

# National Statistical Commission and Indian Official Statistics\*

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In this article we shall briefly describe the main functions of the National Statistical Commission, the apex statistical body of the country, which was established in 2006 following the recommendations of the Rangarajan Commission. We shall then discuss the important role of the Commission in the Official Statistical System of India.

## 1. Brief History and Introduction

Early origins of statistical data collection, compilation and need for cross-checks are well documented in Kautilya's *Arthashastra* (attributed to 321–296 BC). During the Moghul period (circa 1590 of Emperor Akbar's rule), we find the details of official statistics in the masterpiece *Ain-i-Akbari* written by Abul Fazal. The unstable rule of later Moghuls during the 18th century led to the establishment of the East India Company (1757–1947) which recommended a statistical survey of the Presidency of Fort William. In 1807, the survey of Eastern India was conducted by the Governor-in-Council, Francis Buchanan, the report of which had a good collection of official statistics of that time.

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### Keywords

Official Statistics in India, recommendations of Dr. Rangarajan's Commission, National Statistical Commission as an apex statistical body.

With more administrative data flowing in, Col. Sykes established a small Department of Statistics in 1847 in India House. This is perhaps the beginning of an Official Statistical System for (the then British) India. Baines [1] in 1918 in his discussion on the development and progress of Official Statistics in India during the early British days, comments thus: "Official Statistics, in the present sense of the word, are the offspring of British rule" which is indeed true.

Immediately after independence, an urgent need was felt for a statistical structure towards socio-economic development. The

Central Statistical Unit was created under the charge of the Statistical Advisor in 1949 which in 1951 formally became the Central Statistical Organisation under the guidance of Mahalanobis. Around the same time, the National Income Committee established in 1949 and chaired by Mahalanobis, together with the Standing Committee of Departmental Statisticians, found large gaps in the statistical information for the accurate estimation of national income. As desired by Pandit Jawaharlal Nehru, the first Prime Minister of India, Mahalanobis prepared an abstract scheme for organising a National Sample Survey (NSS) to fill in the gaps. Thus, in October 1950 the first round of data collection in the NSS took place – this organisation is now a 63-year old successful phenomenon. There were three review committees, the first one chaired by R A Fisher with Hansen, Kitagawa, Linder and Yates as members, followed by a three-man committee of Sivaraman, Dandekar and Bahadur in 1970 which recommended that a National Sample Survey Organisation (NSSO) should be created under a government set-up. To review the functioning of NSSO, after about three decades in 1999, an expert committee headed by J Roy and Ramanath Iyer was appointed which commented on several aspects of the Indian statistical system. There was also a need to review the method of estimation at decentralised levels, construction of various indices, national accounts, mechanism for reporting and collection of statistical data and such other statistical activities. In view of this, in the year 2000, for the first time in India, the Government set up a Commission to address appropriately the growing statistical needs of the society. This National Statistical Commission (NSC) was chaired by C Rangarajan.

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## 2. NSC and its Main Functions

The UN Statistical Commission in its list of Fundamental Principles of Official Statistics, stressed that “coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.” In the same spirit, NSC of the government of India which came into existence in July 2006, is mandated, among its functions, “to exercise statis-



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tical co-ordination between Ministries, Departments and other agencies of the Central government; and to exercise statistical audit over the statistical activities to ensure quality and integrity of the statistical products”. Thus it is intended to bring all the statistical activities under the same umbrella of this apex body. Some of the other important functions of the NSC are *to identify core statistics of national importance, to evolve national policies and priorities relating to the statistical system, to evolve measures for improving public trust in official statistics.*

The main recommendation of the Commission headed by Rangarajan regarding the creation of a permanent and statutory apex body – National Commission on Statistics (NCS) – through an Act of Parliament, independent of the Government, in respect of policy-making, coordination and maintaining quality standards of core statistics has been implemented by a Government Order. The new apex body, still called the National Statistical Commission, was set up on 1 June 2005 and assumed charge on 12 July 2006. There is a new post called Chief Statistician of India (CSI), the holder of which also acts as the Secretary of the Ministry of Statistics and Programme Implementation (MoSPI). The Commission is headed by a part-time Chairperson who is an eminent statistician or a social scientist and four part-time Members – one each from the areas of Economic Statistics; Social and Environmental Statistics; Census Operations, Surveys and Statistical Information System; and National Accounts. The CSI acts as the Secretary of this Statutory Commission and the Secretary of Planning Commission is an ex-officio member.

