transaction. **Cryptographic systems** can assist in non-repudiation efforts.

Various methods used for Authentication: Two Factor Authentication includes

- User name & password and One Time Password (OTP)
- User name & password and Grid Card
- User name & password and Hardware Key
- User name & password and Digital signatures can be derived from Public Key Infrastructure (PKI) credentials held on a PC-connected smart token — or "soft" credentials held on the customer's PC — using suitable client software
- User name & password and Message Authentication Code (MAC) — based on secret key cryptography — or a digital signature — based on public-key cryptography.

Depending on the criticality of the system, any of the above method of authentication may be deployed.

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[5]*The author is Adviser, Department of Statistics & Information Management Reserve Bank of India*

Use of Web Service APIs for Secured Data Transfer: To enable the data exchange between RBI and MCA. Web service will be developed by MCA (by CDM Department of MCA) and hosted at their end. RBI will develop an application which will be hosted at Web server that will generate the data request and consume the Web service after proper authentication.

Restful Web service will be created and consumed on both ends.

As Consumer of Web service (provided by client in this case MCA) our Application will request Web service for Actual Data, Master Data and related files

Data will be consumed in JSON format

Data will be validated with the tracker information

Error Log will be maintained

After Consuming the Web service Acknowledgement will be send to Service provider

The Channel of Data flow through the Web Service will be in Encrypted form

A web service is generally defined as 'A software system designed to support interoperable machine-to-machine interaction over a network.'

Web services allow you to expose the functionality of your existing code over the network

Web services allow various applications to talk to each other and share data and services among themselves
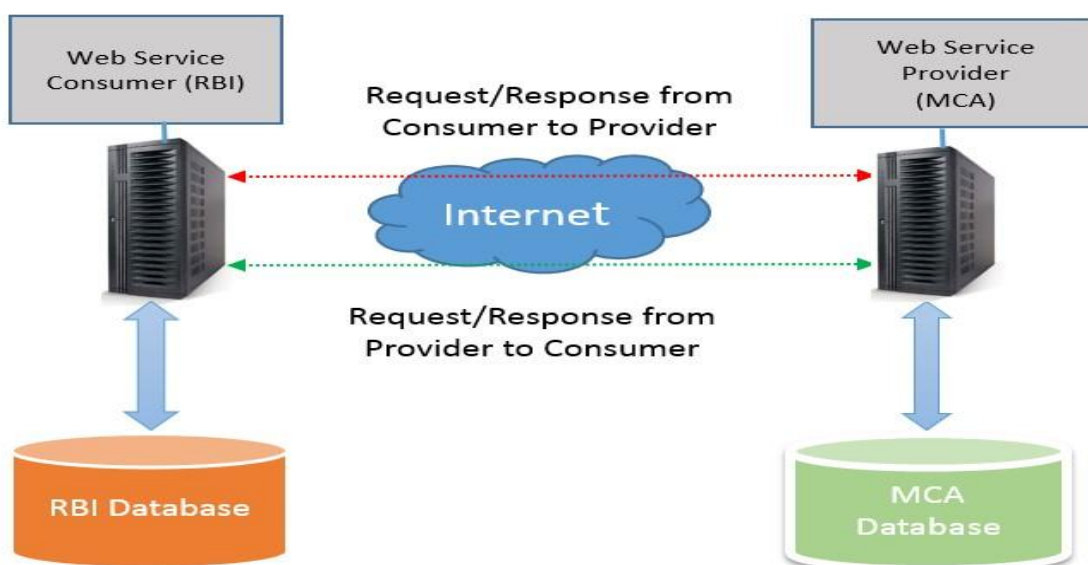
Web services are used to make the application platform and technology independent. (For example, a .NET or PHP application can talk to Java web services and vice versa.)

IP's for RBI will be whitelisted by MCA as a result access for the Web Service will be controlled and limited to just RBI users

Secure algorithm will be used (SHA-256 or bCrypt) to encrypt the Web Service data.

Use of Web Service APIs for Secured Data Transfer

Web Portal for Data Collection

The users are authenticated in the application by providing username and password. RBI user's authentication will be performed by verifying their provided credentials with the application and their status in user master table in the database. However, outside user's authentication will be performed by verifying their username and password from user master.

Application has a Captcha and email OTP authentication facility
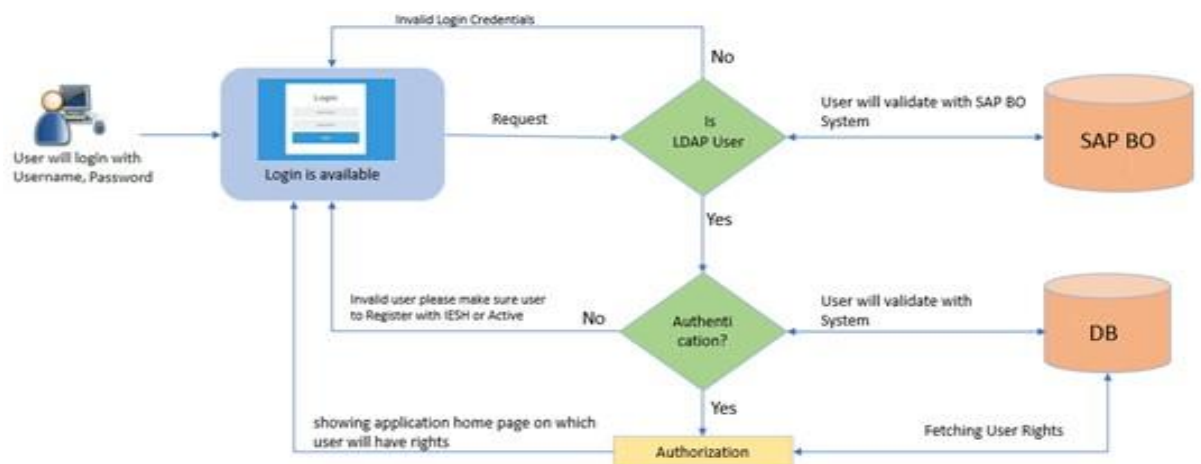
**User management and Access Control**

Access to confidential data requires proper authentication mechanism

Confidential Data is accessible to the internal users of RBI with proper access rights defined at the application level. Currently, the authentication is being managed at two different levels for the internal users of RBI.

LDAP configuration and Application level authentication.

For each user (both internal and public), access levels are defined so that user can access the data.

User management and Access Control
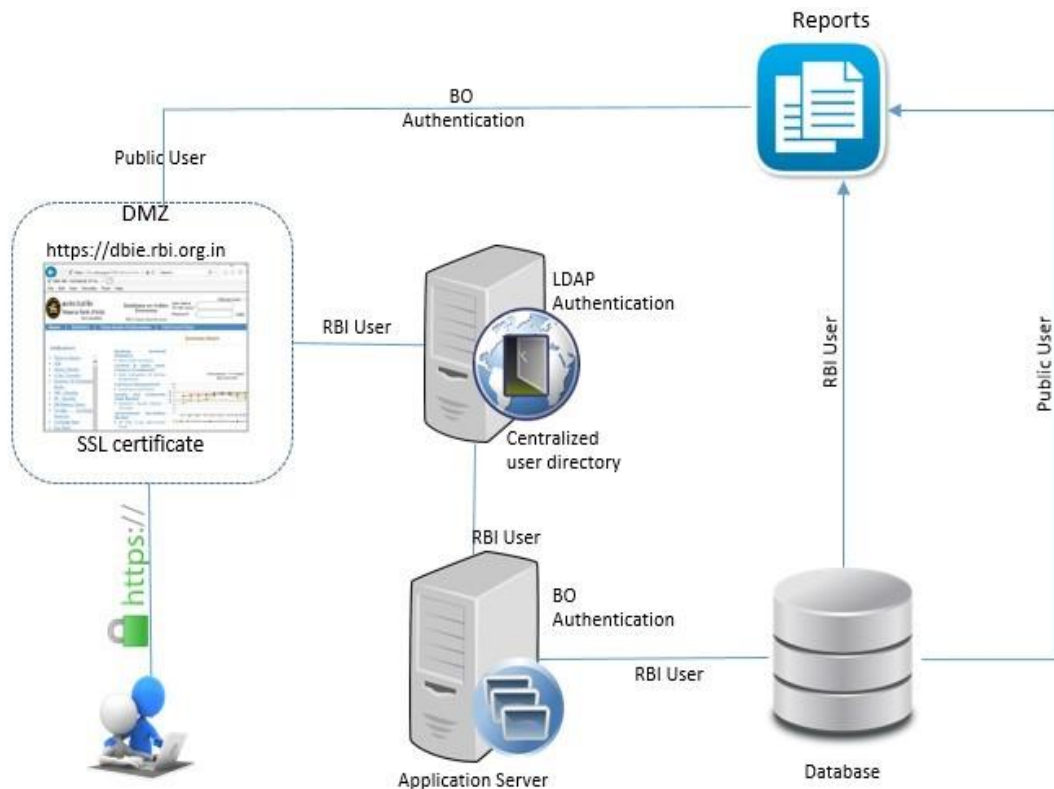
Use of Secured website over Internet

The DBIE can be accessed through the following urlhttps://dbie.rbi.org.in using the web servers present in the Demilitarized Zone (DMZ).

The SSL certificate is deployed to make sure that the communication is secure over the internet.

User security Management in RTGS

All users of RTGS and PO are authenticated based on a digital certificate issued by Certifying Authority, a username and a secret password and user certificate serial number.

The certificate is stored securely on token device along with the private and public keys.

The user account definitions along with their passwords and certificate serial numbers are stored in the application main database.

The passwords are stored only in an encrypted format.

A password policy (i.e. minimum length, minimum complexity etc.) has been enforced to all users according to RBI internal regulations.

The system also forces the users to periodically update their passwords, without reusing the same values.

User Management is the responsibility of the admin of respective participants.

RTGS uses Class III Signing and Encryption certificates with SHA2/RSA 2048 bits key for both SFMS-MI (Thick Client) and Web-API

Report on Enabling PKI in Payment System Applications

RBI published its report on enabling Public Key Infrastructure (PKI) in Payment Systems in India in April 2014

https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=31054

Major recommendations included were strengthening the security features in existing payment system applications and feasibility in implementing PKI in all payments system applications.

All banks' internet banking applications should mandatorily create authentication environment for password-based two-factor authentication as well as PKI-based system for authentication and transaction verification in online banking transaction.

In online banking transactions, banks should provide the option to its customers for enabling PKI for its online banking transactions as optional feature for all customers.

PKI enabled Payment Systems in India

- Real Time Gross Settlement (RTGS)
- National Electronic Fund Transfer System (NEFT)
- Cheque Truncation System (CTS)
- Collateral Borrowing and Lending Obligation (CBLO)
- e-Kuber System (Core Banking Solution of RBI)
- Forex settlement system
- NACH system of NPCI

Non-PKI Payment Systems

☐ Non- MICR clearing systems ☐ ECS – Debit and Credit Clearings ☐ Credit Cards and Debit Cards Payment systems ☐ Mobile Payment Systems (IMPS)

Payment System During 2016-17	Volume (Million)	% to Total	Value (Rs. Billion)	% to Total
RTGS	124.4	0.78	1167125	46.18
CBLO, Forex and G-Sec (CCIL)	3.5	0.02	1074802	42.52
CTS	1111.9	6.70	74035	2.93
Retail Electronic Clearing (ECS, NEFT and NACH)	4457.3	28.05	183090	7.24
Paper Clearing (Non-MICR)	32.6	0.21	2442	0.09
Cards	4748.6	29.89	9191	0.36
Prepaid Payment Instruments (PPIs)	3459.0	21.77	1416	0.06
IMPS	1009.8	6.36	8925	0.35
Unified Payment Interface	915.2	5.76	1098	0.04
Total	15,888.5	100.00	2,527,539	100.00

Payment Systems Statistics

About 98.87 per cent of total value of payment systems are being settled using PKI enabled payment systems

However, only about 35.55 per cent of transactions (volume) are settled using PKI enabled payment systems

About 30 per cent of transactions are card related payments and 22 per cent are PPIs related which are being settled without PKI enabled systems. However, these are low value transactions.

The Reserve Bank of India in 2016 has instructed banks to shift from magnetic stripe based ATM and debit cards to EMV chip and Pin based model of cards to ensure protection of cards from cloning, skimming and other forms of frauds which can happen on a magnetic strip.

Recently, RBI made **data localisation** as a mandatory requirement for foreign players who wants to operate in domestic payment space in India to take of data privacy and security issues.

What level of security is needed?

Implementation of information security **comes at a cost**.

One has to ask **what level of security** should be implemented in a statistical system?

Encryption for **Data at Rest** or **Data in Transit** or **both**?

Electronic Signing versus OTP?

Whether both encryption and electronic signing is needed or not?

9. Ministry of Agriculture & Farmers' Welfare

9.1 The Directorate of Economics and Statistics within the Department of Agriculture Cooperation and Farmers Welfare (DAC&FW), Govt. of India compiles and disseminated District-wise/State-wise Land Use Statistics (LUS) and District wise Area, Production and Yield (APY) in respect of principal crops grown in the country based on data supplied by the respective State Agriculture Statistics Authorities (SASAs). This data base is of utmost importance as it is the basis for studying changes in cropping pattern acreage shifts and impact of development programmes.

9.2 Generally, there is a time lag of 2-3 years in furnishing the data from the SASAs and in case of some states, it is more than 5 years also. Besides in some cases, the data furnished by the SASAs contain various inconsistencies which entails inordinate delay in furnishing data and placing the data in public domain for wider use. Keeping in view the importance of timely, accurate and reliable official statistics for taking firm up decisions in formulating, planning and monitoring any policy, SASAs of all States may kindly be impressed upon to adopt suitable strategy to address these concerns.

10. Ministry of Commerce & Industry

Industrial Statistics Unit (ISU), DIPP has no specific comments/suggestions at this stage. However, ISU, as a major data source agency of all-India Index of Industrial Production (IIP) takes the following steps to ensure data quality:

(i) **Validation:** DIPP has provided on-line production data submission facility to industrial units which include multi-level quality checks. Industrial units are encouraged to submit their monthly production data on-line. Any inconsistencies/abnormal variation found in the data are taken up with the concerned industrial units for clarification. Besides, the products carrying high weights in IIP are checked thoroughly for even small variation.

(ii) **Confidentiality:** In order to ensure confidentiality, unit level data is provided to CSO by suppressing the identification particulars of the industrial units. Data as such compiled by DIPP for the purpose of IIP are neither published separately nor placed in the public domain. Also, the unit level data are not shared with any government or non-government entity.

(iii) **Non-response:** Non-response in the data is treated by imputing the last reported production of the particular unit. Also, constant efforts are made to follow up with non-responding units in order to reduce non-response. Apart from the bulk e-mails, letters are being issued regularly to the non-responding units who do no furnish data in time. Besides, units are being-contacted on regular basis through e-mail and telephone.

(iv) **Timeliness:** In order to maintain timeliness every month, timelines have been set for data collection, validation and compilation. Thus, every month, data is provided to CSO for compilation of all-India IIP by e-mail within 35 days from the end of the reference month.

In addition to the above, DIPP is continuously making efforts to enhance its own database so that later the frame of factories may be augmented by the frame suggested by CSO.

11. Ministry of Food Processing Industries

i. The statistical system needs to be further decentralized to the local administration for their involvement at the grass root level for collection and dissemination of data in a more cost effective manner with use of modern IT techniques. The policy can clearly delineate this aspect.

ii. The list of statistical products identified as core statistics may include **"Collection and Compilation of harvest and post-harvest losses"** on regular basis at least through sample survey in periodical intervals as with passage of time these statistics has gained importance for demand-supply management (in-addition to the production data) that can influence related policy parameters too. Moreover, one of the parameters for monitoring the sustainable development goals (SDGs) is as below:
   "By 2030, achieve have per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses:

   MoFPI is taking all measures along with related Ministries to reduce wastage by encouraging processing/value addition/efficient harvest and post harvests management etc. Hence, data on food wastages/losses need to be compiled and monitored to assess impact of schemes and programmes of MoFPI and related Ministries/Organisations who in turn can redirect their resources for further improvement, if warranted.

   Further, the policy may prescribe the periodicity of revision of list of core statistics based on the intensity of use of different sets of statistics and inclusion or exclusion thereof.

iii. Success and failure of many government plans/programmes/policy initiatives/schemes etc. is inter alia, dependent on the awareness of the public about such schemes/programmes etc. and there should be a regular/robust statistical base about the extent of awareness among the public on the various schemes etc. and the sources of their information etc. to further make appropriate intervention for wider publicity. Hence, collection of 'awareness statistics' need to be included as core statistics.

iv.   As a corollary to point (3) above, the policy may delineate a system of 'predictive research' on the outcomes of which the future data requirement can be predicted and included in the core statistics list in tune with fast changing world. To cite an example, artificial intelligence (AI) is going to make inroads in every aspect of economic activity and may disrupt many balances in the eco-system, particularly on employment front. A sound data base on sector-wise deployment of AI may be of immense importance for the policy makers.

v.   A policy on smart statistics be introduced to appropriately address the real-time data flow by using IT tools. To cite an example, the results of Annual Survey of Industries (ASI) at present is available with a time lag of two years. Can a smart data collection system be developed by way of integration with GSTN portal to capture certain vital information like number of units in operation and the volume/value of output produced or manufactured by them which MoFPI needs on regular basis.

vi.   A uniform pricing and selling policy of data used by non-government agencies can be included.

12.   Ministry of Social Justice and Empowerment

a.   Existence of gaps in availability of needed information

b.   The Indian Statistical Systems records are created through National Sample Surveys and through the Central Statistical Organization. The methodology soundness, transparency and consistency in the produced data needs to be owned and updated constantly to keep it in pace with Special data Dissemination Standards in terms of technological, organizational, methodological and data issues. The problem of data enumeration in NSSO survey also needs to be looked into to make it more representative of the targeted population which is being covered under Survey, so that the results of such survey are more accurate with less standard error.

13.   Ministry of Development of North Eastern Region

(i)   **Separate values for North Eastern States:**

It has been observed that data relating to FDI Equity inflows published by Department of Industrial Policy & Promotion (DIPP) and Tele-Density published by Telecom Regulatory Authority of India (TAI) gives combined values for North Eastern States excluding Sikkim. The State of Sikkim has been merged with the State of West Bengal in both the cases. As a result, values for the State of Sikkim cannot be obtained. Concerned

Ministries may be requested to provide separate values for the North Eastern States.

(ii) **Statistical Handbook of the State Governments**:

It has been observed that State Governments are not uploading the State's Statistical Handbook timely. Given the fact that Statistical handbook serves as a valuable resource tool in providing relevant data of the State, it would be purposeful if it is compiled, published and uploaded in their website timely. Since, Directorate of Economics and Statistics is the nodal agency for statistical activities in the State, it may ensure that the same is timely uploaded.

(iii) **Reorganizing district level statistics in view of the bifurcation of districts**:

Since, in the recent past, some districts in the North Eastern States have been formed from other districts of the region. States may be requested to reorganize district/block level statistics relating to various indicators such as village electrification, hospitals, schools etc. in view of the bifurcation of districts.

14. Ministry of Tribal Affairs

As far as Ministry of Tribal Affairs (MoTA) is concerned primary data are not being collected. However, data pertaining to Scheduled Tribes (STs) relating to different indicators are collected and published by various Ministries/ Departments/ Organizations, for example Office of Registrar General of India (RGI), Ministry of Home Affairs, National Sample Survey Office (NSSO), Ministry of Statistics &Programme Implementation (MoSPI), Ministry of Health & Family Welfare (MoHFW), Ministry of Human Resource Development (MoHRD), National Crime Records Bureau (NCRB),Ministry of Labour& Employment, etc. are used by MoTA for planning various interventions to improve the Socio-economic status of STs. Therefore, quality assurance with respect to official statistics is extremely important and essential for correct decision making by the users.

15. Ministry of Human Resource Development

Ministry of Human Resource Development is the nodal ministry which deals specifically education sector and directly or indirectly involved with all the education institutions located in the Indian Territory. Apart from formulating the National Policy on Education it also maintains the statistics on education. MHRD is conducting an annual based survey All India Survey on Higher Education since 2010-2011. The entire survey was conducted through electronic mode and a dedicated portal http://aishe.gov.in was developed for the purpose, thus making the exercise

completely paperless. The survey intended to cover all the Institutions in the country engaged in imparting the higher education. Data is being collected on several parameters such as teachers, student enrolment, programmes, examination results, education finance, infrastructure etc. Indicators of educational development such as Institution Density, Gross Enrolment Ratio, Pupil Teacher Ratio, Gender Parity Index etc. are calculated from the data collected through AISHE. These are useful in making informed policy decisions and research for development of education sector.

16. Bureau of Indian Standards and Quality Standards

Introduction

Bureau of Indian Standards, the National Standards Body of India established in 1947, is engaged in activities of Standardization, Quality and Conformity Assessment. Under the Bureau of Indian Standards Act, 2016, Bureau establishes National Standards in relation to any article or process and amends, revises or cancels the standards so established as may be necessary, by a process of consultation involving consumers, manufacturers, Government and regulatory bodies, technologists, scientists and testing laboratories through duly constituted committees. For formulation of Indian Standards, BIS functions through the Technical Committee structure comprising of Sectional Committees, Subcommittees and Panels set up for dealing with specific group of subjects under respective Division Councils. As a policy, the standards formulation activity of BIS has been harmonized as far as possible with the relevant guidelines as laid down by the International Organization for Standardization (ISO). There are 14 Division Councils and over 400 Technical Committees that have so far developed over 19000 Indian Standards. One of such Division Councils is Management Systems Division Council. Statistical Methods for Quality and Reliability, MSD 03 is the sectional committee under this division council which prepares standards in the field of statistics.A detailed write up on "**Standards For Quality Assurance In Official Statistics" is given below:**

Background

Statistics is the science dealing with the collection, presentation, analysis and interpretation of data.Official statistics are statistics published by government agencies or other public bodies. They provide quantitative or qualitative information on all major areas of citizens' lives, such as economic and social development, living conditions,health, education, and the environment.As number of decisions taken, for the benefit of common citizens of the country, by the Governments at Centre and States and other public bodies are based on the officialstatistics. Therefore, it is important that necessary systems are introduced so that quality is not only built in at different stages of collection of data, but also maintained at all times. These systems, commonly known as quality management systems ensure such quality.

Additionally, there is a need to have common terminology of statistical terms used in official statistics for common understanding. In case the official statistics are based on samples, then designing for data collection, like locations, size of sample from such locations, how the sample be drawn so that it is representative of location, competency of personnel collecting data etc also become important. Therefore, there

is a need to have standards, which are internationally accepted, to provide guidance in all such areas.

Once data are collected, it needs to be presented suitably in tabular form, graphs or pictorial diagrams for further analysis. Knowledge of such standards in presentation and analysis with the help of examples is also required.

As such there is need for not only statistical standards for Planning, Summarization, Analysis and Interpretation of data, but also for standards which build quality.

Bureau of Indian Standards, the National Standards body of India provides help in all such areas.

Bureau Of Indian Standards

Bureau of Indian Standards, the National Standards Body of India established in 1947, is engaged in activities of Standardization, Quality and Conformity Assessment. Under the Bureau of Indian Standards Act, 1986, Bureau establishes National Standards in relation to any article or process and amends, revises or cancels the standards so established as may be necessary, by a process of consultation involving consumers, manufacturers, Government and regulatory bodies, technologists, scientists and testing laboratories through duly constituted committees.

For formulation of Indian Standards, BIS functions through the Technical Committee structure comprising of Sectional Committees, Subcommittees and Panels set up for dealing with specific group of subjects under respective Division Councils. The committee structure of BIS seeks to bring together all those with substantial interest in particular project, so that standards are developed keeping in view national interests and after taking into account all significant view-points through a process of consultation. Decisions in BIS technical committees are reached through consensus. As a policy, the standards formulation activity of BIS has been harmonized as far as possible with the relevant guidelines as laid down by the International Organization for Standardization (ISO).

There are 14 Division Councils and over 400 Technical Committees that have so far developed over 19000 Indian Standards. One of such Division Councils is Management Systems Division Council.

Management Systems Division Council

This Council was established for preparation of national standards in the field of Quality Management and Quality Assurance, Statistical quality control, Management and productivity, documentation and information, various services including banking and financial services, social responsibility, Education, Tourism and related services, psychological assessment, brand valuation, rating services, product recall, consumer product safety, sustainability in event management, competence standards, and conformity assessment.

There are 10 Committees under this division council:

— Quality Management, MSD 02

- — Statistical Methods for Quality and Reliability, MSD 03
- — Management and Productivity, MSD 04
- — Documentation and Information, MSD 05
- — Publication and Graphic Technology, MSD 06
- — Banking and Financial Services, MSD 07
- — Social Responsibility, MSD 10
- — Resource Management, MSD 12
- — Tourism and related Services, MSD 13
- — Service Sector, MSD 16

Various Indian Standards published so far under this Division Council can be seen from our website (www.bis.org.in).

Standards For Quality Assurance

IS/ISO 9000: 2015 Quality Management Systems - Fundamentals and Vocabulary

This Standard provides the fundamental concepts, principles and vocabulary for quality management systems (QMS) and provides the foundation for other QMS standards and help the user to effectively and efficiently implement a QMS and realize value from other QMS standards

This standard contains seven quality management principles supporting the fundamental concepts. For each quality management principle, there is a "statement" describing each principle, a "rationale" explaining why the organization would address the principle, "key benefits" that are attributed to the principles, and "possible actions" that an organization can take in applying the principle.

IS/ISO 9001:2015 Requirements

This Standard specifies requirements for a quality management system when an organization:

- — needs to demonstrate its ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, and
- — aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

The adoption of a quality management system is can help an organization to improve its overall performance and provide a sound basis for sustainable development initiatives.

The potential benefits to an organization of implementing a quality management system based on this Standard are:

- — the ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements;
- — facilitating opportunities to enhance customer satisfaction;

- addressing risks and opportunities associated with its context and objectives;
- the ability to demonstrate conformity to specified quality management system requirements.

This Standard employs the process approach, which incorporates the Plan-Do-Check-Act (PDCA) cycle and risk-based thinking.

The process approach enables an organization to plan its processes and their interactions. The PDCA cycle enables an organization to ensure that its processes are adequately resourced and managed, and that opportunities for improvement are determined and acted on.

Risk-based thinking enables an organization to determine the factors that could cause its processes and its quality management system to deviate from the planned results, to put in place preventive controls to minimize negative effects and to make maximum use of opportunities as they arise.

IS/ISO/TS 9002:2016 - Guidelines for the application of ISO 9001:2015

This standard provides guidance on the intent of the requirements in ISO 9001:2015, with examples of possible steps an organization can take to meet the requirements. It does not add to, subtract from, or in any way modify those requirements.

IS/ISO/9004:2018 - Quality of an organization -- Guidance to achieve sustained success

This standard provides guidance for organizations to achieve sustained success in a complex, demanding and ever-changing environment, with reference to the quality management principles described in ISO 9000:2015. Where they are applied collectively, quality management principles can provide a unifying basis for an organization's values and strategies.

While ISO 9001:2015 focuses on providing confidence in an organization's products and services, this document focuses on providing confidence in the organization's ability to achieve sustained success.

Top management's focus on the organization's ability to meet the needs and expectations of customers and other relevant interested parties provides confidence in achieving sustained success. This document addresses the systematic improvement of the organization's overall performance. It includes the planning, implementation, analysis, evaluation and improvement of an effective and efficient management system.

Factors affecting an organization's success continually emerge, evolve, increase or diminish over the years, and adapting to these changes is important for sustained success. Examples include social responsibility, environmental and cultural factors, in addition to those that might have been previously considered, such as efficiency, quality and agility; taken together, these factors are part of the organization's context.

STANDARDS ON STATISTICAL METHODS REQUIRED FOR OFFICIAL STATISTICS

Vocabulary

IS 7920 (Part 1): 2012　　Statistical Vocabulary and Symbols Part 1 General Statistical Terms and terms used in Probability

This part the standard defines general statistical terms and terms used in probability which may be used in the drafting of other International Standards. In addition, it defines symbols for a limited number of these terms.
The terms are classified as:
a) General statistical terms
b) Terms used in probability

IS 7920 (Part 2): 2012/ISO 3534-2:2006　Statistics Vocabulary and Symbols Part 2 Applied Statistics

This part of the standard defines applied statistics terms. It has been recognized that the acceptance of applied statistics as a means to improving the effectiveness and efficiency of organizations has been hampered by the complexity and confusion introduced by conflicting designation and usage of terms, definitions, abbreviations and symbols.

The two principal purposes of this part of standard are, specifically, to establish a common vocabulary for use, together with the broader intent to enhance the preciseness, clarity and cohesiveness in the usage/application of applied statistics generally.

IS 7920 (Part 3): 2018/ISO 3534-3 : 2013　Statistics - Vocabulary and Symbols Part 4 Design of Experiment

This part of the standard defines the terms used in the field of design of experiments and may be used in the drafting of other International Standards.

More specifically, it defines terms used in the field of design of experiments for which the response variable is one-dimensional and continuous and for which the expectation of the response variable is linear in the parameters. The terms with regard to the statistical analysis are based on the assumption that the error term follows a normal distribution with constant variance.

IS 7920 (Part 4): 2016/ISO 3534-4: 2013　Statistics - Vocabulary and Symbols Part 4 Survey Sampling

This part the standards defines the terms used in the field of survey sampling and can be used in the drafting of other International Standards.

Data Collection – Random Sampling and Sampling Methods

IS 4905: 2015/ISO 24153: 2009　　Random Sampling and Randomization Procedures First Revision

Random sampling and randomization procedures are the cornerstone to the validity of many statistical methods used in experimentation, whether for industrial quality control and improvement purposes or for designed experiments

This Standard defines procedures for random sampling and randomization. Several methods are provided, including approaches based on mechanical devices, tables of random numbers, and portable computer algorithms.

This Standard is applicable whenever a regulation, contract, or other standard requires random sampling or randomization to be used. The methods are applicable to such situations as
a) Acceptance sampling of discrete units presented for inspection in lots,
b) Sampling for survey purposes,
c) Auditing of quality management system results, and
d) Selecting experimental units, allocating treatments to them, and determining evaluation order in the conduct of designed experiments.

Information is also included to facilitate auditing or other external review of random sampling or randomization results where this is required by quality management personnel or regulatory bodies.

IS 2500 (Part 1) : 2000/ISO 2859-1:1999   Sampling Inspection Procedures - Part 1 Attribute Sampling Plans Indexed by Acceptable Quality Limit AQL for Lot-by-Lot Inspection

This part of standard specifies an acceptance sampling system for inspection by attributes. It is indexed in terms of the acceptance quality limit (AQL).

Its purpose is to induce a supplier through the economic and psychological pressure of lot non-acceptance to maintain a process average at least as good as the specified acceptance quality limit, while at the same time providing an upper limit for the risk to the consumer of accepting the occasional poor lot.
Sampling schemes designated in this part of ISO 2859 are applicable, but not limited, to inspection of
— End items,
— Components and raw materials,
— Operations,
— Materials in process,
— Supplies in storage,
— Maintenance operations,
— Data or records, and
— Administrative procedures.

These schemes are intended primarily to be used for a continuing series of lots, that is, a series long enough to allow the switching rules (9.3) to be applied. These rules provide:
a)   Protection to the consumer (by means of a switch to tightened inspection or discontinuation of sampling inspection) should a deterioration in quality be detected;

b) An incentive (at the discretion of the responsible authority) to reduce inspection costs (by means of a switch to reduced inspection) should consistently good quality be achieved.

Sampling plans in this part of standard may also be used for the inspection of lots in isolation but, in this case the user is strongly advised to consult the operating characteristic curves to find a plan that will yield the desired protection (see 12.6). In that case, the user is also referred to the sampling plans indexed by limiting quality (LQ) given in ISO 2859-2.

