INTRODUCTION

1. BACKGROUND

1.1 The Central Statistics Office (CSO) of the Ministry of Statistics and Programme Implementation (MoSPI) brings out annually, the publication National Accounts Statistics (NAS). This publication presents the estimates of National Product and its utilisation in the form of current consumption and capital formation; accounts of the public sector and consolidated accounts of the nation.

1.2 Presently, the NAS incorporates the estimates of gross domestic product (GDP) compiled through all the three approaches, namely, the production approach, expenditure approach and the income approach. While the level of GDP estimated through the production and income approaches are the same, the discrepancy between the production approach GDP and the expenditure approach GDP is recorded separately under the GDP expenditure components. The NAS also incorporates the consolidated accounts of the nation alongwith the accounts of the public sector.

1.3 The compilation practices of NAS broadly follow the United Nations System of National Accounts, 1968 (UNSNA 1968) and its subsequent version, the System of National Accounts, 1993 (1993 SNA), which was brought out jointly by the five international organizations, United Nations, World Bank, International Monetary Fund (IMF), Organisation for Economic Cooperation and Development (OECD) and the European Union. In the NAS, the production boundary and the asset boundary adopted is similar to that recommended in the 1993 SNA.

1.4 Although 1993 SNA recommends compilation of sequence of accounts (current accounts, accumulation accounts and balance sheet) for all the institutional sectors (non-financial corporations, financial corporations, general government, households and non-profit institutions serving households (NPISHs)), it has been possible to construct only the following accounts and aggregates on the basis of data available:

(i) for the total economy, the sequence of accounts (current accounts; and of the accumulation accounts only the capital account and finance account, and the rest of the world account)
(ii) for the total economy, the social accounting matrix which depicts all accounts in a single matrix
(iii) for the institutional sectors (general government, households and NPISHs combined into one sector, financial corporations, non-financial corporations) only the production and generation of income accounts (of the current accounts)
(iv) for the general government and households (including NPISHs) sectors, the sequence of accounts upto finance account
(v) GDP at basic prices
(vi) Cross-classification of output and value added by industry
(vii) Cross-classification of value added by industry and institutions
(viii) Classification of the functions of the government
(ix) Classification of individual consumption according to purpose

2. SYSTEM OF NATIONAL ACCOUNTS (SNA)

2.1 The SNA is a set of macroeconomic accounts that provides a comprehensive view of a country's economy. The workings of the economy are recorded in balance sheets and tables called accounts that are integrated, coherent and consistent, based on internationally agreed concepts, definitions, and classifications and accounting rules. This is comprehensive, because as a framework it can accommodate a great mass of economic data, organized according to economic principles and perceptions of how economic activities are carried out by the different sectors and their relationships. It provides an adequate conceptual framework to be able to deal with emerging concerns and their relations with sectors of the economy. As an integrated system, the SNA applies the same concepts, definitions and classifications of all accounts and sub accounts. The accounts are presented from several points of view; that is as stock and flows, institutional units and establishment units, market output, output for own final use and other non-market output, consumption expenditure and actual consumption, whose definitions and classifications are linked into a coherent structure. The SNA is also internally consistent, which means that each economic flow or stock is measured identically for the units involved by applying the same concepts and definitions and also by using a single set of accounting rules for all entries in the system.

1993 System of National Accounts

2.2 The 1993 SNA has been designed/updated to deal with emerging issues such as the increasing participation of the services industry, and growing complexity of financial transactions and sophistication of financial instruments, etc. Since the SNA is expected to respond to issues which go beyond the production analysis, the accounts have therefore been extended to cover not only the production process but also the ensuing income from production being distributed to the different institutional sectors (households, government and NPISHs) who are the owners of the factors of production; the redistribution processes through transfers; and the linkages of economic flows to stocks. One of the important features of 1993 SNA is the emphasis given to institutional sector dimension, which allows users to look into their behavior and how transactions in each sector interact with those of other sectors. Thus, it requires that data be compiled not only of establishments that are grouped together as industries but also of institutional units, as well.

2.3 The other important features in 1993 SNA are:

- The Gross National Product (GNP) is replaced by the Gross National Income (GNI). The current Income and Outlay accounts are articulated with introduction of the primary and Secondary Distribution of Income Accounts and the Use of Income Accounts.
- Concept of "mixed income" for unincorporated enterprises is introduced and a clearer identification of market output, output for own use, and other non-market output, final consumption, has been provided.
- Inclusion in the production boundary of activities which are illegal by law.
- The treatment/allocation of financial intermediation services indirectly measured (FISIM) and other imputed output are adequately explained.

- The Accumulation Accounts which are comprised of the Capital Account, Financial Account, Other Changes in Asset Account and Revaluation Account, present explicitly the flows recorded in these accounts and, how these end up as stocks in the Balance Sheet.
- Satellite accounts are introduced to expand the analytical capacity of the SNA to meet the requirements of many users. Examples of which are the System of Environment and Economic Account and Tourism Satellite Account, among others.

Sequence of Accounts

2.4 The sequence of accounts as suggested in 1993 SNA, are grouped into three sub-accounts, (i) Current Accounts, (ii) Accumulation Accounts, and (iii) Balance sheet. The Current Accounts record (a) production of goods and services and (b) generation, distribution and use of income. Accumulation Accounts deals with changes in assets, liabilities and net worth. The Balance Sheet shows the stocks of assets, liabilities and net worth.

2.5 The SNA makes use of accounts to transform transactions and other flows into accounting entries for purposes of measurement. An account has two sides and the SNA uses the term resources for the right side of the Current Accounts, where transactions add to the value of a sector or unit. The left side of the account, which relates to transactions that reduce the value of a unit or sector, is named uses. For example, wages is a resource for the household sector that receives it and is a use for the financial or non-financial sectors that pay it. For the Accumulation Accounts and the Balance Sheet, the right side of the account is called changes in liabilities and net worth and their left side is called changes in assets. For financial transactions, changes in liabilities are recorded as net incurrence of liabilities and changes in assets as net acquisition of financial assets. As part of the sequence of accounts for the total economy, following set of accounts is presented for the period 2004-05 to 2008-09.

