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Impact of SNA 1993 on India's National Accounting System and Potential Implications of the Revised SNA*

Abstract

The annual national accounts of India are presently compiled by the CSO following a mix of SNA 1968 and SNA 1993. The CSO compiles the input-output tables once every 5 years, and the quarterly GDP estimates by economic activity with a timeliness of two months, excepting first quarter which has a timeliness of three months.

The CSO has revised the base year of its national accounts to 1999-2000 in January, 2006 and in this revision exercises, it has incorporated several features of 1993 SNA. The production boundary and the asset boundary of India's national accounts are close to the 1993 SNA recommendations, with some marginal exceptions. India is in Phase-3 of the ISWGNA's six *Milestones in the Implementation of 1993 SNA* at present. India meets the ISWGNA's minimum requirement for implementation of the 1993 SNA, but falls short of recommended compilations in respect of (i) quarterly expenditures of GDP at current and constant prices, and (ii) annual supply and use tables.

The CSO has plans to compile integrated accounts of all institutional sectors upto capital accounts, the annual supply use tables and quarterly expenditures of GDP at current and constant prices, by March, 2007. The CSO also has plans to compile expenditure data as per the functional classifications, COICOP and COFOG by the same time. This will bring Indian national accounts system to reach the level of Phase 4 of milestones and the recommended compilations of 1993 SNA. There are no immediate plans to compile accounts listed in Phase 5 and Phase 6 of the *Milestones.*

The main concern in the implementation of 1993 SNA has been the availability of detailed data on income and expenditures of various institutional sectors. India also has large informal or unorganized or household sector and data on this is available only periodically. Lack of a comprehensive business register is also a problem area for launching regular economy wide surveys in the country. However, the CSO is taking measures to switch over to the 1993 SNA by looking at alternative available data sets. The CSO is also keen to implement the 1993 SNA update issues coming under the purview of production, income and capital accounts, as early as possible in consultation with the major data source agencies, such as the Reserve Bank of India.

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Impact of SNA 1993 on India's National Accounting System and Potential Implications of the Revised SNA

1. INTRODUCTION

1.1 In India, the responsibility for compiling national accounts statistics is with the Central Statistical Organisation (CSO). India started releasing the official estimates of national income with base year 1948-49, in 1956, as per the methodology recommended by the National Income Committee of Prof. P.C. Mahalanobis. Since then, the national accounts compilations have seen major changes with the availability of more detailed and disaggregated data, which resulted in incorporation of additional macro-economic aggregates, like saving, capital formation, consumption expenditure, public sector transactions, consolidated sets of accounts, factor incomes, input-output tables and quarterly GDP estimates over the years.

1.2 The base years of Indian National Accounts Statistics series have also been shifted from time to time, with base years being shifted from 1948-49 to 1960-61 in August 1967, from 1960-61 to 1970-71 in January 1978, from 1970-71 to 1980-81 in February 1988, from 1980-81 to 1993-94 in February 1999, and from 1993-94 to 1999-2000 in January, 2006.

1.3 This paper has been prepared with the objective of presenting the challenges being faced by the CSO in implementing the 1993 SNA and the possible ways of implementing the 1993 SNA update, which is shortly due for release by the Inter Secretariat Working Group on National Accounts (ISWGNA). The paper is divided into 4 Sections, with Section 2 devoting to the description of current status of national accounts statistics releases in India. Section 3 presents the status of implementation of 1993 SNA so far in India and its impact on national accounts. Section 4 covers the implementation strategy in India of the 1993 SNA update, focusing on select update issues.

2. CURRENT STATUS OF NATIONAL ACCOUNTS STATISTICS

2.1 The CSO releases annual national accounts, quarterly national accounts, input-output tables, and regional accounts, following established international guidelines and standards. India is a subscriber to the IMF's Special Data Dissemination Standards (SDDS)[1].

2.2 In India, where availability of data required for detailed compilation of national accounts is inadequate, the approaches followed for estimation of macro–aggregates like national income and its components are guided very much by the information collected either on a continuous basis or at regular intervals through sample surveys or censuses. It also depends on the nature of the enterprises and their institutional character. The generalisation of approaches used is not easy and is also subject to revision from time to time as and when new and better data become available. This is mainly due to the presence of large unorganized sector and lack of quarterly/annual economy-wide and labour force surveys.

Brief Sources and Methods of Annual national accounts statistics

2.3 The annual national accounts of India are compiled following a mix of SNA 1968 and SNA 1993. These comprise the consolidated accounts of the nation, namely: Gross domestic product and expenditure; National disposable income and its appropriation; Capital finance; and External transactions acounts. The annual national accounts statistics also include estimates of value added (gross and net) by 18 major industries; private final consumption expenditure by object and by type of goods; domestic saving by type of institutions; capital formation by type of institutions, by type of assets and by industry of use; estimates of net capital stock by type of institutions and by industry of use; public sector transactions; and, disaggregated statements at lower level industry classification (Indian industry classification is 5-digited with the first four digits coming from the ISIC). The production approach based GDP estimates are treated as firmer estimates of GDP and discrepancy with GDP expenditures is shown separately.

Value added by industry

2.4 The estimates of value added in respect of agriculture, forestry and logging, fishing, mining and quarrying, registered manufacturing (establishments registered under Factories Act, 1948) and construction are based on production approach. For the agriculture sector, estimates of area under different crops are made from the village records generally on complete enumeration basis, and the estimates of yield for principal crops are based on about 500,000 crops cutting experiments conducted every year. The data on agricultural inputs are available from the annual cost of cultivation studies, and benchmark surveys on feed of livestock. Data on major livestock products are available through the Integrated Sample Survey, and for other products, from various administrative sources. Data on forestry and mining sectors are available from administrative sources. Data on fishing sector are available from the surveys conducted to capture the production of marine and inland fish. Data on prices of agriculture, livestock, forestry and fishing products are available from the surveys conducted by the State governments. Data on registered manufacturing sector is collected through the Annual Survey of Industries (ASI). The estimates for the construction sector are prepared broadly through commodity-flow approach. In other sectors viz., unregistered manufacturing (factory establishments not registered under Factories Act), electricity, gas and water supply, trade, hotels and restaurants, transport, storage, communication, banking and insurance, real estate, ownership of dwellings, business services, public administration and defence and other services, the GDP is estimated following a combination of production and income approaches. The estimates of various services in the public sector are compiled by analyzing the budget documents and annual reports of departmental and non-departmental commercial undertakings, those of unorganized sectors in various economic activities are made using the data on per worker value added available from the results of follow-up surveys of the Economic Census (generally conducted once in 5 years) and the work force in the activity estimated from the decennial population census and the quinquennial employment and unemployment household surveys). Generally for unorganized sectors, estimate of GDP is compiled for the base year using the results of benchmark surveys, and estimates of subsequent years are obtained by moving the base year estimate with the help of appropriate physical indicators.

Expenditure on gross domestic product

2.5 A direct expenditure approach is used to estimate government final consumption expenditure, exports and imports of goods and services, and increase in stocks. The commodity flow approach is adopted for estimating the private final consumption expenditure, whereas the estimate of gross fixed capital formation is based on a combination of the commodity-flow and the expenditure approaches.

2.6 Government final consumption expenditure is obtained by analysis and reclassification of the data available in the budget documents of central and state governments, Union territories and local authorities supplemented by information obtained from finance accounts, appropriation accounts and reports of the Comptroller and Auditor-General of India. The reclassification is based on the recommendations given in a Manual for Economic and functional classification of Government Transactions (UN), keeping the SNA classification undisturbed. While reclassifying, similar types of transactions of the government are grouped after eliminating all internal transfers. Government final consumption expenditure is net of sales of commodities: (i) sold second hand or (ii) produced in the government administrative departments. The purpose classification of government final consumption expenditure is also undertaken except for local authorities due to non-availability of data.