Summarization

IS 7200 (Part 1): 1989   Presentation of statistical data Part 1 Tabulation and summarization

Numerous data is being generated and collected for different purposes. Once the requisite data are collected, it becomes imperative that the same are properly condensed and presented to facilitate the drawing of correct inferences or conclusions. Depending on the need of the situation, the data may be tabulated and summarized or condensed graphically or pictorially.

This standard outlines the procedure for recording the data. Preliminary scrutiny for elimination of discrepancies and mistakes in data, summarization or data by means of histograms, frequency distributions and computation of quantitative measures of central tendency and dispersion

IS 7200 (Part 2): 1975   Presentation of statistical data Part 2 Diagrammatic representation of data

However, sometimes the salient features of the data may not be quite evident to I the user when these are presented in a tabular form. Besides, some of the actual pattern of the data, specially pertaining to a time series type of observations are lost in the condensation and tabulation. On the other hand, graphs and charts facilitate quick understanding of the contents of the data, bring out fluctuations, interrelationships and other essential details more prominently.

This standard (Part II) deals with the diagrammatic representation of data in the form of line graphs, bar charts, pie charts, symbol charts and statistical maps.

Test of Significance

IS 6200 (Part 1): 2003   Statistical Tests of Significance - Part 1 Normal, t- and F-Tests

Statistical tests of significance are important tools in decision-making. They are extremely useful in finding out whether, in the case of one population, the mean value differs significantly from certain specified value or whether, in the case of two populations, the mean values differ significantly from each other.

This standard (Part 1) lays down the following tests of significance:

a) *One-sample test* — Testing of mean of a population against a specified value:
   when the population variance is known, and
   when the population variance is not known

b) *Two-samples test* — Testing equality of means of two populations:
   when the variances are known, and
   when the variances are not known

c) Testing for equality of variances of two populations.

d) Testing for proportions.

IS 6200 (Part 2): 2004   Statistical Tests of Significance - Part 2 χ^2- Test

Statistical tests of significance are important tools in decision-making. They are extremely useful in testing the hypothesis of the population variance that is, whether a given sample could have arisen from a specified population with the known variability. Thus, if the variability associated with a quality characteristic of product is known beforehand, it is possible to examine whether any observed change in the variability is due to the change in the process parameters or due to chance. In other cases, it may be desirable to test the goodness of fit of a theoretical distribution, say a normal or binomial distribution, to a given set of observations. In yet other cases, it may be necessary to find out whether any meaningful association exists between observations obtained under different classifications.

This standard lays down application of χ^2-test for:
   - testing of population variance against specified value,
   - testing for goodness of fit by comparing the observed frequencies with the theoretical or expected frequencies, and
   - testing for independence in the case of contingency tables.

Each test has been illustrated with the help of examples

IS 6200 (Part 3) : 2003   Statistical Tests of Significance - Part 3 Tests for Normality

This standard gives the following tests for normality
   - χ^2- test,
   - Normal test based on skewness and kurtosis,
   - Shapiro-Wilk test, and
   - D'Agostino test

Interpretation of Results

IS 14277: 1996   Statistical Interpretations of Test Results - Estimation of Mean Standard Deviation and Regression Coefficient - Confidence Interval

A point estimate is a single value which is used to estimate the parameter in question. A point estimate is often inadequate as an estimate of a parameter since it rarely coincides with the value of the parameter and does not indicate how far away this estimate is from the true value of the parameter. One way of expressing this uncertainty is to specify an interval as an estimate instead of a single value, stating

that the interval thus calculated includes the true value of the population parameter, has a specified high probability. Such an interval is called a confidence interval.

The confidence interval is obtained as a function of the test results on items in the sample of observations and therefore *is* a random interval. Associated with it is a confidence level (sometimes termed as confidence coefficient), which is the probability, usually expressed as a percentage, that the interval does contain the parameter of the population. If we choose an interval such that the probability that it contains the value of the population parameter is 1 - *a,* then we say that the interval is a 100 (1 - a) percent confidence interval for the parameter and 1- a is known as the confidence level. Generally 9.5 percent and 99 percent confidence intervals are constructed.

This standard specifies the statistical treatment of test results needed to calculate confidence interval for the mean, standard deviation and regression coefficient of a population.

IS/ISO 16269 (Part 4): 2010 Statistical Interpretation of Data Part 4 Detection and Treatment of Outliers

Identification of outliers is one of the oldest problems in interpreting data. Causes of outliers include measurement error, sampling error, intentional under- or over-reporting of sampling results, incorrect recording, incorrect distributional or model assumptions of the data set, and rare observations, etc.

Outliers can distort and reduce the information contained in the data source or generating mechanism. In the manufacturing industry, the existence of outliers will undermine the effectiveness of any process/product design and quality control procedures. Possible outliers are not necessarily *bad* or *erroneous*. In some situations, an outlier may carry essential information and thus it should be identified for further study.

The study and detection of outliers from measurement processes leads to better understanding of the processes and proper data analysis that subsequently results in improved inferences.
This part of the standard provides detailed descriptions of sound statistical testing procedures and graphical data analysis methods for detecting outliers in data obtained from measurement processes. It recommends sound robust estimation and testing procedures to accommodate the presence of outliers.

This part of the standard is primarily designed for the detection and accommodation of outlier(s) from univariate data. Some guidance is provided for multivariate and regression data.

IS/ISO 16269 (Part 6): 2014 Statistical Interpretation of Data Part 6 Determination of Statistical Tolerance Intervals

A statistical tolerance interval is an estimated interval, based on a sample, which can be asserted with confidence level $1 - \alpha$, for example 0,95, to contain at least a specified proportion p of the items in the population. The limits of a statistical tolerance interval are called statistical tolerance limits. The confidence level $1 - \alpha$ is

the probability that a statistical tolerance interval constructed in the prescribed manner will contain at least a proportion p of the population. Conversely, the probability that this interval will contain less than the proportion p of the population is α. This part of the standard describes both one-sided and two-sided statistical tolerance intervals; a one-sided interval is constructed with an upper or a lower limit while a two-sided interval is constructed with both an upper and a lower limit.

This part of the standard describes procedures for establishing statistical tolerance intervals that include at least a specified proportion of the population with a specified confidence level. Both one-sided and two-sided statistical tolerance intervals are provided, a one-sided interval having either an upper or a lower limit while a two-sided interval has both upper and lower limits. Two methods are provided, a parametric method for the case where the characteristic being studied has a normal distribution and a distribution-free method for the case where nothing is known about the distribution except that it is continuous. There is also a procedure for the establishment of two-sided statistical tolerance intervals for more than one normal sample with common unknown variance.

IS/ISO 16269 (Part 7): 2001 Statistical Interpretation of Data Part 7 Median - Estimation and Confidence Intervals

This part of the standard specifies the procedures for establishing a point estimate and confidence intervals for the median of any continuous probability distribution of a population, based on a random sample size from the population. These procedures are distribution-free, i.e. they do not require knowledge of the family of distributions to which the population distribution belongs. Similar procedures can be applied to estimate quartiles and percentiles.

IS/ISO 16269 (Part 8): 2004 Statistical Interpretation of Data Part 8 Determination of Prediction Intervals

Prediction intervals are of value wherever it is desired or required to predict the results of a future sample of a given number of discrete items from the results of an earlier sample of items produced under identical conditions

The purpose of this part of the standard is therefore twofold:

— to clarify the differences between prediction intervals, confidence intervals and statistical tolerance intervals;
— to provide procedures for some of the more useful types of prediction interval, supported by extensive, newly-computed tables.

This part of the standard specifies methods of determining prediction intervals for a single continuously distributed variable. These are ranges of values of the variable, derived from a random sample of size n, for which a prediction relating to a further randomly selected sample of size m from the same population may be made with a specified confidence.
Three different types of population are considered, namely:

a) normally distributed with unknown standard deviation;
b) normally distributed with known standard deviation;
c) continuous but of unknown form.

For each of these three types of population, two methods are presented, one for one-sided prediction intervals and one for symmetric two-sided prediction intervals. In all cases, there is a choice from among six confidence levels.

The methods presented for cases a) and b) may also be used for non-normally distributed populations that can be transformed to normality.

For cases a) and b) the tables presented in this part of are restricted to prediction intervals containing *all* the further m sampled values of the variable. For case c) the tables relate to prediction intervals that contain at least $m - r$ of the next m values, where r takes values from 0 to 10 or 0 to $m - 1$, whichever range is smaller.

For normally distributed populations a procedure is also provided for calculating prediction intervals for the mean of m further observations.

Comparison and Relation

IS 15564: 2005 Benchmarking

Benchmarking is simply the process of measuring the performance of one's company against the best in the same or another industry. It is often stated that those who benchmark do not have to reinvent the wheel. By following others one can make improvements and not focus on stale ideas. The knowledge that is available for comparing operations and processes are vast. An organization's ability to evaluate its practices against specific business strategies and objectives is critical to leveraging its knowledge capital. It is the process of using all of the knowledge and experience of others to develop new and fresh ideas. This is basic teamwork, which is the way progressive organizations are migrating. Many organizations are realizing how much more can be achieved, if there is more collaboration between leaders in an industry.

This standard prescribes the steps to be taken for conducting benchmarking studies for processes deployed in industry. It also highlights the types of benchmarking studies that might be performed.

IS 7300: 2003 Methods of Regression and Correlation

The study of the relationship between two variables is of fundamental importance in industry. For example, in the building industry, while studying the properties of cement, it may be necessary to estimate the effect of curing time on the compressive strength. In such problems, where one variable is of particular interest for studying the effect of the other variable on it, the concept of regression is quite useful. The regression technique is also helpful for the purpose of prediction. In some problems, the relationship between two variables maybe of great interest, for example, in the case of steel, one can study tensile strength by using hardness test, as the latter has a strong relationship with the former. The determination of the extent of relationship between two variables leads to the concept of correlation.

This standard covers the statistical methods of linear regression and correlation in the case of two variables.

17. Ministry of Health and Family Welfare

17.1 Introduction:

India is one of the fastest growing world economies and the rapid pace of growth requires commensurate improvements in health as well. The economy is in a process of health transition, encompassing demographic socio-cultural and nutritional transition as well. The demographic dynamics and health status of the population are critical in determining the success of health policies, interventions and schemes. The existing health statistics need to be comprehensive to allow evidence based planning of health and welfare programmes and monitoring outcomes.

In India, Health is a concurrent subject. The Central government is responsible for implementation of Central Schemes and Programmes of National Importance, whereas states governments are responsible for running their health departments. At National level 0.9% of GDP is available for Health Sector and a major part of this goes into implementation of National programmes and schemes. Sound and reliable information is the foundation of decision-making across all health system, and is essential for health system policy development and implementation, governance and regulation, health research, human resources development, health education and training, service delivery and financing.

HMIS is a web-based Monitoring system that has been put in place by Ministry of Health & Family Welfare (MoHFW), Government of India, to monitor its health programmes and provide key inputs for policy formulation and interventions. It was launched in October 2008 with provision to upload district consolidated figures. It designed to support planning, management, and decision making in health facilities and organizations. It envisages designing & developing ICT enabled Health Management Information System (HMIS) which can help transforming data into information and evidence and thereby enable better decision making to improve accountability and effectiveness at all levels of the health system.

HMIS is

- To Monitor the performance and quality of health care services and .National Health Mission
- A tool for evidence based health planning
- Repository of information on health care indicators and trends
- Used for testing the effectiveness, efficiency and coverage of health programs and schemes
- To improve availability and access of health care to the population
- Developing and monitoring performance based health indicators

The key components of the HMIS application system includes
- HMIS Public Portal
- Web based data Entry Application
- Analytical Reporting Solution
- Spatial Analysis

The web based data entry application was initially designed for capturing data of various health indicators under NHM Program for the district level. Most of the districts started reporting data regarding performance of health indicators at the district level and the solution was stabilised by end of FY 2009-10 with regular data

entry. At that point, MOHFW extended the system for capturing data at the root level i.e. the health facility level where the services are actually rendered to the patients. There are approx. 700 districts and 2 lacs health facility.

The solution is based on client server computing environment and developed using Microsoft Technology with ASP.net 3.5 as front end & SOL Serer 2008 Enterprise Edition as the backend database.

The application is based on 3-tier Architecture, where the application will be organised into three major disjunctive tiers. These tiers are:
- Tier 1 (Presentation Logic) : Includes simple controls and user input validation
- Tier 2 (Application Server): Includes business processes logic and the data access.
- Tier 3 (Data Server): Provides Business Data.

HMIS started with provision for District level data entry in 2008. Once all the State/ UTs stabilized on the same by 2010, 2010-11 onwards facility level reporting was initiated by sates/ UTs in a phased manner, depending on the capabilities/ resources available with a State/ District. Since many states / districts initiated facility, level reporting late this may lead to lesser number of facilities reporting in the initial years, it was year 2016-17 where all the states/ districts shifted to facility level reporting and around 2 lakh facilities started reporting every month.

17.2. Data quality of statistics is measured in the following Dimensions (i) relevance (ii) accuracy(iii) timeliness and punctuality (iv)accessibility and clarity (v) comparability (vi) Coherence, However all these criteria do not apply to Administrative Data . Administrative data quality dimensions can be described by (i) Technical Checks: Technical usability of the file and the data in the file (ii) Inerrability: Extent to which the data sources is capable of undergoing integration or being integrated (iii) Accuracy: The extent to which data are correct reliable and certified (iv) Completeness: Degree to which a data source includes data describing the corresponding set of real-world objects and variables (v) Time related Dimension: Indicators that are time or stability related.

17.3. Now we have to see how much we can ensure the quality of data available through HMIS. As far as the Technical Checks Dimension are concerned HMIS has been developed taking into account different aspects of the Technical Checks Dimension, which can further be breakdown into (a) the Readability through HMIS, it is possible to physically access the data as the file cannot be opened or it is damaged. Which means we can see the files that are corrupted or cannot be opened.(b) the Convertibility includes objects with decoding errors or corrupted data. (iii) the file declaration compliance is related to the difference from metadata layout delivered or agreed upon (c) formats and names (d) variable and attribute content (e) categories defined for categorical variables (f) ranges for numerical variables.

Integrability of Indicators means to evaluate the ease by which the data in the source can be integrated with the statistical production system of National Statistical Authority. Since Administrative data primarily collected for non-statistical purpose and describe non statistical concepts, they need to be converted in to statistical concepts by appropriate harmonization.

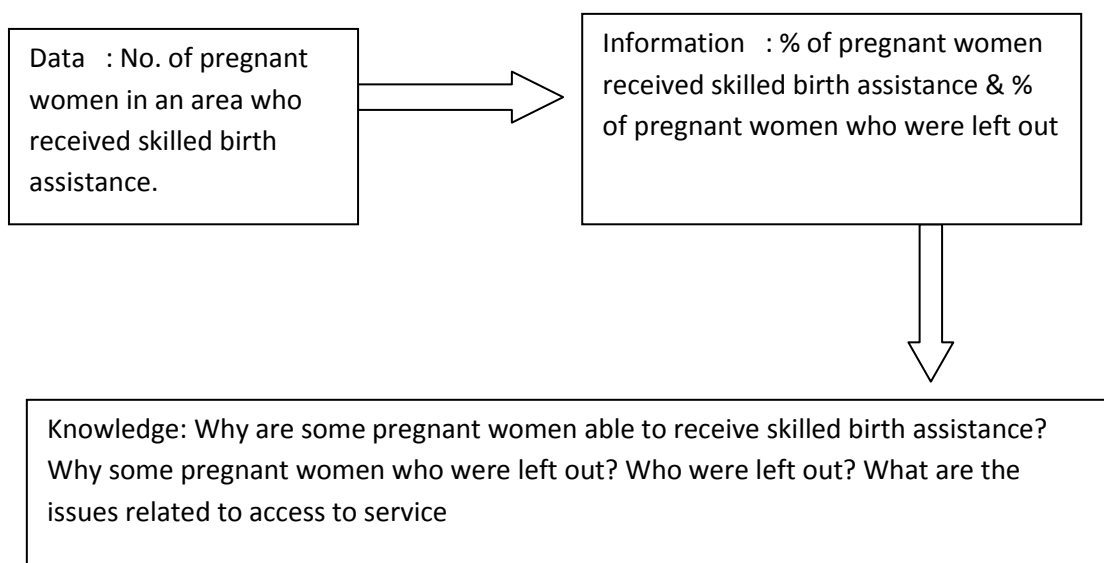Integrability can be further broken down into following criteria.

(a) Comparability of objects include identical objects corresponding objects, incomparable objects and non-corresponding aggregated objects.

(b) Alignment of Objects includes number of data points in the reference statistical population with exactly same unit of analysis and same concept definition as those in the source. Corresponding aligned objects include number of objects in the reference statistical population that, after harmonization corresponds to units or parts of units in the source. Nonaligned aggregated objects include objects of interest at an aggregated level in source that cannot be aligned.

(c) Linking variables Include number of variables with correctly convertible linking variables.

(d) Comparability of variables in different sources like source 1 and 2 with exactly the same value for the variable under study

In HMIS every data element can be converted into Information which further leads to Knowledge.

Data : No. of pregnant women in an area who received skilled birth assistance.

Information : % of pregnant women received skilled birth assistance & % of pregnant women who were left out

Knowledge: Why are some pregnant women able to receive skilled birth assistance? Why some pregnant women who were left out? Who were left out? What are the issues related to access to service

17.4. Completeness mainly focus on coverage It can further broken down as

(a) Under Coverage

(b) Over coverage

(c) Selectivity

(d) Redundancy

(e) Missing values

(f) Imputed values. In HMIS coverage is well defined. Built in checks also take care of missing values, redundancy and imputed values.

17.5. The timeliness, the punctuality and the overall time lag and delay apply to the delivery of the administrative data set. It is built in system in HMIS. Each facility are supposed to enter the data by 5th of month of the following month in case of monthly MIS data and by 30th April in case of Annual Infrastructure data. This data subsequently verified and forwarded to next level in the upper hierarchy. During the initial years only the concept of data forwarding existed in the system wherein the States/ UTs were supposed to forward the data to the National level. The concept of freezing was introduced in HMIS in 2014-15.

17.6. Data Quality of Administrative data: Accuracy is defined as the extent to which data are correct, reliable and certified. In HMIS all these checks are built-in to see the accuracy of data.

- Compare option
- Inter-data validation checks
- Verify option

Compare option: Compare option compare data with previous month (in case of service delivery MIS format) and with previous year (in case of Infrastructure format). Data fields are highlighted as per comparison status. This gives instant view to data entry operator for any data quality/data entry related issues. So that accordingly correction can be made.

Inter-data validation checks: While saving data, as per prior inbuilt validation rules, error highlighted in red error for the erroneous data elements is shown on the data entry window. This informs the data entry operator for data quality issues (if any) and accordingly correction can be made e.g., Number of registered women within 1st trimester (within 12 weeks) *cannot be greater than t*otal number of pregnant women registered for ANC during the reporting month.

Verify option: While uploading data before submission and forwarding to next logical level (Sub-district/District/State). It is mandatory to check the verify option and

accept it. Without this, submission and forwarding of data to next logical level is not possible. This option provides the validation summary of Data entry validation report.

Apart from inbuilt data quality validation rules and option for correction, there are different standard reports which provide information on probable data quality errors and outliers. Following are different standard reports for identifying different data quality errors and outliers in the reported data of HMIS:

- Data Entry Status Reports
- Percentage Filled Reports
- Validation Errors Reports
- Probable Outliers & Validation Error Reports

Data Entry Status Reports: This report provides data entry status of the facility. This means completeness of reporting of the facility. e.g., Out of 10 active facilities in the district, how many has reported during the reporting month.

Percentage Filled Reports: This report provides completeness of data entry by the facility. This means completeness of reporting of data elements by the facility. e.g, There are 297 data elements in MIS format of CHC, out of that how many data elements has been reported by the facility.

Validation Errors Reports: This reports provides district-wise status of number of validity issues, district-wise month-wise occurrences of validity issues and district-wise details occurrences of validity issues. These validation reports based on the validation rules put in the system. Based on this report corrective action can be made.

Probable Outliers & Validation Error Reports: This report provides outlier report highlighting (Light Pink Background indicates only Outliers) in the erroneous data field in a particular month. Outlier is any data point which is more than 1.5 inter-quartile ranges (IQRs) below the first quartile or above the third quartile of the reported data.

Where, IQR= Quartile 3- Quartile 1

Upper Bound = Q3 + (1.5*IQR)

Lower Bound= Q1- (1.5*IQR)

This report also shows the validation related data quality issues (Cream Background indicates only Validation error exist) and if both the validation and outlier error is

present in the particular data (Yellow Background indicates both Validation Error and Outlier) in the erroneous data field in a particular month.

17.7. Monitoring and Supervision Visits: Random checks of HMIS data in the registers at Facility Level is undertaken during field visits. Supportive supervision visits undertaken by the Staff at the various levels to verify HMIS data. During Common Review Mission of National Health Mission also, HMIS data is extensively used and verified. Population Research Centre (PRCs) are also involved in the data verification exercise of the HMIS data. As per their annual plan, they are supposed to visits health facility and verify HMIS data provide supportive supervision to the field staff and provide feedback.

17.8. Training and orientation: The Ministry has structured training programme for the personnel involved in data recording, reporting, aggregation, verification and feeding. In the Annual PIP of States, budget as per norms for holding training is given. Training of staff at various levels is provided on data definition of data elements. As per State PIP, at the State Level - Three day 2 Training cumreview per year is supposed to be undertaken, at District Level- Three day 1 Training cum review per quarter is supposed to be undertaken and at Block Level - One day 1 Training cum review per Month is supposed to be undertaken.

17.9. National and Regional Review meeting: The Ministry also conducts annual National level HMIS review meeting. The objectives of this review is to shows the data quality issues to the State level Data Manager and HMIS nodal officers and orient them about new development in HMIS. Apart from this there are 3-4 Regional review meeting for a group States/district conducted ever year. Here also major focus is put on Data quality. Also State specific HMIS/M&E related best practices are also shared.

17.10. Data Quality Assurance (DQA) pilot study: To Strengthen HMIS, a pilot project on assessment of data quality was conducted in five districts of India. The selected district includes Birbhum (West Bengal), Chirang (Assam), Ernakulum (Kerala), Ferozpur (Punjab) and Kota (Rajasthan). The title of the project was "Strengthening the Health Management Information System: Pilot Assessment of Data Quality in Five Districts of India".The Data Quality Assurance (DQA) pilot was conducted at health administrative units and 126 randomly selected health facilities. Using stratified sampling, all health facility types were represented, including sub-centers (SCs), primary health centers (PHCs), community health centers (CHCs), sub-divisional hospitals (SDHs), and district hospitals (DHs). Twenty-eight data elements, drawn from RMNCH+A scorecard, CHC grading, and Min-Max report of HMIS, were selected for verification. The assessment was done in January–February 2016.

18. Labour Bureau, Ministry of Labour and Employment

18.1   Introduction

Labour Bureau, an attached Office of Ministry of Labour & Employment has been collecting and disseminating information on various facets of labour like wages, earnings, productivity, absenteeism, labour turn-over, industrial relations, working and living conditions and evaluation of working of various labour enactments etc. The

information disseminated by the Labour Bureau plays an important role for advising Government for formulation and implementation of employment policies and procedures in the country. Labour Bureau has a mandate of compilation & maintenance of Index Numbers, conducting surveys for collection of statistics in the field of Labour and collection, compilation and dissemination of Administrative Labour Statistics. Labour Bureau is engaged in Labour Force Surveys & Enterprise Surveys which primarily provide estimates of indicators related to Labour Force.

18.2 Functions

With respect to collection compilation and dissemination of various statistical indicators, the main functions of Labour Bureau can broadly be categorized under the following groups:

- *Compilation & maintenance of Index Numbers Viz. CPI (IW), CPI (AL), CPI (RL)*

- *Conducting surveys and studies on various categories and on various facets of labour*

- *Collection, compilation and dissemination of Administrative Labour Statistics on 11 Labour Welfare Acts.*

18.3 Construction and Maintenance of Index Numbers

Labour Bureau compiles following index numbers;

18.3.1 Consumer Price Index Numbers for Industrial Workers on base 2001=100

➢ Labour Bureau, since its inception i.e. 1st October, 1946 has been entrusted with the responsibility of compilation and maintenance of the Consumer Price Index Numbers for Industrial Workers (CPI-IW). As per ILO's recommendations the Working Class Family Income & Expenditure Surveys need to be conducted at intervals generally of not more than 10 years with a view to updating the series of Index Numbers.

➢ The Scheme involves compilation of Monthly Consumer Price Index Numbers for Industrial Workers on base 2001=100 as well as Conduct of Repeat House rent Surveys and compilation of half-yearly House Rent Indices in respect of all the 78 centres. The Centre-wise and all-India weighting diagrams are based on the results of Working Class Family Income and Expenditure Surveys conducted during 1999-2000 for the industrial workers employed in any one of the seven sectors viz. **a) factories, b) mines, c) plantations, d) railways, e) public motor transport undertakings, f) electricity generation and distribution establishments, and g) ports and docks.**

➢ The CPI-IW purports to measure the temporal change in the retail prices of fixed basket of goods and services being consumed by the target group i.e. an average working class family and thus, is an important indicator of the retail price situation in the country. The retail prices are collected on a weekly/monthly basis by the price Collectors through personal visits to the

selected/reserved shops in the market on the selected price collection day every week/month. A thorough scrutiny and all related information collected from the regional offices in the form of inspection report is also examined before finally utilizing the price data sent by the price collectors.

➢ The CPI-IW is mainly used for the determination of dearness allowances being paid to millions of Central/State Government employees as also to the workers in the industrial sectors besides fixation and revision of minimum wages in the scheduled employments.

➢ All the technical details of these Consumer Price Index Numbers for Industrial Workers are examined by the Technical Advisory Committee on Statistics of Prices & Cost of Living (TAC on SPCL).

➢ Various Index Review Committee such as Prof. Rath Committee, Dr. Seal Committee, Prof. G. K. Chadha Committee, have examined various aspects of the Consumer Price Index Numbers for Industrial Workers.

18.3.2 Consumer Price Index Numbers For (I) Agricultural And (II) Rural Labourers On Base 1986-87=100

Labour Bureau has been compiling CPI Numbers for Agricultural Labourers since September, 1964. The existing series of CPI Numbers for (*i*) *Agricultural and (ii) Rural Labourers (base 1986-87=100)* replaced the earlier series on base 1960-61=100 w.e.f. November, 1995.

➢ For compilation of these index numbers, the National Sample Survey Office (NSSO) collects the data on prices from 600 sample villages selected from 20 States regularly every month. Consumer expenditure data collected by the NSSO during 38th round of NSS (1983) formed the basis of weighting diagrams for the series.

➢ The methodology approved by the Technical Advisory Committee on Statistics of Prices and Cost of Living (TAC on SPCL) is followed for compilation of CPI-AL/RL for 20 States and all-India and these indices are released on or last working day before 20th of every month. The indices are compiled separately for each of the 20 States at General as well as at sub-group/group level.

➢ In the compilation of the State index, the village-wise price relatives of each item is worked out by expressing the current price as a percentage of base year price. A simple average of village-wise price relatives is worked out to arrive at regional price relatives in the State.

➢ Regional price relatives, thus derived, are weighted to arrive at the State level price relatives, the weights being the estimated expenditure of all rural/agricultural labour households in a region as a proportion to expenditure of all the concerned households of all regions in the State. The State index from these State price relatives is worked out by using the Laspeyre's base weighted formula.

- The all-India index is worked out as a weighted average of the indices of 20 States, weights being the estimated consumption expenditure of all rural and agricultural labour households in each State as a proportion of corresponding expenditure for all-India.

18.3.3 Aspect of Quality assurance (Index Numbers)

The Index Numbers, which is core and flagship scheme of Labour Bureau, has stood the scrutiny at various national levels. Labour Bureau has taken various steps to make the whole process of compilation of index numbers in order to maintain Statistical standards, Managing relationship with data users and data providers, transparency, statistical soundness and other major NQAF indicators as per following steps:

a) **SDDS Standards:** The dissemination of price indices meets the SDDS global benchmark of IMF i.e.
    i)   Punctuality with prescribed periodicity,
    ii)   Provide to IMF an Advance release calendar (ARC) with release date,
    iii)   Provide detailed information about the statistical practices for metadata.
b) **Tripartite Consultation:**   The National Level Index Users' Meeting is always organized prior to the release of the new series of the CPI-IW. The representatives of Central/State Ministries/Departments, Employers' Associations and Central Trade Unions participated in the deliberations in the Tripartite Meeting. All the technical issues relating to compilation of the CPI-IW as well as the process for regular consultation with the Users' especially the Central Trade Unions and Employers' Organizations are discussed in the meeting. *This is followed by Technical Advisory Committee on SPCL Meeting which also has representations from Employers' Organisations and Central Trade Unions*.

c) **Consultations with the Trade Unions:** At every stage, right from the beginning of the field survey, the Trade Unions as also the Employers' Associations are consulted by the Labour Bureau through various means which, inter-alia, include letters, personal contacts with their apex bodies at the national level, regional bodies at the State level and local affiliates at the centre levels, conferences and seminars, demonstrations and write-ups. The information on aspects like selection of centres, the methodology used, the steps taken by Labour Bureau to evolve, as far as practicable, a foolproof system, and steps taken to ensure an effective working of the system and many other aspects of the index number is disseminated through this inter-action. Not only that, the emphasis is also laid on their role in the making of a reliable series of C.P.I. numbers. For this, efforts are also made to utilise the media to the possible extent.

d) **Data validation:** The prices collected during the week go through strict supervision. Inspections are carried out at various levels. The prices collected are scrutinised at three stages. The data is further validated at the stage of data entry though validation cheeks. The indices so arrived are again checked for inconsistency before release.

e) **Data transparency**: The prices from the markets at a centre are displayed prominently in the offices of the state authorities for inspection by any user. At

the Labour Bureau Headquarters and its Regional Offices, users have easy access to the data. The Labour Bureau always welcome any call to render any services to its users and is open to any suggestions in this regard.

f) ***Involvement of various agencies:*** The National Sample Survey Office (NSSO) for conduct of Family Income Expenditure Survey, the Regional Computer Centre, Chandigarh for tabulation survey data, the State Labour/Economics & Statistics Departments in collection of retail price data and the Labour Bureau in analysis of data and compilation of indices together contribute towards collection and processing of authentic data and lend transparency to the whole system. Technical details regarding the updation of the series have been put on the official website of Labour Bureau for the benefit of users.

18.4 Conducting surveys and studies on various categories and on various facets of labour

Surveys and Studies conducted by the Bureau provide a reliable data base on working and living conditions of industrial and agricultural workers. The on-going projects of the labour Bureau are as under:

i) *Surveys related to Labour Force Indicator viz Annual Employment & Unemployment Survey (AEUS), Quarterly Employment Survey (QES), Area Frame Survey (Establishment) (AFES), Employment Generation under Pradhan Mantri Mudra Yojna (PMMY) etc.*

ii) *Occupational Wage Survey (OWS)*

iii) *Socio-economic Survey of workers in (a) un-organised sector of industries; (b) SC/ST workers; (c) women workers and (d) evaluation of minimum wages under the Minimum Wages Act, 1948.*

18.5 Surveys related to Labour Force Indicator

Labour Bureau is engaged in Labour Force Surveys & Establishment Surveys which primarily provides estimates of Labour Force and Employment Indicators. The main Surveys conducted by Labour Bureau related to Employment and Labour Force indicators are as under:

- Annual Employment-Unemployment Survey.
  (Periodicity; Annual, House Hold Survey)

- Quarterly Employment Survey.
  (Periodicity; Quarterly , Establishment Survey)

- Pradhan Mantri Mudra Yojna (PMMY) Employment Generation survey.
  (Periodicity ; Annual One Time , Establishment Survey)

  a) **Annual Employment-Unemployment Surveys**

➢ Till the year 2010, Estimates on Labour Force parameters, including Employment-Unemployment, were generated mainly through with quinquennial periodicity through NSSO surveys. A need for such crucial estimates with at least annual periodicity was felt by the Ministry for policy planning. Therefore, in order to fill the data gap for ascertaining the Employment-Unemployment Scenario in the country, Labour Bureau has been entrusted by the Ministry the task of conducting Employment-Unemployment (EUS) surveys on annual basis.