- Goods and Service Account
- Production Account
- Generation of Income Account
- Allocation of Primary Income Account
- Secondary Distribution of Income Account
- Use of Income Account
- Capital Account
- Financial Account

Goods and services account

2.6 The goods and services account (Account 0) shows, for the economy as a whole, (i) total resources (output and imports) and (ii) use of goods and services (intermediate consumption, final consumption expenditure, gross fixed capital formation, change in inventories, acquisition less disposals of valuables and exports). Taxes on products less subsidies are also included on the resource side of the accounts. This account is important as it is balanced globally between all uses and resources. The discrepancy is shown at the end of the account to have balance between all uses and all resources. This account also gives the GDP from the production and expenditure approaches.

Production Account

2.7 Production Account records all economic production (defined by the SNA as all activities carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital and goods and services to produce output of goods and services). A purely natural process without any human involvement or direction is not production in the economic sense, such as the growth of fish stocks in international waters. This account is compiled for establishments as well as for institutional sectors/units. For a better analysis of output, the Production Account distinguishes between the three types of output: market output, output for own final use and other non-market output. The balancing item (value added) is obtained by subtracting intermediate consumption from output. Value added may be gross or net of CFC. For the total economy, gross domestic product (GDP) is equal to the sum of the value added of the institutional sectors. If output is at basic prices then taxes less subsidies on products is added to the sum of the value added to obtain GDP at market prices. The concepts of various items appearing in this account are explained below.

2.8 Output consists of those goods and services that are produced within an establishment that become available for use outside that establishment plus any goods and services produced for own use. When an enterprise has more than one establishment, the output of the enterprise is the sum of the output of the component establishments. In valuing output, the preferred method is at basic price, although producer's price is used as an alternative when valuation at basic price is not feasible. The difference between these prices is the treatment of taxes less subsidies on products. Basic price is the price before taxes on product are added and subsidies on products subtracted. It excludes transport charges invoiced separately by the producer. Producer's price includes, in addition to basic price, taxes less subsidies on products other than value added tax (VAT). It excluded transport charges invoiced separately by the producer.

2.9 Intermediate consumption is the value of goods and services consumed as inputs in the process of production. The inputs are recorded at the time the goods and services enter production, as distinct from the time these are acquired by the producer. Intermediate consumption can be derived by subtracting the value of changes in inventories of materials and supplies from the value of purchases made. Changes in inventories of materials and supplies are equal to addition less withdrawals. These are valued at purchasers' prices prevailing at the time the transactions take place.

2.10 Consumption of fixed capital (CFC) is a cost of production. It is the decline during the accounting period in the current value of the stock of fixed capital owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage. It excludes the value of fixed assets destroyed by war or natural disasters. In order to be consistent with other entries in the Production Account, CFC is valued with reference to the same overall set of current prices as that used to value output and intermediate consumption. It is, therefore, calculated using actual or estimated prices and not at historic costs, i.e., at prices originally paid for them.

2.11 Gross value added is an unduplicated measure of output and is obtained by deducting from output, the value of intermediate consumption.

Generation of Income Account

2.12 This account is the first of the two sub-accounts that records the first step of the distribution of primary income (Primary incomes are incomes that accrue to institutional units as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production. They are payable out of the value added created by production. The primary incomes that accrue by lending or renting financial or tangible non-produced assets, including land, to other units for use in production, are described as property incomes). This account from the producer's point of view presents how its value added is distributed to the factors of labor and capital and to government by way of taxes (less subsidies). The Value added, which is the balancing item brought forward from the Production Account, is treated as a resource for the producer. Under uses, the payments to labor as compensation of employees (CE), and to government in the form of taxes less subsidies on production and imports are recorded. The balancing item in this account is operating surplus/mixed income. As in the case of Production Account, this account can be compiled for establishments by industry as well as for institutional sectors. The concepts of items appearing in this account are described below.

2.13 The item Compensation of employees (CE) is defined as total remuneration, in cash or in kind, payable by an enterprise to its employee in return for work done during the period. This is made up of:

a) wages and salaries payable in cash or in kind; and
b) social contributions payable by employers to social security/social insurance schemes for their employees.

Social contributions are actual contributions payable by employers to social security schemes or to a private funded social insurance scheme to secure social benefits for their employees; or imputed social contributions by employers providing unfunded social benefits in the form of children's spouse's, family, education or other allowances in respect of dependent; payments of wages or salaries for workers absent from work due to illness incapacity, accidental death, etc.

2.14 Taxes on production and on imports which are the income of government from production, consists of:

a) taxes on products payable on goods and service produced delivered, sold, transferred or otherwise disposed of by their producers which include the VAT, specific taxes, sales taxes and excise taxes.
b) taxes and duties on imports of goods and services; and
c) other taxes on production which include taxes on the ownership or use of land, buildings or other assets for production, taxes on payroll/labor employed, business and professional license fees, stamp taxes, etc.

2.15 Subsides are current unrequited payments that government units provide to producing units as support or incentive. This is measured based on the value/volume of goods and services produced. Subsidies are treated as negative taxes on production

since their effect on the operating surplus is opposite that of taxes on production. This is netted out of the production tax payable by the producing unit.

2.16 Operating surplus and mixed income is the balancing item in the Generation of Income Account and is obtained by deducting from net value added, the compensation of employees and other taxes on production after netting out other subsidies on production. Mixed income applies only to unincorporated enterprises owned by households and where its owners are self-employed. It contains both elements of remuneration for work done by the owner or other members of the household as well as the operating surplus accruing from production.

Allocation of Primary Income Account

2.17 The second sub-account concerned with the primary distribution of income shows how value added is distributed to the different institutional sectors in their capacity as recipients or primary income rather than as producers whose activities generate primary incomes. Unlike the Generation of Income Account, which can be compiled both for establishments and institutional units, the Allocation of Primary Income Account has no direct link with production and is only compiled for institutional units.