2.7 Private Final Consumption Expenditure[2] (PFCE) includes the final consumption expenditure by households and private non-profit institutions serving households. The estimates are obtained by following the commodity flow method. The sources of data on output are the same as those used for the estimates of GVA and related aggregates. However, the expenditures on second hand goods are not included. The estimates of PFCE in the domestic market so compiled are adjusted for net direct purchases by resident households abroad to arrive at the estimates of PFCE of resident households. The estimates at constant prices are compiled by valuing the output at constant prices.

2.8 The estimates of Gross capital formation are prepared separately from (i) the financing side as the sum of saving and net capital inflow from abroad, (ii) by assets (construction and machinery & equipment) through commodity flow approach and sectors, and (iii) by industry of use. Of these three independently derived estimates, the financing side compilation is treated as the firmer estimate. The difference between the control total and domestic capital formation and institutions are shown as errors and omissions.

2.9 Estimates of domestic savings are prepared at current prices only by type of institutions i.e. public sector, private corporate sector[3] and household sector (as residual) separately. In respect of public sector, the data available in government budget documents and annual reports of the enterprises are analysed in detail. The estimates of saving are derived from the income and outlay accounts in respect of administrative departments and departmental and non-departmental enterprises separately. Estimates in respect of private corporate sector are based on analysis of the annual accounts of sample companies duly adjusted for full coverage on the basis of data on paid up capital of all companies. For the household sector (including non profit institutions and unincorporated private businesses), financial saving data are compiled in terms of the changes in the financial assets held by them in various instruments such as; currency, deposits with financial institutions, shares and debentures, claims on government, net equity in the life funds, provident and pension funds net of changes in financial liabilities. These estimates are compiled as a residual after duly accounting for such instruments held by public and private corporate sectors. For the part of household sector saving in physical assets, these are estimated again as residual from the overall output of assets compiled through commodity flow approach. These include assets created for own use.

2.10 Data on imports and exports, both merchandise and services from the balance of payments is available from the Reserve Bank of India[4].

Timeliness of Annual National Accounts Statistics

Advance estimate of national income & its update

2.11 The first estimates of annual national income for a reference year are released by the CSO, about 2 months before the close of the year, in the form of Advance Estimates of national income. These estimates contain at both current and constant prices and at factor cost, the gross national product (GNP), net national product (NNP), GDP, net domestic product (NDP), per capita income (per capita net national product at factor cost) and GDP by industry. These estimates are subsequently revised and released on the last working day of May, i.e., with a lag of 2 months, as updates of advance estimates. The Advance Estimates are compiled using the data available on output of auxiliary indicators, such as index of industrial production, agriculture production, government accounts and service sectors.

Quick estimates of national income & related aggregates

2.12 The Quick estimates of NAS are released in the month of January of the following year (with 10 months lag). Along-with the Quick estimates for the previous financial year, estimates for the earlier years are also revised using the detailed data supplied by various source agencies.

2.13 Detailed methodology of compilation of NAS and data sources used are given in the CSO publications (a) National Accounts Statistics- Sources and Methods, 1989 and (b) New Series on National Accounts Statistics (base year 1999-2000), 2006 (http://www.mospi.nic.in/mospi_nad_main.htm).

Quarterly GDP estimates

2.14 India is a subscriber to the International Monetary Fund's (IMF) Special Data Dissemination Standards (SDDS), w.e.f. 1.1.1997 and is also currently in full observance of the SDDS. The SDDS requires subscribing countries to compile and release the quarterly GDP estimates with the timeliness of one quarter. The CSO started releasing the quarterly GDP estimates for the years 1996-97 onwards, w.e.f. 30.6.1999. The present time lag in the release of these estimates is 2 months, with the exception of Q1 GDP estimates, which have a time lag of 3 months.

2.15 The quarterly GDP data of India are compiled by broad industries, (1) agriculture, forestry & fishing, (2) mining & quarrying, (3) manufacturing, (4) electricity, gas & water supply, (5) construction, (6) trade, hotels, transport and communication, (7) financing, insurance, real estate & business services, and (8) community, social & personal services. The estimates are compiled, using the benchmark-indicator approach. The quarterly GDP estimates at constant prices are prepared by extrapolating the previous year's estimates with appropriate physical indicators. For obtaining the current price estimates, appropriate price indices are used. The quarterly GDP estimates are consistent with annual GDP data[5]. The CSO has plans to bring out quarterly GDP expenditures data by March, 2007.

State Domestic Product

2.16 The State Directorates of Economics and Statistics compile and release the estimates of gross and net state domestic product[6] (GSDP and NSDP), by economic activity and also the per capita NSDP, both at current and constant prices. The NSDP is usually referred to as the state income and the per capita NSDP, the per capita income of the state. These are the official estimates of state income. The estimates of GSDP and NSDP are compiled following income originating approach. Estimates of the supra-regional sectors (central government administration, railways, banking and communication) are compiled by the CSO and made available to all state governments. The base year for the constant price estimates of the GSDP and the NSDP is the same as that of the national accounts statistics series.

Input-Output Transactions Table

2.17 The CSO released its first Input-Output Transactions Table (IOTT) for the Indian economy for the year 1968-69. Subsequently, the CSO compiled the IOTTs at 5-yearly intervals for the years 1973-74, 1978-79, 1983-84, 1989-90, 1993-94 and 1998-99. The IOTT for the year 2003-04 is under preparation currently. The IOTTs are compiled at 115 sector level[7].

3. IMPLEMENTATION OF 1993 SNA IN INDIA

Current status of implementation

3.1 India is in Phase-3 Milestones of 1993 SNA at present, as the accounts for Government and the total economy, as well as for the public sector segment of non-financial and financial corporations are compiled. The CSO has plans to compile integrated accounts of all institutional sectors upto capital accounts by March 2007, which will enable the CSO to reach the level of Phase 4. There are, however, no immediate plans to compile financial accounts of all institutional sectors (Phase-5) and balance sheets (Phase-6)[8].

3.2 Some of the recommendations of the 1993 SNA which presently form part of the national accounts statistics of India are:

- valuation of non-market agricultural crops on the basis of prices of similar products made by market producers and their inclusion in the production boundary;
- inclusion of own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff;
- inclusion of premium supplements in respect of life and non-life insurance output estimates;
- inclusion of reinvested earnings of foreign direct investors in the rest of the world account. This treatment affects gross national product, saving and capital formation;
- imputed value of own-account labour treated as mixed income of self-employed;
- expenditures on mineral exploration treated as capital expenditure;
- allocation of financial intermediation services indirectly measured (FISIM) to the users of these services, as intermediate consumption to industries and as final consumption to final users;
- inclusion of expenditures on valuables, which are held as stores of value, and are treated as Gross Capital Formation;
- treatment of expenditures on software as Gross capital formation;
- inclusion of natural growth of livestock as Gross capital formation
- inclusion of expenditures made on few tree crops during the gestation period as Gross capital formation;
- addition of capital expenditure incurred on installing the wind energy systems in the Gross Fixed Capital Formation;
- estimation of consumption of fixed capital of all fixed assets including government buildings, roads, dams etc. through Perpetual Inventory Method (PIM);
- adopting the practice of changing base year every 5 years; and
- release of Tourism Satellite Accounts and the National Health Accounts by the respective nodal Ministries.