➢ So far, five annual employment-unemployment surveys have been conducted by Labour Bureau for the years 2010-11, 2011-12, 2012-13, 2013-14 & 2015-16 and reports of all five surveys have been released.

➢ The Sixth Annual Employment Unemployment Survey is in progress. Further, as per guidelines of Task Force, the Annual Employment Unemployment Survey has been replaced by Periodic Labour Force Survey (PLFS) being conducted by Ministry of Statistics & Programme Implementation (MOSPI).

➢ The Key labour force indicators i.e. Labour Force Participation Rate (LFPR), Worker Population Rate (WPR) and Unemployment Rate (UR) are derived for persons aged 15 years and above based on two approaches namely Usual Principal Status (UPS) Approach and Usual Principal and Subsidiary Status (UPSS) Approach.

b)   Quarterly Employment Survey (QES)

➢ Labour Bureau had been conducting Quarterly Employment Surveys (QES) in some selected labour-intensive and export-oriented sectors to assess the effect of economic slowdown on employment in India since January, 2009. 28 such surveys had been conducted by Labour Bureau till December, 2015.

➢ The sample size for these surveys was limited to around 2000 units and 8 sectors in 11 selected states only. Due to immense utility of QES, it was decided by the Ministry of Labour & Employment to conduct new series of QES on a large scale by enlarging the sample size and enhancing sector coverage under the survey so that employment situation for a sizeable segment of Non-Farm Industrial economy of India over successive quarters may be assessed.

➢ An Expert Group under the chairmanship of Professor S.P. Mukherjee has been constituted for guiding Labour Bureau in respect of statistical technicalities of the survey. The sample size, at the beginning, for the survey was around 10,600 units which has been further increased to around 11,000.

➢ **Objective of the survey:** The main objective of new series of Quarterly Employment Survey (QES) is to measure relative change in employment situation over successive quarters in sizeable segment of Non-Farm Industrial economy. QES collects information on the employment as on

1st day of respective quarter in which the survey is conducted i.e. 1st January, 1st April. 1st July and 1st October for quarters in a year respectively. Further, information is being collected in respect of number of males/females, full-time & part-time, regular, contract & casual employment by economic activity.

- ➤ **Scope and coverage:** QES is an establishment survey and provides change in non-agricultural/non- farm employment in the selected sector. All establishments in 8 sectors viz. Manufacturing (NIC-08 ; 10 to 33), Construction (NIC-08 ; 41, 42 & 43), Trade (NIC-08 ; 45,46 & 47), Transport (NIC-08 ; 49 to 53), Education (NIC-08 ; 85), Health (NIC-08 ; 86,87 & 88), Accommodation & Restaurants (NIC-08 ; 55 & 56) and IT/BPO (NIC-08 ; 62 & 63), classified as per the National Industrial Classification (NIC)-2008 at two digit level, engaged in production or distribution of goods or services other than for the sole purpose of own consumption are selected on the basis of data of latest Economic Census (2012-13), is the scope of the survey.

c) **Area Frame (Establishment) Survey**

- ➤ To get a more realistic picture of Employment scenario in the country, The expert Group on QES felt a strong need to extend coverage of QES (which covers approx. 1.4% of establishment as per 6th EC) to the Establishments with less than 10 employments (remaining 98.6 % of establishments).
- ➤ Since there is no readily available sampling frame for Establishments with less than 10 employments, The Expert Group has recommended Area Frame Survey for estimation of employment in establishment with less than 10 workers in 10000 First Stage Units (5000 Villages & 5000 Enumeration Block, EB's in Urban area)

- ➤ Therefore the Area Frame Survey, as proposed, along with QES will be providing independent & mutually exclusive estimates for total employment for the following three segments:

Segment 1: Establishments with 10 or more workers (covered under ongoing QES from a frame of establishments based on 6th economic census {EC} conducted during 2013-14).

Segment 2: Establishments with 10 or more workers not covered under ongoing QES either due to their emergence after the EC or they were inadvertently left out of 6th EC.

Segment 3: Establishments with less than 10 workers (no frame of such establishments exists, although a frame of Villages and Urban Blocks is available).

d) **Estimation of Employment Generation under PMMY**

- ➤ Pradhan Mantri Mudra Yojana (PMMY) was launched on April 8, 2015 by the Hon'ble Prime Minister Shri. Narendra Modi. The purpose of MUDRA is to provide funding to the non-corporate small business

sector through various last mile Financial Institutions like Banks, NBFCs and MFIs. Micro Units Development and Refinance Agency Ltd. [MUDRA] is an NBFC supporting development of micro enterprise sector in the country. MUDRA provides refinance support to Banks / MFIs for lending to micro units having loan requirement upto 10 lakh.

➢ MUDRA provides refinance to micro business under the Scheme of Pradhan Mantri MUDRA Yojana and other products for development support to the sector. The main objective of the Survey is the Estimation of Employment generation under Pradhan Mantri MUDRA Yojna (PMMY). PMMY survey is an establishment survey to collect the information on generation of employment in different sectors broadly categorized as Manufacturing, Services, Allied agriculture, Trading and any other sectors which have been assisted under the PMMY.

➢ Under PMMY at all India level nearly 5000 branches of Public, Private Sector Banks and MFI , as **First Stage Units (FSU)**, have been selected and about 1 Lakh beneficiaries, as **Ultimate Stage Units (USU)** would be covered (out of about 10 crore beneficiaries accounts under MUDRA). Under PMMY survey, State wise estimates will be generated for only 25 States, which combined were covering nearly 99% of accounts as well as 99% of Loan amount sanctioned under PMMY.

18.6   Occupational Wage Survey (OWS)

➢ Labour Bureau conducted Occupational Wage Survey during 1958-59 covering 44 industries with the twin objectives of providing basic data for building up index numbers of wage rates for major manufacturing, mining and plantation industries and collecting information relating to wage rates and average earnings of workers for studying intra-industry and inter-industry wage rate differentials. Labour Bureau conducted a second Occupational Wage Survey during 1963-65 with more or less the same objectives and coverage as the first survey.

➢ The National Commission on Labour (1969) examined the OWS data collected in previous two rounds and recommended for such type of survey periodically to be undertaken by Labour Bureau. Labour Bureau till date has conducted six Occupational Wage Survey(s) and the field work of seventh OWS has been completed.

Objectives of the Scheme

a. *To obtain occupation-wise data of employment, wage rates and dearness allowance for building up wage rate index numbers.*

b. *To obtain data on different components of pay roll earnings for different occupations for scientific studies of intra-industry and inter-industry differentials in earnings in Plantations, Mines and Manufacturing industries.*

18.7   Aspect of Quality assurance (Sample Surveys)

a) For Sample surveys being conducted by Labour Bureau on various Labour Force indicators, labour Bureau has been following essential procedure to maintain standards for data usability. Principally for any survey, which is required by the Ministry of labour & employment or Labour Bureau as such, an expert group of technical expert preferably from the field of large scale sample survey is constituted.

b) The expert group is generally chaired by an eminent statistician and the members are generally senior officer dealing with sample survey, from Ministry of Statistics & Programme Implementations, Ministry of Labour & Employment, other concerned Ministry, NITI Ayog, and various non official survey experts. The Expert Group finalizes the sampling design, schedule of enquiry and other technical details. The results of the surveys and reports are also finalised by the expert group. The field investigators are rigorously trained and are effectively supervised in the field with the help of team of contractual and regular staff having requisite skill for the survey. The filled in schedule of enquiry are scrutinised at various level and thereafter the data is fed in computers through standardised softwares thereby validating data through appropriate checks. The results/ reports after requisite approval are placed in public domain through Labour Bureaus website.

c) Labour Bureau also disseminates unit level data to the user strictly adhering to confidentiality of the respondents.

18.8   Collection, compilation and dissemination of Administrative Labour

Statistics on 11 Labour Welfare Acts.

➢ Labour Bureau collects, compiles and disseminates the labour statistics pertaining to various aspects of industrial relations, labour welfare, social security and safety measures etc. These statistics are generated as a result of the administration, enforcement and implementation of eleven Labour Acts by the industrial establishments.

➢ The Central Labour Commissioners and the State Labour Commissioners administer, enforce and implement these acts and hence are also responsible for collection of these data from primary units and the Labour Courts under their jurisdiction. Once these data are received by the State Government, they supplement it with the data generated by them and submit to Labour Bureau.

➢ There are prescribed dates for submission of this data from primary units to the concerned State Authorities and from State to the Labour Bureau. Statistics are received in the form of Annual/Monthly Returns in the

prescribed proforma under the following Labour Laws from States/U.Ts and Regional Labour Commissioners (Central):-

- ***The Factories Act, 1948***
- ***The Trade Unions Act, 1926***
- ***The Payment of Wages Act, 1936***
- ***The Minimum Wages Act, 1948***
- ***The Plantations Labour Act, 1951***
- ***The Motor Transport Workers Act, 1961***
- ***The Shops & Commercial Establishments Act***
- ***The Industrial Employment (Standing Orders) Act, 1946***
- ***Employee's Compensation Act, 1923***
- ***The Maternity Benefits Act, 1961***
- ***The Industrial Disputes Act, 1947***

18.8.1 Aspect of Quality assurance (Administrative Statistics)

a) The data collected by the Labour Bureau meets most of the requirements of ILO Conventions. The fulfillment of requirements ILO Convention 160 covering Labour Statistics entails concerted efforts by various Departments of Govt. of India.

b) To maintain the uniformity and concepts w.r.t. the administrative data, Labour Bureau engages the State and Central Government employees involved in collection compilation and dissemination of Labour Statistics by way of regular training at Labour Bureau. Under the scheme of "Improvement of Labour Statistics", Labour Bureau is organising regular training programmes.

c) A Central Training Programme on Labour Statistics is being organised every year in the month of September, since 1965. In this Training Programme Middle and Senior Level officers of the State Govts./CLC(C) participate. In this training programme all the Labour Welfare Acts and particularly the statements in which data is to be submitted to the Labour Bureau are discussed thoroughly. The concepts and definitions are made clear and special emphasis is given on consistency, adequacy, accuracy and timeliness of the data.

d) These officers are further supposed to organise state level training programmes in their respective states. The Regional Office of Labour Bureau also imparts training to the officials of primary units dealing with the subject. The severest limitation w.r.t administrative data is the time lag, non response and varying response. To overcome this, the Ministry of Labour and Employment is trying to rationalise and simplify the returns under various Acts by making way for online submission of the returns through unified Shram Suvidha Portal.

18.9 National Quality Assurance Framework (NQAF)

➢ In view of the quality assurance in respect of statistics produced and disseminated, Labour Bureau maintains standards required for statistics to be fit for use. The standards and guidelines currently being used in Labour

Bureau for generating & disseminating statistics more or less aligns with the NQAF indicators detailed vide the Notification no. M-12014/1/2018-CAP of Ministry of statistics and programme Implementation dated 06 Apr 2018.

➢ Technical details of the various activities are finalized by constituting high level committees & expert groups for facilitating the use of latest statistical techniques and in consultation with various technical bodies. Proper systems are created to ensure collection of reliable and robust statistics by putting in place effective and multilevel supervision, inspection and scrutiny mechanism. Non-core activities of ongoing activities are outsourced to effect savings in government funds Labour Bureau is in a process of enabling Submision of Statuatory labour returns online through unified Shram Suvidha Portal so as to minimize the gap between the collection and dissemination of labour statistics.

19.   Success Story of Directorate of Economics and Statistics, Andhra Pradesh in "Quality Assurance in Official Statistics"

The Directorate of Economics & Statistics, Government of Andhra Pradesh declared as 'Nodal Agency' for all the statistical matters in the State and Point of Interaction (POI) with the Ministry of Statistics and Programme Implementation and Coordination of Statistical activities of various Departments/Organisations in the State.

The DES, AP compiles numerous Statistical Products viz., Agricultural Statistics, Rainfall Statistics, Crop Cutting Experiments (CCEs), Annual Survey of Industries (ASI), Index of Industrial Production (IIP), Socio Economic Surveys (SES) and Statistics for Local Area Planning (SLAP) etc. The DES, AP has taken up several steps for Quality in Official Statistics.

In recent times, the DES, AP has taken up various significant measures in strengthening the data base under Support for Statistical Strengthening (SSS) for Statistics for Local Area Planning (SLAP), in the light of 73rd& 74th amendments of the Indian Constitution, as the greater responsibilities & powers to the local bodies i.e gram panchayat & nagarpalikas offering a new era of opportunities for local planning, effective implementation and monitoring of various social and economic development programmes at gross root level to enable public representatives to take up the development on competitive spirit.

The digitalisation of SLAP data has been taken up in all 17369 Revenue Villages of 670 Mandals of 13 Districts. Around 984 indicators have been collected from all the villages for a data base of 1.71 crore indicators. The data has been placed in DES Web Portal. The Data entry of the SLAP Report through Web based application has been commenced from 2014-15 and completed up to 2016-17. A Power Point Presentation has also been presented on SLAP during the 25th COCSSO Meeting held at Bangalore during January, 2018. The Director General, MOSPI, GOI has appreciated the efforts made by DES, Andhra Pradesh in bringing out of SLAP Report.

The quality checks/Measures taken up for assured quality in the data base is as follows:

- Intensive training programme has been organized with the Assistant Statistical Officers working in Mandal along with the departments which produced social and economic indicators at village/ward level.
- Training programme at District/State level has also been taken up with the Line Departments for effective & quality of data.
- The data has been collected from 20 Departments,, which consists of 70 proformas.
- The village wise indicators have also been verified with the abstractive data available at Mandal level.
- In built checks is also placed in the Web portal, which appears through dialogue box in any mistakes done at data entry level.
- Inter consistency data is also verified from Department to Department.
- Comparison of data with that of previous years
- Indicator wise data also verified with the previous years
- Nodal Officers for each district have been appointed at DES for effective monitoring of data.
- Nodal officers of DES have also been deputed to the Districts to interact with the ASOs for quality data.
- Periodical verification of data is also taken up at State level to observe the quality of the data.
- In consistency of data finds in any Mandal, the concerned officers called for to the Directorate along with the District officials and correct the mistakes noticed in the presence of Nodal team constituted in DES.
- Extensive District wise reviews have also been taken up at DES by calling Chief Planning Officers and their supporting staff.
- Due to the efforts taken by the Directorate, continuously for six months now the quality data under SLAP is available in the DES Web Portal.
- Quality Assurance of SLAP has been established by involving all the officers right from the Village to State level.
- Mandal wise certification has also been obtained from the Assistant Statistical Officers along with Supervisory Officers at Division / District level.
- The validation checks placed in Web Portal and indicator wise comparison of data of various indicators are given in Annexure1 & 2

Keeping in view of the above, the DES is in a position to produce quality statistics in Statistics for Local Area Planning (SLAP) to take policy decisions at Government level.

20.   DES, Maharashtra

a. Uniformity of concepts and definition and standardisation of methods for compilation of data.
b. Standardisation of units
c. Co-ordination of the Central Agencies with their State counterparts to ensure coherence of the data.
d. Sharing of data collected by Central and State Statistical and Administrative Offices.
e. Sensitization of all the strata of the bureaucracy regarding importance of data and need to maintain the timelines.

21. DES, Puducherry

Usually official statistics are collected as secondary data from the official records and flies which are by products of the functioning of various departments of the Government. Many of the data sets emerge as a result of implementation of various schemes and provision of various services by the Government Departments and Agencies to the public. Hence, the main limitation is that this data emerge not on sound statistical objectives, rather they emerge as data sets of records of administrative welfare measures of the Government. Hence, there is always a need to validate the data as per requirement, based upon certain general statistical principles, so that the official statistics so produced will be of required quality satisfying statistical validation methods and tests. Usually, these official statistics are collected from the official records for over a period of time, say for years, months, days as per necessity and requirements. Usually, many of the data sets are collected over a period of time say years. The present general methods employed by DES, Puducherry for validating official statistics are as follows:-

Data sets will be compared for variations over a period of 3 to 5 years depending upon the nature of each item to item. If the variations of the data sets exceeds within 5% (+ or -), then the reasons for variations used to be obtained from the client Departments. If the reasons are available in official records regarding variation, then they are considered for validation. If the reasons are not available, then the discussions will be held with the line Departments on item to item basis and validation is undertaken. Further, for various welfare schemes, the data sets are validated on the basis of logical balance between physical and financial achievements. In most of the cases, this approach is always utilized in validating the official statistics on implementation of various welfare schemes.

Further, when the objectives of official statistics do not have a strong statistical base, viz., there is variation in terms of unit of measurement, time period and source of emerging of official statistics. The consistency test is always employed for analyzing the trend analysis of various characteristics of data. One of the basic limitations in validating official statistics is that when time series data are collected, the staff who created the record, retires or transferred and the successor may not be able to give any reasonable clarification regarding variation over time period in the data sets. This is a challenging situation, where validation becomes a serious concern. Under these circumstances the financial sanctions issued on these counts by the Government are verified and data gets validated. In this situation, the Statistician conducts their own validated tests without referring the staff of the client Departments, on the basis of financial sanctions. In these situations, the reasons for variations are based or judgments of statistical tests only. Further, the audit remarks and audit reports about the schemes are also referred for validating the time series data sets.

Generally, the above methods are employed by the DES, Puducherry for validating official statistics. The validated tests and approaches will vary from time to time, data sets to data sets, schemes to schemes and on the basis of personal interactions.

However, the quality of official statistics depends primarily on the maintenance of files and records by the client Departments over a period of time.

22.   DES, Himachal Pradesh

Statistics is the branch of mathematics dealing with collection, analysis, interpretation, presentation and organisation all the data. It is generally used in drawing general conclusion on the basis of present data. It is applicable to a vide variety of academic fields from the physical and social sciences to the humanities as well as business, government find industries. Statistics are important for making development planning of any country. In national development statistics has a vital and relevant role to setup machinery for execution of the plans and monitors the implementation process. Statistics has a major role in research analysis, planning of projects for the development of the country. Statistics are required to insure that data interrelated correctly and that apparent relationship was meaningful. It is important for researchers and also for consumers to understand statistics so that they can be informed, evaluate the credibility and usefulness of information's and make appropriate decision. To create public awareness about importance of statistics in socio-economic planning and policy formulation, Quality Assurance in Official Statistics plays an important role.

Understanding Quality Assurance of Statistics The quality of official statistics is fundamental to the quality of decision-making at all levels in society and up to the trust citizens place in their government. So, managing the quality of official statistics might seem to have some parallels with managing the quality of manufactured goods as they roll off in a production process. As the goods are produced for a purpose, so are the statistics. It is hard fact, that in the process of National development the uses of statistical series are much less prescribed. Say an example of Population statistics, which are used for the study of human geography, in the distribution of public money for several development issues and other facilities. The basis for calculating incidence of distribution is relevant statistics, such as Education/Health Statistics used in the respective field besides much more. In the absence of a detailed understanding for the uses, more elaborated ways of looking at the quality of statistics have evolved with different approaches. Often these focus on ideas of accuracy, relevance, timeliness etc., but several reports (time to time) has concluded that the approaches adopted may be helpful at a conceptual level, may not help greatly in the practical management of quality. There may be some but little extra values which pursue greater accuracy, say, if current levels of collected statistics while use are adequate for the purposes to which they are likely to be collected and used.

Why we need accurate data • Proper Distribution and allocation of resources, • Urban as well as Rural Planning requires accurate data. • Urban Mobility is an immensely data dependent field. • Planning in TOD, basic services like sewerage, potable water, etc.

- Data relating to issues like NRW, Energy pumping costs, hydraulic modeling, simulation models, etc.

- MSW projections, extrapolation and anticipated solutions. "The quality of official statistics" is a concept built on the compatibility of users' needs, the timeliness of dissemination, and the interpretability of the statistical data as

well as accuracy. We establish this guideline as a standard guidance to promote the practices of "Quality Assurance," which aim at improving the usefulness and reliability of official statistics through compilation and dissemination as well as through indication, evaluation and improvement of statistics quality in administrative organs in order to satisfying user's needs to official statistics "Quality Assurance" of official statistics refers to the premeditated and systematic approach for the quality assurance activities mentioned above. It differs from other forms of assurance, such as product guarantees, which promise to repair and/or compensate for damage when there is a defect in a product.

In the first place, the 'Quality Assurance" movement has been promoted in industries and related academic societies since the 1970's.

It includes following activities:

(1)   Establish the process of grasping needs and providing goods and services corresponding to needs efficiently

(2)   Evaluate and grasp the compatibility with needs continuously, and make necessary improvements to goods and services

(3)   Provide a sense of reliability and confidence for goods and services through above activities.

In particular, "Process Assurance of Official Statistics" aims at the following:

1.   To define standards and views needed for ensuring the quality of each implementation process of statistical surveys such as the design, enumeration, clearance, tabulation and dissemination of results in conducting statistical surveys which aim to produce official statistics.

2.   To implement self-evaluation based on defined standards and views after completing the each implementation process or conducting surveys 3. To contribute to refinement and review of following statistical surveys based on the results of the self-evaluation.

The quality of official statistics and factors thereof:

(i)   "Accuracy," referring to whether official statistics most accurately show the state of society and the economy.

(ii)   "Relation with needs (Needs compatibility)," referring to whether official statistics meet the users' needs as well as possible

(iii)   "Timeliness," referring to whether the produced official statistics are disseminated promptly in accordance with the users' needs and purposes. Role of line departments: The quality assurance of official statistics to facilitate efforts for quality assurance, the line ministries are required to enhance the indication of the quality of official statistics that each ministry is responsible for along with methods defined as follows:

Implementation methods: The line ministries are also required to conduct self-evaluation of quality, including self-evaluation of the quality of the conducting processes of statistical surveys, and to address improvements systematically through utilizing the results of the evaluation. Given that official statistics form a fundamental infrastructure of society, the line ministries should conduct these activities based on

the people's needs. Compatibility: It should be the core element, and consideration should be given to the relevance of each element's links. In addition, as this guideline is established as a standard guidance to the line ministries' policies, it will not preclude the line ministries from implementing the current measures or the effective planned measures based on the characteristics of each type of official statistics

Guideline: This guideline will be regularly reviewed based on:

(i)   Results of the line ministries' approaches

(ii)   Results of research by related academic societies, and

(iii)   International trends of related approaches.

The line ministries should make efforts for the quality assurance of official statistics through systems that can secure both the objectivity and the specialty concerning the target statistics. The line ministries should improve the indication of the quality of the statistics they are responsible for, based on "Metadata Indicating Official Statistics Quality" while bearing in mind consistency with "The Optimization of Operations and Systems for Statistical Work," which was decided at the Liaison Conference of Chief Information Officers of Public Offices and Ministries. In addition, the line ministries should regularly review the contents of the quality indication.

The line ministries should systematically carry out self-evaluation of the quality of the statistics that each ministry is responsible for. This evaluation is implemented not only on each element, but also on relationships between each element, from a comprehensive perspective. The line ministries should also address the refinement and improvement of official statistics through utilizing the results of the evaluation. The Director-General for Policy Planning on Statistical Standards, Ministry of Internal Affairs and Communications (MIC), utilizes the results of the evaluation for the approval examination based on Articles 9 and 19 of the Statistics Act, and addresses the reduction of the line ministries' burdens in the processes of the examination. Regarding peer review (mutual evaluations among the line ministries) and third party evaluation, it will be decided in the future after the consideration whether they would be introduced or not. Quality evaluation for the conducting process of a statistical survey The line ministries should carry out self-evaluations systematically regarding the quality of processes of the statistical surveys they are responsible for, such as design, enumeration, clearance, tabulation and dissemination of results in conducting statistical surveys. When doing so, the line ministries should request reports on the conducting processes entrusted or mandated to local offices of national agencies, local administrative organs and organizations from the private sector, regarding necessary items for ensuring the accuracy and reliability of official statistics in terms of the entrusted or mandated business. The line ministries also carry out self-evaluations on the quality of processes of statistical surveys, while taking the reports into consideration. The line ministries should also address the refinement and improvement of the statistical surveys utilizing the results of the evaluation. This provision does not preclude local administrative organs and organizations in the private sector from carrying out self-evaluation on the quality of mandated or entrusted processes of statistical surveys. The line ministries should establish implementation plans for quality assurance on the fundamental statistics and general statistics and make efforts to publish summaries of the plan. In addition, the desirable period for the implementation plan is around five years, but it should be decided in line with the line ministries' plans regarding statistics production.

Difficulties in gathering cooperative statistics: Relationship between different cooperatives leads to double counting. There is lack of availability of the cooperative statistical data. There are two types of difficulties that i.e. Endogenous (within officials statistics), exogenous (inability of civil society, establishment and enterprises to part reliable and timely data) Endogenous difficulties are weaknesses in institutional step, organizational setup, lack of the resources, infrastructure, performance is not up to mark. Concluding with that the responsibility for the quality of all State official statistics rests with the State Administration and thus supplying the Statistics may have some or little error. To avoid such error , a clear strong statement of the State Statistician's authority in respect of quality assurance and management would be helpful in enhancing public trust in official figures it is observed that the protocols of the Code of Practice/Statistical Act on quality and data management are insufficiently rigorous as a quality assurance tool that the quality review programme has not delivered what the Framework for National Statistics requires and that henceforth the National Statistician should take a central role in setting the agenda and guiding the programme of reviews that an audit-based approach to quality reviews is feasible, and should be Adopted. Therefore, the key to statistical quality management must still be a sound understanding of the user requirement coupled with systematic assessment — or audit — of the underlying processes to ensure the figures are fit for that purpose.

23. DES, Chhatisgarh

- स्वशासी संस्थाओ के लेखों में एकरूपता नही होती है।एकरूपता के लिए प्रारूप का निर्धारण किया जाना चाहिए।मदों में भी स्पष्टता नही होती है, उदाहरण स्वरूप वेतन में तकनीकी और गैरतकनी की स्टॉफ का वेतन अलग-अलग मिलता है।

- जिला घरेलू उत्पाद के अनुमान (DDP) तैयार करते समय रेल्वे, होटल एवं रेस्टोरेन्ट इत्यादि क्षेत्रों में जिलेवार आंकडे उपलब्ध नहीं होने से डी.डी.पी बनाने में कठिनाई होती है।मुख्य रूप से पर्यटक एवं यातायात सर्व कराये जाना चाहिए।

- लिखा घरेलू उत्पाद के अनुमान (DDP) तेयार करने के लिए वार्षिक उद्योग सर्वेक्षण (ए.एस.आई) के जिलेवार डाटा उपलब्ध नहीं है।यह जिलेवार होना चाहिए।उल्लेखनीय है कि यह राज्यवार प्रकाशित जिये जाते है।

- स्थानीय निकायों (जनपद पंचायतों/नगरपालिका/नगर निगमों) के बजट प्रारुप में एकरूपता नहीं होती है।अधिकतर बजट ने प्रारंभिक शेष (opening balance) एवं अंतिम शेष(closing balance) उपलब्ध नहीं होते, आय व्यपमदों में उददेश्य की स्पष्टता नहीं है, नई योजनाओं के नाम प्रारूप में अद्यतन नहीं है।बजट से सामान्यता:3वर्षा के डाटा यथा लेखा(Account), पुनरीक्षित अनुमान (Revised

Estimate) एवं बजट अनुमान (Budget Estimate) के आंकडे उपलब्ध होने चाहिये जो कि सामान्यत: नहीं होते।

- वन सांख्यिकी में उत्पादन एवं मूल्य के आंकडे वन सर्कल के अनुसार प्राप्त होते हैं, जबकि जिला घरेलू उत्पाद कं अनुमान राजस्व जिला अनुसार तैयार होते हैं।अत एव वन सांख्य की राजस्व जिला अनुसार तेयार किया जाना प्रस्तावित है।

- सामान्यत: "प्रशासनिक साख्यिकी" आंकडे अनुमानित करने के लि एलाईन विभाग द्वारा अलग अलग पद्यति से तेयार किया जाता है।यह पद्यति (Methodology) सभी राज्य व केंद्र में समान रूप से उपयोग किया जाये जैसे कि एन.एस.एस.ओ. सर्वेक्षण को पद्धति और अनुसूची सभी राज्यों और केन्द्र में समान है,इससे आंकडों की गुणवत्ता और विश्वसनियता बनी रहेंगी।

24. DES, Kerala

As the statistical authority of the State, the collection, collation, interpretation and co-ordination of all statistical activities should be come under the purview of Department of Economics and Statistics. In order to achieve this object, DES should be act as an autonomous and independent agency for State statistical system. Generic National Quality Assurance Framework consists of 19 statements of quality to access the overall quality of statistical product. The statements are generic in the sense that the national situations are widely varying and there cannot be a single solution suitable for all concerned.Quality of statistical products revolves around users needs. The major challenge of the statistical system is to produce and disseminate statistical outputs that satisfy users' needs. Official statistics are public goods so it must comply with certain basic principles such as professional independence impartiality, accountability and transparency about method of collection, compilation and dissemination of statistics.

(i) DES should maintain a "ware house" of official statistics

The Government at different levels is producing official statistics. It will be ideal to establish data sharing network between all Government agencies and DES. This will enable integration of official statistics and DES can maintain a "ware house" of statistics for dissemination among the Govt. and private sectors and serve as a sole provider of official statistics. Thus DES can place all sharable statistics in public domain through single window platform keeping all statistical standards.

(ii)State / District level coordination committees

Co-ordination among statistical agencies and line departments within the State is essential to assure free flow of data and maintain quality of official statistics. In order to ensure the timeliness, accuracy and availability of statistics generated through line departments a co-ordination committee need to be constituted at State Headquarters

under Secretary / ACS, Planning and Economic Affairs and at District level committee under District Collector as Chairman and District Statistical Officer as its Convenor. This committee should ensure the data flow at their respective level and regularly review the quality of data produced.

(iii) Prescribing standardization in data collection using ICT

While collecting, compiling and processing data by using ICT, standardization across the nation while questionnaire preparation, periodicity in data release, fixing level at which data set generated and define validity check points. Scrutiny and validation of data can be done with the help of softwares. This will helpful to users of official statistics and help to build public trust in official statistics.

(iv) Authorize DES for statistical auditing

To ensure the quality and integrity of statistical products, DES may be legally authorize to audit statistics produced in different Government agencies/ line departments. Intervention and monitoring of official data by an independent agency helps to filter data effectively.

(v) Make available regional / sub regional data from central Govt Ministries/ Departments.

MOSPI may act as a nodal point in Central Government Ministries / Departments to assist the states in sharing both aggregate and disaggregate level data. MOSPImay coordinate the sharing and flow of information between Central Government Ministries / Departments and State on statistical matters

(vii) Share innovative programs developed by MOSPI & State StatisticalAgencies

MOSPI may share expertise and best practices of central and State statistical agencies. This will help the state agencies collecting official statistics to learn from their success and improve programs accordingly.

(viii) Integrity of Data Quality:Two approaches that can preserve data integrity:

- Quality assurance – activities that take place before data collection begins
- Quality control-activities that take place during and after data collection.

(ix) Quality Assurance

Since quality assurance proceeds data collection, its main focus is 'prevention'.Prevention is the most cost-effective activity to ensure the integrity of data collection. This proactive measure is best demonstrated by the standardization of protocol developed in a comprehensive and detailed procedures manual for data collection. Lack of proper manuals increase the risk of failing to identify problems and errors early in the collection of data.