2.18 In this account, the items shown under resources are the same items that are entered as uses in the Generation of Income Account. These items are now counted as resources under the accounts of the institutional sectors receiving the primary income. For example, compensation of employees is received by the household sector, while taxes on production and imports less subsidies are income of government and will be shown as resources in their respective accounts. Compensation of employees and taxes less subsidies include also those receivable from non-resident institutional sector.

2.19 In this account, under the resources side, a new item is added which is property income. This consists of income from the ownership of financial assets and tangible non-produced assets, mainly land and subsoil assets, used in production. It also includes income receivable from non-residents. Property income under uses covers the rent and interest actually payable for the use of land and subsoil assets and borrowed funds and includes those payable to non-residents as well. The components of property income as classified in the SNA are as follows:

- Interest
- Distributed income of corporations
- Dividends
- Withdrawal of income of quasi-corporation
- Reinvested earnings on direct foreign investment
- Property income attributed to insurance policy holders
- Rent

2.20 The uses, listed on the left side of the allocation of primary income account, consist only of the property incomes payable by institutional units or sectors to creditors, shareholders, landowners, etc. Except for rents on land and sub-soil assets, these may be payable to non-residents as well as residents. The remaining item recorded under uses is the balancing item, the balance of primary incomes, defined as

the total value of the primary incomes receivable by an institutional unit or sector less the total of the primary incomes payable. At the level of the total economy, the balance of primary incomes is described as national income.

Secondary Distribution of Income Account

2.21 The Secondary Distribution of Income Account deals with the recording of transactions for the second step of the distribution of income. It shows how income is redistributed among sectors through transfers. Here, the balance of primary income brought forward from the previous account is augmented by transfers to arrive at disposable income. Transfer is defined in the SNA as a transaction in which one institutional sector/unit provides a good, service or asset to another sector/unit without receiving from the latter any goods, services or assets in return as counterpart. This account deals only with current and not capital transfers since the latter is meant to redistribute savings and wealth, rater than income.

2.22 Current transfers are of two types: transfers in cash and transfers in kind. The SNA differentiates the redistribution process through the two types of transfers by using two accounts: the Secondary Distribution of Income Account and the Redistribution of Income in Kind Accounts. The redistribution of income through transfers in cash is shown in the Secondary Distribution of Income Account. The resources side of the account which records current transfers in cash receivable by the sector includes the balance of primary income (brought forward from the Allocation of Primary Income Account) and current transfers in cash described as follows: current taxes on income, wealth, etc.; social contributions and benefits; and other current transfers. The same types of current transfers in cash, this time as payables, are recorded on the use side of the account. These pertain to those sectors for which these transfers are payables. The account measures disposable income, which is the balancing item of the account and is shown on the use side.

2.23 The SNA identified three main kinds of current transfers (these may be between residents and non-residents) in this account, which are:

- current taxes on income, wealth, etc.;
- social contributions and benefits; and
- other current transfers

2.24 SNA defines taxes as compulsory, unrequited payments, in cash or in kind made by institutional sectors/units to government. These are considered as transfers because the individual unit paying the tax gets nothing in return for it. Although the government does provide goods and services, these are generally for the community so that the benefits that accrue to the individual unit from these goods and services are difficult to quantify. Current taxes on income and wealth are levied on income of households and corporations and may include taxes payable by non-resident units.

2.25 Social contributions and benefits refer to the contributions paid to and claims payable out of a social insurance scheme. Contributions to the scheme are paid by the employees and/or employers to ensure entitlement to social insurance benefits now or in the future for the employees and their dependents. The schemes provide to members, the social benefits such as health and education benefits, housing, family allowance, unemployment, retirement, etc.

2.26 All current transfers between institutional sectors/units, not classified as either current taxes on income, wealth, etc. and social contributions and benefits are included under other current transfers. The SNA lists some of the most important as follows: net non-life insurance premiums/non-life insurance claims, current transfers within government as well as transfers between the government and international organizations, and miscellaneous transfers.

2.27 The disposable income is the balancing item in the Secondary Distribution of Income Account. It is obtained by first adding to the balance of primary income of an institutional sector, all current transfers, except social transfers in kind, receivable by that sector and then subtracting all current transfers, except social transfers in kind, payable by that sector. Disposable income for the whole economy termed as national disposable income, is derived by adding to national income, all current transfers in cash or in kind receivable from non-resident units and subtracting all current transfers in cash or in kind payable to non-resident units. In the redistribution of income in kind account, the social transfers in kind payable by government units are recorded on the left-hand side under uses. The same type of social transfers receivable by the household sector are recorded on the right-hand side of the account under resources. Assuming that social transfers in kind take place only between resident units, the total value of the transfers in kind receivable by resident households must equal the total value of those payable by government units. This account measures adjusted disposable income, which is the balancing item of the account and is shown on the use side. The adjusted disposable income for the total economy is the same as its disposable income. In practice, the concept of adjusted disposable income is mainly relevant to government units and households, the distinction between adjusted disposable income and disposable income being irrelevant at the level of the economy as a whole.

Use of Income Account

2.28 This is the last of the Current Accounts. The account shows how the government, NPISHs, and household sectors allocate their disposable income and adjusted disposable income between final consumption and savings. In the SNA only these three sectors incur final consumption. The use of Income Account has two versions; one which shows the use of disposable income, while the other is the use of adjusted disposable income. In the first version, attention is focused on disposable income and the expenditure on consumption goods and services that can be met out of that income. In the second version, attention is focused on the consumption goods and services acquired and used by institutional units, especially households, whether acquired by expenditure or by social transfers in kind. In the first version of the use of income account, final consumption expenditure is subtracted from disposable income to obtain saving as the balancing item. In the second version, actual final consumption is subtracted from adjusted disposable income to obtain the same balancing item, saving.

2.29 The adjusted disposable income of households is derived from their disposable income by adding the value of social transfers in kind receivable, while that for government units and NPISHs is derived by subtracting the value of social transfers in kind payable. Similarly, the actual final consumption of households is derived from

their final consumption expenditure by adding the value of social transfers in kind receivable, while the actual final consumption of government units and NPISHs is derived by subtracting the value of social transfers in kind payable. It follows that saving is the same whether it is defined as disposable income less final consumption expenditure or as adjusted disposable income less actual final consumption.