Consequent to the setting up of the new Commission, the erstwhile Governing Council of the NSSO has been dissolved with effect from 30 August 2006 as all the functions of the Governing Council are assumed by the NSC. However, initially, a Steering Committee has been constituted for National Sample Surveys during the tenure of the first NSC, while eight sub-committees were constituted by the second NSC. The Chairman of the third NSC took charge in February 2013 and the other Members from June/July 2013.



Under its autonomous nature to discharge its functions effectively and efficiently, NSC has the power to require production of any document for statistical purposes, and the power to require statistical agencies and institutions to provide details of statistical activities, including concepts and definitions used, methodologies followed, quality standards adopted, sampling and non-sampling errors, etc. in respect of core statistics.

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### 3. Recommendations of Rangarajan Commission

The report of the Rangarajan Commission can be called a treatise on Indian Official Statistics. It covers the modern era of Indian official statistics and offers a variety of suggestions. We shall refer only to its summary.

Most defects in the system were summarised in the report of the Commission thus:

“Apart from the quality of data, there are other problems such as data gaps, duplication leading to conflicting statistics and inordinate delays in transmission and publication of data. In the field of Agricultural Statistics large data gaps exist with reference to the output of fruits and vegetables and other minor crops, and estimates of meat, meat products and fish. The results of the 16th Livestock Census, scheduled to be completed in 1997, are still not available for a number of States. The representativeness of the Index of Industrial Production (IIP) has been considered as questionable due to *inter alia* inadequate information on the Small Scale Sector. One of the perennial issues relating to national income in our country has been the difference between the National Accounts and National Sample Survey estimates of consumption expenditure. In the area of External Sector Statistics also, the reconciliation of the data on exports and imports between the Directorate General of Commercial Intelligence and Statistics (DGCI&S) and the Reserve Bank of India (RBI) is essential. Further, the present system has not been able to provide adequate information on basic socio-economic indicators required for micro-level planning. For example, although the Civil



Registration System was envisaged as a mechanism to provide annual estimates of the infant mortality rate, death and birth rate, etc. at the district level, it has failed and as a result, such estimates are not available at the decentralized level. No reliable information is available on many aspects in the Health Sector like problems of the aged, contribution of the private sector to health care, disease-specific expenditure on health, etc. The whole area of the Services Sector is undergoing far-reaching changes with the application of Information Technology. More of intangible goods are getting exchanged. However, huge data gaps exist with reference to such transactions.”

According to the report, Directorates of Economics and Statistics in some states do not play a nodal role in the coordination of statistical activities within the state and lack survey- sampling and data-processing capabilities. A lot needs to be done with the huge amounts of data collected by the states as well on a matching basis with the central sample.

#### 4. Scenario, Post Rangarajan Commission Report

As per the proposal of the Commission, we now have a full-fledged Department of the Ministry under the name of National Statistical Organisation (NSO). Erstwhile Central Statistical Organisation and National Sample Survey Organisation are now called Central Statistical Office (CSO) and National Sample Survey Office (NSSO) respectively, which function under the NSO.

With respect to the huge amounts of data collected through state samples matching with the central samples, at the suggestion and support of the NSC, several states have now come forward to pool the central and state sample data, wherever possible, to utilise in the calculation of estimates and indices at lower administrative levels such as districts in their programmes for decentralised planning. A latest report on the livestock ownership across operational land holding classes in India based on the 59th round of NSSO (2002–03) is now available.

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For conducting sample surveys of the huge unorganised sector of the country, the CSO launched a nation-wide census of all economic activities (excluding those engaged in crop production and plantation) which provides a sampling frame, and the first such Economic Census (EC) was conducted in 1977.