(x) Quality Control

While quality control activities (detection/monitoring and action) occur during and after data collection, the details should be carefully documented in the procedures manual. A clearly defined communication structure is a necessary pre-condition for establishing monitoring systems. There should not be any uncertainty about the flow

of information between principal investigators and staff members following the detection of errors in data collection. A poorly developed communication structure encourages las monitoring and limits opportunities for detecting errors. Quality control also identifies the required responses, or 'actions' necessary to correct faulty data collection practices and also minimize future occurrences. These actions are less likely to occur if data collection procedures are vaguely written and the necessary steps to minimize recurrence are not implemented through feedback.

Quality of data is maintained by adopting the measures such as field inspections during data collection, scrutiny and validation of data. Internal quality control instruments more often than not address implementation process and do not cover the entire gamut of activities. Clear and unambiguous documentation of statistical standards applied in data collection, and mechanism should be established for monitoring quality in data collection. All surveys conducted have also to be based on should design, and the information necessary to gauge the reliability of the results produced should be intelligible and accessible to all data users. To facilitate the interpretation of data, the source methods and procedures should be indicated.

25.   DES, Uttarakhand

(i)   All statistical activities should be performed by trained statistical personnel. Outsourcing of statistical personnel should be done as a last resort.

(ii)   All line departments must have statistical cells, which is entrusted with collection of department specific statistics and data-gap etc. and also enforce various quality standards in official statistics.

(iii)   In service statistical trailing programmes should be conducted to optimize human resource.

(iv)   State Nodal Agency for Statistics must be given access to MIS or web portals of line departments so that it can online monitor the quality standards in statistics.

(v)   Use of ICT tools should be maximised to reduce the time lag in data collection and data compilation. Also data collection softwares must have in-built quality checks so that maximum scrutiny issues be resolved at the field level.

(vi)   Consultations/ deliberations with stakeholders should be a regular phenomenon to discuss emerging data-needs and data-gaps besides statistical products will also be vetted by them.

(vii)   Minimus three tier scrutiny levels should be set up in every department so that data compilation by junior statistical personnel is necessarily scrutinized by senior personnels to ensure data quality. Manpower arrangements should be done accordingly.

(viii) Also efforts for scrutiny of data should be done at field data collection level to minimize errors at the spots.

(ix)   Quality data providers must be encouraged and promoted.

(x)   Efforts should be made for creating public awareness regarding importance of statistical activities and data quality.

(xi) Data collection formats should have minimum number of indicators or questions, it will reduce non-sampling errors.

26.   DES, Goa

Introduction

Official statistics are statistics published by government agencies or other public bodies as a public good by providing quantitative or qualitative information on all major areas of citizens' lives, such as economic and social development, living conditions, health, education, environment, etc.Official statistics are useful for; policy formation for public authorities, accessing the impact of policies of the Government, socio-economic comparison between regions and different social groups and categories of people, improving the accountability of Government, research purpose, etc.

Quality Assurance

It refers to all planned activities necessary in providing confidence that a product or service will satisfy its purpose and the users' needs. For example in the context of survey conducting activities, this can take place at any of the major stages of survey development: planning, design, implementation, processing, evaluation and dissemination. It also attempts to move quality upstream by anticipating problems before they occur and aims at ensuring quality via the use of prevention and control techniques.

Suggestions for Agenda items for the conference on the theme "Quality Assurance in Official Statistics"

(i)   Co-ordination of Statistical Activities/Work among/between different Departments of Government of India, State Governments, Nodal Departments/Agencies, etc.

(ii)   Statistics should be presented in such a way that facilitates proper interpretation and meaningful comparisons.

(iii) Improving survey frame for timely completion and compilation of data collection.

(iv)   Timely revising/ modifying the design of the questionnaire so that the field enumerator and the respondent can easily understand the subject.

(v)   Proper training should be given to the field enumerator/supervisor in order to minimize errors/duplications including field visits and refresher training.

(vi)   Software for each survey or for regular report submission should be formulated for timely presentation of data interconnecting respective line departments or Ministries to avoid data duplications.

(vii)   Central Ministries should impress upon the State Governments not to indulge in frequent transfer of staff appointed for national programmes such as estimation of State Income and quinquennial census' and surveys such as Agriculture Census, Minor Irrigation Census, Economic Census, etc.

27. DES, BIHAR

The quality of official statistics is a concept built on the compatibility of users' needs the timeliness of dissemination and the interpretability of the statistical data as well as accuracy.

Quality of official statistics: Elements

- Relation with needs
- Accuracy
- Timeliness
- Interpretability/clarity
- Reliance
- Coherence/compatibility
- Accessibility
- Efficiency

The steps taken by Directorate of Economics & Statistics in accomplishing "Quality Assurance in Official Statistics"

- Agri app based on geo tagging and time stamping is introduced in Agriculture Statistics.
- Online portal for rainfall data is introduced.
- NSS Section is planning to adopting browser based online data collection.
- Directorate of Economics & statistics is following the CRS software of Government of India in Birth and Death registration.

Suggestion

- Official Statistics being a large domain, focus in the first phase should be on core statistics functions.

- Since most of the statistical information flows from states to the centre, in order to improve the quality of official statistics, the Indian Statistical System needs to be reoriented in such a way that states are focused at par with their counterparts at the Centre.

- There are many states that are far behind the National statistical standards. Any policy or suggestions to improve the quality of Official Statistics cannot ignore this fact that some of the state statistical organizations are far less equipped to meet the challenges of ensuring quality in official statistics.

- For most of these states like Bihar, financial constraints are not much of a hindrance. They, in fact, face lack of statistical professionals of high standards who can advise and provide assistance in statistical matters to the junior level functionaries of DES or who can monitor and evaluate progress of various statistical progress, visualize how to ensure follow up actions on various programs and recommendations of the CSO and coordinate the sharing and flow of information with other Statistical agencies.

- We propose setting up of a separate wing within CSO that is responsible for technical upgradation and reorientation of high level state statistical functionaries. By technical upgradation, we do no mean the training or other such things.

- By technical upgradation we mean practical working experiences of the DES officials in CSO. To start with, an arrangement should be made in such a way that 5 State level officers from each states, chosen by interview are offered to work in CSO for at least two years in different wings of CSO and NSO.

- Other way around, CSO officials having ten years of experience can also be encouraged to have a posing in state DESs for at least two years. This can help states to benefit from their experiences in identifying their functional shortcomings and in visualizing ways to improve the situation. This will, in turn, help ensure the quality in collection and dissemination of official statistics.

- Production of official statistics involves many other departments of the state Govt. In order to maintain the quality of the statistical products of other department it is necessary to have a national approach on inter department and inter-governmental coordination between various data producing agencies. If necessary, legislation on that issue can be brought in.

- Official Statistics producing state Govt. departments, other that DES work as a disconnected system and is manned by non-professional statisticians. On the pattern, suggested above, a mechanism must be developed by which all statistical personnel working in any of the state department comes under the umbrella and statistical personnel of other state department have experience of working in state DES for at least five years.

STATISTICAL ISSUES

1. Support for Statistical Strengthening Project

The Support for Statistical Strengthening (SSS) Scheme was approved in March, 2010 as Centrally Sponsored Scheme for improving the statistical capacity and operations of State Statistical Systems. It is implemented through State Directorates of Economics and Statistics, based on approved activities as per State specific MoU/State Programme. In 2016-17, it was subsumed as a Sub Scheme of the Central Sector Scheme Capacity Development. The Scheme is presently being implemented in 14 initial States and 6 new States.

A. Brief Status/Issues of initial 14 States are given below:

a)   States in which Funds fully released

Gujarat

Allocation – Rs. 28.57 crore   Released – Rs. 28.57 crore   Utilization - Rs. 28.57 crore

While Utilisation Certificate of fully utilising the funds had been reported, MarketSurvey for CPI and District level analysis of industrial production is still to be completed. Since the entire fund has been utilized, and both the activities are in very advanced stage of completion then, now state should bring out the closure to the scheme.

Karnataka

Allocation – Rs. 27.07 crore   Released – Rs. 27.07 crore   Utilization – Rs. 26.45 crore

Family Budget Survey for CPI is pending and status of publicity activity for Birth & Death Registration during Dusshera exhibition needs to be ascertained. They have asked the time till March, 2019 for the Family Budget Survey and December, 2018 for the publicity activity. However we   may suggest them to complete Family Budget Survey before Dec., 2018.

Kerala

Allocation – Rs.15.09 crore   Released – Rs.15.09 crore   Utilization- Rs.10.93 crore

Market survey for CPI, Local level Statistics, Forest survey for SDP and Construction of SASA (training institute) are pending. State has been given extension upto March, 2019 for SASA and Dec., 2018 for other activities.

Mizoram

Allocation – Rs. 15.27 crore   Released – Rs. 15.27 crore   Utilization – Rs. 15.17 crore

Survey work of Census of Industries/IIP is going on and expected to be completed by October 2018. Also, the publication of Local Level Statistics is under process. It is suggested that State should bring out with the closure to the Scheme.

Rajasthan

Allocation – Rs.34.71 crore   Released – Rs. 34.71 crore   Utilization – Rs. 34.59 crore

State promised to complete remaining construction of Block statistics offices by Oct., 2018 and Preparation of State Human Development report by Sept., 2018. Both the works still not completed, State has now reported that the construction work and preparation of HDR report is delayed. WPI may take longer time; it is a physical target without any financial amount and hence can be carried by State Government. It is suggested to complete the pending works at the earliest and bring out the closure to the scheme**.**

Sikkim

Allocation – Rs. 16.68 crore   Released – Rs.16.61 crore   Utilization- Rs.16.42 crore

Statistical activities completed. Only construction of DSO North building at Pentok, Mangan remaining (5% remaining). State has intended to close the SSS Scheme and refund of unspent balance. It is suggested to complete the pending works and bring a closure to the scheme.

b)   State in which a major portion of final installment released

Andhra Pradesh

Allocation – Rs. 14.99 crore   Released – Rs.14.58 crore   Utilization- Rs.11.26 crore

Statistical activities except horticulture surveyare drawing to a close. Utilisation is now being incurred.. They may refund the unutilized amount.

Odisha

Allocation – Rs.28.91 crore   Released –Rs.25.07 crore   Utilization – Rs.22.72 crore

Compilation of Village level statistics has to be done. Out of six type studies, only three have started. State has been requesting for revalidation of unspent balance and transfer of funds from database development to village level statistics. Now the request has been processed and approval is in process.

Tamil Nadu

Allocation – Rs.19.42 crore   Released - Rs. 18.53 crore   Utilization- Rs. 18.45 crore

The major activities, namely Data capture/application software/data transfer from field and reports/data transmission from 5 major sectors are in advanced stage. Six special studies have to be completed. Request along with UC etc. for release of Rs 88 lakhs has been received. Once allocation is available this can be released.

Telangana

Allocation –Rs. 12.40 crore   Released – Rs.12.30 crore   Utilization – Rs. 11.26 crore

They had requested for period upto March, 2019 for compilation of local level statistics 2016-17, which was reportedly affected due to administrative reorganisation / change in number of districts. However, we have replied that extension upto March, 2019 is not possible and asked them to make use of already collected data and complete the activity as soon as possible.

West Bengal

Allocation –Rs. 20.52 crore   Released – Rs.18.90 crore   Utilization – Rs. 18.02 crore

Although all the activities of the state have been completed, only development of application Software for CPI, ASI, Publications (State at a glance, District Statistical Handbook)etcis pending. State has been requested to complete all the activities at the earliest. State had indicated that it would utilise yet to be released amount for IT Head. State has been intimated that it should stick to item wise allocation strictly.

c)   State in which major portion final installment is yet to release

Manipur

Allocation –Rs. 20.69 crore   Released – Rs.14.89 crore   Utilization – Rs. 14.16 crore

Manipur has completed its major activities except, Market survey for CPI and an Annual conference. So the state has been requested to complete these as soon as possible, and bring the closure to the scheme. Status of one Survey related to volume of Passenger and freight traffic is not clear and hence details have been sought. It has been intimated that Manipur may not need any further funds. So it is suggested to complete the pending activities and bring out the closure to the scheme.

d)   State in which previous unspent balance is yet to be utilized

Bihar

Allocation –Rs. 20.23 crore   Released – Rs.17.64 crore   Utilization – Rs. 6.33 crore

Bihar had been asked to refund the unspent balance. Recently MPR reflecting progress/utilization upto June, 2018 has been furnished, it has been stated that all the activities would be completed by December, 2018. But the major activity of Automatic Weather Stations is in tender processand utilisation has also not been reported. But state has promised to complete the major activity of AWS by December, 2018.

Jharkhand

Allocation –Rs. 12.68 crore   Released – Rs.5.29 crore   Utilization – Rs. 2.30 crore

State has been asked to refund the unspent balance many a time, but now as discussed in the Eastern Zonal Council meeting, a last substantive action plan is asked for.

B. Brief Status and Issue of New States

Status of New States

- Apart from the 20 on board States, 13 more states are willing to join the SSS Scheme.
- MoU has been signed with 6 New States viz. Himachal Pradesh, Puducherry, Uttarakhand, Uttar Pradesh, Assam and Meghalaya in 2018 - 19. Also, 1st installment to all these states has been released.
- The State Programmes of Daman & Diu, Tripura, Haryana, Punjab and Jammu & Kashmir are in advance stage of finalization.
- Discussions were also held with a number of New States viz. Chhattisgarh, Delhi, Madhya Pradesh, Maharashtra and Nagaland, to finalize their State Programmes.

Issue in New States

- Among the six new States which have signed MoUs Himachal Pradesh and Uttar Pradesh, have forwarded their MPR. Himachal has furnished MPR upto 31.07.2018 mentioning progress in item relating to Implementation of Recommendation of Technical Groups, Training for Capacity Development and Holding User Producer dialogues. Uttar Pradesh has furnished MPR upto Sept 2018 reflecting progress in item Statistical Application, Training for Capacity Development, Holding User Producer dialogues and Data quality improvement measures. Rest of the 4 States are yet to provide their Monthly Progress Report till now.

2.   Nodal Officer report on Collection of Statistics Act, 2008

This Ministry notified Additional Director General handling statistical coordination [ADG (CAP)] in the Ministry as the Nodal Officer for exercising powers and performing duties as detailed under the Collection of Statistics Rules, 2011 on 14th September, 2018, which can be accessed at http://mospi.nic.in/sites/default/files/main_menu/gazette_notification/Notification_designating.pdf . According to the notification the Nodal Officer in the Ministry has to submit report on the working of the Collection of Statistics Act 2008 and the Collection of Statistics Rules, 2011 during the period 16th May 2011, the date of

commencement of the Collection of Statistics Rules, 2011 and 31st March, 2018 based on material available with him on record.

Since Nodal officer can prepare report only based on inputs being received from all concerned officers at the Centre Government Ministries/ Departments and from all Nodal State Nodal Officers designated under the Collection of Statistics Act, 2008, it is requested to provide report with the specifics as mentioned in the Schedule to the notification. All items in the Schedule are not relevant for reporting by the Central Ministries/ Departments and by the State Nodal Officers under Collection of Statistics Act, 2008. However, report on item Nos 1-8, and 14-16 of the Schedule may be furnished mandatorily latest by 25th October, 2018.

The Notification

In exercise of the powers conferred under sub-rule (1) of rule 3 of the Collection of Statistics Rules, 2011,the Additional Director General handling statistical coordination in the Ministry of Statistics and Programme Implementation is hereby designated, with the approval of the competent authority, as the Nodal Officer for exercising powers and performing duties under the aforesaid rules. The nodal officer shall submit reports to the Central Government as required under clause (e), sub-rule (1) of rule 3 of the Rules in the manner prescribed below:

(1) Based on the material available with him on record, the nodal officer shall submit a report latest by the end of November, 2018, on the working of the Collection of Statistics Act 2008 and the Collection of Statistics Rules, 2011 during the period 16th May 2011, the date of commencement of the Collection of Statistics Rules, 2011 and 31stMarch, 2018.

(2) For the financial years commencing with the year 2018-19, the nodal officer shall submit annual reports for each financial year in the format given in the Schedule to this Notification, latest by 30thSeptember of the subsequent financial year.

2. The reports of the nodal officer and the directions, if any, of the Government issued to the nodal officer on the basis of the reports submitted shall be placed in the public domain from time to time.

Format of the Report of the Nodal Officer is available at the Ministries' Website on *http://www.mospi.gov.in/sites/default/files/main_menu/gazette_notification/Notification_designating.pdf*

3. Draft National Policy on Official Statistics

Salient Features of the National Policy on Official Statistics

(1) Official statistics being a large domain, specific products designated as core statistics which are of national importance and critical to the economy have been identified to regulate them for quality and timeliness. In respect of other official statistics, it is considered desirable to provide guidance and promote good practices.

(2)   For facilitating regulation of core statistics, Union List in the Seventh Schedule to the Constitution will be appropriately amended to bring in statistics declared by Parliament by law to be of national importance in the Union List.

(3)   The NSC will be constituted by law as a public corporation to advise Government on standards for core statistics and on improving other official statistics. The Government may, on the basis of advice of the NSC,notify standards on core statistics. The NSC will monitor compliance to the standards notified and conduct statistical audit. A Bill to constitute the NSC as a public corporation will be introduced in the Parliament.

(4)   The NSC will consist of a Chairperson and not less than four Members, all full-time to be appointed on the basis of recommendations of a Committee under the Chairmanship of the Prime Minister with representation from the opposition.

(5)   The NSC will recommend to the Government, in respect of each core statistical product, on the form, the manner and the time by which collection, compilation and dissemination of statistics shall be carried out, statistical standards and other arrangements. The NSC will also recommend to the Government on inclusion or exclusion of any statistical product in core statistics. Based on such advice, the Government may notify appropriate directions etc.

(6)   The NSC may recommend to the Central Government or any State Government, collection, compilation and dissemination of administrative statistics with such periodicity and in such format, as may be useful for statistical purposes. Based on the advice, the Central Government or a State Government, as the case may be, may notify directions, notwithstanding anything contained in any law for the time being in force.

(7)   A separate Division under the NSC will be established, to be named as National Statistical Appraisal and Assessment Organisation (NSAAO) headed by an officer not below the rank of a Secretary to the Government of India to be designated as Chief Statistical Auditor. This Organisation would be conducting statistical audit on mandatory basis in respect of core statistics and selectively on other products, as per the directions of the NSC.

(8)   Along with functional autonomy, the NSC will also be provided financial autonomy. An initial endowment fund of Rs.500 crores will be provided and certain percentage of the budget on official statistics (say five percent of the budgetary grant of the National Statistical Organisation) would be made to devolve to the NSC in every financial year for the services that the NSC is expected to render. The NSC would organize the amounts received in the form of a non-lapsable Fund for meeting its expenditure.

(9)   A National Statistical Development Council (NSDC) under the Chairmanship of the Prime Minister will be constituted to handle Centre-State relations in the areas of official statistics. The Council will be represented by Chief Ministers of six States, Vice Chairperson of NITI Aayog, the Cabinet Secretary, the Governor of the Reserve Bank of India and the Chairperson and Members of the NSC. Secretary (Home Affairs), Secretary (Economic Affairs), CSI, Chief Statistical Auditor, Chairman (University Grants Commission), Director General (Statistical Coordination) of this Ministry and the Director (Indian Statistical Institute) will be permanent invitees in the Council to provide technical and other support to the Council.

(10) The NSC will be responsible to Parliament.

(11) CSI's role as Secretary to the NSC will be discontinued and the NSC will be provided a separate Secretariat. The Office of CSI-cum-Secretary is an important link between the NSC and the Government (at different levels). Hence, the service conditions of the CSI will be amended suitably to ensure this.

(12) The CSI, supported by nodal officers nominated by different Ministries/ Departments and their instrumentalities, will be responsible for implementation of the directions on core statistics. The nodal Officers would be professionally responsible and accountable to the CSI on all core statistics.

(13) Statistical coordination at national level for each sector in respect of administrative statistics will be handled by the concerned Central Ministry/ Department, which is dealing with major chunk of the sector.

(14) Statistical cadres and other officers/ staff engaged in statistical work in different Ministries/ Departments at the Centre will be restructured to meet the requirements of this Policy and other statistical requirements.

(15) The Divisions in the NSO would be reorganised to delineate advisory, coordinating and regulatory functions from production functions.

(16) The Indian Statistical System requires professional freedom to be provided for the official statisticians. The statisticians whether working in the Central Government or in State Governments must have a sense of belonging to one system, in achieving the goals set by the regulatory mechanism from time to time. This can perhaps be achieved by unification of the statistical cadres all over the country. For this purpose, it is proposed to initiate consultancy process with the States for constituting an all India Service.

(17) At times, production of core statistics may suffer due to resource constraints. Central Government will establish a society with an initial endowment fund Rs. 2,000 crore with the mandate to take up all statistical activities of the Government at the Centre which cannot be taken up within the setup.

(18) The UNSC fully endorsed a generic national quality assurance framework template. It will be applied to each product of official statistics and specific framework for the product will be evolved.

(19) Code of Statistical Practice given in the Policy will be implemented mandatorily in respect of core statistics and will be promoted in respect of other statistics.

(20) Good practices such as Data documentation, Data sharing and Data integration will be promoted.

(21) Guidelines have been formulated and given in the Policy for use by the Government agencies when outsourcing is resorted to, so as not to compromise on professional approach and quality in collection and dissemination of statistics.

(22) Statistical Services to the nation in the form of statistical frames & registers, administrative statistics, reports of censuses and other surveys along with metadata and unit level data, advisory and audit paid services, special summaries on socio-economic data for the use of student community, user conferences and compliant/ grievance redressal forums on statistical matters would be organized.

(23) Scope and reach of capacity development exercises will be enhanced.

(24) International standards will be promoted in statistical products and international collaborative arrangements will be worked out.

(25) Policy initiatives for strengthening sub-national statistical systems would be recommended.

(26) The CSI, assisted by nodal officers from Central Ministries/ Departments and their instrumentalities and senior officers of MOSPI, through consultation process will implement the Policy. The nodal officers will be professionally responsible to CSI on core statistics.

(27) Additional resources for implementation of the Policy would be provided where appropriate with competent approval.

(28) On the basis of annual reports of the CSI, this Policy may be reviewed periodically, say, once in five years, and modifications, if necessary, may be incorporated in the Policy.

4.   Basic Statistics for Local Level Development (BSLLD)

For study of feasibility of the creation of databases to cater to the need of local level planning, MoSPI conducted pilot study on Basic Statistics for Local Level Development (BSLLD) in rural areas from 2008-09 to 2013-14 and in urban areas from 2013-14 to 2014-15. The feasibility reports of both rural and urban areas of the scheme have been released by MoSPI and are available on the website of MoSPI.

In this regard, some of the States/UTs have not yet submitted the final report while some others have not settled the accounts by furnishing the utilization certificate and returned the unspent funds released to them for conducting the study, the details are as follows:

State/UT	Status of Report	Details of the Unspent Funds lying with States/UTs (in Rs.)
Andhra Pradesh	Final report is pending.	619319
Bihar	Final report is pending.	Nil
Chhattisgarh	Final report is pending.	1857897
Goa	----	193030
Jharkhand	Final report is pending.	425110

State/UT	Status of Report	Details of the Unspent Funds lying with States/UTs (in Rs.)
Kerala	----	930402
Lakshadweep	Final report is pending.	Nil
Madhya Pradesh	Final report is pending.	4530613
Odisha	----	252911
Puducherry	Final report is pending.	Nil
Uttar Pradesh	Final report is pending.	880
West Bengal	----	1114849
Assam	----	551500
Mizoram	Final report is pending.	Nil

The above mentioned States/ UTs may be requested to settle the accounts at earliest, since further delays are likely to invite audit objections.

5.   State Assistance in Annual Survey of Industries

As part of its State Assistance, Industrial Statistics Wing, NSSO, DPD provides all kind of technical guidance/support to the participating states on ASI. As per the existing sample design followed in ASI, all the eligible units in the states of Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Sikkim, Tripura and Andaman & Nicobar Islands (UT) are covered in the central sample of ASI on complete enumeration basis. Matching samples are drawn for the remaining states except Uttar Pradesh for which extra sub-samples are drawn as per their requirement. Following technical support are provided regularly to the State DESs for conducting ASI Survey:

1) State samples are drawn before the start of every survey along with the central sample and sent to the respective states. As part of the existing sample design followed in ASI, two sub-samples (sub-samples 2 and 4) are provided to each of the State/DES (two extra sub-samples 5 and 6 for Uttar Pradesh). State sample for ASI 2017-18 has already been sent to the state DESs in October 2018.

2) ASI survey instruments like schedule, instruction manual are provided to all the states.

3) The updated ASI frame is uploaded in the website each year and can be freely downloaded.

4) E-schedule package is customized for each of the State DES with the respective state sample for e-compilation of ASI schedule. The e-schedule package contains a number of validations at data entry level itself. Almost all

the validation rules that are used in ASI web-portal for validation of ASI central sample data have also been included in the latest e-schedule package. The new validation package generates error lists based on the uniform validation rules which would help State DESs to rectify these errors before generation of estimates and use the state sample data for pooling with the central sample data. Further, mechanism of handling a number of data files generated from e-schedule package is also shared.

5) Data processing instruments like list of validation rules, multipliers, tabulation plan for estimating the parameters etc. are provided.

6) Methodology of pooling is also shared with the states along with hand-on exercise whenever requested.

7) Provisional data, generated from Central sample, are shared with the State DESs for their comments/observations etc. before finalizing the ASI results.

8) Central sample unit level data along with metadata are shared with the State DESs. This helps the DESs to generate district level estimates by pooling central and state sample data.

9) IS Wing conducts All India Training of Trainers (AITOT) workshop on Annual Survey of Industries (ASI) for the States where detailed technical discussions are taken place on ASI concepts, definitions, modifications brought in ASI schedule, e-compilation techniques using e-schedule package, validation of entered data through e-schedule, estimation procedures, pooling methodologies etc. Recently, an All India Training of Trainers (AITOT) workshop on Annual Survey of Industries (ASI) was organised at Sankhiyiki Bhawan, Delhi during 6-7 September 2018. A total of 38 participants from 20 different States participated in the workshop.

10) Need-based training workshops are organized at IS Wing, Kolkata for specific states on request basis. State-specific training programmes have been organized for the states of Tamil Nadu, Karnataka, Kerala, Goa, Odisha and Uttarakhand on issues ranging from handling of e-schedule package to pooling of central and state sample data.

Latest Status of State Participation in ASI

The latest available status of state ASI processing (last updated after AITOT) is attached herewith at **Annexure**.

Issues need to be addressed:

1) It may be seen from Annexure that different states are at different stage of data processing of ASI of different years. While some states have completed the tabulation of ASI 2015-16 and are in process of data collection/ data entry of ASI 2016-17, some states are still in the process of validation/tabulation of ASI 2012-13. It may be mentioned that ASI 2016-17 survey (central sample) has already been completed by FOD and the provisional results are to be published shortly. This lack of synchronisation of ASI work by the states gives rise to a multitude of problems ranging from holding AITOT or training workshops for all the states together to same units being approached by the FOD and state DES simultaneously for collecting information on different ASI survey years. It is desirable that like the central sample, a tentative time frame may also be fixed for completion of the state sample and its pooling with central sample.

2) State DES/SSBs should mobilize resources and develop adequate field and EDP infrastructure for canvassing and processing ASI state sample in time.

3) In the existing system, the ASI frame is dynamically updated every year from the relevant information collected from the units canvassed in the last survey ASI year. But due to limitation in sample size of central sample, only about 70,000-75,000 units get dynamically updated from a year's survey from among about 2,38,000 units in the entire frame based on the central sample alone. If the state samples are also available at the time of dynamic updation, the number of such units in the frame that get updated in this system will increase significantly. Towards this direction, the State DESs may share key information regularly on ASI frame from the State sample that they are canvassing to concerned Regional Offices of NSSO(FOD) for updating in ASI frame.

4) Recently, a decision was been taken to extend the coverage of ASI beyond the purview of the Section 2m (i) and 2m (ii) of the Factories Act, 1948 and the Bidi & Cigar Workers (Conditions of Employment) Act, 1966. Initially, the coverage is confined to units **having 100 or more employees** not registered under Section 2m (i) and 2m (ii) of the Factories Act, 1948 but registered under any of the Seven Acts i.e. Companies Act, 1956, Factories Act,1948, Shops and Commercial Establishments Act, Societies Registration Act, Cooperative Societies Act, Khadi and Village Industries Board and Directorate of Industries in the State **Business Registers of Enterprises (BRE)** .

5) This exercise has already been carried out in respect of Andhra Pradesh, Manipur, Chattisgarh, Himachal Pradesh, Punjab, Uttar Pradesh, Tamil Nadu, Telangana, Gujarat, Rajasthan, Kerala, Karnataka etc.

State DESs may compare the units with employee size greater than or equal to 100 of latest ASI frame of 2017-18 with their BRE and find out units that are not available in ASI frame but available in BRE and involved in manufacturing and have employee size greater than or equal to 100. Such list may be shared with Industrial Statistics Wing, DPD, NSSO, Kolkata.

Status of state sample ASI data processing as on September 2018

Sl No	State	Status of state sample ASI data processing as on September 2018				
		2012-13	2013-14	2014-15	2015-16	2016-17
1	Andhra Pradesh	Pooling and release of results completed	Pooling and release of results completed	Pooling and release of results completed	Pooling in progress	Data collection in progress
2	Assam	Tabulation completed	Tabulation completed	Tabulation in progress	Validation in progress	Data collection in progress
3	Bihar	Not started	Data collection completed	Data collection in progress	Data collection in progress	Data collection in progress
4	Chandigarh	Not doing state sample				
5	Chattisgarh	Validation completed	Validation completed	Validation completed	Data collection completed	Not Started

Sl No	State	Status of state sample ASI data processing as on September 2018				
		2012-13	2013-14	2014-15	2015-16	2016-17
6	Dadra & NagarHaveli	Information Not Available@				
7	Daman & Diu	Information Not Available@				
8	Delhi	Pooling and release of results completed	Pooling and release of results completed	Pooling and release of results completed	Data entry completed	Data collection completed
9	Goa	Information Not Available@				
10	Gujarat	Not Done	Pooling completed	Not Done	Tabulation completed	Data collection in progress
11	Haryana	Tabulation completed	Not Done	Not Done	Not Done	Not started
12	Himachal Pradesh	Data entry completed	Data entry completed	Data entry completed	Data entry completed	Data collection in progress
13	Jammu & Kashmir	Information Not Available@				
14	Jharkhand	Information Not Available@				
15	Karnataka	Pooling and release of results completed	Pooling and release of results completed	Validation in progress	Data collection in progress	Data collection in progress
16	Kerala	Pooling and release of results completed	Pooling and release of results completed	Pooling and release of results completed	Validation in progress	Data collection in progress
17	Madhya Pradesh	Not Done	Not Done	Data collection in progress	Data collection in progress	Data collection in progress
18	Maharashtra	Tabulation in progress	Tabulation in progress	Validation in progress	Data entry in progress	Not started
19	Odisha	Validation completed	Validation completed	Tabulation completed	Data entry in progress	Data collection in progress
20	Puducherry**	Not Done	Not Done	Not Done	Not Done	Validation completed
20	Punjab	Not Done	Not Done	Not Done	Not Done	Not started
22	Rajasthan	Pooling and release of results completed	Pooling and release of results completed	Pooling completed	Data entry in progress	Data entry in progress
23	Tamil Nadu	Pooling and	Pooling and	Pooling and	Validation completed	Data entry in

Sl No	State	Status of state sample ASI data processing as on September 2018				
		2012-13	2013-14	2014-15	2015-16	2016-17
		release of results completed	release of results completed	release of results completed		progress
24	Telangana	Pooling and release of results completed	Pooling and release of results completed	Pooling and release of results completed	Data entry in progress	Data entry in progress
	Uttarakhand	Data entry completed	Data entry completed	Data entry in progress	Data entry in progress	Data collection in progress
25	Uttar Pradesh	Pooling and release of results completed	Pooling and release of results completed	Pooling and release of results completed	Tabulation in progress	Validation in progress
27	West Bengal	Information Not Available@				

Prepared based on the filled in feedback form received from States at AITOT on 07-09-2018. Out of 27 non-CE states, 20 attended AITOT during 06-07 September, 2018.