2.30 Apart from the balancing item, saving, this account contains only three entries. Disposable income, the balancing item carried forward from the secondary distribution of income account, is recorded on the right-hand side of the account under resources, while final consumption expenditure is recorded on the left-hand side under uses. The account is relevant mainly for the three sectors that make final consumption expenditures, namely the general government, non-profit institutions serving households (NPISHs) and household sectors and, for the total economy.

2.31 The financial and non-financial corporations do not make final consumption expenditures. They may purchase the same kinds of goods or services as households use for final consumption - e.g., electricity or food - but such goods or services are either used for intermediate consumption or provided to employees as remuneration in kind. Therefore, both the use of disposable income account and the use of adjusted disposable income account for corporations are only dummy accounts that contain no entries for final consumption expenditure or actual final consumption. Thus, the saving of corporations must be equal to their disposable, or adjusted disposable, incomes. In other contexts, the saving of corporations is often described as the "retained earnings" or "undistributed incomes" of corporations.

2.32 Final consumption expenditure covers transactions on final consumption of goods and services for which a sector is the ultimate bearer of the expense. The final consumption expenditure in the economy consists of the consumption expenditure of (i) households, NPISHs and general government. Household final consumption expenditure consists of expenditure incurred by resident households on consumption goods or services. Final consumption expenditure excludes expenditure on fixed assets in the form of dwellings or on valuables. Dwellings are goods used by their owners to produce housing services. Expenditure on dwellings by households, therefore, constitutes gross fixed capital formation. When dwellings are rented by their owners, rentals are recorded as output of housing services by owners and final consumption expenditure by tenants. When dwellings are occupied by their owners, the imputed value of the housing services enters into both the output and final consumption expenditure of the owners. Valuables are expensive durable goods that do not deteriorate over time, are not used up in consumption or production, and are acquired primarily as stores of value. They consist mainly of works of art, precious stones and metals and jewellery fashioned out of such stones and metals. Valuables are held in the expectation that their prices, relative to those of other goods and services, will tend to increase over time, or at least not decline. Although the owners of valuables may derive satisfaction from possessing them, they are not used up in the way that household consumption goods, including consumer durables, are used up over time.

2.33 Government and NPISHs produce non-market goods and services in their production account, where intermediate consumption and compensation of employees are recorded as uses. Final consumption expenditure of these producers relates to the

value of their output of non-market goods and services, less their receipts from the sale of non-market goods and services at prices which are not economically significant. However, it also coves goods and services that are purchased by government or NPISHs for ultimate transfer, without transformation, to households.

Capital Account

2.34 The Capital Account records acquisitions and disposals of non-financial assets. Specifically, it shows the changes in net worth as a result of savings and capital transfers during the accounting period. Transactions may be with other institutional sectors/units (resident or non-resident) or internal, within the institutional sector/unit. i.e, retaining for own use of assets produced by them. To compile the Accumulation Accounts, specifically the Capital Account, it is necessary to know first what assets are covered. In the 1993 SNA, assets are defined as entities:

a) over which ownership rights are enforced by institutional units, individually or collectively; and
b) from which economic benefits may be derived by their owners by holding them, or using them, over a period of time.

Two main classifications of assets are distinguished:
a) financial assets; and
b) non-financial assets.

2.35 The Financial assets are dealt with under the Financial Accounts. The Non-financial assets which are the concern of the Capital Accounts, consist of two main categories:

a) Produced assets, which are non-financial assets that have come into existence as outputs from the production processes that fall within the production boundary of the SNA.
b) Non-produced assets include non-financial assets that have come into existence by ways other than the processes of production.

2.36 Produced assets are further sub-divided into three types: (i) fixed assets, (ii) inventories and (iii) valuables. Fixed assets consist of (a) tangible or (b) intangible assets that are used repeatedly in production for more than one year. Valuables are works of art, precious stones and metals, jewelry, etc. which are not used in production or consumption. Their economic value lies in the expectation that their price will increase.

2.37 Non-produced assets on the other hand, are economic assets needed for production but are not produced through production process, such as land and certain uncultivated forests or mineral deposits. Natural non-produced assets also include certain intangible assets such as patented entities, leases or other transferable contract, purchased goodwill, etc. Not all environmental or naturally accruing assets are economic assets. In certain environmental assets it is not feasible to establish effective control or ownership such as air, ocean and those whose existence are not known of if known these are so remote and inaccessible such as some virgin forests. Likewise, some natural assets do not qualify as economic assets because no economic

benefit can be derived from them. For example, known mineral deposits, which are not commercially exploitable in the near future even though these may possibly become exploitable through unforeseen advance in technology or major changes in relative prices.

2.38 Shown below are the items of transactions recorded in the Capital Account.

2.39 The Capital Account records assets on the left side and liabilities and net worth on the right side. It accounts for the value of the non-financial assets that are acquired or disposed of by resident institutional sectors/units and shows the change in net worth of the institutional sector/unit as a result of savings and capital transfers. The balancing item in the Capital Account which is net lending (+)/net borrowing (-) is shown on the left side of the account. Consumption of Fixed Capital (CFC) is also shown on the left side.

2.40 The right side of the account presents the resources available to accumulate assets. These include net savings, the balancing item carried forward from the Use of Income Account and capital transfers. Capital transfers payable are shown with a negative sign.

2.41 The left side of the account enters values of non-financial assets acquired or disposed of through purchases or sale, demolitions or as scrap, capital transfers in kind, barter, or production for own use. The changes in non-financial assets result from the following:

a) Gross Capital formation
    1. gross fixed capital formation (GFCF),
    2. consumption of fixed capital (CFC)
    3. changes in inventories, and
    4. acquisition less disposal of valuables.
b) Acquisition less disposal of non-produced, non-financial asset.

2.42 GFCF is the result of the following transaction on fixed assets:

(a) acquisition less disposal o new or existing tangible fixed assets which includes dwelling, other buildings and structures, machinery & equipment, and cultivated assets such as trees and livestock that are used repeatedly or continuously to produce products such as fruit, rubber, milk, etc.
(b) acquision of less disposal of new or existing intangible fixed assets; like mineral exploration, computer software, entertainment, literary or artistic originals, and other intangible fixed assets;
(c) major improvements to tangible non-produced assets including land; and
(d) costs associated with the transfer of ownership of non-produced assets.