A brief status of implementation of 1993 SNA in India, vis-à-vis, the SNA recommendations, is presented in a table placed at **Annex-1.**

Impact of 1993 SNA on India's National Accounting System

3.3 Valuation of non-market agricultural crops: The CSO has been including the subsistence production of agriculture, livestock, forestry and fishing products in the output estimates, since beginning. The output of these products is measured on the basis of area under crops/livestock population, etc. and the relevant yield estimates generated through scientific sampling techniques. The valuation of these items is on the basis of prices of similar products made by market producers. Although these are to be valued at farm-gate prices, the prices used for valuation are generally those relating to the first point of transaction, which are the primary markets where the farmers take their produce for sale. Since this treatment is being followed since beginning, there is no additional impact in the GDP estimates on account of 1993 SNA. However, own account output of goods that are not made from primary goods for own final consumption is not included in output, due to absence of availability of such detailed data. Also, there are borderline issues of classifying these activities between goods and services. However, if the households sell part of their produce, then the entire output (sales plus own consumption) is included in the output.

3.4 Inclusion of own-account production of housing services by owner-occupiers: The CSO has been including the own account production of housing services in the form of 'ownership of dwellings' in the GDP estimates, also since beginning. The method followed is to estimate the number of residential dwellings and impute the output with the information available on rent per dwelling (separately for rural and urban areas) from the Consumer Expenditure Surveys. There is no additional impact on account of 1993 SNA in this regard.

3.5 Own account production of domestic and personal services produced by employing paid domestic staff: The CSO includes these in the production boundary. The estimates of value added of these services are prepared using the estimated labour force in the activity and the data on wages paid to 'employed persons' by the households. This activity contributes to about 0.1 per cent of GDP.

3.6 Inclusion of premium supplements in respect of life and non-life insurance output estimates: The value of output of insurance activity is estimated according to the procedure outlined in 1993 SNA, taking into account (a) the actual premium earned (b) income from investment of insurance reserve (equivalent to premium supplements) (c) less claims which become due for payment during the accounting period (d) less change in actuarial reserves and reserves for with-profits insurance. This procedure has been estimated to result in a revision of GDP estimates by about 0.2 per cent.

3.7 Issue department of RBI: In the case of Reserve Bank of India (RBI), the activities of Issue Department is considered more akin to the administrative activities of the government and is therefore included in the producers of government services. The banking department of the Reserve Bank of India is treated as banking activity and FISIM is accordingly estimated and allocated to user industries and final users.

3.8 Inclusion of reinvested earnings of foreign direct investors in the rest of the world account: The Estimates of reinvested earnings of foreign companies, a component of foreign direct investment (FDI) in India has been excluded from the saving of private corporate sector and included in the property and entrepreneurial income from the rest of the world. The same, now, forms part of net factor income from the rest of the world, in the new series of national accounts, base year 1999-2000. As a result of this procedure, the gross national product, saving and capital formation estimates have undergone change. The GNP (GNI) has been revised downwards by about 0.15 per cent, as India has negative net factor income from abroad.

3.9 Imputed value of own-account labour treated as mixed income of self-employed: The CSO has been showing mixed income of the own account labour separately in the income estimates of GDP. The mixed income is the third category, besides the compensation of employees and the operating surplus in the gross domestic income estimates. The mixed income/operating surplus component of the unorganized sector is about 40 per cent of NDP, whereas the compensation of employees is about 48 per cent and the rest 12 per cent of the NDP is the operating surplus of the organized sector.

3.10 Expenditures on mineral exploration treated as capital expenditure: The CSO has been including the expenditures made on mineral exploration as capital expenditures since a long time. Since this activity is mostly in the public sector, the annual reports of public undertakings and the budget documents of centre and States provide the data on expenditures on mineral exploration.

3.11 Financial intermediation services indirectly measured: The CSO has also been allocating the FISIM to the user industries, since a long time. The FISIM which forms component of financial sector output is partly treated as intermediate consumption of industries and partly as the final consumption of government and the households. For determining these proportions, the basic data on loans and deposits relating to enterprises and consumers are used. These are taken from the same source material from which value added is estimated. The proportions of imputed service charges so worked out for different economic activities are treated as a separate input item in the respective sectors. In the case of households and government, such charges are considered as an item of private and government final consumption expenditure. Prior to 1999, FISIM was being allocated to only few organised segments of user industries and final consumers. However, FISIM is being now allocated to all user industries in line with the recommendations of the 1993 SNA.

3.12 Valuables: The CSO presently includes valuables, such as precious articles with HS codes 7102 (diamonds), 7103 (other gems and stones), 7106 (silver), 7108 (gold), 7110 (platinum), 7113 and 7114 (gold and silver ornaments), keeping in view the data availability, under the estimates of capital formation, separate from the gross fixed capital formation (GFCF) and change in stocks. Since industry/sector-wise estimates of expenditures on valuables are not available, the estimates of valuables are compiled from the output/ availability side. The total production of valuables and net imports are taken into account for compiling the estimates of valuables. The 'valuables' account for about 0.5 per cent of GDP. However, expenditure on entertainment, literary or artistic originals is not included in GCF, due to lack of availability of such data.

3.13 Software: In the estimates of overall gross fixed capital formation of the country estimated through the commodity flow method, the domestic consumption part of the output of software by the enterprises is capitalized, as per 1993 SNA treatment. This is of the order of 0.3 per cent of GDP. Major part of the software output is exported. However, expenditure on software development on own account is not capitalized due to lack of availability of such data.

3.14 Natural growth of livestock and cultivated assets: In the case of livestock, increment in livestock has always been part of the output as well as gross capital formation (in respect of certain animals, the output is capitalised) in the Indian national accounts. However, for livestock reared for food, no work-in-progress is recorded. The output is measured in terms of livestock products, such as meat and meat by products. Also, expenditures made on three plantation crops during their gestation period was included as output and capital formation. Recently, changes were made to include the expenditures made on 7 additional tree crops in both the output and gross capital formation. However, their effect in overall GDP is less than 0.02 per cent.

3.15 The CSO also compiles estimates of consumption of fixed capital (CFC) through the Perpetual Inventory Method (PIM) based on the long time series data of GFCF. The CFC is calculated for all fixed assets including government buildings, roads, dams etc.

3.16 The government defence expenditures on fixed assets that can be used for civilian purposes are capitalized to the extent detailed data is available. Expenditures on dwellings and other construction activities are taken into account in the capital formation estimates.

3.17 Chain base: Presently, the CSO does not compile constant price estimates using chain base procedure. However, the current base year of national accounts statistics has been revised after a gap of 7 years. In future, it is planned to revise the base years of national accounts, once in every five years.

3.18 Un-funded social contributions: As per 1993 SNA, for unfunded defined benefit government employer pension schemes, in the absence of employer imputed pension contributions based on actuarial basis, one may use the unfunded pension benefits payable by the employer during the same accounting period as an estimate. Following the SNA, in the Indian context, the actual pension payments are taken as an estimate of imputed pension contributions of the employer, since beginning. As such, currently the government employers unfunded retirement pension contributions are imputed. However, no imputations are done in respect of other unfunded defined benefits, such as post retirement medical benefits, etc. in respect of under-funded private employer retirement schemes, administered by quasi-government corporations.

3.19 Foreign workers' remittances: These are treated as transfers and therefore, not included in the GNP/GNI. In practice it is very difficult to distinguish between workers who are only temporarily away from India (which should be treated as Indian residents) and those that remain abroad for more than one year (these workers are economically nonresidents). The foreign workers' remittances are, however, part of the disposable income of the nation.