** Based on a letter received from DES, Puducherry in Oct 2018
@ These states neither attended the AITOT
nor responded to letter

ATR ON THE RECOMMENDATIONS OF 25THCOCSSO

1.   Recommendation [Para No.10 (1) of Minutes]

DIPP may interact with the concerned DESs also, in addition to State Industry Departments, on the issue of non-response from many industrial units. DESs may be able to follow up with the non-responding units and help in reduction of non-response

[Action: DIPP]

   Action Taken/ Comments

CSO (ESD) may like to call a meeting of State DESs to discuss the feasibility and modalities of the issue of help in reduction of non-response in all-India IIP

2.   Recommendation [Para No. 10 (2) of Minutes]

In order to improve the compilation of State Indices of Industrial Production (IIPs), data collected by DIPP and States may be shared in respect of common units so that data collection efforts are not duplicated but are complemented and supplemented. DIPP may work out appropriate arrangements for data sharing in consultation with State DESs

[Action: DIPP]

   Action Taken/ Comments

Since unit level data is provided to CSO (ESD) every month, they may consider disseminating the information to States themselves ensuring confidentiality of unit level data. The states information of industrial units in the frame of DIPP have already been identified and sent to CSO (ESD).

3.   Recommendation [Para No. 10 (3) of Minutes]

The DIPP may evolve the manner in which unit level data collected (after suppressing identification details) could be placed in the public domain to facilitate further statistical use and research without violating the provisions of the law

[Action: DIPP]

   Action Taken/ Comments

As regards unit level data sharing and dissemination, the United Nations Fundamental Principle of Official Statistics state: 'Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes. 'CSO also recommends that confidentiality of individual survey respondents would be maintained. Accordingly, DIPP also maintain confidentiality of unit level data. The unit level data is not shared with any government/non-government entity. Even

when unit level data are provided to CSO (ESD), it is done by suppressing the identity particulars of the industrial units

4. Recommendation [Para No. 10 (4) of Minutes]

DIPP may play the role of a leader in building up the system of administrative statistics for the manufacturing sector

[Action: DIPP]

Action Taken/ Comments

Remarks: No Comment on this point is given by DIPP

5. Recommendation [Para No. 12 (1) of Minutes]

DGCIS may provide access on its export/ import data to all DESs. For the purpose, user-Ids and passwords for DGCIS portal may be communicated to DESs.

(Action: DGCIS)

Action Taken/ Comments

Usernames and passwords have been communicated to all the 36 States/UTs DES for accessing trade data through DGCIS's data dissemination portal

6. Recommendation [Para No. 11 (1) of Minutes]

MHRD may make appropriate arrangements for handling non-response and assessing the quality of data received

[Action: MHRD]

Action Taken/ Comments

For non-responding cases, MHRD is using estimation methodology to arrive at national level estimates. We are also encouraging participating institutions of Higher education to upload the data on AISHE Portal by creating awareness through workshops and giving remuneration. Several quality checks are inbuilt in the Data Capture Formats and data received to ensure quality of data.

7. Recommendation [Para No. 11 (2) of Minutes]

MHRD may consider providing access to AISHE portal to all the State/UT DESs

[Action: MHRD]

Action Taken/ Comments

State/UTs/ DESs can register on AISHE Portal and access the data.

8. Recommendation [Para No. 11 (3) of Minutes]

MHRD may provide, in their reports on AISHE, information at appropriate geographical levels on number of educational institutions teaching specific subjects, such as Statistics and the number of students passing out with those

subjects. This information will be useful for recruitment agencies within and outside the Government in planning their processes.

[Action: MHRD]

Action Taken/ Comments

This information is collected through AISHE and is available on Know Your College Portal.

9. Recommendation [Para No. 11 (4) of Minutes]

MHRD may evolve GER at different levels of education. These ratios may give a picture of those who complete graduation and above out of those who completed below graduation level studies. A new ratio based on gender-specific enrolment after school education may also be compiled.

[Action: MHRD]

Action Taken/ Comments

It is a debatable issue and methodology for evolving GER at different level of education is to be decided. However, gender specific GER is available
.

10. Recommendation [Para No. 11 (5) of Minutes]

MHRD may take leadership role in compiling, consolidating and integrating data on all aspects of education statistics (including Vocational Training). They may also provide training and guidance to States/ UTs in this area with special focus on maintaining the quality of data.

[Action: MHRD]

Action Taken/ Comments

MHRD is collecting data on various parameters including vocational training from institutions of Higher education through AISHE. MHRD conducts workshops to provide guidance and training for maintaining quality of data. States/UTs are encouraged to set up States/UTs AISHE level cells to coordinate the work related to AISHE. In Department of Higher Education, various schemes on Higher Education are being implemented by different Bureaus and they have full involvements of States/UTS whenever needed. Statistics Bureau also collaborate with other Bureaus of MHRD in respect of Higher Education Statistics.

11. Recommendation [Para No. 13 of Minutes]

Shri S.K. Mishra, Joint Director, Directorate of Data Management, CBEC made a presentation on the online portal and real-time data base in respect of Central Excise, GST and Service Tax. With regard to GSTN – National integration tool, he stated that responsibility of data validation lies with the data origin States/central agencies and that the CBEC has evolved a master book of clarifications / FAQs to be used in the process.Shri Mishra also stated that CBEC is considering to provide User ID and password to Nodal Officers of the Interested Departments/ Ministries to access database. It was suggested that the list of units (along with auxiliary information) registered under GST may be provided to MOSPI and State/ UT DESs to update Business Registers, which would be used to conduct various statistical surveys. The quarterly data on tax collections along with summary information on units, classification-wise who have paid taxes

would also be required by the MOSPI and State/ UT DESs for use in compilation of national accounts and State level accounts. Keeping in view the legal provisions/ practices in other countries such as Australia where tax data is shared with statistical agencies, it was suggested that similar protocols may be worked out by CBEC to share tax data for statistical purposes.

(Action: CBEC)

Action Taken/ Comments

Para 13 of the minutes pertains to DG Systems & Data Management. CBIC and the action taken report on the issues raised / clarifications are as follows:
"*With regard to GSTN – National integration tool, he stated that responsibility of data validation lies with the data origin States / central agencies and that the CBIS has evolved a master book of clarification / FAQs to be used in the process.*"
It appears that what was stated by Sh. Mishra in the Conference has been wrongly understood. It is clarified that GSTN is a common portal for both Central and State/UTs Governments as well as GST assesses falling under the jurisdictions of both the Governments to enable them to file GST Returns, transactions, etc.
"*Sh. Mishra also stated that CBIC is considering to provide User ID and Password to Nodal Officers of the Interested Departments / Ministries to access database.*"
It was stated by the CBIC representative that such user ID cannot be provided by DG Systems as per the policy of the CBIC. In this regard, they were advised to approach DG Systems in terms of CBIC's data sharing protocol (as available on CBIC Website).
"*It was suggested that the list of units (along with auxiliary information) registered under GST may provide to MOSPI and State / UT DESs to update Business Registers, which would be used to conduct various statistical surveys. The quarterly data on tax collections along with summary information on units, classification-wise who have paid taxes would also be required by the MOSPI and State/UT DESs for use in compilation of national accounts and State level accounts. Keeping in view the legal provisions/practices in other countries such as Australia where tax data is shared with statistical agencies, it was suggested that similar protocols may be worked out by CBIC to share tax data for statistical purposes.*"
Regarding this point CBIC's representative mentioned that the agencies requiring specific data may approach DG Systems in terms of CBIC's Data sharing protocol as mentioned above.

12.   Recommendation [Para No. 14 of Minutes]

Standardized framework may be evolved for capturing data relating to organizations like ESIC, EPFO etc. as an alternative mechanism for assessing levels of employment and social costs/ coverage.

(Action: M/o Labour and Employment)

Action Taken/ Comments

The work for online submission of returns is still in progress. However, For ESIC and EPFO organization a common return has been developed through Shram Suvidha Portal.

13.   Recommendation [Para No. 16 of Minutes]

There are sectors which are partly in the domain of the Centre and partly with the States. This being the context, it has been considered necessary that the Ministry/ Department at the Centre dealing with major chunk of each sector may take leadership to ensure from time to time preparation and updation of statistical frames and compilation and release of administrative statistics periodically at appropriate disaggregated levels, including statistics at political constituency level, in accordance with a common template to be evolved. In order to achieve this goal, MOSPI will address letters to the concerned Central Ministries/ Departments to constitute committees with representation from other stakeholders.MOSPI will address letters to the concerned Central Ministries/ Departments to constitute committees with representation from other stakeholders.

[Action: CSO (CAP)]

Action Taken/ Comments

Preliminary work of mapping of sector (NIC) with Ministries/Departments has been done. A CoS note to evolve template under lead ministry is under preparation.

14.   Recommendation [Para No. 25 (1) of Minutes]

A few State DESs, like Gujarat and Rajasthan, have established strong statistical systems with extensive use of information and communication technological set-up. A few States have put in place systems of data collection and data flow right from the village level. States endeavouring to strengthen their statistical systems could interact with such DESs to learn from their experiences as well as to take their guidance.

(Action: All DESs)

Action Taken/ Comments

A & N Islands:

(i)   All departments were requested to develop village wise data on key indicators of respective department vide Directorate's letter dated 9.8.2010. Also such database will enable grass root level planning vide letter dated 08/02/2011.
(ii) Considering importance of village level data the Directorate of Economics and Statistics designed a format to collect basic village wise data and sent to Rural Development Department to collect data from Panchayat and also requested to develop a village level database vide this Directorates letter dated 31.8.2010 and subsequent reminders dated 19.8.2011,13.12.2011,22.11.2012,7.6.2013 and 11.8.2014 finally on 13.8.2015.
(iii)A web-based application was developed with assistant of NIC and link given in website of Rural Department for data feeding.

Arunachal Pradesh: SSSP is yet to be implemented in the State.

Assam: A proposal has been taken in SSS scheme for creation of Village level Database for Assam (Software Module+ Data Entry).

Chandigarh: Chandigarh being a city/state, the concept of states like Gujarat and Rajasthan could not be opted. Chandigarh is a city, where all the villages are modernized and equipped with all modern facilities.

Daman & Diu: The Union Territory of Daman and Diu is very tiny covering an area of 112 sq kms. With two Districts separated apart by about 750 kms. with population of about 2.43 lakhs only. All line departments are collecting base line data from their lowest units scattered in rural as well as urban areas. Several times, the Department of Planning & Statistics, Daman has requested the DES, Gujarat to provide technical support to the UT of Daman & Diu since both district of Daman and Diu are geographically attached with Gujarat State.

Delhi: In Delhi, neither village level nor District level statistical set up exits. Hence no further comments to be offered in this regard.

Goa: The State DES will endeavour to draw from the experiences of the States with a strong Statistical System like Gujarat & Rajasthan to strengthen the Statistical System in the State of Goa through interactions.

Gujarat: Efforts of DES, Gujarat are noted & appreciated in COCSSO seminar.Village Profile is regularly updated through online portal.

Himachal Pradesh: The DES, H.P. has interacted with DES, Gujarat and Rajasthan regarding their Strong Statistical System and how to make extensive use of Information & Technological set-ups to strengthen the system. The DES has also addressed these issues under different themes of Support for Statistical Strengthening Scheme and principal approval has also been received to the State for implementing this project. The scheme was approved in the high level monitoring committee held on 30.01.2018.

Beside the above DES has also taken up this issue with State Government. The State Government has also felt the need of timely data for effective planning and implementation of the government schemes. Under the 2018-19 budgets, State government has given assurance for online data collection and asked DES for developing the mechanism as well as the action plan to achieve the desire result. In the month of April, 2018 DES, H.P. is expecting to receive the 1st installment under this project and will take necessary steps to address the concern raised in the 25th COCSSO.

Karnataka: Directorate of Economics and Statistics, Karnataka is having KSSDA which implements 20 Key activities through which strengthening of Statistical Systems is taken up. Village level data collection and other systematic data collection through ICT is implemented effectively in the State. Some of the initiatives taken up in the state are

- Crop cutting experiments are being conducted through mobile app.
- Online Birth and Death registration is being done through uniform software called e-janma.
- The State Government has taken an initiative to conduct crop survey from 208-19 to assess the area under various crops. State DES like Gujarat and Rajasthan will be contacted for guidance in case of new initiative.

Kerala:

a) Regarding village level statistics DES has initiated a web based application support decentralized planning at District, Block and Grama Panchayat levels.

b) DES has initiated IT based data collection, data transfer and consolidation. For this purpose an online software DESCAS has been developed and presently in testing stage.

c) DES is also proposed to develop a GIS based data analysis platform with the technical support of Kerala State Remote Sensing and Environment Centre (KSREC)

Lakshadweep: The DPS is in touch with NIC, Kavaratti vide letters dated17.03.2011 and 05.07.2018(Annexure -1) for developing a suitable online software for reporting core statistics pertains to different sectors of island economy using extensive use of information &communication technology

[Lakshadweep is a group of 10 islands and 1 each Junior Investigator posted in these is lands to look after Statistical needs. Department shall explore the possibility of deputing one or two officers to have an interaction with DESs Gujarat/Rajasthan to learn their experience and to implement/triplicate the same into Lakshadweep.]

Madhya Pradesh: This work is in process

Maharashtra: In this regard, this Directorate has prepared village profile for micro planning to make available extensive information. However different line departments have used different coding patter. Attempt to integrate all the data set on one single platform is under process.

Meghalaya: Under the Central Sector Scheme 'Support for Statistical Strengthening', various activities are being proposed which includes development of statistical software for data collection, compilation of CPI, IIP, local level database, district domestic product, state and district statistical handbook, etc. It also includes exposure visit to other States' DES for learning the advance development of statistical systems. Under the Scheme, training and capacity building programmes have also been proposed.

Puducherry: State High Level Steering Committee under the Chairmanship of Chief Secretary to Government has cleared the SSS proposal of DES, Government of Puducherry on 19.03.2018. The State Statistical System will be strengthened after sanctioning of the scheme by MoSPI. The best practices of other States will also be appropriately considered.

Punjab: At present, the village level data is being collected by DES Punjab on various socio-economic indicators in Village Directory and placed on department's website.

Tamil Nadu: In DES, Tamil Nadu, the data collection and flow are carried out at District level under Support of Statistical Strengthening (SSS) Scheme.

Telangana: DES, Telangana is also on the progression to establish strong statistical system by improving the information and communication technology.
The DES, Telangana has already collected village level data on about 900 parameters in 2014-15 and updating the same for the year 2017-18, in the state.

Tripura: States may interact with the DES of Rajasthan and Gujarat to gather experience how to establish a strong statistical system.

Uttar Pradesh:We will try to interact with DES of different state's so that we can learn from their experiences and may strengthen our statistical system.

Uttarakhand: Earlier official of DES UK visited DES Maharashtra and DES Gujrat to study their statistical system.DES has planned to establish the ICT System under SSS project

15.   Recommendation [Para No. 25 (2) of Minutes]

The training infrastructure and capacities available in different States vary substantially. Gujarat has a strong training set-up, with well-developed training material. Karnataka has put in place a training policy and have established a training centre. However, most States lack adequate training facilities for statistical personnel. In view of the fact that National Statistical Systems Training Academy (NSSTA) of MOSPI was not equipped to take up direct training of statistical personnel of all States, it was recommended that NSSTA should consider providing Training of Trainers for State DESs. The State DESs on their part should evolve long-term plan for developing their training infrastructure. For the short and medium-term, the DESs desirous of arranging training for their staff and the staff of their line departments may approach States having good training setup.

[Action: CSO (NSSTA), All DESs]

Action Taken/ Comments

CSO (NSSTA): One TOT (Training of Trainers) Programme on "National Accounts Statistics" for 17 officers of State/UTs DES, was successfully organized at NSSTA, Greater NOIDA during financial year 2017-18.

A & N Islands: Noted, it is very difficult to send Statistical personnel of these Islands in large numbers for training at Delhi. Therefore Ministry was requested to conduct training programme at Port Blair so that more number of Statistical personnel can attend training programmes. Ministry has agreed to conduct training programme at Port Blair during April, 2018 for which modalities are being worked out. Being a remote territory, it is difficult to send large number of Statistical personals of these islands to Delhi.

Andhra Pradesh: The DES is conducting training programmes to staff along with line departments. The Induction training programmes to the newly recruited Assistant Directors and Assistant Statistical Officers has also been organized.

Arunachal Pradesh: In this regard a letter has been received from NSSTA, and we are working on the subjects/area wherein our staffs require training.

Assam: DES has a training hall and limited hostel accommodation for district level officials. However this needs further expansion and innovation. During the year 2018-19 a training plan is being prepared for imparting training to the officials of DES. Further, NSSTA would be requested for providing training of trainers of the state DES

Daman & Diu: The Administration is not having any training centre. The Ministry may provide resource person to conduct the workshop at Daman headquarter so that the statistical personnel of UTs of Daman and Diu & Dadra and

Nagar Haveli may avail such training. There are few statistical staff and hence their deployment for even one week training may affect the routine statistical work

Delhi: DES, Delhi is lacking with infrastructure for imparting training to the Statistical personal. However, in recent time official posted in DES have been sent to NSSTA for Induction training program. In future cooperation for NSSTA will be requested required for the referees course for Statistical personal posted in DES, as well as line Department of GNCTD through DES.

Goa: Although the State lacks a Training Centre to provide training facilities for Statistical Personnel, in-house training on various aspects of statistics are conducted from time to time. Besides, the DES will take advantage of the training facilities extended by MoS&PI through NSSTA by deputing DES Personnel for the trainings.

Gujarat: DES Gujarat has established Center for Participatory Learning for capacity building of State line Departments as well as sub-state offices personnel engaged in statistical activities. Along with in-house officers, expert faculties are also invited.

Himachal Pradesh: The State DES has developed a medium and short-term plan for organizing the training for DES as well as Line department staff by sending them to NSSTA (Delhi) and Himachal Pradesh Institute of Public Administration (HIPA)

Karnataka: Directorate of Economics and Statistics, Karnataka has brought out Master Training Module in which Training Syllabus is chalked out to all cadres of employees. It deputes its officers for various training organized by NSSTA. Apart from NSSTA training, officers and officials of Directorate of Economics and Statistics are also deputed to District Training Institute, Administrative Training Institute, Mysore and Abdul Nazeer Sah State Institute of Rural Development, Mysore for different training programmes regularly

Kerala:

a) Under newly formed training institute SASA (State Academy on Statistical Administration) aimed to facilitate training and research infrastructure.
b) As far as training to Statistical personnel in DES, State Govt. has developed a tate training policy in consultation with Institute of Management in Government (IMG), Kerala. Under this STP, series of training programmes pertaining to various statistical areas has been imparted.
c) Besides, under State plan schemes adequate fund has been allotted for in service training to statistical personnel in the Department so as to impart training for quality improvement and attend training programmes in NSSTA and other national institutes.

Lakshadweep: The proposal is under submission for organizing the training programme for statistical functionaries with the assistance of NSSTA.

Maharashtra:

1. To increase the efficiency at every level in the State Government service and to face the challenges arising out of economic, social, political and technical

changes, State Training Policy 2011 is being implemented in the State since 2011. YASHADA, Pune is the apex training institute in the State to impart following types of trainings to the Government employees

Technical –
- Technical training is designed by concerned department
- Subjects for technical training decided by DES includes National Accounts Statistics, Index number and price statistics, Annual Survey of Industries, Official statistics, Sample Survey and data processing, etc.

Administrative and In-service trainings - Public administration, social responsibility, project management, good governance, management skill, financial issues, human resource development, establishment, related laws, computer training, etc.
- Foundation
- After promotion
- Refresher
- After transfer
- Orientation

Foreign training (selected categories) - Decided by The State Training Task Force on the policy regarding foreign training for certain cadres.

2. Above said trainings for officials (Group - A, B) of DES are organized at YASHADA.
3. Trainers for training are nominated regularly for the yearly programme arranged by NSSTA.
4. Preparation of long term plan to develop training infrastructure, trainers for the training is in process.

Manipur: One officer along with three officials attended one week training programme on 'Estimation of SDP by rural and urban sector' since 28th May, 2018 at NSSTA Greater Noida.

Meghalaya: Currently the DES does not have proper training infrastructure. However the DES will try to utilize the existing training infrastructure of the State training institutes for its requirements. Also the DES has been deputing officials to attend various training programmes conducted by NSSTA and ISI Tezpur.
Under the Central Sector Scheme 'Support for Statistical Strengthening', it is proposed to develop training modules for statistical personnel of the DES.

Puducherry: The Directorate of Economics and Statistics, UT of Puducherry is well equipped to provide training and also sponsors its officer and officials to various Training Programmes of CSO,NSSTA,NSSO and Labour Bureau towards capacity building and also will tie up with other States which are having better infrastructure for joint skill development as advised by the Ministry.

Tamil Nadu: The Tamil Nadu State Statistical Training Institute has been established and functioning since 01.05.2012. It provides periodical training to the DES Staff and Line Department Staff in the following areas by utilizing resource persons from various fields :

- Induction course covering basic principles in Economics & Statistics, Official statistical system and related methodology, analytical reasoning and communication skills and report writing skills, etc.

- Need based short duration trainings on National Sample Survey subjects, methods of State Income estimation, application of statistical packages, official statistics and related methodology, recent developments in the international arena, computer applications, software development, data security and management of computer systems are periodically conducted.

The Tamil Nadu Statistical Training Institute has imparted training to the staff of DES and Line Departments are as follows:

Year	No. of Staff trained
2012-13	409
2013-14	245
2014-15	445
2015-16	503
2016-17	550
2017-18	782

Telangana: DES, Telangana has also established Telangana State Statistical Training and Research Institute (TSSTRI), for imparting training to the DES staff and also for Line departments' personnel. The NSSTA may give importance to the DES Officials for imparting training on various subjects on par with the ISS officers for improvement of their knowledge levels, which in turn will help improving the quality of Statistical system of the Country as a whole.

Tripura: State DES may prepare a long term plan for training of statistical personnel on core statistical issues. Training of Trainer may be done at National Statistical System Training Academy (NSSTA).

Uttar Pradesh:NSSTA already established in UP for routine training for statistical personnel. For specialized training, training Institutes like IIM Lucknow, NIFM, Bhopal, NIRD Hyderabad, ASCI Hyderabad etc. are also used at time to time for our officers.

Uttarakhand: Statistical Training of DES personnel is being provided in-housetraining in state-based training institutes. Regular participation from DES is made in NSSTA. In addition training programmes at institutes of repute like; ASCI Hyderabad, NIFM Faridabad, IIFM Bhopal.

16. Recommendation [Para No. 25 (3) of Minutes]

It was reported that lists of households in villages and urban areas have been prepared in many of the States/ UTs for different purposes. It was felt that these lists would be useful in National Sample Surveys and other sample surveys in reducing the time to be spent in the field. Hence, NSSO was requested to take stock of the position and make use of all such resources. The States/ UTs where such lists are available were provide access to these to all users in the form of statistical frames.

(Action: NSSO, DESs)

Action Taken/ Comments

NSSO: The D.O. letter dated 26th June, 2018 from ADG (CPD) to all the concerned states/ UTs has been issued with a request to provide a soft copy of such list of households. In response, comments/information has been received from Maharashtra, Delhi, Goa, Mizoram and Meghalaya are as under:

Sr.No.	State	Comments/Information
1	Maharashtra	List Not available
2	Delhi	List Not available from any source
3	Goa	No such list prepared in DES, Goa, However, the DES conducts the quinquennial Agriculture Census for which listing of households and operational holders is undertaken based on random sampling method selecting 50% of the villages in the state. The data is collected in Schedule L-1(A3 size paper) which runs into minimum of 15 to 20 pages per village. Soft copy of the same is not available with DES and hence, it is not possible to send this list to the NSSO.
4	Mizoram	Data relating to lists of households in villages/urban wards have not been maintained by DES, Mizoram.
5	Meghalaya	List Not available

A & N Islands: Noted, if NSSO has such list DES will request to get such frame.

Assam: The DES has already collected the Abridge House list from Director of Census Operation for the year of 2010 and accordingly it is updated and used for different sample survey like NSSO, Village amenities Survey etc.

Chandigarh: Directorate of Economics & Statistics is not participating in NSSO (Socio Economic) surveys since 62nd round on double matching basis. Socio Economic surveys are being carried out in Chandigarh by the NSSO (FOD), Haryana Region, as and when any necessity will arise, NSSO will be contacted for the same accordingly.

Daman & Diu: The lists of households are enumerated during every Census/Survey. The available list will be provided to the Ministry. Further, the Health Department of this UT are capturing household wise data (Family Register) every year. The Department is under process of digitization of these data. After digitization the same may be shared after discussion with concerned department

Delhi: No such list of household is available from any source.

Goa: In case of Goa State, no such list of households in villages and urban areas has been prepared

Gujarat: Noted

Himachal Pradesh: The DES is having the AHL (Abridged House List) of Census 2011, obtained from the Departments of Census Operations HP for carrying out different surveys and will further try to update these frames with collaborated efforts of line Department.

Karnataka: Social and Education survey has been conducted in Karnataka during 2015 which includes households details. After the publication of report the same will be shared with central agencies.

Kerala: As far as DES, Kerala is concerned no such lists of households were prepared.

Lakshadweep: Not relevant to this UT. The office of NSSO, Ernakulam Region is caring out the NSSO rounds for this UT.

Manipur: The state of Manipur does not have lists of households in villages and urban areas.

Meghalaya: For the 6th Economics Census, the image files containing the lists of all the households in the State were obtained from the Director of Census Operations, Meghalaya which was used as the frame of reference for Census in the state. The list was shared with the NSSO (FOD) Meghalaya for the purpose of sample selection for the 73rd round of NSS as requested by Ministry vide letter No.103/SE/S&A/Megh/73rd /1068 dated 21st July, 2015. Since the concerned authority is the Director of Census Operations, the users would have to approach this authority if they require the list

Punjab: DES Punjab will contact other states in this regard and take action accordingly.

Telangana: The Government of Telangana, has conducted an Intensive Household Survey (IHS) in August, 2014 to have robust database on the socio-economic conditions of all the households existing in the state. It was thought that, this database would facilitate the state government in analyzing the financial conditions of the households and to reach them through innovative welfare programmes to reduce the poverty and to minimize the distress among the citizens of the state.

Tripura: To reduce time to be spent in the field for NSS, readily available list of household may be used as frame.

Uttar Pradesh: In the State at Gram panchayat level a register of household named "Pariwaar Register" is prepared at village level offfically but it is not aggregated at any upper level like Tehsil/District/State

Uttarakhand: DES has not Developed such type of list.

17. Recommendation [Para No. 25 (4) of Minutes]

It is neither necessary nor feasible to have persons from statistical cadres handling administrative statistics in all the line Departments at State level. It is desirable that the DES may impart training to the persons working in line Departments on how to collect, compile, tabulate and share/ disseminate administrative statistics to

enhance their potential in statistical use. Digitisation of data may also be considered in the process.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Workshop on collection of statistics act was organized at Port Blair dated 16/03/2016 by Resource persons of MOSPI, session on preparation of SSP was also taken up with all the invited departments, discussion & workshop on various Statistical activates are being organized in this Directorate in association with MoSPI and trainings are imparted on various subjects i.e., SDP, Price Indices, Economic Census, Employment and unemployment surveys etc

All statistical data and publications are uploaded in the website for the use of stakeholders and formats are also uploaded in the website for easy download by all the line departments and steps are taken to collect statistical data through online mode.

Andhra Pradesh: The Government has yet to sanction the posts for the proposed Statistical cell under APSSTRI. The matter was pursuing with the Government

Arunachal Pradesh: Most of the line Departments does not have statistical sections. However, we have designed formats as per their convenience, so that data flow does not stop coming.

Assam: The DES has been regularly conducting training programme on various departmental activities like NSS, Agriculture etc. to the Officials and staff of DES for their capacity building in the field of collection, compilation and analysis of primary and secondary data, from time to time. The DES is also lagging far behind in digitization of data. As regards the training for the persons working in the line department the matter would be considered in near future.

Chandigarh: Chandigarh being a city/state, this point is not applicable in Chandigarh

Daman & Diu: Daman District is the headquarter of the UT. There is no District Statistical Office in both the Districts. The headquarter functions as District level office. There is no adequate staff at the headquarter for carrying out all the statistical functions. The recommendation to train the other staff of line departments in collection compilation and tabulation of data may be carried out with the help of Gujarat DES.

Delhi: Cooperation of NSSTA is desired for induction/refresh program for Statistical personal posted in the line Dept. of GNCTD through DES.

Goa: DES has Statistical Cells in the line departments basically to collect and supply specific type of data required by the DES to bring out various reports, publications, etc.

Gujarat:CPL organizes various trainings for the officials from HoDs and Districts who are engaged in statistical activities

Himachal Pradesh: While adhering to this recommendation DES, HP has already collected information of statistics manpower engaged in different Statistical cells of line departments, while preparing the State Strategic Statistical Plan under SSS

scheme. There is negligible manpower in some of the Statistical Cell. To cater this problem now DES is asking Line departments to nominate persons dealing with statistical work for different statistical training organized by HIPA, where faculty is provided by the DES. Now in the process of digitalization of data more and more non-statistical manpower put in place.

Beside the above DES is also advocating the case of Line departments to fill up the vacant posts in Statistical Cells. In this direction State Government has taken a pragmatic step by making a provision in existing R&P rules. Now in the State persons, performing statistical activities and belongs to non-Statistical cadre but meeting the qualification criteria have been given opportunity to join statistical services.

Karnataka: In Karnataka Statistical work of all the line departments are being carried out by the statistical personnel deputed from the Directorate of Economics & Statistics. Training to line department statistical personnel is being imparted regularly by the DES through district training centres and Administrative Training Institute. Mysore regarding collection, compilation, tabulation and dissemination of administrative statistics.

Kerala: In Kerala, statistical cells are functioning in 43 line Departments and the statistical activities of these cells are regularly monitored by the State DES. The Statistical personnel in the line Departments also participated in the training under STP and SASA

Lakshadweep: The proposal is under submission stage for organizing the training programme for statistical functionaries with the assistance of NSSTA.

Madhya Pradesh: This work is in process

Maharashtra: As in Recommendation [Para No. 25 (2) of Minutes]

Manipur: To enhance workers potential of all line department at state level, one week Training Programme on IT(Computer Literacy) under Manipur State Strategic Statistical Plan(MASSSP)was held at the State Academy of Training (SAT) Takyelpat since 24th April, 2018.

Meghalaya: Under the SSS Program of the state, training programs have been proposed for line departments.Digitization and dissemination of the State and Districts Statistical Handbook have also been proposed under the SSS programme

Puducherry: Online integrated data base management of line departments is to be taken up under SSS. Digitisation of data is also proposed under SSS. The Directorate will evolve a training plan to impart training to other relevant officials of this Administration on basic statistics skills as advised by the Ministry. The training calendar plan would be shared with the Ministry sooner.

Punjab: DES will write to all the line departments to get training about collection, compiling and tabulate the administrative statistics.