2.43 Changes in Inventories: When a good is entered into inventories, it is acquired as an asset by the owner; a good leaving inventories is a disposal of an asset by the owner, thus changes in inventories are acquisitions and disposals of assets and are valued in the same general way as changes in other assets.

2.44 Capital Transfers, which may be a receivable or payable can be in cash or in kind, and involve transactions in which the ownership of an asset (other than inventories and cash) is transferred from one institutional sector/units to another. On the other hand, a capital transfer in cash involves the transfer of cash to the recipient who is expected to use it for the acquisition of another asset.

Financial Account

2.45 The financial account is the second of the accounts that deal with accumulation. The financial account is also the final account, in the full sequence of accounts, that records transactions between institutional units. The financial account does not have a balancing item that is carried forward to another account, as has been the case with all accounts previously discussed. Rather, the net balance of the financial account is equal in magnitude, but with the opposite sign, to the balancing item of the capital account.

2.46 The financial account records transactions that involve financial assets and liabilities and that take place between institutional units and between institutional units and the rest of the world. The left side of the account records acquisitions less disposals of financial assets, while the right side records incurrence of liabilities less their repayment. Net incurrence of liabilities less net acquisition of financial assets is equal in value, with the opposite sign, to net lending/borrowing, the balancing item in the capital account.

2.47 Net saving is the balancing item of the use of income account, and net saving plus net capital transfers receivable/payable can be used to accumulate non-financial assets. If they are not exhausted in this way, the resulting surplus is called net lending. Alternatively, if net saving and capital transfers are not sufficient to cover the net accumulation of non-financial assets, the resulting deficit is called net borrowing. This surplus or deficit, net lending or net borrowing, is the balancing item that is carried forward from the capital account into the financial account.

2.48 In the SNA, financial assets are classified under eight major categories. Depending upon whether they are assets or liabilities of the unit or sector in question, these categories are listed on both sides of the financial account.

F.1 Monetary gold and special drawing rights (SDRs)
F.2 Currency and deposits
F.3 Securities other than shares
F.4 Loans
F.5 Shares and other equity
F.6 Insurance technical reserves
F.7 Financial derivatives
F.8 Other accounts receivable/payable.

3. OTHER SELECT ISSUES

3.1 Under this Section, some important issues concerning the 1993 and 2008 SNA implementation in the Indian National Accounts Statistics of India (INAS), coverage, methodology and data sources used have been elaborated. These are broadly grouped under the following:

(i) Features of 1993 SNA implemented in NAS

(ii) Social Accounting Matrix
(iii) Coverage of Institutional Sector Accounts
(iv) GDP at basic prices

(i) Features of 1993 and 2008 SNA implemented in NAS

3.2 Recommendations of 1993 SNA implemented by CSO relate to:

(i) 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;
(ii) inclusion of own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff;
(iii) inclusion of premium supplements in respect of life and non-life insurance output estimates;
(iv) 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;
(v) imputed value of own-account labour treated as mixed income of self-employed;
(vi) expenditures on mineral exploration treated as capital expenditure;
(vii) 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;
(viii) inclusion of expenditures on valuables, which are held as stores of value, and are treated as Gross Capital Formation;
(ix) treatment of expenditures on software as Gross capital formation;
(x) inclusion of natural growth of livestock as Gross capital formation
(xi) inclusion of expenditures made on few tree crops during the gestation period as Gross capital formation;
(xii) addition of capital expenditure incurred on installing the wind energy systems in the Gross Fixed Capital Formation
(xiii) estimation of consumption of fixed capital of all fixed assets including government buildings, roads, dams etc. as Perpetual Inventory Method (PIM);
(xiv) adopting the practice of changing base year every 5 years.

While introducing the new series of NAS in January, 2010 (base year 2004-05), the CSO made efforts to implement some of the recommendations of the 2008 SNA, to the extent available data permits. Some of the recommendations which presently form part of the new series are:

(i) treating R&D expenditures in public sector as capital expenditures in line with the recommendations of 2008 SNA;
(ii) adopting the declining balance (of life of assets) method for estimating the consumption of fixed capital and capital stock;

(iii) adopting the user cost approach for estimating the services of owner occupied dwellings in rural areas as against the present practice of imputing these services on the basis of rent per dwelling;

(iv) treating the construction component and machinery/transport outlay of Defence capital account as capital formation, which was earlier being treated as intermediate consumption.

(ii) Social Accounting Matrix

3.3 As an alternative way of presenting the mass of information contained in the national accounts, the SNA suggests rearranging the data in the accounts in the form of a Social Accounting Matrix (SAM). The SAM is defined as a presentation of System of National Accounts (SNA) in a matrix format. SAM presents a number of important transactions of the SNA, aggregated for the total economy. An aggregate matrix such as SAM can present a bird's eye view of an economy as a whole; i.e., one page is sufficient to show the interrelationships between main transaction categories leading to a set of domestic and national balancing items. SAM presents a number of important transactions of the system, aggregated for the total economy. All the transactions taking place in the nine types of (consolidated) accounts, (i) supply of goods and services, (ii) production, (iii) generation of income, (iv) allocation of primary income, (v) secondary distribution of income, (vi) use of income, (vii) capital account, (viii) fixed capital formation account and (ix) financial account are combined with the rest of the world (current and capital) transactions in the SAM. Possible types of classifications in each account are indicated in parentheses in the row and column headings. Each account is represented by a row and column pair.