3.20 Valuation: Both output and value added are measured at factor cost by industries, currently. However, beginning with this year, the data are being presented in basic prices by industries. The overall GDP estimates will also be presented by producers' prices, in addition to the current practice of presenting GDP expenditures at purchasers' prices.

3.21 Government final consumption expenditure data is presented by purposes as classified under COFOG, beginning with this year. The GFCE estimates would also be presented, separately by individual and collective consumption.

3.22 The private final consumption expenditure data would be presented by the purposes as per the classification COICOP, beginning with this year. Also, the actual final consumption expenditure data would be presented.

3.23 The production boundary of Indian national accounts is close to the 1993 SNA recommendations, with the exception of illegal output being sold to willing buyers. However, illegal output is possibly captured indirectly through the labour input method, which ensures exhaustiveness of GDP measure.

3.24 The asset boundary of the Indian national accounts is also close to 1993 SNA, with the following exceptions:

tangible assets

- some of the defense related assets that could be used for civilian purposes
- historical monuments (however, since their ownership rarely changes, it is not really material).

intangible assets

- own account software and databases
- entertainment, literary or artistic originals, patented entities, leases and other transferable contracts. These are in principle included by the CSO, but lack of data on such expenditures limits the coverage.

3.25 Recording of transactions: Most transactions are recorded on an accrual basis, but all government operations and nearly all transactions with the rest of the world are recorded on a cash basis.

Plans for implementing 1993 SNA

3.26 The CSO plans to implement the key 1993 SNA features of supply-use tables, integrated economic accounts consisting of sequence of accounts (upto capital account) for all institutional sectors, total economy and the rest of the world, integrated set of economic accounts, cross classification of gross value added by industries and institutional sectors, by March 2007. Also, the final expenditures of private and government would be presented by functional classifications, COICOP and COFOG, by

March, 2007. India has plans to compile the accounts of non-profit institutions (NPIs) as per the guidelines provided in the UN Handbook on Non-Profit Institutions in the System of National Accounts, in a time-frame of 30 months. The current plans are to involve the State Governments to prepare a register of NPIs from the records of the regulating agencies, the Registrars of Societies in the States. Following this, a questionnaire seeking the financial information of the NPIs will be canvassed among the NPIs through the State governments. Based on the data collected in this survey, the accounts would be compiled using the NPI Handbook guidelines. In order to guide and monitor the program, a Task Force has been constituted with participation from the major stakeholders.

3.27 The IMF is providing Technical Assistance to the CSO in the form of providing training on 1993 System of National Accounts and overseeing the 1993 SNA compilations. The broad areas of 1993 SNA already implemented and the future plans on its implementation as well as the SNA update are summarized in Box below:

Box: Broad areas of 1993 SNA implemented in India

The production boundary and the asset boundary of India's national accounts are close to the 1993 SNA recommendations, with some marginal exceptions. The recommendations of 1993 SNA that have been implemented include valuation of non-market agricultural crops; inclusion of own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff; inclusion of premium supplements in respect of life and non-life insurance; inclusion of reinvested earnings of foreign direct investors in the rest of the world account; imputed value of own-account labour treated as mixed income of self-employed; allocation of financial intermediation services indirectly measured (FISIM) to the users of these services, as intermediate consumption to industries and as final consumption to final users; expanding the asset boundary by taking into account the expenditures on valuables, mineral exploration, software, natural growth of livestock and other cultivated assets; estimation of consumption of fixed capital of all fixed assets through Perpetual Inventory Method (PIM); adopting the practice of changing base year every 5 years; and release of Tourism Satellite Accounts and the National Health Accounts by the respective nodal Ministries.

India is in Phase-3 of the ISWGNA's six Milestones in the Implementation of 1993 SNA at present, as the accounts for Government and the total economy, as well as for the public sector segment of non-financial and financial corporations are compiled regularly. India has plans to compile integrated accounts of all institutional sectors upto capital accounts by March, 2007. India also has plans to compile expenditure data as per the functional classifications, COICOP and COFOG by the same time. This will bring Indian national accounts system to reach the level of Phase 4. India does not have any immediate plans to compile the accounts listed in Phase 5 and Phase 6 of the Milestones. India meets the ISWGNA's minimum requirement for implementation of the 1993 SNA, but falls short of recommended compilations in respect of (i) quarterly expenditures of GDP at current and constant prices, and (ii) annual supply and use tables.

India would also like to implement the 1993 SNA update as soon as possible. For this, the major data producers on fiscal, financial and external sectors, namely, the Reserve Bank of India and the Ministry of Finance would be consulted.

Challenges faced in implementing 1993 SNA

3.28 There are data gaps in India for the compilation of full set of national accounts as recommended in the 1993 SNA. Particularly notable in this regard are the absence of (i) detailed data on corporations, particularly on non-financial corporations, (ii) annual economy-wide enterprise surveys, with the exception of registered manufacturing sector, (iii) annual labour force surveys, (iv) income-expenditure surveys of households, (v) data on non-profit institutions serving households, (vi) data on local governments' income and expenditures, and (vii) detailed data on price indices suitable for adopting double deflation procedure. Also, India does not have a single, good-quality, and broad based business register of the larger producing units, which can provide a frame for sample surveys. The sample surveys are usually conducted using different sampling frames, such as villages and urban blocks, etc.

3.29 Due to the above limitations, and due to the presence of large informal sector[9], the CSO adopts various procedures and uses alternate data sets to compile various aggregates at industry/institutional sectoral level. For example, the firmer estimates of Gross Capital Formation are compiled through the financing side, as also from the commodity flow methods and expenditures made by industries. The three independent estimates are confronted and discrepancy is recorded with the firmer estimate coming from the financing side. Similarly, for many services sectors and the informal segments of various industries, benchmark estimates are initially compiled through labour input method, and for subsequent years, they are extrapolated with proxy physical indicators. For the non-financial corporations, various aggregates are compiled on the basis of sample companies' accounts, suitably adjusted for the exhaustive coverage. Although the CSO compiles GDP estimates from all the approaches, many aggregates are compiled through commodity flow methods or as residuals using the same set of basic data. There is a significant level of reliance on fixed ratios in those expenditure categories that depend on the commodity flow method: private final consumption expenditure and gross fixed capital formation. Also, the requisite details of indirect taxes and subsidies by products are generally not available, particularly in respect of VAT type taxes collected by different states, as well as in respect of the indirect taxes collected by local bodies. Due to non-availability of these details, indirect taxes at constant prices are compiled using proxy price deflators.

3.30 It is extremely challenging for the Indian national accountants to compile national accounts and provide a consistent description of the all-India economic processes, in the face of large data gaps and dissimilar information provided by the extensively decentralized (both lateral and vertical) statistical system. However, certain uniformity in procedures and concepts, such as the classifications followed, accounts of the companies, and the coding system of budget documents of central and state governments, make the tasks somewhat easier. Also, the central and state governments share the data produced by them and adopt the same sets of data for compiling the national as well as regional accounts.

3.31 Further, various procedures adopted to collect information from the large non-public segment of the economic activities, such as the Economic Censuses and the follow-up surveys based on the areal frame provided by the Economic Surveys, enable the CSO to compile a consistent set of value added estimates for various industries and also the accounts of some of the institutional sectors. The five-yearly labour force surveys also play a major role in the national accounts, as the data provided by these surveys is used for compiling the benchmark estimates of value added estimates of unorganized segments of industries.