Tamil Nadu: Under SSS Scheme, a sum of Rs.11.00 lakh have been provided to Tamil Nadu State Statistical Training Institute (TNSSTI) to impart training programmes to Staff of DES and Line Departments. Accordingly, the following residential training have been conducted :

Training to DES Staff :
- Official Statistics and Office Procedures,
- Statistical methods using SPSS,
- Statistical methods using R Language,
- Statistical methods using Excel.

Training to Line Department Staff :
- Statistical tools and office procedures.

Telangana: The statistical service employees of DES, Telangana are working in statistical cells of various departments in the state. They were already imparted trainings on all the statistical matters & periodical refreshing trainings are being conducted to acquaint them emerging concepts & definitions of various statistical subjects.

Tripura: DES may impart training to the line Departments of the state to improve Administrative Statistics.

Uttar Pradesh: DES is interacted in providing training to the statistical persons of line Departments as according to their requirement from time to time.

Uttarakhand: DES has planned to impart the Statistical trainings to the line departments under SSS project
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18. Recommendation [Para No. 30 (1) of Minutes]

MOSPI will address letters to Chief Secretaries/ Administrators of all participating States/ UTs bringing to their notice the activities pending under SSSP, status of fund utilisation and other relevant aspects, and to request for a quarterly review to have the activities completed in a Mission Mode.

[Action: CSO, ISSP (CAP) Division]

Action Taken/ Comments

As directed in the COCSSO, the pending activities under the scheme in the respective states, status of funds released and utilization, etc. were brought to the notice of the Chief Secretaries, and they have been requested to expedite completion of pending activities by June, 2018 in Mission Mode. They have been further requested to review of the scheme under the State High Level Steering Committee (SHLSC) and State Implementing Committee.

19. Recommendation [Para No. 30 (2) of Minutes]

DESs of States/ UTs participating in SSSP were requested to take all steps to fully utilise the opportunities provided under SSSP to improve their statistical systems and furnish quarterly reports to the CSO**.**

(Action: States/ UTs participating in SSSP)

Action Taken/ Comments

A & N Islands: Noted, all the department had been requested to send the proposals to be included in SSSP.

Andhra Pradesh: The DES, A.P has taken up all necessary steps to complete the work.

Arunachal Pradesh: SSSP is yet to be implemented in the State. On 9th May, 2018, an MoU along with State program has been sent to CSO for finalization of the program.

Chandigarh: Not applicable

Daman & Diu: The project needs to be taken up with the help of Consultant to be engaged for the UT of Daman and Diu. There is acute shortage of manpower at the headquarter and also in line departments. The department needs to be strengthened with adequate manpower. The proposal for creation of posts is pending with the Ministry

Goa: State of Goa does not participate in SSSP

Gujarat: Noted

Himachal Pradesh: In principle approval required for implementing project under SSSP.

Jharkhand:

1. सांख्यिकी एवं कार्यक्रम कार्यान्वयन मंत्रालय, भारत सरकार के पत्रांक 1-12012/12/2013 ISSP दिनांक-01-04-2016 के द्वारा सांख्यिकी सुदृढीकरण सामर्थन (ISS) योजना को Central Sector Scheme घोषित करते हुए निदेषित किया गया कि इससे संबंधित राशि Public Financial Management System (PFMC) मोड्यूल के माध्यम से राज्य सरकार को उपलब्ध करायी जाएगी। PFMS Module कार्यान्वयन हेतु भारत सरकार के पत्रांक 1-12012/12/2013ISSP (Vol-11) दिनांक-22-08-2016 द्वारा Implementation Guidance भेजा गया जिसके आलोक में SSS योजना के कार्यान्वयन हेतू राज्य कार्यान्वयन समिति का गठन किया गया। P.F.M.S.के अन्तर्गत दिनांक-16-06-2017 को बचत बैंक खाता कैनरा बैंक (Public Sector bank) में खोला जा चुका है

2. वित्तीयवर्ष 2012-13 में प्रथम किस्त के रुप में विमुक्त कुल 4.19264 करोड़ रुपये में से 2.25 करोड़ रुपये का भुगतान अर्थ एवं सांख्यिकी निदेषालय के भवन निर्माण हेतू विभग को उपलब्द क पाया गया।शेष 1-21057/49120 Jharkhand-PSG/CAP दिनांक 09-05-2017 द्वारा प्रदान किया गया

3. SSS योजनान्तर्गत शामिल एक गतिविधि स्थानाय निकायों का 2015-16 तथा वर्ष 2016-17 का आय-व्यय लेखा से संबंधित आँकड़ों का संग्रहत था संग्रहित आँकड़ों का वेबबेस्ट ऑन लाईन साफटवेयर के माध्यम से प्रनिष्टि किये जाने के निमित दिनांक 05-10-2017 तथा 06-10-2017 को दो दिवसीय राज्यस्तरीय प्रषिक्षण-सह-कार्याशाला का आयोजन किया गया, जिसमें राष्ट्रीय लेखा प्रभाग, केन्द्रीय सांख्यिकी कार्यालय, नई दिल्ली से निदेशक एवं उप निदेशक प्रशिक्षण के रुप में भाग लिये।

4. I.C.T. Infrastructure गतिविधि अन्तर्गत 212 प्रखड़ों में कम्प्यूटर हार्डवेयन इत्यादि की आपूर्ति के लिए Performa invoice उपलब्ध कराने हेतू राष्ट्रीय सूचना विज्ञान

केन्द्र के माध्यम से NICI को 2 (दो) पत्रक्रमषः पत्रांक 634 दिनांक 08-06-2017 तथा पत्रांक 813 दिनांक-20-10-2017 भजा गया है।

5. अवशेष 2.94264 करोड़ के व्यय हेतु विभिन्न सांख्यि की गतिविधियों के क्रियान्वयन के निमितकार्य/व्यय योजना तैयार किया जा रहा है।

6. वित्तीय वर्ष 2017-18 की अव्यवहृत राशि 2.9426 करोड़ रुपये को वित्तीय वर्ष 2018-19 के लिए पुन वैधिकृत करने हेतू इस कार्यालय के पत्रांक 294 दिनांक-09-04-2018 द्वारा MOSPI से अनुरोध काया गया।

7. वित्तीय वर्ष 2018-19 में पुनः वैधिकृत राशि के व्यय हेतु मदवारव्यय योजना में बदलाव हेतु SHLSC के द्वारा स्वीकृति प्राप्त करने का प्रस्ताव है।

Karnataka: All Instructions given by Government of India during 25th COCSSO were followed and implemented. Regular progress report and financial details were sent to Government of India as per the MOU signed between Government of India and Government of Karnataka.

Kerala: DES Kerala has taken all steps to utilize the funds fully. The reason for low utilization is due to delay in SASA training institute's construction work. All the issues pertaining to construction is sorted out and started construction works

Lakshadweep: Field operation of 2nd Family Budget Survey completed in all islands for arriving weighing diagram for the scrutiny, compilation and validation are under progress computation of CPI with new base year.

Maharashtra: The State has been allocated Rs.38.56 crore as grant for implementation of SSSP. DES has chalked out the activities that are required to be taken up under this programme and the same will be finalized soon. Draft of MoU will be sent to CSO by mid-June, 2018

Meghalaya: The SSS program of the State was approved by the SHLSC on the 17th May 2018 and the same is to be considered and approved by the HLSC of the MoSPI on the 22nd May 2018.

Puducherry: DES, Puducherry will comply the advice of the Ministry

Punjab: SSSP for the Punjab State has been modified as per the instruction of MOSPI & is under process of approval. After the approval of the SSSP & receipt of funds, quarterly reports will be sent to GoI.

Tamil Nadu: The DES, Tamil Nadu have taken all possible steps to fully utilize the opportunities provided under SSS Scheme to improve the Statistical System.

Telangana: The DES, Telangana putting all its efforts to complete the action plan within the stipulated schedule. All the activities proposed under SSS are in good progress and expected to be completed as per the approved plan.

Tripura: Regarding State Statistical Strengthening Programme, DES, Tripura already submitted the State proposals as per prescribed format to MoSPI

Uttar Pradesh: UP is already working in this direction and new revised state programme under "SSS Scheme" and respective MoU has already been approved & signed.

Uttarakhand: Noted.

20.   Recommendation [Para No. 33 (1) of Minutes]

All the official agencies producing indices may complete action on revising base to 2011-12.

(Action: Central Ministries and States/ UTs)

Action Taken/ Comments

A & N Islands: Noted.

Andhra Pradesh: A.P. is not compiling and releasing WPI and CPI (R, U &C)

Assam: Compilation of IIP with new base year 2011-12 of the state of Assam has been completed and the base year production of 79 items has been finalised. Action taken for estimation up to 2017-18 with new base year 2011-12. After completing the said estimation, shifting of new base year, 2017-18 will be initiated. Effort is being taken to shift base year of WPI (only for Agricultural Commodities) from the Old Base 1993-94=100 to new base 2011-12=100.

Bihar: GSDP estimates of the State, an important Economic indicator is being prepared regularly. Efforts are on to produce State Series of IIP at Base Year 2011-12

Chandigarh: Directorate of Economics & Statistics, Chandigarh Administration has already been switched over to the base year 2011-12 for preparing the State Domestic Product and Per capita Income both at current and constant prices.

Daman & Diu: As already stated above, it is not possible to compile all the statistical data without adequate manpower. The Ministry may sanction some posts for the UT of Daman and Diu at the headquarter and also District Statistical Offices of Daman and Diu.

Goa: Not Applicable

Gujarat: As per the instruction of MOSPI, Gujarat State has taken initiative to prepare sub- state level CPI and prepared proposal and sent it to CSO, New Delhi for Approval. Proposal has been approved on 17/10/2017 by Technical Advisory Committee-CSO, New Delhi. Gujarat State is among the first three states; whose proposal for sub-state level CPI is approved by CSO, New Delhi.For Compilation of sub-state level CPI, regions have been identified; weighting diagram by regions and item basket selection has been completed. Also, market selection and shop selection process for 15 regions is completed. It is planned to compile CPI from January 2019with the 2018 as base year

Himachal Pradesh: The Consumer Price Index is perhaps the most used indicator among the numerous statistical indicators that are available to the common man but

whose meaning and uses are generally not understood correctly. The layman looks upon it more as a determinate of his current living cost rather than as a measure of a current situation in relating to the past. Thus the cost of living index has become widely popular term, and the State of Himachal Pradesh initiated the work of compile Consumer Price Index (Combined) at district level. The item basket for district Shimla has been selected on basis of 68th round of NSS consumption survey held in the year 2011-12. This item basket and weighted diagramme has been sent to the MOSPI for comments and approval. Whenever the results of 75th round of NSS (Consumer Expenditure) will be available to the department, necessary changes will be carried out in the basket. This work has been initiated on the Pilot basis for two districts. The complete exercise for the whole State has been proposed under SSS scheme and will be initiated soon. Beside the above special training programme has been organized by the NSSTA and some senior officers from DES has attended this programme in the month of April,2018 and the training programme will definitely helps us in taking up this exercise for the entire State.

Kerala: No action pending with regard to the revision of base year to 2011-12. An expert committee has been constituted to study the revision of existing series of indices produced by the DES and recommend actions to be taken to shift base year to the nearest year. The committee is expected to submit its final report on the revision of wage index, whole sale Price index, parity index, Consumer Price Index (Urban/Rural/ Combined) at the earliest.

Lakshadweep: Field operation of2nd Family Budget Survey completed in all islands for arriving weighing diagram for computation of CPI with new base year. The scrutiny, compilation and validation are under progress. computation of CPI with new base year.

Maharashtra: The process of revision of CPI base year from 2003 to 2011 has been initiated. Item basket, weighing diagram and centres at district level has been prepared as per guidelines by CSO and sent to CSO for their comments. After getting approval work will be commence.

Meghalaya: Under the Central Sector Scheme 'Support for Statistical Strengthening', various activities are being proposed which includes compilation CPI (base year 2017-18), IIP (base year 2011-12). Based on the recommendation of the 25th COCSSO held during 18th – 19th January 2018, the Agriculture section of the Directorate will start compilation of the Index Number on Area, Production and Yield of principal crops of the State for revising the base year with Triennium Ending 2011-12 and again aligning the next base year to 2017-18. Since the National Average Price of Major Commodities is required for construction of the weighting diagram, so, the section will request the Ministry of Agriculture, DES, GOI, to furnish us the price list for these two reference years

Puducherry: Advice is complied. All appropriate actions are under taken towards this.

Punjab: The process for updating of Consumer Price Index Number for industrial Workers from Base 1987=100 to the new base year is under progress.
In this regard State Level Technical Advisory Committee has also been constituted. In its 2nd meeting held in the year 2013 six centers namely Bathinda, Patiala, Mandi Gobindgarh, Phagwara, Kapurthala and SAS Nagar were selected. Sample size for income & expenditure survey for base updation has been finalized.

Weekly Monthly/Clothing /fair price shop schedules & list of shops have also been finalized for market survey. For this purpose a proposal of Rs 61.36 lakh was sent to state govt. But due to non-release of required funds the base updation process is being held up for the time being. Now the same proposal has also been incorporated under SSSP by the DESs.

Tamil Nadu: As per guidelines issued by Government of India, works on revising of Base Year of Wholesale Price Index to 2011-12 is under process. After getting concurrence from Government of India, the Wholesale Prices Index will be finalized and released.

Telangana: The DES, Telangana has already revised the base year of IIP to 2011-12 and releasing the index.
CPI (RUC): The DES has initiated compiling the CPI (RUC) for all 31 districts.
TAC has approved the weighing diagram and methodology proposed by the DES.
Index for the month of January and February, 2018 has been compiled and furnished to the CSO for vetting.
CPI (IW): The DES has initiated compiling the CPI (IW) for the selected 5 centers in the state. In this process, selection of markets has been completed, conduct of Working Class Family Income and Expenditure Survey has also been completed and waiting for the software from Labour Bureau, Chandigarh for compiling weighing diagram.

21. Recommendation [Para No. 33 (2) of Minutes]

All the official agencies producing indices may take steps to initiate the process of aligning and revising next base year to 2017-18 and accordingly, plan all preparatory activities, such as obtaining government sanctions for mobilizing resources and collecting any additional data on product specifications and prices/ quantities etc. to facilitate making a firm choice of Basket of Commodities for the revised index. In such a situation, data collection for the next base year could be done with minimum recall lapse of the concerned informants.

(Action: Central Ministries and States/ UTs)

Action Taken/ Comments

A & N Islands: Noted.

Andhra Pradesh: As in Recommendation [Para No. 33 (1) of Minutes]

Arunachal Pradesh: Quarterly price Bulletin is being published with 2014 as base year (Base year selected on the basis of availability of data.

Assam: As in Recommendation [Para No. 33 (1) of Minutes].

Bihar: Steps are being initiated for planning preparatory activities for revision of base year of state indices to 2017-18.

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 33 (1) of Minutes]

Delhi: Base year revision of NAS to 2017-18 mentioned in 41(4)

Goa: Not Applicable

Gujarat: As in Recommendation [Para No. 33 (1) of Minutes]

Himachal Pradesh: As in Recommendation [Para No. 33 (1) of Minutes.]
Kerala: As in Recommendation [Para No. 33 (1) of Minutes]

Lakshadweep: As in Recommendation [Para No. 33 (1) of Minutes]

Maharashtra: Initiated CPI base year from 2003 to 2011

Meghalaya: As in Recommendation [Para No. 33 (1) of Minutes.]

Puducherry: As in Recommendation [Para No. 33 (1) of Minutes.]

Punjab: As in Recommendation [Para No. 33 (1) of Minutes].

Telangana: The DES, Telangana will take all initiatives aligning and revising all indices to the next base year 2017-18, as per the guidelines issued by the MOSPI and other Ministries concerned from time to time.

Tripura: It is stated that the next base year for different indices will be 2017-18. DES, Tripura:- DES, Tripura will also adopt the new base year 2017-18 for compatibility of different indices with National level.

Uttar Pradesh: In context to the point it is to be referred that the process of changing the base year of CPI (Rural/Urban) and WPI initiated since Jan. 2016. Previously the new base year was determined as 2016-17 but in order to maintain parity with the centre the base year was shifted to 2017-18 and all the related works were adjusted as per the proposed base year 2017-18.This may be illustrated as- the price collection period for base year which was earlier scheduled from Jan. 2016 to December 2018 was later on fixed till December 2019 so that the average price of base year may be accounted to the year 2017-18. For the preparation of item basket the items of 1.0 of NSS 68th round was used and for the determination of weights, DES, UP conducted Poverty and Social Monitoriong Survey-V across the districts of UP on the basis of which the process of asssignment of weights to different items is underway.

22.   Recommendation [Para No. 37 (1) of Minutes]

The NSSO may write to Chief Secretary/ Administrator of each State/ UT providing details of the manner of participation by the concerned State/ UT in NSS and requesting for intervention to take corrective steps, as may be necessary.

(Action: NSSO)

Action Taken/ Comments

NSSO: The D.O letter dated 6th September, 2018 from DG (Survey) to Chief Secretary of the states/UTs which are lagging behind in processing and pooling of NSS data has been issued.

23. Recommendation [Para No. 37 (2) of Minutes]

For the future rounds of NSS, the DESs may, in consultation with NSSO, work out timelines for completion of different activities including bringing out reports/ unit level data by the DESs and the pooled estimates.

(Action: DESs, NSSO)

Action Taken/ Comments

NSSO: NSSO has already been sending the unit level data for various NSS rounds to the Computer Centre. NSSO (CPD) has been insisting this matter consistently with the DESs in the Monitoring Committee Meeting for the 5 North Eastern States.

A & N Islands: Noted. DES has not been participating in NSS however; DES is interested to participate in surveys in South Andaman and North & Middle Andaman.

Andhra Pradesh: So far State reports released up to NSS 71st round except NSS 70th round.NSS 70th round vetting and decision on validity of data is under progress. The NSS 72nd round state report is completed and ready for publication. The table generation is under progress for NSS 73rd round.

Arunachal Pradesh: DES, AP, has been participating in SE survey work since 27th Round of NSS in the year. 1972-73, and brought out report up to 52nd round NSS when manual compilation method was in use. Thereafter, data processing on computerization method started from 54th round, yet, data entry works could not be done till 60th round NSS due to lack of trained staff. Table generation of 68th& 69th rounds has been completed. However, data analysis and report writing are still pending. Data validation on 71st, 72nd& 73rd round of NSS are under progress. Data pool estimates have not been done till date. DES, AP, is using software provided by NSSO for Data Processing work of SE survey.

Assam: Action in this regard is being taken on priority basis and effort is being made to complete the arrear works and to complete the process of data collection and data entry of the ensuing 75th Rd. as per with NSSO

Chandigarh: N.A

Daman & Diu: As in Recommendation [Para No. 37 (3) of Minutes.]

Goa: The State DES will remain in constant touch with NSSO; Kolkata in all the activities undertaken in respect of NSS rounds/surveys by the State DES and furnish the reports to NSSO, Kolkata on quarterly basis.

Gujarat: For the future rounds, necessary actions will be taken by DES Gujarat, for completion of different activities, in consultation with NSSO

Himachal Pradesh: From 60th round onwards HP publishes reports. From 66th round onward, pooling of Stat and central samples are done. Agreed to furnish the published reports, unit level data and pooled reports to Computer Centre, MoSPI.

Jharkhand:

(1) **अर्थ एवं सांख्यिकी की निदेशालय, झारखण्ड, राँची द्वारा** 6 **निरीक्षणालयों के माध्यम से सिर्फ क्षेत्र सर्वेक्षण का कार्य किया जाता है।**

(2))Data Processing **का कार्य** Data Processing **संरचना नहीं होने के कारण** Data Entry, Data Validation, Tabulation Report Writing **तथा** Data Pooling **का कार्य नहीं हो पा रहा है।अतः** DPC **की स्थापना नितान्त आवश्यक है।**

Karnataka: Timelines prescribed by the NSSO for completion of different activities will be adhered including bringing out reports and pooled estimates.

Kerala: As on date, Poling report upto 71st round NSS and tabulation upto 73rd survey round has been completed. It has been decided to conduct simultaneously the survey and related works such as data entry, validation, tabulation of Central & State Govt. from 75th round onwards.

Lakshadweep: Not relevant to this UT since various rounds of NSSO organized by the field operation division of NSSO. Ernakulam Range

Madhya Pradesh: State Governance adoption of NSSO Khapha, which will facilitate data pooling of the state and the center and also work at the state level to identify social economic status. If the data is properly corrected by the state in accordance with the NSSO template, then the table prepared can be prepared from NSSO's software.
1. Data Entry, validation of 70, 71, 72 and 73rd rounds have been done and 100% data made Error Free.
2. Work of Table Generating and Report Writing is in progress by data pooling of the 71st round.

Maharashtra: Point noted and action will be taken accordingly.

Manipur: DES, Manipur has been conducting different activities of NSS including bringing out reports and pooled estimates as per timeline set up in action plan. The present status is as follows:
i) State reports of 67th & 69th Round has been published & uploaded at website while state reports of 68th , 71st & 72nd Round is under printing
ii) Pooled reports of 66th , 67th & 68th are published & uploaded at website while pooled results of 69th & 71st Round are under progress

Meghalaya: As per the recommendation, the DES will consult the NSSO (FOD), Shillong to work out the timelines for completion of different activities including bringing out of report / unit level data by DESs and the pooled estimates. The status of pooling of various rounds of the NSS is as under:

Sl. No	NSS survey rounds	Achievements
(a)	Pooling of Central and State Samples and Generation of tables of NSS 67th Round (128 Samples have been	Publication of the Pool Results has been completed and circulated to the DES of all the States / UTs

Sl. No	NSS survey rounds	Achievements
	completed)	
(b)	Pooling of Central and State Samples of NSS 68th Round (160 Samples have been completed)	Publication of the Pool Results has been completed and circulated to the DES of all the States / UTs
(c)	Tabulation of State Samples of NSS 69th Round (105 Samples have been completed)	Publication of the Pool Results is under process and the same will be circulated to all the States DES and Union Territories in India.
(d)	Validation of data for the NSS 70th Round (for 104 Samples in 2 visits)	Tabulation work is completed. Pooling of the data has started.
(e)	Tabulation of NSS 71st Round for 104 Samples	The pooling process will be completed by June 2018.
(f)	Tabulation of NSS 72nd Round only for States DES for 164 Samples	Tabulation completed.
(g)	Data entry for the NSS 73rd Round on 140 Samples	Validation of data on 140 Samples is 100% completed and the tabulation workshop will be held on the 15th & 16th May, 2018 at New Delhi, DPD Centre.
(h)	Survey of Service Sector for the NSS 74th Round Phase 2	Survey for 177 Enterprises has been completed and 100% of data entry completed.
(i)	NSS 75th Round Survey on Household Consumer Expenditure. Etc	85% of the Field survey completed as on 8th May, 2018 and 30% data entry was completed.

The unit level data would be furnished to the Computer Center, for inclusion in the National Data Warehouse

Puducherry: No information has been provided in this regard

Punjab: Action will be taken in the due course of time after consultation with NSSO (GoI)

Tamil Nadu: From future round of NSS, the DES Tamil Nadu will consult with NSSO for completion of different activities of NSS and work out timelines for bringing out reports / unit level data and other activities.
A Committee has been formed with DES, NSSO and other Officers for finalization of Pooled reports.

Telangana: The DES, Telangana has been pooling the central and state sample data and generating output tables as per the tabulation plan prescribed by the NSSO. However, lot of delay is being caused in finalizing the tabulation plan, providing pooling software, imparting training to the state officials on the said item

of works. As a result, the states are not in a position to bring out the reports as expected. The NSSO may take appropriate measures in this direction.

Tripura: DES may workout timelines for completion of different activities including bringing out reports and pooled estimates for NSS.
DES, Tripura: - With limited resource and manpower DES, Tripura starts the data entry work for previous rounds of NSS. An action plan for pooling of estimates may be chalked out with NSSO.

Uttar Pradesh: The report based on pooling of central and state sample data of NSS 69th round and report based on State sample data of NSS 70th round is prepared by the use of software provided by NSSO and the effective training imparted by NSSO for the purpose. The report based on state sample data of 71st and 72nd round of NSS is in the last stage of development and will be concluded in due course of time . Sincere effort is being made to follow the time limit determined for the work.

Uttarakhand: Note

24. Recommendation [Para No. 37 (3) of Minutes]

The survey reports, unit level data and pooled estimates in respect of each NSS Round may be furnished by the NSSO and DESs to the Computer Centre, for inclusion in the National Data Warehouse. The Computer Centre may make appropriate arrangements for the purpose.

[Action: DESs, NSSO, DSDD (Inc. Computer Centre)]
Action Taken/ Comments

NSSO: As in Recommendation [Para No. 37 (2) of Minutes]

DSDD (Inc. Computer Centre): The DSDD has envisaged the developing of NDWOS and necessary arrangements are being made in this regard. So far, DSDD has not received any micro data of NSS from DESs."

A & N Islands: Noted.

Andhra Pradesh: Unit level data:
The error free unit level soft data was available for NSS 72nd and 73rd rounds.
The NSS 74th round 3rd Phase validation and error free is under progress
The NSS 75th round data entry is not yet taken up.
Pooling of central and state samples:
Pooling reports based on central and state samples completed for NSS 66th to NSS 68th rounds.
Pooling reports based on central and state samples completed for NSS 69th round and NSS 71st rounds is in progress.

Assam: Result of pooling of the 69th round is on the verge of completion and preparation for pooling of 71st Rd. has been started. Error correction of 72nd round is in process and data entry of 73rd Rd. is on the verge of completion. Survey report is not yet published. Effort to complete the arrear works is going on. Once completed the unit level data and pooled estimates will be furnished to the computer centre.

Chandigarh: N.A

Daman & Diu: The UT is not carrying out National Sample Survey. In UT of Daman and Diu, the NSSO is directly collecting the data for the UT of Daman and Diu.

Goa: Survey reports & pooled estimates in respect of each NSS round will be furnished to NSSO and Computer Centre for inclusion in the National Data Warehouse

Gujarat: DES Gujarat will send the survey reports, unit level data and pooled estimates to the Computer Center, starting from NSS 72nd Round

Himachal Pradesh: DES H.P. started participating in National Sample Survey Programme from 27th round i.e. in 1972 on matching basis as allotted by Govt. of India. This State has started data entry, validation and processing of NSS data from 60th round of NSS and published almost reports of respective rounds. At present the report "Domestic Tourism in Himachal Pradesh" of 72nd round has been published by DES Himachal Pradesh. The pooling of two sets of data i.e. of Central and State samples would enable better estimates at sub-state level, particularly at district level. The DES has started pooling of Central and State samples data from 66th round of NSS and published the pooled reports from 66th to 69th round and the work of 71st round is in progress. DES, HP is also agreed to furnish the published reports, unit level data and pooled reports of each round to computer centre, New Delhi for further necessary action.

Karnataka: From 66th round onwards the Directorate of Economics & Statistics, Karnataka in sending the unit level data and pooled estimates to MOSPI for hosting the same in the National Data Warehouse.

Kerala: Computer centre is yet to inform the matter to State DES.

Lakshadweep: Not relevant to this UT

Madhya Pradesh: As in Recommendation [Para No. 37 (2) of Minutes]

Maharashtra: Point noted and action will be taken accordingly.

Manipur: DES, Manipur has been updating survey reports, unit level data and pooled estimates to the Computer Centre for inclusion in the National Data Warehouse from time to time.

Meghalaya: As in Recommendation [Para No. 37 (2) of Minutes]

Punjab: Matter will be discussed with the concerned officers at Govt. of India level before taking any action in this regard.

Tamil Nadu: The DES, Tamil Nadu is following Central software from NSS 68th Round onwards. Hereafter the survey reports, unit level data and pooled estimates

in respect of each NSS will be given to the Computer Centre, NSSO after getting approval from Government of Tamil Nadu.

Telangana: The DES, Telangana will ensure transmission of state reports to the NSSO, as desired.

Uttar Pradesh: Necessary action will be taken to make available the unit level data and the pooled estimates of NSS to National data warehouse.

Uttarakhand: Noted

25. Recommendation [Para No. 41 (1) of Minutes]

All the states may speed up the process of identifying the information/indicators available at the district level and share the same with CSO so that a uniform methodology can be finalised by CSO for use by all states.

[CSO (NAD), All DESs]

Action Taken/ Comments

CSO (NAD): The Government has notified the constitution of Committee for Sub National Accounts on 27th June, 2018 under the Chairpersonship of Prof. Ravindra Dholakia including eminent experts and representatives from some State Governments and concerned Offices of the Central Government, with the 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 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 ofNational Accounts especially in view of the next base year revision.

The first meeting of the committee was organized on 10th August, 2018 at New Delhi. It was decided that as the domain expertise was amongst the State Governments, each State (or Group of States) will prepare sectoral/thematic papers and present them to the Committee covering the following aspects:

- Definition, scope and division of activities currently included in the estimation of GSDP in the sector;
- Whether urban -rural and ownership based activities are considered in the sector and if so, what are their treatment;
- What should be their treatment if data constraints are somehow resolved?
- What are the current data constraints by sub-activities in the sector and how are they overcome or adjusted?;
- Is there a better way of overcoming or adjusting for these data constraints?;
- Are there any newer data set available for the sector at the state or the district level?; if the all India GVA is to be allocated what are the indicators to be considered and their availability
- Are there any fresh Surveys required to be carried out for strengthening the data base in the sector? These Surveys could be carried out at the state

level with District as unit of analysis or could be carried out at the national level with state as a unit of analysis?; and

- Recommend as a minimum improvement in the estimation of the GSDP in the sector during the forthcoming revision of the base-year?The States are required to present the papers in the next meeting of the Committee.

A & N Islands: Noted.

Andhra Pradesh: Suitable indicators have been identified and utilized in preparation of DDP estimates every year.The same has been communicated to CSO for finalization of a uniform methodology

Assam: DES, Assam is decided to instruct the concerned division to prepare an up-to-date Business Register on manufacturing units/activities under sections 85(i) and 85(ii) of the Factories Act, MSME Act, Trade Marks Act and latest GST framework which definitely helps this directorate in compilation of State and District Domestic Product. The DES, Assam will look into the matter.

Chandigarh: Chandigarh being a city state DDP is not being prepared. The Directorate of Economics & Statistics, UT, Chandigarh has already been switched over to the base year 2011-12.

Daman & Diu: The UT had taken up the project for compilation of GSDP through some expert agency for compilation of the indicators for a period of five years i.e. 2008-09 to 2012-13.The UT is facing main problem of manpower. The Directorate is required to be strengthened with adequate staff to enable the Department to compile such indicators regularly.

Delhi: No. district Setup exits in Delhi

Goa: The State does not have a separate methodology for compilation of SDP and as such follows guidelines and methodology provided by the CSO from time to time.

Gujarat: With respect to DDP estimates, State has provided the comments on the suggestive indicators of CSO.

Himachal Pradesh:. As regards the compilation of District Domestic Product the State is compiling and publishing these estimates from 1993-94 onwards and presently these estimates has been prepared and published on new base i.e. 2011-12 up to 2015-16, on the bases of the methodology provided by CSO, which is more or less similar to the methodology described in the template provided by CSO. A copy of this publication is being enclosed for reference. Similarly the SDP estimates are prepared as per the methodology suggested by CSO. DDP and SDP estimates are further improved by using the latest information. DES has been working on the development of local level indices of production and prices. Local Bodies data has been strengthened and is used in SDP and DDP estimation. The coverage of NPISHs has also been strengthened

Karnataka: Indicator wise information related to agriculture and allied activities is forwarded to CSO.

Kerala: District level data available on Agriculture, Fisheries, Animal Husbandry and NDCU in Kerala and it can be share with CSO.