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In order to improve the utility and quality of data, new initiatives were introduced in the fifth EC of 2005 such as recording the type of structures occupied by the establishments and making a directory of establishments with ten or more workers. Data transcription errors were expected to be minimised due to the use of Intelligent Character Recognition (ICR) technology for the first time in data processing. The sixth EC (2012–13) is now under way. Some of the main changes made in the sixth EC relate to coverage relating to non-agricultural activities, adoption of two schedules namely, House and Establishment Listing Schedule and Directory of Establishment Schedule for developing Business Register. It is expected that the sixth EC would give a good sampling frame free of errors. In the past it is known that this census was done by reluctant teachers during their holidays and inexperienced persons with a rather small remuneration thereby leading to data of no good quality. In the sixth EC, the enumerators and supervisors were provided comprehensive training during several training programmes.

Following the recommendations of the Commission, the new series of IIP has now 2004–05 as the base year and received data from 16 source agencies and 22 industry groups as per 2 digit NIC-2004 in manufacturing sector. Regarding the export figures, it is noted that there is still a divergence between the figures of RBI and DGCI&S referred to in the report of the commission. The difference is recorded under 'capital account'. This suggests a need for a close study of the concepts, definitions and data collection methods used by the agencies. In response to the recommendations relating to the health sector, during the 60th Round (January–June, 2004), the subjects of morbidity, health care and 'condition of the aged' were taken up.



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The 'Industrial Statistical Act' of 1942 is very old and the present 'Collection of Statistics Act', 1953 is found to be weak. The second NSC had a relook from the point of view of a legislation and thus a law to enforce the collection of statistics was recently enacted by the Government of India under the Collection of Statistics Act 2008. This would be helpful in certain situations only. Awareness is very important and more attempts should be made to popularise the collection of statistics and make it statutory in certain cases. During the International Year of Statistics 2013 such attempts are being made by the Ministry and the Commission.

Until now (during the last 63 years) NSSO has released around 550 reports, each comprising of 200 pages on an average. The reports have been released mostly within one year after completion of data collection. These are available as hardware as well as software copies for the users on the website of the ministry, [www.mospi.gov.in](http://www.mospi.gov.in). Unit level data is also supplied to researchers after a year of completion of the surveys. However, it is very important that these reports should be carefully checked for any inconsistencies and errors both in statistics and in style of presentation and should be corrected before release. The Journal of NSSO, *Sarvekshana*, which is nearing its 100th issue also contains an integrated summary and major findings of the surveys of NSSO.

One of the important areas which has to adhere to international standards is Financial and External Sector Statistics. It is relevant here to point out that the Reserve Bank of India plays a very important role in the National Statistical System. Other institutions that take part in collection, compilation and dissemination of financial statistics are the Ministry of Finance, Securities and Exchange Board of India (SEBI), National Bank for Agriculture and Rural Development (NABARD) and Industrial Development Bank of India (IDBI), while Insurance Regulatory and Development Authority (IRDA) looks after the insurance sector.



As per the Rangarajan Commission recommendations, there is a sub-committee which reiterates the need of an Annual Survey of Non-Manufacturing Industries (ASNMI) and also hopes that the MCA21 Programme of the Ministry of Company Affairs eventually provides details of current data on the private corporate sector.

The CSO compiles annual National Accounts Statistics (NAS) which include estimates of private final consumption expenditure (PFCE). Surveys on consumer expenditure of the NSSO also provide estimates of household consumer expenditure (HCE). But over a period of 20 years the divergence between the two estimates has become so large that NAS estimates were in excess of NSS estimates by 5.5% in 1972–73, increasing to 10.4% in 1997–98 and to a figure of 38.1% in 1993–94 and it is steadily increasing. The debate on this divergence was important in view of certain calculations of poverty estimates. Earlier studies by Minhas [2] and later with his colleagues, and the paper by Sundaram and Tendulkar [3] among a host of others, led to an Expert Group who in their report [4] attributed the deviations to coverage, reference time-frame, unmatched classification schemes, treatment of cooked meals, notional components in NAS estimate of PFCE, differential implicit prices. Rangarajan Commission also recommended that studies be carried out to correct the item-level weaknesses noted in the Cross-validation Studies in both the sources so that discrepancies in the two estimates would be minimised. NSS does not cover Non Profit Institutions Serving Households (NPISH) and the Commission noted that the weakest link in the estimation of PFCE by NAS has been the indirect coverage of the NPISH. It is therefore recommended by the Commission that periodical surveys/type studies be conducted to collect income and expenditure of NPISHs.