3.32 The reasons for the country not having annual (or quarterly) economy wide surveys (surveys covering all economic activities/industries) are many. In the extensively decentralized statistical system, requirements for statistics is at national, regional and local level, for the purpose of planning and policy making, which is also largely decentralised. Therefore, surveys need to have large samples, so that data at detailed level could be generated at various levels of administration. This makes collection of statistics in a large country like India quite expensive and resource intensive, also in terms of manpower, as most data is collected through field investigators, rather than through postal enquiries or other means.

3.33 Despite the problems in the availaibility of detailed data required for implementing the 1993 SNA, the CSO plans to implement the same using the information available from the existing data sets. In this procedure, sometimes, estimates or accounts have to be derived as residuals or through commodity flow approach or using the same set of data for compiling different macro-aggregates. For example, some of the accounts of households including non-profit institutions serving households, would be derived as residual from the accounts of total economy. However, cross checks would be put in place, wherever possible to ensure the integrity and consistency of estimates and accounts, such as those mentioned above in the case of savings and capital formation estimates. Further, the supply-use table framework and the cross-classification of accounts by industries and sectors, would be expected to provide the requisite consistency in the 1993 SNA based national accounts compilations.

4. POTENTIAL IMPLICATIONS OF THE REVISED SNA

4.1 The CSO has faced and has been facing considerable challenges in implementing the 1993 SNA, as detailed above. It will be equally imposing to implement the revised SNA as and when the same comes into effect. Firstly, the data systems need to be modified to incorporate the details that are required for meeting the recommendations contained in SNA update. Secondly, the Reserve Bank of India and the Ministry of Finance who are the produces of key data on financial sector & external sector and fiscal sector, respectively need to be consulted, as a number of SNA update issues relate to these sectors. The SNA update issues which are linked to GFS, public sector accounting and BoP/merchandise trade, need to be examined by the respective nodal agencies in India for including the changes in their respective compilations. This could be a pre-requisite for incorporating the changes in national accounts, for the sake of consistency between various compilations in India. Following these, once the data becomes available, or if not by looking at the alternate datasets, the estimates need to be thoroughly scrutinized for consistency and integrity of the data. There would also be user consultations, as also consultations with the Advisory Committee on national accounts statistics[10]. However, the compilations would also eventually be seen in terms of the utility of having such detailed estimates from the point of view of policy planners.

4.2 The update issues have been examined in the CSO with the purpose of devising an implementation strategy in the short-term. These are indicated in the following table:

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
1.	Repurchase agreement	There should be no fundamental change to the SNA in the recording. However, some detailed changes are needed in the text.	It is possible to implement the changes, if any, in consultation with the RBI
2.	Employer retirement pension schemes	Discussions are still on in respect of (i) employer pension schemes run by private employers, (ii) distinction between pension schemes and social security schemes in respect of government employees	Pension liabilities have to be estimated using actuarial methods (for defined benefit pension schemes), which require demographic profiles of employees, pay ranges and discount rates to be applied. Work on these is actively being pursued in India. However, it would be necessary to get the implications recorded in GFS, before they find a place in national accounts
3.	Employee stock options	To be included as a form of compensation of employees in kind. There are also recommendations on valuation and timing of exercising options	This is not prevalent in large scale in India. However, It may be possible to obtain such details in business accounts by making some changes
4a. 4b. 38c	Non-performing loans Valuation of loans and deposits; Write-off and interest accrual on impaired loans Application of accrual principles to debt in arrears	It is proposed to continue to record loans at nominal values in the main accounts and to show interest accruing until a loan is repaid or cancelled by mutual agreement. However, it is proposed that the asset side of balance sheets also show the "fair" value of non-performing loans (NPLs), or, if this is not available, their nominal value less expected losses. In addition, interest receivable on NPLs should be shown as an "of which" item.	The RBI will be consulted for including these in their compilations on financial sector transactions. Balance sheet is not prepared for any institutional sector.

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
5.	Non-life insurance services	A number of recommendations have been made to improve the recording of output of insurance, to avoid volatility. Explicit guidance has been developed for the calculation of volume estimates of insurance output.	It will be possible to implement SNA update recommendations, although India has not faced any problems so far in recording these services as per 1993 SNA
6a. 6b.	Financial services Allocation of the output of central banks	The definition of a financial corporation is expanded to include the services other than intermediation. Specific guidance on deriving a volume measure of output has been developed. Separate establishments should be established for units of the Central Bank undertaking market and non-market production	It will be possible to follow SNA update. The issue and banking depts. of Reserve Bank of India are already treated as non-market and market producers, respectively at present in the national accounts
7.	Taxes on holding gains	Taxes on holding gains will continue to be shown as current taxes on income and wealth. Where possible and relevant, they should be shown as a separate sub-category.	Although such details are not separately available in the budget documents, it would be possible to collect data from concerned tax authorities
8.	Interest under high inflation	This section will be re-written drawing on material in chapters 1-6 of ***A Manual on Inflation Accounting*** which deal with the problems caused by inflation in the goods and services accounts.	This issue does not concern India
9. 10.	Research and development Patented entities	Research and development, excluding freely available R&D should be treated as gross fixed capital formation in the SNA; defined as in Frascati manual. With the inclusion of R&D, patented entities will not be separately identified and will be subsumed into R&D assets.	More details need to be introduced in surveys and annual accounts, to separately identify R&D expenditures
11.	Originals and copies	As in the case of software, originals should be treated as assets, if they satisfy other conditions. Recommendations have been made in respect of “licences to use” and “licences to reproduce”.	Same as above
12.	Databases	The non-financial asset category “computer software” is to be changed to “computer software and databases” with a subsequent breakdown between software and databases. All databases holding data with a useful life of more than one year are fixed assets. Both databases created on own account and those for sale are included if they meet this criterion. However, they are valued differently.	It is possible to collect information on databases purchased. However, identification of own account development of databases, which satisfy the conditions of asset, may be difficult. Separate items need to be included in the accounts of enterprises.
13.	Other intangible fixed assets	The category will be retained but will be renamed as “other intellectual property products”.	--

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
14.	Cost of ownership transfer	Costs of ownership transfer on acquisition of an asset should be written off over the period the asset is expected to be held by the purchaser rather than over the whole life of the asset. Costs of ownership transfer on the disposal of an asset, and also terminal costs (for example dismantling costs) should also be written off over the period the asset is held but recorded when they are actually incurred. When this recommendation on terminal costs cannot be followed for lack of adequate data, these costs should stil be recorded as gross fixed capital formation but written off as consumption of fixed capital in the year of acquisition. Installation and de-installation costs should be included in the costs of ownership transfer when they are separately invoiced and in the purchaser's price of the asset otherwise.	The acquisition costs of assets include the costs on ownership transfer and other terminal costs. The CFC for costs on account of ownership transfer is not separately calculated. It will be difficult to obtain such details as well as those on terminal costs, unless specific details are sought in the accounts.
15.	Cost of capital services: production account	A new chapter will be added to the 1993 SNA Rev 1 explaining the role and appearance of capital services in the system and stressing the desirability of calculating capital services, capital stock and consumption of fixed capital in an integrated and consistent manner.	----
16.	Government owned assets	A return to fixed capital owned and used by non-market producers should be included in the estimation of the output of those producers in addition to estimates of consumption of fixed capital. For the rate of return, it is suggested to use the expected real rate on government bonds if necessary supplemented by other indicators of the cost of borrowing to government.	It is possible to implement this recommendation. Some of the data sets that could be considered for this as a proxy are the debt service charges paid by government.
17.	Mineral exploration	A distinction will be maintained between the act of exploring for mineral deposits and the mineral deposits themselves. The terminology for exploration will be changed to "mineral exploration and evaluation" to match the IASB. Clarification of the existing text will be added to make it clear that the item is valued at market prices, if purchased or at the sum of costs plus an appropriate mark-up if undertaken on own account. The default valuation for mineral deposits is the present value of future receipts of resource rent. Payments by the extractor to the owner of the deposits corresponding to a share of the resource rent should continue to be shown as property income even if they are described as taxes and treated as such in government accounts.	It is possible to implement the recommendations in respect of exploration. Since balance sheet is not compiled, the non-produced asset part will not be covered.
18.	Right to use/ exploit non-produced resources between residents and non-residents	Notional resident units are to be created when a non-resident unit: is the legal owner of land; has a financial lease on a building or other immovable structure; or has a licence to extract natural resources over a number of years.	It should be possible to implement this recommendation, when such a situation arises.