Lakshadweep: On completion of the report same will be shared to CSO

Maharashtra: Under consideration

Manipur: The Directorate of Economics and Statistics Manipur prepare estimates of Annual Gross State Domestic Product (GSDP) of the state with base year 2011-12. The estimates are on the basis of the classification of economic activities across industry group as per the changes in methodology and data sources in the new series of National Accounts and in accordance with the System of National Accounts 2008. The estimates of SDP are prepared both at constant and current prices. It takes part in Annual Joint Discussion with National Accounts Division, Central Statistics Office and releases comparable estimates of the state GSDP. The estimates are updated twice every year on March 1 and August 1.

Meghalaya: Necessary action will be taken

Puducherry: Provisional DDP for Primary sector has been prepared and the same is shared with MoSPI. For other sectors also estimations of DDP are under progress and on completion would be shared with Ministry.

Punjab: At present the estimates of District Domestic Product are being prepared with the methodology and indicators provided by Central Statistics Office, New Delhi

Telangana: The DES, Telangana has been compiling DDP estimates since 1993-94 using appropriate indicators. The indicators used by the DES have already been furnished to the CSO vide this office Lr. No.378/DES/SED/2018, dated: 24.11.2017. The DDP estimates from 2011-12 to 2016-17 were also furnished to the CSO during June, 2018, as desired

Tripura: No information has been provided in this regard

Uttar Pradesh: State preparing "Jila Vikas Sanketak" which reflects the comparative development of District.

Uttarakhand: Noted.

26. Recommendation [Para No. 41 (2) of Minutes]

- Each State should develop a comprehensive strategy for compiling/ improving SDP and DDP estimates covering *inter alia* the following:
- Identification of State-specific compilation categories, which may be different from those at the national level;
- Development of local level indices of production and prices;
- Strengthening of use of local bodies data by using existing systems as well as developing new ones;
- Strengthening of the coverage of NPISHs, such as registered Societies and religious institutions, being administered or controlled by State authorities.

[CSO (NAD), All DESs]

Action Taken/ Comment

CSO (NAD): As in Recommendations [Para No. 41 (1) of Minutes].

A & N Islands: Noted. MOSPI had been requested to conduct a workshop at Port Blair on SDP, DDP for benefit of all the departments so that instead of sending large no. of Statistical personals they can be provided training at Port Blair.
Department of Local Bodies, Rural Development & Urban Bodies had been requested to provide data on local body accounts, expenditures etc for estimation of SDP.

Andhra Pradesh: For improving SDP/DDP estimates duly filling the data gaps, State has constituted expert committees on
 i. Service Sector &
ii. Production & Consumption of Steel and Cement for Construction sector.

Assam: As in Recommendation [Para No. 41 (1) of Minutes.]

Daman & Diu: As in Recommendation [Para No. 41 (1) of Minutes.]

Goa: As in Recommendations [Para No. 41 (1) of Minutes.]

Gujarat: DES has suggested appropriate indicators for estimation of DDP

Himachal Pradesh: As in As in Recommendations [Para No. 41 (1)] of Minutes]
Karnataka: Identification of State-specific compilation categories is in process using economic census data. At present, local level indices of products and prices of major agriculture and livestock products are available.At the State level Co-ordination with the Rural and Urban local bodies has been established.
List of NPISHs as per NPI survey (conducted and monitored by CSO) is available with us. CSO is to provide the methodology to calculate NPISHs contribution to GSDP.

Kerala: Action initiated to compile CPI, WPI, Service Production Index of Transport sector etc. Local Body Accounts collected and compiled at district level and used for GSDP/GDDP in the State.

Lakshadweep: SDP and DDP not estimated so far

Remarks: Department proposes to participate SSSP for implementation of 20 Key statistical activities. The prime attention shall give estimate SDP and DDP by deploying potential consultant/ taking hand on training etc

Maharashtra: State Level Committee for improving SDP/DDP estimate has already been constituted in the State. Under the guidance of this committee, comprehensive strategy for improving SDP and DDP estimates will be developed.
Manipur: As in Recommendations [Para No. 41 (1) of Minutes.]

Meghalaya: Under the Central Sector Scheme 'Support for Statistical Strengthening', various activities are being proposed which includes i) conducting type studies to improve the estimation of the GSDP, ii) identifying data gaps in the estimation of Gross State Domestic Product, iii) estimation of the DDP, etc. It also includes imparting training programme/ workshop on methods for compilation of District Domestic Product.

Puducherry: As in Recommendation [Para No. 41 (1) of Minutes.**]**

Punjab: No difference in compilation categories at state and national level. Production and prices for primary sector is collected at district level. Local bodies' data is being compiled in the software

Telangana: The DES, Telangana has been compiling SDP since 1960-61, following the methodology prescribed by the CSO, MOSPI. It is also compiling DDP since 1993-94, using the state specific indicators.
Regarding compilation of local level production indices, the DES, Telangana has been compiling IIP with base year 2011-12. Action has been initiated for compilation of Price indices like CPI (RUC) and CPI (IW) and is in progress.
The DES, Telangana has been analyzing the annual accounts of all Local Bodies, including urban and using the results in compilation of GSDP and DDP.
Apart from this, the DES has also been analyzing the annual accounts of Autonomous Institutions functioning in the state and the results are being used in compilation of GSDP and DDP. Further, the DES will initiate the process for identification of NPISHs controlled by the State authorities to improve the coverage

Uttar Pradesh:
- Uttar Pradesh is preparing Income estimates since 1950-51 as per methodology prepared by DES UP and CSO government of India. The DDP estimates are prepared by joint methodology developed by DES UP and DES Karnatka. Department of Economics and Statistics had been preparing the District Domestic Product Estimates only for commodity producing sectors for about four decades. Such estimates are available in DES from the year 1960-61 to 1996-97. Uttar Pradesh is pioneer is preparing DDP estimates, the estimates are updated methodologically by periodic base year revisions. At present state income and district income estimates are being prepared on base year 2011-12.
- Data on Production and prices of items of commodity producing sectors is collected and compiled regularly by concerned departments of the state and State DES.
- Local bodies estimates are prepared on regular basis with a view of improving the coverage of local bodies. Among 60566 local bodies of the state, data of 5349 Urban local bodies and rural local bodies/gram panchayats is collected for the purpose of estimation. In addition balance sheet of 104 Autonomous Institution of the state are also being analysed.
- Data on NPI's registered with Registrar of Societies Govt. of Uttar Pradesh was collected and compiled in NPI survey undertaken under guidelines of CSO, Provision for updation of societies data is being made through Business Register maintained at districts.

Uttarakhand: Noted.

27. Recommendation [Para No. 41 (3) of Minutes]

DDG, CSO (NAD) also explained the features of the SDP Portal which is under preparation which will ease the processes of validation, consolidation, report generation, etc. For the SDP portal, which is likely to be ready for use in the next

few months, the State DESs may give their suggestions to CSO (NAD) for incorporating their specific requirements, if any.

(CSO (NAD), All DESs)

Action Taken/ Comments

CSO (NAD): As regards the SDP Portal, the proposal for engagement of manpower for enhancement of the portal incorporating requirement of data to be entered by the States in a user-friendly manner and possible integration of different modules and provision for flexibility for addition/deletion/ modifications in the data elements in view of the ensuing base revision of NAS, is under process.
A & N Islands: No information has been provided in this regard

Andhra Pradesh: During State bifurcation SDP portal was kept with DES Telangana and new connection was not provided to DES, Andhra Pradesh at Vijayawada. The same has been informed to CSO and requested to take immediate action to provide SDP portal through BSNL lease line for which is used to process of validation, consolidation, report generation etc.

Assam: As in Recommendations [Para No. 41 (1) of Minutes.]

Chandigarh: Directorate of Economics & Statistics, Chandigarh Administration has no requirement / suggestions to be offered to the CSO (NAD) for incorporation.

Daman & Diu: As in Recommendations [Para No. 41 (1) of Minutes.]

Delhi: The DES, Delhi has already sent the requisite Suggestions to the Central Statistics Office (CSO) National Account Division (NAD) for incorporating the same in the SDP Portal.

Goa: Noted.

Gujarat: DES, Gujarat is in a process to take up comprehensive studies especially for services sector to build up robust benchmark estimates for DDP as well as SDP estimates.

Himachal Pradesh: SDP portal will be used whenever it will be ready, as it will help us in the process in the validation & report generation etc.

Punjab: SDP Portal for testing has not been provided at the website of CSO till now. Whenever it will be provided for demo or testing the suggestions will be made accordingly, if any.

Karnataka: The SDP portal will be reviewed when the USER ID and PASSWORD for use of portal is provided from GOI. Requirements if any, will be suggested after the initiation of the portal.

Kerala: Will send the suggestions to CSO soon

Lakshadweep: No comments at this stage

Maharashtra: DES would be able to give comments once such portal is developed and shared with DES

Manipur: As in Recommendations [Para No. 41 (1) of Minutes.]

Meghalaya: Suggestions are being compiled

Puducherry: Noted

Telangana: In this regard, the CSO may be requested to intimate the contents of the portal, so that the state DESs will be in a position to offer their suggestions for incorporation of states requirements in the SDP portal being developed by the CSO
Uttar Pradesh: No information has been provided in this regard

Uttarakhand: Noted.

28.   Recommendation [Para No. 41 (4) of Minutes]

In view of the decision of adoption of 2017-18 as the Base Year for the next revision of National Accounts Statistics, all State DESs were requested to take appropriate preparatory action for revision of SDP estimates to Base Year 2017-18.

(CSO (NAD), All DESs)

Action Taken/ Comments

CSO (NAD: As in Recommendation [Para No. 41 (1) of Minutes.]

A & N Islands: Noted

Andhra Pradesh: The DES, AP has also requested the CSO to provide the data sets before finalization of the estimates in SDP Portal. State has initiated actions for revision of base year 2017-18

Assam: As in Recommendation [Para No. 41 (1) of Minutes.]

Chandigarh: As and when any guidelines with regard to adoption of 2017-18 as base year will be received from the Ministry of Statistics & programme Implementation, New Delhi, an action will be taken accordingly

Daman & Diu: As in Recommendation [Para No. 41 (1) of Minutes.]

Delhi: Likewise previous base year revisions exercise, this Directorate will do the needful for the adoption of 2017-18 as the Base Year for the next series of NAS as and when asked by the CSO (NAD)

Goa: Noted

Gujarat: As suggested by CSO, DES has been compiling State level HP and same would be made use of for estimation of SDP and DDP from the next base i.e. 2017-18.

Himachal Pradesh: Regarding adoption of 2017-18 as base year, DES will initiate the appropriate preparatory action for the revision of SDP estimates

Karnataka: Guidance from the CSO for revision of SDP estimates to Base Year 2017-18 is awaited.

Kerala: Action has been initiated

Lakshadweep: Noted

Maharashtra: Compilation of IIP and WPI has been initiated.
Initiated analysis of NDCU's and Autonomous bodies.Compilation of the Local bodies account data for the year 2016-17 and 2017-18 has been initiated.

Manipur: As in Recommendation [Para No. 41 (1) of Minutes.]

Meghalaya: Will be taken up accordingly

Puducherry: Appropriate preparatory action initiated.

Punjab: Action will be taken in near future.

Telangana: Action will be initiated accordingly under the aegis of CSO, MOSPI.

Tripura: As in Recommendation [Para No. 33 (2) of Minutes] all indices will be prepared with base year 2017-18

Uttar Pradesh: For Base year revision state will adopt the methodological changes if any for new base year 2017-18 and will prepatarory activities for base year revision will be undertaken as per guidelines of CSO.

Uttarakhand: Noted

29.   Recommendation [Para No. 41 (5) of Minutes]

In States where DESs are facing problems in compilation of SDP/ DDP estimates due to lack of or irregular data flow from line Departments, the DESs may take up the matter at higher level and evolve a sustainable solution.

[Action: CSO (NAD), All DESs]

Action Taken/ Comments

CSO (NAD): As in Recommendation [Para No. 41 (1) of Minutes.]

A & N Islands: Noted

Andhra Pradesh: There is no such problem in the data flow from Line departments in the State

Assam: As in Recommendation [Para No. 41 (1) of Minutes.]

Bihar: With the onset of revision of base year to 2017-18, efforts are being made by DES, Bihar to give an online sharing platform to the line departments, particularly dealing with primary sectors to ensure a regular inflow of data from them.

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 41 (1) of Minutes.]

Delhi: Letters are being sent to the Line Departments regarding irregular data from time to time. The Personal visits are also being made to the Line Department.

Goa: Noted.

Gujarat: As suggested, pooling o1'NSSO data has been taken up by DES, Gujarat. State is preparing GFCF estimates for General Government sector. The GFCF of private sector will be taken up in line of the methodology suggested by CSO
State has been preparing local bodies accounts. A special online portal has been developed for the same. The local bodies accounts will be taken into consideration from the next base year i.e. 2017-18.

Himachal Pradesh: To overcome the problem of irregular data flow, DES is convening regular meeting of expert group with line departments time to time.

Jharkhand: Gross Stste Domestic Product (GSDP);-Base Year 2011-12 के आधार पर केन्द्रीय सांख्यिकी कार्यालय, नई दिल्ली के सहयोग से 2011-12 से 2014-15 का आँकड़ा Final किया जा चुका है।वर्ष 2015-16 का अन्तिमी करण अन्तिम चरण में है।यथाशीघ्र केन्द्रीय सांख्यिकी कार्यालय, नई दिल्ली द्वारा प्रकाषित किया जाएगा।
District Domestic Product (DDP):- Base Tear 2011-12 के आधार पर अर्थ एवं सांख्यि की निदेशालय द्वारा जिला सकल घरेलू उत्पाद तैयार नहीं किया जा रहा है।डी॰डी॰पी॰तैयार करने हेतु सी॰एस॰ओ॰नई दिल्ली से पत्राचार भी किया गया है।श्री राजेश भाटिया, नदेशक,सी॰एस॰ओ॰ नई दिल्ली के पत्रांक U-11014/6/2/2016 NAD दिलांक-03-10-17 द्वारा निर्देश प्राप्त हुआ कि डी॰डी॰पी॰ आकलन के लिए दिशा निर्देषों को अभी अन्तिम रुप दिया जा रहा है।दिशा निर्देशों को अन्तिम रुप देने के बाद ही डी॰डी॰पी॰ प्रशिक्षण दिया जा सकता है।
Local Body Accounts ;- वर्ष 2011-12 से 2013-14 तक का Data Collection कर CSO नई दिल्ली को प्रेषित किया जा चुका है।वर्ष 2014-15, 2016-17 का Data Collection कार्य जारीहै।
GFCF;- केन्द्रिय सांख्यि की कार्यालय, नई दिल्ली के दिशा निर्देश के तहत GFCF तैयार करने का प्रयास किया जा रहा है लेकिन Man Power एवं संसाधनों के अभाव मे कठिनाई हो रही है।

Karnataka: An Advisory Committee for validation of GSDP estimates has been constituted in Karnataka under the Chairmanship of Additional Chief Secretary and Development Commissioner Government of Karnataka. The Committee will address the issues relating to data flow from line departments.

Kerala: DES regularly get in touch with the line Departments to get the data in time for the compilation of SDP/DDP estimates. An expert committee on GSDP estimates is also working in the State to find out gaps and suggest remedies in the existing estimation procedure

Lakshadweep: Noted

Remarks: A dedicated cell is necessitated for estimation of SDP/DDP in respect this UT

Maharashtra: For the lack of data / regularities / discrepancies in the data, the concerned line departments are being intimated and follow-up is done to minimise the same. In case of non-response, the matter is escalated to appropriate higher levels.

Manipur: As in Recommendation [Para No. 41 (1) of Minutes.]

Meghalaya: Under the Central Sector Scheme 'Support for Statistical Strengthening', it is proposed to estimate the DDP.

Puducherry: Noted

Punjab: Take required action if needed.

Telangana: The DES, Telangana has been taking all possible action for regular flow of information from the departments concerned for compilation of SDP/DDP estimates.

Uttar Pradesh: A template on methodological support for DDP estimation is sent to CSO Govt. of India. At Present DDP estimates from 2011-12 to 2015-16 on new base year 2011-12 have been finalized by DES, UP.

Uttarakhand: Noted. However no such issue in Uttarakhand.

30.   Recommendation [Para No. 42 (1) of Minutes]

States/ UTs may focus on covering all registered manufacturing establishments not being covered by NSSO under ASI. For this purpose, the search should not be limited to sections 2 (m) (i) and 2 (m) (ii) of the Factories Act. It may be extended to manufacturing units/ activities such as those registered under sections 85 (i) and 85 (ii) of the Factories Act, MSME Act, Trade Marks Act and the latest GST framework. The Business Register on manufacturing may be prepared/ updated on these lines and the units may be covered by the DESs in ASI.

(Action: DESs)

Action Taken/ Comments

Andhra Pradesh: The CSO communicated the sample list to all states by updating the ASI frame as per norms including the sections 2(m)(i) , 2(m)(ii) of the Factories Act (1948) and 100 or more employees units not registered under 2(m)(i) , 2(m)(ii) of the Factories Act (1948), 85(i) of Factories Act, Companies Act (1956), MSME Act, Trade Marks Act and Units registered under Bidi & Cigar Workers Act 1966 except GST in the selection of census & sample units for conduct of ASI survey. Accordingly, the ASI survey is being conducted every year and the publications released regularly up to 2014-15

Assam: DES, Assam is decided to instruct the concerned division to prepare an up-to-date Business Register on manufacturing units/activities under sections 85(i) and 85(ii) of the Factories Act, MSME Act, Trade Marks Act and latest GST framework which definitely helps this directorate in compilation of State and District Domestic Product

Chandigarh: The Directorate of Economics & Statistics, Chandigarh Administration is not participating in ASI due to shortage of staff. An additional staff is required for additional work. Present staff is not in position to shoulder the burden of additional work.

Delhi: Business Register in respect of Delhi has been prepared and updated up to March, 2016 and supplied to CSO. Other action required at the end of NAD & FOD.

Goa: Annual Survey of Industries (State Sample) was assigned to the State DES from 2012-13 onwards. Notices to furnish information have been sent to industries under Collection of Statistics Act, 2008. However, due to shortage of manpower & infrastructure, further process has not been taken up by the State DES.

Gujarat: The possibility of preparing the Business Register on Manufacturing Units, which includes sections 85 (i) and 85 (ii) of the Factories Act, MSME Act, Trade Marks Act and the latest GST framework may be verified in consultation with DISH and if it is done same will be covered in ASI

Himachal Pradesh: The Annual Survey of Industries in the principal source of Industrial Statistics, which provides the data on various aspects of the registered manufacturing sector for the estimation of National/State income. Himachal Pradesh State has started the collection of ASI data from the year 2010-11 onwards. At present the department has completed the data entry work of all the returns for the year 2014-15 and the data entry work for the year 2015-16 is in progress. This is only the grey areas of DES where the progress is slow till date no report has been brought out.

Karnataka: With extend to Factory Act 2m(i), 2m(ii), factories register under sector 85(1) &(2)of Factories Act, and MSME Act will be collected from concerned Departments and consolidated list will be sent for frame work.

Kerala: Presently State sample units selected from CSO's level and State DES has no role in sample selection in ASI survey

Lakshadweep: In the UTL there is no major or medium industries except tiny & small industries. As such not relevant to this UT.

Remarks: Department under the process of preparation of Business Register for the year 2018-2019.

Maharashtra: Verifications of establishments registered under prescribed seven Acts is in process in selected eleven Districts (2 Districts from each revenue region except Konkan). List of establishments registered under Factory Act Section 2(m)(i), Section 2(m)(ii), Section 85(i) and Section 85 (ii) will be prepared and checked with the sample list of ASI. Accordingly, establishments not selected under sample list will be undertaken for field work.

It is decided at State level to use software of ASI prepared by CSO for carrying out data entry and validation of data.

Meghalaya: The DES is not participating in the ASI.

Puducherry: Necessary action will be initiated

Punjab: CSO may develop a system in which uniform financial assistance should be provided to states and all the states may participate in it.

Tamil Nadu: Every year the CSO has sent the list of selected sample industries to DES for conduct the Annual Survey of Industries. We are collected ASI data for 2m(i) and 2m(ii) of Factories Act.
From the year 2013-14 onwards, the updated Business Register on manufacturing will be prepared / updated on these lines and the units will be covered by the DES in ASI.

Telangana: At present, the DES, Telangana has been conducting the ASI for the samples communicated by the CSO, IS Wing. The DES also obtaining the unit level data of central samples, pooling the central and state sample data and releasing the results.
The DES will explore possibilities for coverage of all the establishments not covered by the NSSO under ASI and also units registered under sections 85 (i) and 85 (ii) of the Factories Act, MSME Act, Trade Marks Act and the latest GST framework. The DES has been updating the frame of ASI every year duly visiting all the establishments registered under different Acts

Uttar Pradesh: The list of sample factories is provided by CSO (I.S. wing) Kolkata, Government of India for the survey. Updation of frame is not done by Economics and State Division Uttar Pradesh. It can only be done by CSO Kolkata.

Uttarakhand: Noted.

31. Recommendation [Para No. 42 (2) of Minutes]

DESs may take up the ASI along with the NSSO, so that all subsequent activities such as data processing, validation, data release / publication of reports and pooling of data could be synchronised. The data would be useful for them in compilation of State and District Domestic Product.

(Action: DESs)

Action Taken/ Comments

A & N Islands: Noted. DES has not been participating in NSS however; DES is interested to participation in survey in South Andaman and North & Middle Andaman

Andhra Pradesh: As per the list of selected sample units, communicated by CSO, the ASI survey has been completed for the year 2015-16   and pooling of data will be processed after receiving the unit level data from CSO. Regarding ASI-2016-17, the field level survey is under process in the selected sample units of 2,225.

Assam: INDUSTRY): So far DES Assam is conducting ASI on the State residual part as per guideline of CSO. At present the field work of ASI for 2015-16 is in progress and for the year 2016-17, process for conducting ASI is underway

Bihar: Efforts are on to hold ASI regularly and synchronies it's various activities with NSSO

Chandigarh: Not applicable

Daman & Diu: The Gujarat State is carrying out ASI survey in UT of Daman and Diu.

Delhi: Field visits, compilation, tabulation and release of report in respect of ASI have regularly been undertaken by DES from 2011-12 onward. Copies of reports have been furnished to CSO also.

Goa: As in Recommendation [Para No. 42 (1) of Minutes**]**

Gujarat: From ASI 2017-18, DES Gujarat will take up ASI along with NSSO.
 In subsequent activities like data validation, data processing and data pooling CSO should help State DES to make easier and earlier release of state estimates and pulled estimates, so that can be used in compilation of State and District Domestic Product timely

Himachal Pradesh: NSSO, Data Processing Division, Kolkata's support is required to provide validation and tabulation software for ASI data as done in case of National Sample Survey exercise to the State, so that after processing the ASI data, State level reports may be published.

Jharkhand: वर्ष 2013-14 मे उध्योगों का वार्षिक सर्वेक्षण कार्य हेतु कुल 205 उध्योगों का सर्वेक्षण हेतु कार्य काया जाता था।सभी जिलों के पदाधिकारियों को दोद्वीशीय प्रशिक्षण कार्य देने हेतु आवश्यक अनुसूचियों एवं Menual Books उपलब्ध कराया गाया था लेकिन जिलों से मात्र 25 उध्योगों का ही सर्वेक्षित अनुसूचियों निदेशालय को प्र्प्तहु ईहै।जिलों से पूर्ण रुप से सर्वेक्षण कार्य के लिए राशि का अभावमुख्य कारण बताया गया है।पुनः वर्ष 2015-16 में विभिन्न 20 जिलों में कुल 328 उध्योगों का सर्वेक्षण कार्य निदेशालय स्तररर आवश्यक अनुसूचियों एवं Training Manual Book की छपाई/छाया प्रति नहीं किया जा सका है।आवश्यक अनुसीचियों एवं Training Manual Book की प्राप्ति हेतु निदेशालय के पत्रांक 281 दिनांक- 05-04-2018 के द्वारा निदेशक, CSO (Is wing) कोलकाता से अनुरोध किया गया है, लेकिन अबतक प्राप्त नहीं हो सका है।पनः ASI को SSS योजनान्तर्गत कराये जाने वाले कार्यो की सूची रखा गया है एवं ASI कोसेपूर्णरुपसेकरायेजानेहेतुलगभग 8.0 लाखराशिकाप्रस्तावहै। SSS योजना का विस्तार अगले वर्ष तक के लिये जाने हेतु प्रयास किया जा रहा है। अगर SSS अवधि विस्तार एवं राशि उपलब्ध हो जाती है, तो ए०एस०आई० कार्यपूर्ण कराने का प्रयास किया जा सकता है।

Karnataka: State DES is lagging behind with NSSO due to the lack of technical strength and knowledge in Business accounts. Efforts will be made by DES to work along with NSSO.

Kerala: 2014-15 Report has been released. 2015-16 Report will be released within 2 months. 2016-17 field survey is going on. Delay in releasing State ASI report is mainly due to non-sharing of Central ASI unit level data to State

Lakshadweep: Noted

Maharashtra: As in As in Recommendation [Para No. 42 (1) of Minutes]

Meghalaya: As in Recommendation [Para No. 42 (1) of Minutes]

Puducherry: Noted

Punjab: As in Recommendation [Para No. 42 (1) of Minutes.]

Tamil Nadu: Every year the refresher training is given by NSSO to DES field staff. All the subsequent activities such as data processing, validation, data release / publication of reports and pooled data are done by the DES with the guidance of CSO.

Chandigarh: Not applicable

Telangana: The DES, Telangana has been conducting the ASI on par with the NSSO and also attending all subsequent activities such as data processing, validation, pooling of data, and publication of reports. The data has been used in compilation of District Domestic Product as an indicator for apportioning the State GVA among the districts.

Tripura: DES may take up ASI along with NSSO for better estimation

Uttar Pradesh: For simultaneous occurrence of data preparing, validation and data release/publication in NSSO &Economics and Statistics division, Uttar Pradesh, it is necessary that CSO Kolkata makes available, the sample list of factories to NSSO and Economics and Statistics division at the same time. And after completion of survey the validated data of Government of India is also necessary for pooling the data. It is generally seen that data of Central Sample is made available to Economics and State Division after 4-5 months of the publication of report of CSO Kolkata. In such a situation there is delay in above procedure .

Uttarakhand: Noted. DES collects ASI data as per guideline of the NSSO, GoI.

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32.   Recommendation [Para No. 43 (1) of Minutes]

While compiling State level IIP may look for data sources as per international standards on IIP. For the all-India IIP, sectors like construction, gas and water supply are not included due to limitations in data flow. The DESs may make efforts to overcome this limitation.

(Action: DESs)

Action Taken/ Comments

A & N Islands: State level IIP is not completed in the UT.

Andhra Pradesh: The IIP report is being furnished regularly to MOSPI from April 2017.

Assam: (INDUSTRY): State level IIP released by the DES is being sent to MOSPI regularly. Such report has been sent to MOSPI up to the year, 2015-16 with the base year, 2004-05. At present the construction of IIP with the new base year, 2011-12 has been finalised with 79 items in the item basket. The construction of IIP for the subsequent year is under process and will be completed by June 2018. As regards the compilation of IIP with base year, 2017-18, the preparatory activities would be taken up

Chandigarh: The Directorate of Economics & Statistics, Chandigarh Administration is not participating in IIP due to shortage of staff.

Daman & Diu: Due to inadequate staff, the UT is not able to cope up with different Censuses & Surveys. The compilation of State Level Index of Industrial Production is not compiled by the UT.

Delhi: Production data are directly sourced from manufacturing industries and items and factories were selected as per provided by CSO (IS) Wing.

Goa: DES will collect data as per international standards on IIP provided CSO issues guidelines and methodology for compiling of State level IIP. For All-India IIP, State DES will work with CSO on par with other States. State DES will ensure to include Construction, Gas & Water Supply in State in the next base year

Gujarat: Necessary steps will be taken in consultation with CSO.

Himachal Pradesh: The Index of Industrial Production is an important economic indicator of the State, which provides the idea of industrial growth and general level of Industrial Performance In the economy of the State. At present the department has released index of Industrial Production for the quarter ending December, 2017 on 2011-12 base year, using of use base based classification. DES, HP will develop online portal with the financial assistance under SSS Scheme proposed under theme I, which will help in compiling and releasing the IIP well in time.

Karnataka: DES will take the action to compile the IIP on sectors like construction, gas and water supply. The methodology on selection of item Basket and deriving Weighting Diagram is required to be furnished by CSO for uniformity across all the States.

Kerala: For IIP estimation Construction, Gas and water supply sectors DES will examine the availability of data

Lakshadweep: Not estimated Index of Industrial Production since no major or medium industries in these island

Maharashtra: Compilation of IIP with base year 2004-05 has been already initiated. For this 910 factories were selected of which about 63% data received. However as per guidelines given by CSO, shifting of base year from 2004-05 to 2011-12 is in progress. For compilation of IIP with base year 2011-12, CSO has already provided list of industries. Even DES has identified more factories for

compilation of IIP. Initially CSO identified 2301 factories (of which 568 selected and 1733 reserved) and ask DES to verify and add factories considering state level requirement. Accordingly 2485 factories have been identified and letters sent to concerned factories requesting data required for compilation of IIP. After scrutinizing data, identifies 828 factories only which supplying data regularly for compilation of IIP

Manipur: The Index of Industrial Production for Manipur is constructed for the period July, 2016 to March, 2017 and April, 2018 to December, 2017. It follows the guidelines given by the Central Statistics Office. Nine (9) items are included in the item basket and production data from twenty (20) factory units are used to construct the index for manufacturing sector. Electricity generation data for the state obtained from Central Electricity Authority is used to construct index for the electricity sector. The General Index is arrived at by combining manufacturing and electricity sector index

Meghalaya: For Electricity, CEA data are used and for Mining, IBM data are used both of which are available on their respective website. As for Manufacturing, units not included in the ASI Report are also used so as to maximize the coverage of all items of production

Puducherry: Taken note of

Punjab: The DES Punjab has been compiling state level index of industrial production as per the guidelines of CSO, Government of India.

Tamil Nadu: The Base Year has already been shifted from 2004-05 to 2011-12 and IIP is being compiled with New Base year 2011-12 for Tamil Nadu. The Construction Sector is included under Use Based Classification in BY 2011-12 for the compilation of IIP. Gas and Water supply are not included in the item basket of CSO

Telangana: The DES, Telangana has been compiling the IIP for the sectors Manufacturing, Electricity and Mining sectors with base year 2011-12. The DES is interested to compile IIP for sectors like construction, gas and water supply also, as envisaged, provided methodology is supplied by the CSO.

Tripura: Does not release any IIP at present.

Uttar Pradesh: Necessary action will be taken after obtaining the Guidelines from Central Statistics Office.

Uttarakhand: Noted.

33.   Recommendation [Para No. 43 (2) of Minutes]

The DESs compiling and releasing State level IIP may furnish the indices to MOSPI for uploading on its website for wider dissemination.

(Action: DESs)

Action Taken/ Comments

A & N Islands: IIP is not computed in this UT so far.

Andhra Pradesh: As in Recommendation [Para No. 43 (1) of Minutes]

Assam: As in Recommendations [Para No. 43 (1) of Minutes]

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 43 (1) of Minutes]
Delhi: After each release IIP data are furnished to CSO

Goa: Once the IIP report is released, the same will be furnished to MOSPI for uploading on the website for wider dissemination

Gujarat: DES, Gujarat is currently compiling state level HP from 2018, on monthly bases, and sending it to concern department. Calculations of Aug — 18 HP, will be sent to CSO, Kolkata for verification of calculation methodology and approval. Once CSO will approve methodology and calculation, Gujarat will start publishing it on public domain. And same will be furnish to MOSPI for wider dissemination

Himachal Pradesh: As in Recommendation [Para No. 43 (1) of Minutes]

Karnataka: After releasing the monthly Indices with New base year 2011-12, DES will furnish the indices to MOSPI for uploading on its website.