3.4 In the SAM presented in this Brochure is for the total economy, for the years 2004-05 to 2008-09 on the basis of 1993 SNA. All the sequence of accounts prepared as above have been presented in a matrix format - the goods and services and production account have been presented in the first two rows and columns of the matrix. This contains an aggregate version of the supply and use table. Column 1 presents the supply of goods and services. Although trade and transport margins do not need to be added to output at an aggregate level, they are registered in top left-hand corner of this table because they are non-zero in a more detailed SAM. Output at basic prices is shown in row 2. Taxes on products less subsidies are not included in the output value, but directly booked on the allocation of primary income account for the government (row 4). Imports originate from the current account for the rest of the world (row 10). The elements in column 1 add up to total supply of good and services, at purchasers' price. Row 1 shows the use of goods and services, at purchasers' price (totaling same as in column 1): intermediate consumption in column 2, final consumption expenditure in column 6, changes in inventories in column 7, gross fixed capital formation in column 8 and exports in column 10.

3.5 Row 2 shows output at basic prices. Because of this valuation, the sum of row 2, and the concomitant sum of column 2, are exclusive of taxes minus subsidies on products. In turn, this means that this amount is not included in total net value added either, see cell (3,2). Consumption of fixed capital is put directly on the fixed capital account (row 8 and column 2).

3.6 The third account i.e. generation of income account records the generation of income and plays an important role. It is classified by (net) primary input categories: (a) compensation of employees, (b) net mixed income, (c) net operating surplus, and (d) other taxes and subsidies on production. Net value added at basic prices (row3, column 2) is obtained by subtracting intermediate consumption and consumption of fixed capital from output. Other value added i.e. compensation of employees received from and paid to abroad should be registered in this table, in cell (3,10) and cell(10,3) respectively. The result of all this is that the generation of income account is closed with a new balancing item viz. net generated income at basic prices, in between total net value added and net national income (NNI).

3.7 In the 4th row, the allocation of primary income account (account 4), net generated income is augmented with taxes less subsidies on products, and with property income from the rest of the world. This item is recorded in cell (4,10). Domestic property income flows are recorded on the diagonal (row 4, column 4). To get NNI, this diagonal item, as well as property income paid to the rest of the world must be subtracted from the total of column 4, which is derived from the identical total of row 4.

3.8 In the secondary distribution of income (account 5), NNI with current taxes on income, wealth etc. and all current transfers from abroad are shown in row 5. Domestic current taxes on income, wealth etc., social contributions and benefits and other current transfers are recorded on the diagonal (row 5, column 5). Current transfers to the rest of the world are recorded in cell (10,5). The balancing item viz. net disposable income cell (6,5), which is put on the use of income account.

3.9 The use of income account (account 6) records spending of net disposable income: final consumption expenditure on goods and services and net saving, which is put on the capital account.

3.10 The capital and financial accounts have been interlaced, with the financial account classified not by institutional sector but by type financial asset. As a consequence, a disaggregation of this SAM would show, by institutional sub-sector, both acquisitions less disposals of various financial assets, see cell (9,7), and incurrence less repayment of various liabilities, see cell (7,9). Here, these two categories of transactions have been combined as far as the rest of the world is involved. This serves to include the aggregate balancing item net lending in the present SAM.

3.11 Row 7 presents the availability of funds to the total economy: net saving, borrowing, capital transfers receivable from the rest of the world and the diagonal item (row 7, column 7) i.e. domestic capital transfers receivable. Column 7 records how these funds have been allocated: changes in inventories including acquisition less disposals of valuables cell (1, 7), capital transfers payable (domestic) cell (7,7), net fixed capital formation cell (8,7), lending and capital transfers payable to the rest of the world.. Obviously, the balancing item net lending of rest of the world can be derived by subtracting lending from borrowing cell (9,11).

3.12 Often, estimates of gross fixed capital formation in column 8, and the consumption of fixed capital in row 8, are already available. As a consequence, the residual, net capital formation, shown in row 8 and column 7, can be obtained.

3.13 In the financial account (account 9), lending is presented row-wise, and borrowing column-wise. The balancing item is given in row 9 because it is same as the balancing item of the capital account for the rest of the world.

3.14 The elements in the current and capital account for the rest of the world (account 10 and 11) have all been discussed above, except the current external balance which is shown in cell (11,10).

3.15 Total discrepancy occurring in the goods and services account at (row 1, column 12) is the sum the discrepancies of use of income account, capital account and rest of the world, in current accounts.

(iii) Coverage of Institutional Sectors

3.16 In this Brochure, only Production and Generation of Income accounts have been presented according to 1993 SNA for different institutional sectors (financial corporations, non-financial corporations, general government and households including NPISHs) on the basis of available data. Due to paucity of data, it has not been possible to present the sequence of accounts beyond the Generation of Income Account.

3.17 In the NAS, the CSO presently provides, among others, estimates of (i) Gross Domestic Product (GDP), (ii) Net Domestic Product (NDP) and (iii) factor incomes by industry of origin and also by organized and unorganized sectors of the economy. The data available from these three aggregates, and their sources, methodology and coverage have been used to prepare the institutional sector accounts. In the NAS, total economy has been divided broadly into organised and unorganised segments. Corresponding to these, in the institutional sector accounts being presented in this Brochure, unorganised sector has been treated as household (including the NPISHs) sector and organised sector has been sub-divided into, financial-corporations, non–financial corporations and general government. The details of coverage of these three institutions are given below:

(a) <u>General Government sector.</u>

3.18 A detailed discussion on public sector and Government Authority giving sources of data, concepts used for economic analysis of the data is included in the CSO's publication National Accounts Statistics: Sources & Methods, 2007. This sector includes the administrative part of Centre, States/Union Territories, Local Bodies and autonomous institutions of the government and the Departmental Commercial Undertakings (DCUs), which are unincorporated enterprises owned, controlled and run directly by the public authorities.

(b) <u>Financial corporations</u>

3.19 Financial enterprises are defined in the SNA as the enterprises that are principally engaged in financial intermediation or in auxiliary financial activities, which are closely related to financial intermediation. They thus include enterprises

whose financial function is to facilitate financial intermediation without necessarily engaging in financial intermediation themselves.