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
19.	Military weapons	All expenditure by the military which meets the definition of being used in production over a period in excess of one year will be treated as capital formation, regardless of the nature of the expenditure or the purpose intended for it. All equipment will be treated as GFCF except for consumables which will be treated as inventories. Separate items will identify weapons systems within fixed capital formation and military inventories apart from other inventories.	Possible to implement to the extent details are available in the budget documents
20.	Land	In future land improvements will be shown not only as GFCF but as a produced asset distinct from natural land. Costs of ownership transfer on land should be treated as fixed assets and included with land improvements.	India treats the costs on land improvements as construction output and GFCF.
21.	Contracts and leases of assets	Documentation of all aspects of contracts, leases and licences and the sorts of recording in the accounts they give rise to is under preparation	---
22.	Goodwill and other non-produced assets	the category of "purchased goodwill" will be changed to "purchased goodwill and marketing assets". Entries will continue to be recorded only when the value of such entities is evidenced by a sale but the possibility of a marketing asset being sold independently of the sale of the entire enterprise is noted.	No information is available at present on purchased goodwill. It might be difficult to collect data on these.
23.	Obsolescence and depreciation	It is agreed that the prices in question should be the prices of an asset of constant quality. The text of the 1993 SNA is to be expanded to describe the consequences of this clarification.	Possible to implement
24.	Build-own-operate-transfer (BOOT) schemes	The clarification on whether the private or public partner is the economic (as opposed to legal) owner of the assets in question should be provided in an annex in the SNA Rev.1. Placing the material there will allow the annex to be updated separately from a generalised update if and when more specific guidance emerges from IPSAS or for any other reason, it is decided that a more specific set of guidelines for how PFIs are to be recorded within the SNA is appropriate.	This issue is important in India, as several special purpose vehicles (SPVs) are created to execute works on behalf of the government for use by public. It would be possible to implement the recommendations

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
25a. 25b. 25c. 25d 25e	Ancillary units Holding companies, special purpose entities, trusts; Treatment of multi-territory enterprises; Non resident unincorporated units Non resident SPEs controlled by government	• If separate accounts are readily available, or if it is in a geographically different location from the establishments it serves, it may be desirable and useful to consider it as a separate unit • In future, holding companies will all be treated as "other financial intermediaries"; Resident SPEs will not be treated as separate institutional units; Trust funds and investment funds that are created as legal entities, even without employment, should be treated as institutional units. • It is agreed that the SNA and BPM will stay aligned in this as in other areas. The treatment of multi-territory enterprises will be relaxed to cover other types of activities. The transactions of multi-territory enterprises operating in zones of joint sovereignty or joint jurisdiction will be prorated to the territories concerned using criteria to be specified in the BPM. • The list of criteria should be taken to be indicative and a unit may be treated as a notional resident unit even if not all criteria are met.	Implementation of some of these recommendations, like those relating to the ancillary units is possible, while few of these issues may not be relevant to India
26.	Cultivated assets	The proposed change to the definition of cultivated assets will bring it in symmetry with the definition of uncultivated assets.	---
27.	Classification and terminology on assets	Changes in the classification of nonfinancial assets in the 1993 SNA, and changes in the items appearing in the other changes in assets account	---
28.	Amortization of tangible and intangible non-produced assets	the present treatment of showing the decline in the value of non-produced asses in the other changes in assets account will be maintained.	---
29.	Assets boundary for non-produced intangible assets	The treatment of the securitisation of future government receipts was agreed as part of the discussion of issue 25, units in particular, SPEs controlled by government. It is proposed that the category of assets "other intangible non-produced assets" should be dropped.	---
30.	Definition of economic assets	The definition of an asset in the 1993 SNA is not adequate to deal with newly emerging issues such as the inclusion within the asset boundary of financial derivatives and more concentration on the responsibility for risk in relation to determining ownership of assets. A modification of the definition was discussed at the AEG meeting in February 2006.	---
31.	Valuation of water	Under discussion	---

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
32.	Informal sector	Under discussion	It is possible to compile accounts for informal sector, as a subset of household sector, as and when a definition and coverage of informal sector is finalized. The present enterprise surveys provide information on various characteristics, such as employment size, registration, maintenance of accounts, etc., due to which it is possible to identify enterprises/establishments in informal sector.
33.	Illegal and underground activities	The publication of the Non-observed Economy handbook will be referred to and some examples quoted in the update.	We agree and it should be possible to ensure exhaustiveness in GDP estimates
34.	Super dividend, capital injections and reinvested earnings (government transactions with public corporations (earnings and funding))	Treatment of exceptional payments from public corporations should be changed and also recorded as withdrawals from equity because these also must be made from accumulated reserves or sales of assets. Exceptional payments from government to public corporations are recorded as capital transfers.	This is an important issue in the national accounts compilation of India. It should be possible to implement the SNA update recommendations
35.	Tax revenues, uncollectible taxes, and credits (recording of taxes)	• The matter relating to definition and coverage of taxes is still being discussed in the context of leases and licences • In general taxes are to be recorded as accruing when the taxable event to which the tax relates occurs. • whole amount of the tax credit be recorded as government expenditure as well as noting the amount of the tax credit drawn back in tax paid. This would then allow comparison to be made with presentations on a net basis, where only the excess of the payable tax credit over the tax liability is shown.	It may be difficult to get information on taxes on accrual basis, when the government accounting is on cash basis. The inclusion of such data in GFS would help in including the changes in national accounts
36.	Private/public/government sector delineation (sectorization boundaries)	Details to be provided by TFHSPSA will be added to the SNA text.	Guidance on this is most helpful in the accounting of SPVs and NPIs, particularly in the context of treating them as non-market producers.