Kerala: Already furnished the data to CSO

Lakshadweep: Not relevant

Maharashtra: As in Recommendation [Para No. 43 (1) of Minutes]

Manipur: As in Recommendation [Para No. 43 (1) of Minutes]

Meghalaya: The State is in the process of compiling state IIP

Puducherry: DES Puducherry has started compiling monthly IIP from April 17 towards

Punjab: DESs Punjab has compiled state level IIP and will furnish the indices to MOSPI.

Tamil Nadu: After getting permission from Government, the report will be sent to MOSPI for uploading.

Telangana: The DES, Telangana will communicate the state IIP to the MOSPI, accordingly.

Tripura: DES may bring out IIP and share the result with MoSPI. DES, Tripura: - At present, DES, Tripura not releasing any IIP. Efforts have been taken to release IIP by June, 2018.

Uttar Pradesh: As Per CSO guidelines.

Uttarakhand: Noted

34. Recommendation [Para No. 43 (3) of Minutes]

The IIP portal presently under development by CSO for online data collection may provide for including data collection requirements of CSO and of the DESs and for sharing of data between them. To achieve this goal, DESs may work out modalities in consultation with CSO**.**

(Action: DESs)

Action Taken/ Comments

A & N Islands: IIP is not computed in the UT so far.

Andhra Pradesh: As Recommendation [Para No. 43 (1) of Minutes]

Assam: As in Recommendation [Para No. 43 (1)] of Minutes**]**

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 43 (1) of Minutes]

Delhi: The matter will be taken up with CSO

Goa: State DES will work out modalities in consultation with CSO to achieve the goal.

Gujarat: For calculation of HP, CSO should share the data with DES. Regarding data collection requirements of DES for HP, the matter is separately consulted with CSO

Himachal Pradesh: As in Recommendation [Para No. 43 (1) of Minutes]

Karnataka: DES will work along with CSO to collect data required for IIP through this portal

Kerala: Online software for data collection and compilation is under developmental stage.

Lakshadweep: Not relevant

Maharashtra: As in Recommendation [Para No. 43 (1) of Minutes]

Manipur: As in Recommendation [Para No. 43 (1) of Minutes**]**

Meghalaya: Will be taken up accordingly

Puducherry: Taken note of

Punjab: As per the direction of CSO, DESs Punjab is ready to work out the modalities for data collection and sharing it between CSO and DESs Punjab.

Tamil Nadu: The Department of Economics and Statistics, Tamil Nadu have discussed with CSO, New Delhi on 21st May, 2018 in this regard

Telangana: The CSO may be requested to intimate the contents of the portal, so that the state DESs will be in a position to offer their suggestions for incorporation of states requirements in the IIP portal being developed by the CSO.

Uttar Pradesh: Action will be taken after obtaining the methodology at guidelines from Central Statistics Office.

Uttarakhand: Noted.

35.   Recommendation [Para No. 43 (4) of Minutes]

DESs may prepare/ switch-over to State-level IIP with base Year 2011-12 at the earliest and then take up preparatory activities for compiling IIP with base year 2017-18.

(Action: DESs)

Action Taken/ Comment

A & N Islands: IIP is not computed in this UT so far.

Andhra Pradesh: IIP with base year 2011-12 has been released in the one day conference for southern states held on 17.08.2017 at Visakhapatnam. The IIP along with use-based index is being released 15th of every 2nd succeeding month from April 2017 onwards.

Assam: As in Recommendation [Para No. 43 (1) of Minutes]

Bihar: State Series of IIP at base year 2011-12 is still under preparation

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 43 (1) of Minutes]

Delhi: Consolidated IIP report from 2012-13 to 2016-17 has already been released. This Directorate already switched over to the base year 2012-12 and 1st Qtr of IIP 2017-18 has also been published.

Goa: State DES has recently modified & finalized the item basket in revised base year 2011-12 & the reports for the years 2014-15 to 2017-18 will be released shortly. State DES will take up preparatory activities for compiling IIP with base year 2017-18 on receipt of   guidelines/methodology from the CSO.

Gujarat: DES, Gujarat is already compiling HP as per guidelines of CSO with base year   2011-12 from June 2017

Himachal Pradesh: As Recommendation [Para No. 43 (1) of Minutes]

Jharkhand: आधार वर्ष 2011-12 के अनुसार कुल 20 जिलों में चयनित कुल 97 उध्योग हैं।जबकि उध्योगों की कुलसंख्या 245 है।वर्ष 2017-18 में कुल 7 जिलों से 17 उध्योगगों के

आँकड़ें प्राप्त हुए हैं।राशि के अभाव के कापण सर्वेक्षण कार्य सुचारु रुप से नहीं हो पा रहा है।SSS योजना न्तर्गत भी आई॰आई॰पी॰ को सूची बध्द किया है। SSS की राशि को अगले एक वर्ष के लिए बढ़ाये जाने के लिए भारत सरकार से अनुमोदन की को प्रक्रिया जारीहै।जिसमें 130000 (एक लाख तीस हजार) की राशि का प्रावधान किया गया है।राशि प्राप्त होने के उपरान्त आई॰आई॰पी॰कार्य पूर्ण करने की कोशिश की जा सकती है।

Karnataka: State-level IIP with New base Year 2011-12 is in final stage. After the completion of ASI 2017-18, the data collection and preparatory works for IIP will be initiated.

Kerala: DES Kerala has already switched over IIP base year to 2011-12.

Lakshadweep: Not relevant

Madhya Pradesh: This work is in process

Maharashtra: As in Recommendation [Para No. 43 (1) of Minutes**]**

Manipur: As in Recommendation [ParaNo.43 (1) of Minutes]

Meghalaya: Collection of data for IIP is being done with 2011-12 as the base year.

Puducherry: Taken note of

Punjab: DESs Punjab has shifted the base year of IIP to 2011-12 and uploaded the data on department's website. For construction of a new series 2017-18, DESs Punjab will follow the guidelines provided by CSO, Government of India.

Tamil Nadu: At present, the Tamil Nadu State level IIP is being compiled with Base Year 2011-12. As recommended, the preparatory activities for compiling IIP with Base year 2017-18 will be started as and when the methodology received from CSO.

Telangana: The DES, Telangana has already been compiling the state IIP with base year 2011-12 and preparatory activities are also on for shifting the base year to 2017-18, on par with the CSO, MOSPI.

Uttar Pradesh: Uttar Pradesh state IIP series is being generated with base year 2011-12. For switching over to the new base year 2017-18, a letter of request will be sent shortly to CSO to make available the desired data for switiching over the base year.

Uttarakhand: DES UK has Started the process of preparing the State level IIP with base year 2011-12.

36.   Recommendation [Para No. 47 (1) of Minutes]

States where the work of preparation of Business Register is pending may complete the work within three months.

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(Action: All DESs)
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Action Taken/ Comments

A & N Islands: Due to administrative delay, this UT could not able to get the fund released by the MHA under the scheme; hence 13th Finance Commission has been implemented in this UT.

Arunachal Pradesh: Preparation of Business Register in the State of Arunachal Pradesh has been successfully completed under 13 FC.

Assam: The verification work of establishments under seven registered Acts for 23 districts is yet to be completed due to some administrative problems. As results, data entry works of 27 districts are pending. It needs more time to complete the voluminous work

Chandigarh: The Directorate of Economics & Statistics, Chandigarh Administration is not preparing Business Register.

Daman & Diu: The work for development of Business Register was initiated but the same could not be completed due to non-response from the concerned department. However, the Ministry may provide the Software so that the work could be initiated.

Delhi: N.A

Goa: The State of Goa has not initiated the exercise of preparation of Business Register as the State Government was of the opinion that real time and updated data is readily available with the Commercial Tax/VAT Department and hence, the data could be easily sourced from the VAT Department.

Gujarat: In Gujarat Business Register is updated till march-2018. So no pending work in Business Register.

Himachal Pradesh: Business register has been updated up to 31.03.2017 and regular updation exercise is in the process. DES is taking care of new additions but data relating to old units which are no more active at field level remain pending from the concerned registering authority. To meet out this objective the complete census of total frame is required to be conducted once in five years. Department is also assigning BRN to all the registered units. According to the GST Frame work provision has been made under theme 8 (Data availability and efficiency theme) of the SSS scheme, where regular updation of industrial frame has been proposed. The department will take care of this exercise under this theme.

Karnataka: Business Register is completed and submitted to Central Statistics Office.

Kerala: Preparation of Business Register has been completed on 2013-14. Revision of BR is going on.

Lakshadweep: Business Register in respect of UTL published up to31.03.2015 and the copy of the report submitted to Ministry.

Remarks: Department under the process of preparation/updating of the Business Register for the year 2018-2019

Madhya Pradesh: Under the implementation of 13th Finance Commission's recommendations, the regional work related to the survey of Business Register done from 01 June, 2014 to 31 March 2015.

In accordance with the instructions of the Government of India, the information of survey work under seven rules / regulations received from the district offices is as follows:

S. No.	Rules / regulations	Total organizations	Surveyed organizations	Institutions found during the survey	Uncovered or closed institutions
1	Factory Act, 1948	11010	3252	2349	903
2	Shop Establishment Act	674912	228734	185328	43406
3	Company Act, 1956	19618	4495	3413	1082
4	Society Registration Act	47510	18737	12978	5759
5	Co-operative Society Act	27325	15129	10957	4172
6	Industry Directorate / District Industry Center	134486	98148	57950	40198
7	Khadi and rural industries	739	455	39	65
8	Elsewhere classified	21748	21748	21748	0
Total		937348	390698	295113	95585

Out of 295113 units of the survey, 133077 units were completed for online data entry. This work is not being done due to the completion of the services of the enumerators on March 31, 2015

Maharashtra: As per the recommendations of 13th FC, preparation of Business Register has been initiated in the State. The data of around 2.41 lakh for Companies act, 1956, 0.34 lakh for Factories act, 4.86 lakh for Societies Registration act, 2.14 lakh for Cooperative societies act, 0.54 lakh for Khadi and Village Industries Board and 1.24 lakh for Directorate of Industries have been converted in soft format as per Annexure – A. Data of about 6.39 lakh establishments registered under Shops and Establishment act in Mumbai is in soft form. Data of about 28.73 lakh establishments registered under shop and

Establishment act in remaining district is in hard format. So far by outsourcing data entry work data of establishments of 30 districts is compiled in soft form (90 percent work is completed). Remaining work is in progress. Verification of the establishments registered under these acts in 11districts.(two districts from each region except Konkan where in one district has been selected) is in progress through outsourcing of the state.

Manipur: The District-wise Registered Business Establishment and the Final Report on Registered Business Establishment in Manipur, 2013-14 has been published. The Business Register for the districts as well as for the state is being updated every year

Meghalaya: Business register already published.

Puducherry: Proposed under SSS

Punjab: Completed.

Tamil Nadu: Regarding preparation and maintenance of Business Register, as per the instructions of the CSO, all the registering authorities have been contacted and requested them to furnish the latest list of business establishments, registering within their purview. Accordingly, the District Deputy Directors have been instructed to contact the district level registering authorities to have updated list of registered business establishments. On the other hand, the registering authorities like, Registrar of Co-operative Societies and Commissioner of Industries and Commerce have instructed their district level officers to render necessary assistance to the statistical personnel, whenever they approach for the list of registered business establishments. As the Shops and Establishments Act has not been enacted in Tamil Nadu, the total number of registered establishments in Tamil Nadu is compiled for the rest of the registering authorities.

Telangana: The DES, Telangana has already been completed the Business Register and the process of updation is under progress

Tripura: DES may complete the work of Business Register and update it regularly. DES, Tripura: - The initial works of preparation of Business Register has been completed by DES, Trpura and sent to MoSPI. However, updating the Business Register may be taken up under SSS.

Uttar Pradesh: Business Register will be updated in future for this purpose proposal is under consideration in "SSS Scheme.

Uttarakhand: N.A

37.   Recommendation [Para No. 47 (2) of Minutes]

Business Register needs to be updated annually for addition and deletion of units, as well as changes in their address, activities and stratification variables. All the Registering Authorities under the seven laws/ systems may be involved in the exercise. They may be guided in assigning unique identification number to new units getting registered**.**

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Identified registering authorities have been requested to provide list of registered entities as per various acts/ regulations. And also to update the register from time to time.

Arunachal Pradesh: Owing to exigency of manpower in all the registering units, and fund constraints as of now updation of new units has not been done

Assam: Regarding updating Business Register annually, this Directorate will do the work after completion of the data entry work.

Chandigarh: Not applicable

Daman & Diu: As in Recommendations [Para No. 47 (1) of Minutes**]**
Delhi: Regular updation of Business of Business register requires funds & development of manpower. Whereas no grant-in aid for updation has been made to DES, Delhi so far.

Goa: As in Recommendation [Para No. 47 (1) of Minutes**]**

Gujarat: In Gujarat state, Business Register is updated by every quarter. New registered units are updated regularly. The information is collected from concern registering authority and with this information all the units are updated. This exercise is done by district level offices

Himachal Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Karnataka: Action will be taken to update the business register.

Kerala: Updation and inclusion of more registering authorities to Business Register needs financial support from GOI

Lakshadweep: Seven laws mentioned in the instruction booklet prepared for filed operation of the survey.

Remarks: Detailed training will be organized for filed functionaries. Besides, direction will be issued to all registration authorities to provide registration numbers and other details of the establishments under them

Madhya Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Maharashtra: As in Recommendation [Para No. 47 (1) of Minutes]

Manipur: As in Recommendation [Para No. 47 (1) of Minutes]

Meghalaya: Initiatives are being taken to update the BR.

Puducherry: As in Recommendation [Para No. 47 (1) of Minutes]

Punjab: Updation of BR annually is a huge task. For updating BR annually, sufficient manpower as well as funds are required. State is not in position to provide funds due to financial crisis. However efforts will be made to update B.R. under ISSP, funds for which proposal is under process of approval. Further it is

proposed that for updation BR in Rural areas, Anganwari workers/Asha workers may be identified & given sufficient honorarium.

Tamil Nadu: As in Recommendation [Para No. 47 (1) of Minutes**]**

Telangana: The Business Register so completed is being updated periodically. Accordingly, action has already been initiated by the DES to update the Business Register for the year 2017-18. All the establishments were assigned unique identification numbers for reference, as envisaged

Tripura: Updating the business register may be taken under SSS.

Uttar Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Uttarakhand: Due to lack of manpower it is not possible to update the BR but DES will try to update it under project mode over the period of time.

38. Recommendation [Para No. 47 (3) of Minutes]

Registration under other laws may be considered for inclusion in the Business Register. For the purpose, the concerned Registering authorities may be consulted.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Noted

Assam: Regarding registration of Business Register under other laws / Act, the matter is yet to be considered.

Chandigarh: Not applicable

Daman & Diu: As in Recommendations [Para No. 47 (1) of Minutes]

Delhi: CSO may suggest other registering authority which may be covered at the time of updation of B.R, so as to maintain uniform across the country.

Goa: As in Recommendations [Para No. 47 (1) of Minutes**]**

Gujarat: In Gujarat, MSME data are not available at state as well as at district level. Therefore, it is requested that MSME units registered under Industries Act may be provided by to DES. In this connection MOSPI's intervention is required

Himachal Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Karnataka: Common Business Register is prepared with all the entities/establishments in Karnataka irrespective of Seven Act specified.

Kerala: No new Registering authority identified for inclusion in Business Register

Lakshadweep: Noted

Madhya Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Maharashtra: As in Recommendations [Para No. 47 (1) of Minutes]

Manipur: As in Recommendations [Para No. 47 (1) of Minutes]

Meghalaya: This recommendation will be examine and necessary action will be taken.

Puducherry: Noted and proposed under SSS

Punjab: Other laws under which registration is to be done may be identified & intimated, so that they can be included in BR.

Tamil Nadu: As in Recommendations [Para No. 47 (1) of Minutes]

Telangana: The DES, Telangana has already included the NPIS, all the units having 8 or more workers covered under 6th EC and proposed to include all the establishments registered with the Gram Panchayats and Municipal bodies, in the state

Tripura: No information has been provided in this regard

Uttar Pradesh: As in Recommendations [Para No. 47 (1) of Minutes**]**

Uttarakhand: Noted

39.   Recommendation [Para No. 47 (4) of Minutes]

The units/ establishments registered under GST may be obtained and the Business Register may be appropriately updated on the basis of GST data.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Noted

Assam: The matter will be followed during the time of updating B.R.

Chandigarh: Not applicable

Delhi: At the time of updation of B.R the requisite guideline/ help of CSO may be sought.

Daman & Diu: As in Recommendations [Para No. 47 (1) of Minutes**]**

Goa: As in Recommendations [Para No. 47 (1) of Minutes]

Gujarat: The activity of updating the Business Register not on basis of GST data will be initiated soon.

Karnataka: The registered establishments/ Units under GST will be collected from Department of Commercial Tax and will be appended to Common Business Register

Kerala: Approached State GST Dept. to share the data base for GSDP estimates. If the data base available with DES it can be incorporate the GST No. in Business Register also

Himachal Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Lakshadweep: Department shall add one more column for recording GSTN number
Madhya Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Maharashtra: As in Recommendations [Para No. 47 (1) of Minutes]

Manipur: As in Recommendations [Para No. 47 (1) of Minutes]

Meghalaya: Necessary action will be taken up

Puducherry: As in Recommendations [Para No. 47 (3) of Minutes]

Punjab: As in Recommendations [Para No. 47 (1) of Minutes]

Tamil Nadu: As in Recommendations [Para No. 47 (1) of Minutes]

Telangana: The DES, Telangana will explore possibilities for inclusion of all the / establishments registered under GST in the Business Register and updation of the same, periodically

Tripura: No information has been provided in this regard

Uttar Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Uttarakhand: Noted

40.   Recommendation [Para No. 47 (5) of Minutes]

Business Register prepared and maintained on the above lines will reduce lot of work in the next Economic Census. Hence, all the DESs may give utmost priority to this work.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Noted

Arunachal Pradesh: Updating of BR not taken place

Assam: Utmost priority will be given in coming days.

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 47 (1) of Minutes]

Delhi: As already started no grant in aid has been received for updation of B.R

Goa: As in Recommendation [Para No. 47 (1) of Minutes]

Gujarat: In Gujarat, Business Register is maintained and update regularly

Himachal Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Karnataka: Directorate of Economics and Statistics will work in this director accordingly

Lakshadweep: Noted

Madhya Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Maharashtra: As in Recommendation [Para No. 47 (1) of Minutes]

Manipur: As in Recommendation [Para No. 47 (1) of Minutes]

Meghalaya: As in Recommendation [Para No. 47 (4) of Minutes]

Puducherry: As in Recommendation [Para No. 47 (3) of Minutes]

Punjab: As in Recommendation [Para No. 47 (2) of Minutes]

Tamil Nadu: As in Recommendation [Para No. 47 (1) of Minutes]

Telangana: The DES, Telangana has been assigning utmost priority for preparation and maintenance of Business Register and action will be initiated accordingly.

Uttar Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Uttarakhand: Noted

41. Recommendation [Para No. 47 (6) of Minutes]

Appropriate data collection strategies may be developed to collect data using Business Register to supplement and compliment the ongoing efforts of statistical organisations such as CSO and NSSO.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Noted

Assam: Will be followed in time

Bihar: Phase I of Preparation of Business Register, i.e. preparation of frame is done. Phase II that includes Field Survey and Compilation of Preparation of Business Register, is yet to be initiated. Hence, the question of its supplementation does not arise

Chandigarh: Not applicable

Daman & Diu: As in Recommendation [Para No. 47 (1) of Minutes]

Delhi: Does not pertain

Goa: As in Recommendation [Para No. 47 (1) of Minutes]

Gujarat: In Gujarat, data collection is done centrally as per Company act, Factory act, Industries act, Khadi and Village Industries Board, Whereas, that for the entities under Society act, Co-operative society act, and Shop and Establishment Act is carried out at field level. After collection of data, statistical staffs at in districts carry out data updation through online web portal - GISS (Gujarat integrated statistical system). District wise Business Register data are available on our web portal since 2015

Himachal Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Jharkhand: बिजनेस रजिस्टर के लिए जिला एवं राज्य स्तर पर आंकड़ों का संग्रह हेतु बेबवेस्ट डाटा इंट्री सॉफ्टवेय रजैप०आई०टी०के सहयोग से तैयार कराया गया।राज्य एवं जिला स्तर पर प्रशिक्षण के उपरान्त सभी सात प्रमुख्य निबंधन प्राधिकार के अन्तर्गत निबंदित इकाई का संग्रह करने का कार्य Out Sourcing के माध्यम से वित्तीय वर्ष 2013-14 वर्ष 2014-15 के अंतिम तीमाही में कार्य किया गया तथा लगभग 10000 इकाई का निबंधन कराया जा सका तत्पश्चात यह कार्य निदेशालय में स्थगित है।

Karnataka: Appropriate data collection strategies will be examined.

Lakshadweep: Noted

Madhya Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Maharashtra: As in Recommendation [Para No. 47 (1) of Minutes]

Manipur: As in Recommendation [Para No. 47 (1) of Minutes]

Puducherry: As in Recommendation [Para No. 47 (3) of Minutes]

Punjab: Appropriate data collection strategy will be developed to collect data using BR.

Tamil Nadu: As in Recommendation [Para No. 47 (1) of Minutes]

Telangana: In this regard, states may be imparted training on how the Business Register is useful and the areas where data can be collected and used at the state and national levels.

Uttar Pradesh: As in Recommendation [Para No. 47 (1) of Minutes]

Uttarakhand: Noted

42.   Recommendation [Para No. 49 (1) of Minutes]

The Central Ministries/ Departments and the DESs may provide details of their statistical initiatives/ innovations for inclusion in the agenda of the future COCSSOs.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: Noted

Assam: In order to ensure reliable and regular flow of statistical data from lowest level to highest level statistical infrastructure is the utmost priority for DES of Assam where data from all line departments are collected and collated. Therefore, introduction of Management Information System (MIS) linking DES with all line departments may be prioritized and also imparting training on capacity building of the statistical personnel dealing with data management may be included in future agenda

Chandigarh: Not applicable

Daman & Diu: The UT of Daman and Diu has mapped CSS with various indicators of SDG. The process of mapping of UT Run Schemes with various indicators of SDG is under process

Delhi: DES may take initiate in future to organize Seminar/workshops/symposium with honorarium Awards to develop motivation in the officials for conduct of Statistical Activity with advance & quality assured aspect.

Goa: Noted.

Gujarat: Noted

Himachal Pradesh: DES has initiated to prepare District wise Consumer Price Index (CPI Combined) and District Good Governance Index (DGGI). The department is working on these indicators presently but in future many initiatives/innovations in term of new Statistics Products have been proposed under the support of Statistical Strengthening Scheme.

Karnataka: The initiatives of the state are as follows:
- Crop cutting experiments are being conducted through mobile app.
- Online Birth and Death registration is being done through a uniform software called e-janma.
- The State Government has taken an initiative to conduct crop survey from 2018-19 to assess the area under various crops.
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Kerala: BSLLD Software, DESCAS Software. Both software are dynamic, interactive and user friendly.

Lakshadweep: Noted

Meghalaya: Information will be provided accordingly.

Puducherry: Taken note of

Telangana: Action will be initiated accordingly

Uttar Pradesh: As in Recommendations [Para No. 47 (1) of Minutes]

Uttarakhand: The State of Uttarakhand is keen to strengthen not only the Statistical system for creating the mechanism for evidence based planning but also to strengthen the Control Monitoring Mechanism for the effectiveness of the Programs and various schemes in the State.In pursuance of the same it is proposed in the near future to formulate a dedicated research team for creating a holistic system for monitoring the indicators laid down to achieve the targets under Sustainable Development Goals with the nurtured action plan under Vision 2030.

43.   Recommendation [Para No. 49 (2) of Minutes]

The DESs may undertake activities for aligning and monitoring State level Schemes with SDG Indicator Framework, and strengthen their data systems to ensure regular data flow from district and sub-district levels, etc.

(Action: All DESs)

Action Taken/ Comments

A & N Islands: All the concerned department had been requested to provide indicates based on concerning SDG targets, however, Planning department has been made nodal department for SDG and preparation of plan based on SDG

Assam: Government of Assam (Centre for Sustainable Development Goal, Assam administrative Staff College, Khanapara) and DES Assam has undertaken various activities for aligning and monitoring state level schemes with SDG indicator framework, and strengthening the data system to ensure regular flow from district and sub-district levels etc. But absence of MIS in number of line departments except P & RD, NHM, SSA, Social Welfare etc. is emerging as constraint in the process.

Chandigarh: Not applicable

Daman & Diu: As in Recommendations [Para No. 49 (1) of Minutes]

Goa: The Director, DES, Goa is the State Nodal Officer for implementation & monitoring of SDGs at State Level. Nodal Departments have been appointed against each SDG for implementation and monitoring the progress of each SDG. A SDG cell is also established (comprising of 2-3 Officers/Officials) for ensuring quality and timely data flow. GIPARD had conducted a Write shop on SDG and as an outcome of this Write shop it is proposed to prepare a toolkit for implementation of SDGs, which can help various departments in the State & the same is under preparation.

Gujarat: Through GISS, efforts are made for aligning and monitoring state level schemes.Village profile and urban profile portal contains regular data flow from district and sub district level

Himachal Pradesh: DES has proposed many data collection activities in align with SDG Indicators frame work under SSS Project as well as firm support from the State Government. It will help regular data flow and districts level indicators

may be created to meet out the 16 goals of SDGs. Beside the above SDG Indicators specific training programme has also been proposed under SSS scheme.

Karnataka: Action will be taken for Strengthening the data system with SDG Indicator Frameworks.

Kerala: In Kerala the activities related to monitor state level schemes with SDG indicator frame work have been coordinated by Central Plan Monitoring Unit (CPMU) under Planning and Economic Affairs Department. Govt of Kerala DES role is to provide data support

Lakshadweep: UT Administration has decided to prepare Sustainable Development Plan based on the goal sand targets adopted by the Govt. of India.

Remarks: Two committees are constituted by the UT Administration. The first committee for preparing system development plan and the second committee for monitoring the implementation of the Sustainable Development Plan

Maharashtra: Yet to receive

Meghalaya: The State has set up a Cell for SDG under Planning Department. Under the SSS programme, it is propose to frame methodologies on identified indicators for data collection and compilation of data for monitoring the Sustainable Development Goals also carry out baseline survey on such indicators

Puducherry: Action is being taken in coordination with planning and research Development of this UT Administration which is the nodal department for SDGs

Tamil Nadu: In Tamil Nadu, the State Planning Commission (SPC) is the Nodal and Monitoring Agency. The following Eight Working Groups have been formed by Government and the data have been directly sent to SPC from the respective department of the Working Group for further action.
- Poverty and Hunger (Goal-1, Goal-2),
- Health and Sanitation (Goal-3, Goal-6),
- inclusive and equitable quality education (Goal-4),
- Women empowerment and issues of inequality (Goal-5, Goal-10),
- Innovation Industrialization and Sustainable Development (Goal-7, 8, 9 and 11),
- Sustainable Consumption and Production (Goal-12),
- Sustainable Environment and Climate change (Goal-13, 14, 15), and
- Promotion of Peace and Partnership (Goal-16, Goal-17).

Telangana: The Government of Telangana has already established a SDGs monitoring cell at Dr. MCRHRD Institute of Telangana and it is working on to ensure regular data flow from district and sub-district levels, etc., for monitoring the achievements made under each of the Goals, in the state.

Uttar Pradesh: Action would be taken as per requirement.

Uttarakhand: The initial exercise for finalizing the schemes (*after evaluating the Outcome Budget/Existing Data Needs of the Departments*) is under progress. The system will also incorporate the ranking provision for healthy competition for growth among the districts. The system/ mechanism also plan to be upgraded to be

"Integrated Monitoring Mechanism" which shall also provide data ware-house to various developmental indicators in the time to come. In pursuance of the same the State DES is also open to incorporate the instructions/Plan of the Govt. of India in the existing scenario. In pursuance of the State's requirement to incorporate SDG Monitoring Mechanism, it's proposed that the interactive session from the Govt. of India at this stage will be healthy for formulating the effective system. The healthy interactive platform (Workshop/Training) shall definitely be a learning experience for the concerned personnel attached in the activity.

44.   Recommendation [Para No. 51 (2) of Minutes]

It was reported that the Ministry of Home Affairs, *vide* OM No. 15039/20/2012-Plg.Cell dated 24-10-2017 on Financial proposal relating to Union Territory Administration, stated *inter alia* that the UT Administrations are required to refer their expenditure proposals including creation of posts, upgradation of posts/ revision of pay, matters relating to ACP/ MACP, pension cases etc. to the concerned subject matter Ministries and it is for that Ministry to consider the proposal and to convey the approval of the Government of India. In view of these instructions, the UT DESs may review their statistical cadres and the manner of recruitment in the cadres in the light of their statistical work requirements and prepare proposals to provide adequate manpower at appropriate levels. Accordingly, the proposals may be submitted to MOSPI.

(Action: DESs of UTs)

Action Taken/ Comments

A & N Islands: Noted

Chandigarh: A proposal regarding creation of two posts of Statistical Assistant and one post of Senior Assistant had been sanctioned by the Chandigarh Administration under state plan scheme namely "Modernization of Statistics" in the Five Year Plan (2012-2017) during the year 2013-2014. The proposal for creation/approval of posts was forwarded to the Ministry of Statistics and Programme Implementation (line Ministry) vide this office letter dated 1st July, 2013. Recently, the Ministry of Statistics & Programme Implementation vide their letter No. M-11016/5/2014-CAP dated 11.04.2018 in reference to this Administration letter No. 8/8/06/RO(ARO)/59 dated 15.01.2018 has asked to send a fresh proposal for creation of posts fulfilling all requirements as per enclosed checklist. Accordingly, the office is preparing proposal for onward transmission to the Ministry of Statistics and Programme Implementation w.r.t their letter dated 11.04.2018.

Delhi: In Delhi, there exists Planning & Statistical Cadre, where pay-scale of SA and SO are G.P. 4200 & 4600 as that of JSO & SSO. The CCU has preceded a proposal for revision in the pay scale of SA/SO on the basis of higher qualification P.G. (SA) and mode of requirement through DSSSB/UPSC for SA/SO respectively and effort for restructuring also lagging behind since last restructuring held in 2006. In the context, a corporation from the MOSPI is desired for sending the recommendation for enhancing the pay scale of SA from pre-revised (GP-4200) to pre-revising (GP-4600) with NFS next GP after four year similarly for SO from pre-revised (GP-4600) to pre-revising (GP-4800) with NFS next GP after four year.

It is also requested Ministry may also recommended expediting the restructuring for strengthening the Statistical System, so that the Ministry Conveyed through Gazette notification 6 April 2018 regarding "Quality Assurance", may be achieved.

Gujarat: For cadre management, recruitment calendar has been already prepared and efforts are made to fill the post of statistical cadre through direct recruitment, promotion/semi direct recruitment and even on contract basis

Lakshadweep: The comments sought by the MOSPI on up gradation of pay scale in respect of Statistical functionaries at par with their counterparts is pending various sections of the UT Administration for the last one year.

- The up gradation of pay scale of Statistical functionaries is essential as recommended by the 7th CPC to keep the morale of statistical staff high.
- The post of Assistant Director (Statistics) is the only post available in the UT Administration to guide the statistics department of the UT Administration taking into above functional requirements the senior most officer in the statistical discipline have been appointed on Adhoc basis and requested Ministry to ratify the decision taken and accord post facto approval vide letter dated: 11.05.2018 of Secretary (Planning, Statistics &Taxation), Annexure-3
- The RR for the post of Assistant Director discussed under first single window sitting on09.08.2017 and UPSC instructed to resubmit the proposal in the revised format. The Revised proposal submitted to Ministry on 28.08.2018(Annexure – 4)

Telangana: Not applicable

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