3.20 The Financial Intermediation sector in India is broadly divided into the following sub-sectors:

(i) Commercial Banks,
(ii) Banking Department of RBI,
(iii) Public non-banking financial corporations (Centre & State) (UTI, NABARD, IDBI, DFC, HPFC, SFCs) and governemnt companies (REC, HUDCO, PFC, IRFC, APIDC, KSIIDC, Tamil Nadu Transport Finance Corporation)
(iv) Non-government non-banking financial companies engaged in trading in shares, investment holdings, loan finance and the like activities,
(v) Unorganised non-banking financial enterprises and activities of professional money lenders and pawn brokers
(vi) Post office savings banks including operations concerning cumulative time deposits and national saving certificates
(vii) Co-operative credit societies
(viii) Employees Provident Fund Organisation.
(ix) Life and non-life insurance activities

3.21 The banking enterprises render services to their customers in the form of maintaining their accounts and providing them banking services. In return for these services, customers are charged a nominal amount, which is substantially smaller than the expenses of the banking enterprises. On the other hand, the banks provide loans and advances and the returns on such transactions are much higher than the payments made to depositors. This net return accruing to banks is large enough to meet their expenses and to earn a profit.

Commercial Banks

3.22 The Commercial Banks play an important role in the mobilisation of deposits and disbursement of credit to various sectors of the economy. It includes all commercial banks in the government and private sector.

Banking Department of RBI

3.23 The two departments in the Reserve Bank of India are the Issue Department and the Banking Department. The functions of the Issue department of RBI is like that of a Government department and for this reason, this department is treated as an administrative department of the central government, the rest of the financial activities of the RBI are considered under the banking department. The annual report of RBI presents balance sheet of Issue and Banking Departments separately whereas the profit and loss account of the two departments are presented in combined form. The data on income and expenditure is collected from RBI for Issue and Banking Departments separately, for national accounts purpose.

Public Non-Banking Financial Corporations

3.24 These are the enterprises formed under Central and States Government Financial Corporation Act 1951 viz. NABARD, UTI, IDBI, OIDB, SIDBI, EXIM

Bank and SFCs viz. Assam Financial Corporation, West Bengal Corporation, Rajasthan Financial Corporation etc.

Non-Banking Financial Companies

3.25 The role of Non-Banking Finance Companies (NBFCs) in transferring the funds from lenders to borrowers has been well recognised. The main advantages of these companies lie in the lower transaction costs of their operations, their quick decision –making ability, customer orientation and prompt provision of services. Partly on account of these advantages, NBFCs have in recent years grown sizeable both in terms of their numbers as well as the volume of business transaction.

Government Non-Banking Financial Companies

3.26 These are the Government companies in which not less than 51 percent of the paid-up capital is held by the Central government/State government or partly by the central Government and partly by one or more state Governments and subsidiaries of Government companies. These financial Companies are engaged in activities relating to trading in shares, investment in securities holding, loans finance and other similar activities viz; Power Finance Corporation, Industrial Financial Corporation (IFCI), Indian Railway Financial Corporation (IRFC), Housing Urban Development Corporation (HUDCO) and state companies as Gujarat Industrial Investment Corporation, Assam State Film Finance and Development Corporation etc.

Non-government Non-Banking Financial Companies (NGNBFCs)

3.27 These are the Non-banking financial companies in the private sector registered under the Companies Act, 1956. The Industrial credit Investment Corporation of India (ICICI) and Housing Development Financial Corporation (HDFC) are two major entities in this group. The ICICI has since been converted into a bank and is now covered under the commercial banks. The NGNBFCs comprise share trading and investment holding companies, Loan finance companies, Hire purchase finance companies, Financial leasing companies, and other companies in non-banking activities.

Post Office Saving Bank

3.28 The Post Office saving bank is a Departmental Enterprise covered in banking sector as per its economic activity. Banking activities of the Department of Posts cover post office saving bank, cumulative time deposit account and national saving certificates.

Co-operative Credit Societies

3.29 The co-operative credit societies play an important role to finance small borrowers in various sectors of the economy. There were more than 1.37 lakh Co-operative Credit Societies with a membership of about 146 million as on 31st March 1999. The details of the factor incomes of Co-operative Credit Societies are obtained from the publication Statistical Statements Relating to Co-operative Movement in India, Vol. I - Credit Societies published by the NABARD.

Insurance Sector

3.30 The output of the insurance corporations represents the value of the service provided by them in arranging payments of claims and benefits in exchange for the receipts of premiums and contributions. In the case of insurance enterprises the

premium for insurance constitutes the main source of income. They receive income from investments (property income – interest and dividend) as well. The value of output of the insurance activity is estimated 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. In the case of general insurance, imputed service charges are measured as the receipts on account of premium plus interest and dividends earned less expenditure on account of claims paid.

3.31 The institutional units involved in insurance are pre-eminently insurance companies and corporations. Till recently the insurance sector was a government monopoly and the following were the institutional units which covered completely the two categories of insurance services namely Life & Non-Life (General) Insurance:

(A) Life insurance, covered by the (i) Life Insurance Corporation and (ii) Postal Life Insurance.
General/Non-Life Insurance covered by the (i) General Insurance Corporation of India and its subsidiaries

(B) Deposit Insurance & Credit Guarantee Corporation of India Limited and,

(C) Export Credit & Guarantee Corporation Limited.

3.32 The coverage also includes the Postal Life Insurance and the Employees State Insurance Scheme. With the opening up of the insurance sector to the private, many private insurance companies, both in the life and non-life business have entered the insurance market regulated by the Insurance Regulatory Development Authority (IRDA). The private sector companies have also been included in the coverage of the insurance sector from 2001-02. Apart from the organized activity of the insurance companies, the activities of insurance agents constitute the unorganized insurance activity and are also covered in the national accounts

(c) Non financial corporations

Public sector

3.33 These comprise the Non-departmental enterprises also referred to as Non-departmental Commercial Undertakings (NDCUs) and include (i) government companies (in which not less than 51 per cent of the PUC is held by the central government or state government or partly by the central government and partly by one or more state governments) and subsidiaries of government companies; and (ii) statutory corporations set up under special enactments of Parliament or State Legislatures (such as Oil and Natural Gas Commission, Damodar Valley Corporation, FCI, IAAI, Road Transport Corporations, Warehousing Corporations, Electricity Boards, Nationalised Banks, LIC, etc.). The NDCUs differ from the DCUs in that they hold and manage the financial assets and liabilities as well as the tangible assets involved in their business. These enterprises have separate Boards of Directors and present profit and loss accounts and balance sheets as in the case of private corporate sector. These enterprises have been divided into two categories viz., (i) financial enterprises and (ii) non-financial enterprises. The financial enterprises comprise (i) the nationalised banks and the banking department of RBI, (ii) financial corporations, (iii) LIC, GIC and its subsidiaries and Employees State Insurance Corporation

(ESIC). The non-financial enterprises consist of all other undertakings/ enterprises of central, state, union territory governments and local authorities under the industry groups agriculture, forestry and logging, fishing, mining, manufacturing, electricity and gas, road air and water transport including port trusts, storage and warehousing, trade, hotels & restaurants and other services.