### 5. Present Status

On 24 December 2006, while inaugurating the Platinum Jubilee celebrations of the Indian Statistical Institute, the Prime Minister Manmohan Singh pronounced 29 June, the birthday of Mahalanobis as the National Statistics Day as a fitting tribute to

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the great visionary. The first Statistics Day was celebrated on 29 June 2007 all over the country and is being observed every year. UN Statistics Division (UNSD) observed that around 102 countries have been celebrating a Statistics Day, Week or Month to raise the profile of official statistics and hence deliberated on the need for holding a World Statistics Day (WSD). The first WSD was enthusiastically celebrated by several countries and international agencies on 20.10.2010 with a focus on the sub-themes: Service to the nation and the world, Professionalism, and Integrity. The next WSD is planned for 2015 (and the author's guess is 5.10.2015). Noticing the global participation in the WSD in 2010 and probably that 2012 was declared as the International Year of Mathematics (in honour of Ramanujan), it was announced that 2013 would be the International Year of Statistics "*because statistics have powerful and far-reaching effects on everyone*" and celebrations all over the world are already under way.

MoSPI, being the nodal ministry on statistical aspects related to the country, has issued a Gazette Notification (Govt. of India [5]) that all Central Ministries and Departments should follow certain guidelines whenever they decide to conduct any statistical survey so as not to create multiple official estimates which differ from those of CSO or NSSO of the Ministry. As a result of this, MoSPI has been bringing out a publication entitled *Directory of Sample Surveys in India* on an ad hoc basis. But this does not completely solve the problem unless NSC exercises its function mentioned at the beginning of Section 2.

Furthermore, *to evolve measures for improving public trust in official statistics*, it is important to have good and well-trained statisticians who are involved in official statistics. After successful completion of Indian Statistical Service examinations, the National Academy of Statistical Administration (NASA) of the Ministry would be helpful in enhancing skill development and capacity building. However, to create awareness and interest among the students and scholars, there should be an official statistics component in the curricula of statistics courses in colleges and universities.



About five decades ago, commenting on the statistical system in India, Mahalanobis [6] in his lecture on ‘Statistics as a Key Technology’ observed that “It is not difficult to see what is wrong with official statistics in India. There is a gap between theory and practice”. This gap exists even today. One does not find much of an interaction between the academics and the government statisticians. Statisticians from government departments should be encouraged to visit universities and institutes to refresh their knowledge and learn new and useful methodologies, while teaching faculty should visit government offices to understand the problems of current interest and importance as is done in other countries. It is interesting to note that Pitamber Pant, who acted as Secretary to Pandit Jawaharlal Nehru during the pre-independence days, was sent by Nehru to the Indian Statistical Institute to learn statistics in 1946. The NSC can encourage such a two-way exchange. The Sampling and Official Statistics Unit (SOSU) of the Indian Statistical Institute started in 2012 could be a platform for this.

Roy–Iyer Review Committee observed that “.....*there is no system of carrying out methodological studies*”. Rangarajan Commission also stresses the importance of setting up of a Methodological Study Unit to *regularly undertake studies for bringing in improvements in the survey methodologies*.

The importance of a sound official statistical system in any country is well understood. Efficient governance depends largely on timely, accurate and error-free data. It may be interesting to compute (see, Rao [7,8]) a Statistical Development Index for each country on the lines of the Human Development Index. Some components needed for such a construction could be statistical literacy in the country, the strength of the statistical system, the amount of dissemination of data, per capita statistical output (defined suitably), etc. Based on such a Statistical Development Index, India would have better rankings, even though its Human Development Index is on the lower side. Only recently, an attempt was made by Sanga *et al* [9] in that direction for Africa.

The constitution of the present NSC is such that all the members

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– Mahalanobis



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are part-time and hence in view of their academic and administrative activities otherwise, it could be difficult to concentrate on the workload of the Commission. The comment of Baines we referred to earlier, still seems to hold – Our set-up is parallel to the one in the United Kingdom, but for the size of a country like India, the Chairperson and the Members of the NSC should have better support and service conditions, if not permanency.

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