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
37.	Activation of guarantees (contingent asset) and constructive obligation	It is proposed that three classes of government guarantees (guarantees provided by means of a financial derivative, standardized guarantees, one-off guarantees) be recognized.	To be examined in consultation with RBI
38. 38a. 38b.	Transaction concept Change of economic ownership (as term) Assets, liabilities and personal effects of individuals changing residence ("migrant transfers")	The appropriate decisions on ownership and the choice of which balance sheets reflect the holding of the asset is still under discussion Changes be recorded in the other changes in volume of assets account than as capital transfers.	To be examined in consultation with RBI
39.	Residence a. Meaning of national economy b. Predominant center of economic interest (as term); c. Clarification of non-permanent workers and entities with little or no physical presence	• It is agreed that greater precision is needed for the definition of "national economy" and care taken in the use of the word 'domestic, especially given the time-sanction use of gross domestic product as a measure of activity within the national economy. • it is agreed to identify the most significant of these connections and to refer to this as the country where there is a predominant centre of economic interest. • Consistent with the recommendations under issue 25d, it is accepted that a unit may be established in an economy even though it may have little if any physical presence. • A new term of "personal transfers" will replace "workers' remittances". In addition, a term "personal remittances" would be introduced as a supplementary item consisting on the receipts side, of personal transfers, as just defined, plus compensation of employees earned abroad, current transfers payable by other institutional units to households and current transfers from any institutional unit to NPISHs. Two other cases relating to residence were clarified (students.ship workers and migration of a company).	---
40.	Goods sent abroad for processing	Recording of imports and exports should follow a change of ownership recording	These are now accounted on gross basis. If any change is proposed, the merchandise trade data needs to be reconciled with BoP data.

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
41.	Merchanting	goods acquired by global manufactures, wholesalers and retailers and those cases of commodity dealing being settled in the commodity should be recorded as negative exports on acquisition and positive exports on disposal. The difference between the two appears in exports of goods (consistent with the goal of a zero global balance on goods) but appears as the production of a service in merchant's economy,	This is not prevalent in large scale. Transactions of such activities will be covered in BoP. Detailed information may not be available on goods acquired and disposed for the RBI to include them in BoP.
42.	Retained earnings of mutual funds, insurance companies, and pension funds	It is recommended that the SNA adopt the concept of an "investment fund" which would include mutual funds but not pension funds or money market funds. For these funds there would be a distribution of property income to the shareholders in the fund with subsequent reinvestment in the fund. New categories of property income payable and receivable would be introduced, distinguishing dividends distributed to, and retained earnings attributed to investment fund shareholders. In addition, a new financial asset category, "investment fund shares" will be introduced and will cover the reinvestment of the distributed income (as well as purchases and sales of mutual fund shares).	Value added of asset management companies is included in the banking sector, and the saving of mutual funds is treated as saving of the investors.
43.	Interest and related issues a. Treatment of index linked debt instruments; b. Interest at concessional rates; c. Fees payable on securities lending and gold loans	• It is recommended that the principle underlying the calculation of interest in the case where a potentially volatile index is used should be changed. In this case, the amount of interest due each period should be calculated by reference to the expected redemption value of the instrument and not subsequently revised. For an instrument indexed to a broad based index, interest due each period should be calculated by reference to the movement of index to date. • When a debt instrument has both the principal and coupons indexed to a foreign currency, the debt instrument transactions relating to both principal and coupon should be calculated by reference to the foreign currency, even if the currency of settlement is different. • The recommendation is that this item be added to the research agenda and pending resolution the impacts of concessional loans should be shown in supplementary tables • It is proposed that all fees payable to the owners of securities used for securities lending and to the owners of gold used for gold loans (whether from allocated or non-allocated gold accounts) be recorded by convention as interest.	To be examined in consultation with RBI

S.No	Issue	Recommendations/discussions in brief	Implementation Strategy/concerns
44.	Financial assets classification	• It is proposed that unallocated gold accounts should be treated as financial assets and liabilities and classsified with deposits in foreign currency.. Allocated gold accounts would continue to be treated as valuables or inventories as at present. It is proposed to treat SDRs as being a liability of countries receiving the allocations and to record allocation and cancellation of SDRs as transactions. The asset and liability aspects of SDRs will be recorded separately • The distinction between deposits and loans will be maintained but greater detail will be provided on how the distinction can be made, especially in connection with transactions between financial institutions. It is not proposed to change the guidance on traded loans. • It is proposed to change the terminology of this items to "debt securities". • It is proposed to make a distinction between options and forwards and to show employee stock options separately	To be examined in consultation with RBI

4.3 In respect of SNA update issue no. 32, the work done by the Delhi Group (Expert Group on Informal Sector Statistics) constituted in 1997, is of considerable relevance. The Delhi Group under the Chairmanship of Secretary, Ministry of Statistics and Programme Implementation, Government of India was set up primarily to operationalise an international definition of informal sector in the light of country experiences in implementing the standards and recommend a minimum data set for Informal Sector Statistics, especially for the purpose of national accounts compilation. The Delhi Group held so far nine meetings and has been working in close collaboration with the International Labour Organisation (ILO). The Group has so far been able to document country experiences in measurement of Informal Sector & Informal Employment, develop a harmonized definition of the informal sector to obtain international comparability (based on the 15th ICLS resolution), and dwell on the concept of informal employment and informal economy. As a follow up of the recommendation of the Group, the ILO has initiated the preparation of a comprehensive Manual on Surveys of Informal Employment and Informal Sector. The draft manual is expected to be discussed in the next Delhi Group meeting scheduled to be held in Geneva (ILO will host the Meeting) in 2007.

4.4 The Delhi Group, while observing that informal sector manifests itself in different ways in different countries, and that the national definitions of the informal sector can not be fully harmonised, recommended that international agencies should disseminate informal sector data according to the national definitions used. In order to enhance the international comparability of informal sector statistics, the Delhi Group adopted following recommendations:

- All countries use the criteria of legal organisation (un-incorporated enterprises), of type of accounts (no complete set of accounts) and of product destination (at least some market output).
- Specification of the employment size limit of the enterprise in national definition of the informal sector is left to the country's discretion. For international reporting, however, countries should provide figures separately for enterprises with less than five employees. In the case of multiple-establishment enterprises, the size limit should apply to largest establishment.
- Countries using the employment size criteria provide disaggregated figures for enterprises, which are not registered, as well as for enterprises, which are registered.
- Countries using the criterion of non-registration provide disaggregated figures for enterprises with less than five employees as well as for enterprises with five and more employees.
- Countries, which include agricultural activities, should provide figures separately for agricultural and non-agricultural activities.
- Countries should include persons engaged in professional or technical activities if they meet the criteria of the informal sector definition.
- Countries should include paid domestic services unless these are provided by employees.
- Countries should follow paragraph 18 of the Resolution adopted by the 15th ICLS regarding the treatment of outworkers/home-workers. Countries should provide figures separately for outworkers/home-workers included in the informal sector.
- Countries covering urban as well as rural areas should provide figures separately for both urban and rural areas.
- Countries using household surveys or mixed surveys should make an effort to cover not only persons whose main job is in the informal sector, but also those whose main job is in another sector and who have a secondary activity in the informal sector.

4.5 The SNA update also includes a proposal for a new text in the 1993 SNA on the informal sector. There are some differences in the concepts and definitions of *informal sector* between the ICLS/Delhi Group and 1993 SNA, particularly with reference to terminology, market production, production for own account consumption, compilation of aggregates/accounts and the household enterprises. However, there is considerable amount of commonality between the two, which should enable the SNA update and the proposed ILO Manual on informal sector (and informal employment) to come closer as far as national accounts compilation is concerned. In the Indian context, based on certain operational definitions of informal sector, it was demonstrated[11] that it would be possible to compile separate accounts for the informal sector, under the 'unorganised' sector of Indian economy.

5. CONCLUDING REMARKS

5.1 The Indian Statistical System is broadly decentralised (subject-wise as well as state-wise), in accordance with the federal nature of the system of government in the country. The responsibility for collection and compilation of data in respect of various data categories lies with the respective administrative Ministries and the State governments. Therefore, data collected by this decentralized system may not be adequate for the compilation of national accounts as recommended by 1993 SNA. Further, collection of data in India requires large sample sizes and is resource intensive, as results are to be released at State and sometimes at district level, in sufficiently disaggregated levels.