Private corporate sector

3.34 The non-financial corporations under the private corporate sector include the joint stock companies registered under the Companies Act 1956 and the co-operative societies (other than those covered under the financial corporations).

(d) Household (including NPISHs) sector

3.35 For the purpose of compilation of accounts in this Brochure, the 1993 SNA institutional sectors of households and NPISHs have been combined into one institutional sector, namely the Household (including NPISHs) sector. This sector corresponds to the unorganised sector in the NAS. The details of coverage of unorganized sector in the NAS is given in the CSO's publication, National Accounts Statistics: Sources and Methods, 2007.

(iv) Gross Domestic Product at Basic Prices

3.36 With the adoption of the System of National Accounts by the United Nations Statistical Commission, member countries are expected to prepare and present their national accounts statistics following the accounting structure and framework recommended in it. One of the recommendations relate to presentation of Gross Domestic Product (GDP) at basic or at producers price instead of at Factor Cost.

3.37 In the existing series of National Accounts Statistics NAD is compiling GDP at factor cost by industry of origin by following 1968 SNA of U.N. GDP at factor cost means, sum of incomes accrued to the factors of production namely land, labour, capital and entrepreneur. Any income accrued to the Government in the form of taxes (indirect) less subsidies during the process of production is not counted as GDP at the level of industry.

3.38 In present National Accounts Statistics (INDIA), GDP estimated at factor cost is equated to estimates of expenditure on final uses of GDP (Government final consumption, private final consumption, capital formation and net exports) by adding indirect tax less subsidies. GDP so estimated is called GDP at market price.

3.39 The concept of GDP at basic price /producer's price is a concept in- between GDP at factor cost and at market price. This concept includes some of the taxes/ subsidies on production and product as part of the value added at establishment/enterprise/ institutional level and some other taxes (like VAT) at total economy level to get the Value added at basic/producers price by industry of origin and to value the goods and services for the supply and use table at purchasers' price.

3.40 SNA 93 does not classify taxes as indirect or direct tax. This document classifies taxes/subsidies, into product, Value added Tax, import duty, other taxes on production, taxes on income and wealth. Similarly subsidies are classified as product, production and import subsidies.

3.41 Existing method of calculation of GDP may lead to lower estimates of GDP relating to those industries which are paying higher taxes in the form of import duty and production/ product tax and higher GDP who are getting high amount of subsidies. The taxes and subsidies differ from commodities to commodities, region to region, time to time, Government to Government and country to country. Therefore to have common definition of GDP, the authors of SNA93 must have thought to remove the impact of Taxes less subsidies on the estimation of GDP by suggesting valuing the output of industry at basic price or at producer's price.

3.42 Presently, GDP estimates at factor cost are prepared by following production approach in respect of commodity producing sectors and income approach in respect of services sectors. In case of construction sector mixed approach is adopted. While collecting data and estimating GDP in all these approaches the focus is to estimate the value addition by factors of production and not value addition at the unit of production that is at establishment or at enterprise level. As per SNA 93, Value addition at unit of production should also include net taxes on product / production along with factor payments. In the existing system all such taxes are included in the intermediate consumption or deducted from the value of output of the production unit. Subsidies received by production unit are either treated as output or negative intermediate consumption.

3.43 In the light of above argument, and to implement the SNA 93, NAD has attempted to calculate the industry wise GDP estimates at basic price rather than at factor cost.

3.44 To prepare GDP estimates at basic prices for the economy, following steps have been taken:-

1. Existing estimates of Indirect Tax has been bifurcated into product and production taxes.
2. Excise, service tax, custom, and sales tax has been treated as **product tax**
3. Stamps and other taxes and duties have been treated as **production tax**
4. Land revenue has been treated as production tax instead of as tax on income and wealth
5. Production tax thus estimated has been allocated to different sectors and industries on the basis of year wise estimates of net capital stock as prepared by NAD, C.S.O. (as industry wise value of production tax is not available at present)
6. Industry wise estimates of production tax as available from step 5 have been added to estimate of GDP at factor cost by industry of origin to get the estimate of GDP at basic prices.
7. As no direct data is available for production subsidies, industry wise production subsidy as available from the analysis of public enterprises accounts has been used as production subsidy for the total economy on the assumption that production subsidy is primarily given to public sector units only.
8. Land revenue is treated as production tax in respect of agriculture but this shall not change the GDP of agriculture because GDP at factor cost is already inclusive of land revenue.

9. As estimates of GDP at basic price is inclusive of production tax and production subsidy same has been deducted from the existing estimates of Indirect tax less subsidies.
10. This treatment has kept the estimates of GDP at market price unchanged.

References:

(1) Commission of European Communities, International Monetary Fund, Organisation for Economic Cooperation and Development, United Nations and World Bank (1993): System of National Accounts 1993

(2) Central Statistical Organisation, India (2006): Brochure on New Series of National Accounts Statistics, base year 1999-2000.

(3) Central Statistical Organisation, India (2007): National Accounts Statistics: Sources and Methods

(4) Central Statistical Organisation, India (2008): National Accounts Statistics, 2008

(5) Quick estimates of National Income, Consumption Expenditure, Saving and Capital Formation, 2007-08

(6) Central Statistical Organisation, India (2010): Brochure on New Series of National Accounts Statistics, base year 2004-05