5.2 Despite the challenges faced in the compilation of national accounts, the CSO has been able to incorporate major features of 1993 SNA, particularly in respect of production and asset boundaries, and is able to meet the minimum requirements under 1993 SNA as well as most of the recommended tables. This has been made possible by looking into alternative data sets, such as data on labour force surveys, labour productivity data, administrative data, results of other benchmark surveys, and type studies. By using alternative data sets and innovative procedures, the CSO has been able to put up a consistent set of macroaggreatges, with the discrepancies between estimates compiled through different approaches being relatively negligible.

5.3 The CSO plans to implement the 1993 SNA by March, 2007. The IMF has provided technical assistance to India in the form of training the national accountants on 1993 SNA. The IMF would also oversee the 1993 SNA compilations. Also, in building up the implementation strategy in India for the 1993 SNA, the IMF's Report on Observance of Standards and Codes (ROSC) has been of considerable help. India would also like to implement the 1993 SNA update as soon as possible, in consultation with the other major data producers in India, namely, the Reserve Bank of India and the Ministry of Finance.

Notes

[1] India's Metadata pages are available at http://dsbb.imf.org/Applications/web/sddscountrycategorylist/?strcode=IND

2 The PFCE data is compiled through commodity flow approach. One of the reasons for this is the non-availability of data on NPISHs.

[3] Consists of companies registered under the Companies Act.

[4] RBI is the Central Bank of India. The RBI compiles data on financial and external sectors

[5] The CSO does not release seasonally adjusted data

6 The consistency between SDP estimates and national level estimates is largely ensured through exchange of data, application of uniform methods, annual discussions and annual trainings provided to state income compilers

7 The next IOTT planned will be for 132 sectors.

8 The Indian national accounts statistics cover all tables and accounts that the ISWGNA has defined as a minimum requirement for implementation of the 1993 SNA, but not yet all those whose compilation the ISWGNA has recommended. The SNA 1993 tables and accounts whose regular publication the ISWGNA recommends, and the ones missing in Indian national accounts are: (i) quarterly expenditures of GDP at current and constant prices, and (ii) annual supply and use tables.

9 The unorganized sector contributes to over 55 per cent of India's GDP, of which about 20 per cent is from the agriculture sector.

10 The Advisory Committee on National Accounts is headed by an eminent economist and comprises academicians and officials of important data producer and user departments.

11 Contribution of informal sector, excluding primary sectors, is estimated at 22% in the net domestic product, during 2001-02.

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Annex 1

Status of implementation of 1993 SNA in India

Items	1993 SNA recommendation	Status of implementation in the Indian NAS
Production boundary	Illegal activities to be accounted for	Due to the various approaches followed for compiling GDP estimates depending upon the availability of data in different industries/sectors, exhaustiveness of GDP measure is ensured through labour input method (LIM). It is likely that these activities are included in the production boundary through indirect methods, such as workforce and a proxy labour productivity estimate for the residual categories. However, smuggling and other explicit illegal activities are not directly covered
	Production of goods within households for own-consumption	Agricultural products, including those under kitchen garden are included Manufactured goods are not included
Assets Boundary	Entire expenditure on mineral exploration to be treated as capital formation	Implemented from 1960-61

	Expenditure on software	Estimated through the commodity flow method and allocated to different sectors. However, own-account software and databases are not included
	Government defence expenditure on fixed assets other than weapons and their means of delivery	Only the dwellings for the military personnel are included
	Valuables	Estimate compiled through commodity flow approach and included under the Gross Capital Formation
	Entertainment, literary or artistic originals	Not implemented due to data problems
	Charging CFC on Govt. fixed assets	Implemented from 1980-81
Institutional sector classification and accounts		
	Sequence of Accounts have to be compiled for five broad institutional sectors, namely, non-financial corporations, financial corporations, general government, households, non-profit institutions serving households and rest of the world (ROW)	Accounts are prepared only for the public sector (Administrative departments, departmental commercial undertakings and non-departmental commercial undertakings), which correspond to general government and government owned part of non-financial and financial corporations according to 1993 SNA, and rest of the world. Accounts are now being attempted for general government, financial corporations, public non-financial corporations, rest of the world and the entire economy.
Production account	Uses and resources of GDP by institutions /activity/IOTT	Prepared for public sector and total economy; IOTT is also compiled. Accounts are now being attempted for all institutional sectors, as also the cross-classification of industries and sectors
Income and appropriation account	Distribution of national income by institutions and its appropriation	Income-outlay account of public sector only; national disposable income and its appropriation for the whole economy. These accounts are now being attempted.
Accumulation account	Capital account, financial account, other changes in volume of assets account, revaluation account	Capital finance account for the public sector and the whole economy, capital formation and saving are estimated. Capital accounts of all sectors are being attempted at present.
Commodity flow and balances	Supply-use table and IOTT	IOTT – industry X commodity, once in 5 years. Supply-use tables are planned in the next one year.
Balance sheets	To be compiled as part of integrated accounts	Not compiled
Natural resources account	Recommended as satellite accounts	Not compiled
Tourism satellite account	-do-	compiled
National health accounts	-do-	compiled

Social accounting matrix	Recommended	Only IOTT is compiled
Valuation	Output and value added are to be valued at basic, producer's and purchaser's prices	value added data are presented at factor cost and market prices. Estimates at basic prices will shortly be released
Time of recording		
Crops	Cultivated natural growth to be included in output, as work-in-progress and gross fixed capital formation over the entire period of their growth process.	Partly included
Livestock	livestock raised for food are to be treated as work-in-progress until slaughtered. Furthermore, entries are to be recorded for own account production as animal grows.	Partly included
Speculative constructions	The speculative construction to be shown as part of inventories until the ownership has been transferred to the eventual user of the asset. Hence it should not be treated as gross fixed capital formation until that time. Output remains part of the work in progress of the institutional unit producing the asset until sold. In this way, consistency will be maintained between the financing of the activity and the production. However, construction for own-use or work completed under contract of sale is to be included as gross fixed capital formation as work is put in place.	As far as speculative constructions are concerned, these are treated as gross fixed capital formation, since the estimates of the asset – construction, are compiled in India by the commodity flow approach. The treatment suggested for own-account construction or work completed under contract of sale is being followed for all building and construction activity in the Indian NAS.
Transactions	All transactions to be recorded on an accrual basis in order to reflect the time when the transactions occurred rather than when it may be paid for.	In the NAS, transactions are recorded in the mixed way, in that the accounts of the companies are kept on accrual basis whereas the government transactions are on cash basis.
Classification of expenditures	COFOG, COICOP, COPP and COPNI to be compiled.	COFOG and COICOP are under compilation for the first time and are due for release shortly. COPP and COPNI are not compiled in the NAS. Also actual final consumption expenditure estimates will also be released shortly.
Others		
Output of insurance	Premium supplement to be included in the output of insurance	Implemented
FISIM	Distribution to industry and final users	Allocated to user industries and final users.

Mixed income	The return to both labour of self-employed and capital for unincorporated enterprises owned by households to be termed as 'mixed income'.	Implemented
Statistical discrepancy	No statistical discrepancy; emphasis on classification, simplification and harmonisation	Statistical discrepancy is recorded; supply-use tables are not compiled.
Estimates at constant prices	For full system of national accounts	Major aggregates only. Disposable income and saving are prepared only at current prices
Chain volume measures	Constant price estimates are also to be prepared by chain volume measures	No chain linking is done. The estimates are available at fixed base year (current base 1999-2000)