FACTOR INCOMES

33.1 The value of output created out of production process is distributed to three factors of production, namely, labour, capital and intermediate consumption. However, if we exclude the intermediate consumption on both sides, the value added (value of output, *minus*, intermediate consumption) is created by two factors of production, namely, labour and capital. These two factors of production have claim to the income generated out of the production process, and are accordingly compensated respectively by compensation of employees and operating surplus in the case of organized sector and mixed income in the case of self employed/unincorporated enterprises.

33.2 The estimates of factor incomes are required for studying the relative shares of factors of production in the value added from different industries of the economy. The SNA recommends presentation of domestic factor incomes according to kind of economic activity and by institutions. The basic concept recommended in the SNA originates from the production account of industries in which factor incomes appear under the distribution of domestic product. In the SNA 1993, the generation of income account gives operating surplus/mixed income as the balancing item, with value added as resources on the right side and compensation of employees payable to workers employed in the production process as uses of value added (other than taxes and subsidies) on the right side.

33.3 In the national accounts statistics, the official estimates of factor incomes at current prices were introduced in the year 1976. Estimates giving distribution of Net Domestic Product were published in various issues of National Accounts Statistics (NAS) during 1976 to 1987 in the following disaggregation:

(a) factor incomes by industry of origin;
(b) factor incomes by organised and unorganised sectors (aggregated, not cross classified by industry of origin); and
(c) factor incomes by public and private organised sectors.

33.4 The methodology for preparing these estimates was included in National Accounts Statistics: Sources & Methods (April, 1980). After the introduction of NAS 1980-81 series, a separate brochure on factor income was brought out by the CSO, giving the estimates of factor income from 1980-81 to 1989-90 separately for public sector, organized sector and unorganized sector, cross-classified by industry of origin. The detailed methodology adopted for compiling the estimates of factor incomes was also included in the brochure. Subsequently, the estimates of factor incomes are regularly included in the CSO's annual publication "National Accounts Statistics".

Conceptual Basis of Estimates

33.5 First, SNA makes a distinction between commodities and industries. This is significant because cost structure usually relates to industries. Further, to minimise the role of assumptions to the extent feasible, SNA has recommended grouping of establishments rather than enterprises to form industries. According to SNA 'In those countries which do not have the practice of setting up enterprises for specific purposes, it can be observed that the output of an establishment is almost always more homogeneous than the output of the enterprise of which it forms a part'. In India data collection system has been developed in such a manner that the production of characteristic products (i.e. commodities) is being estimated along with cost structure, in respect of certain economic activities (such as agriculture, livestock, fishing). Thus the estimates for the economy as a whole are related to the commodities originating according to industrial classification, in these activities. However, the estimates of public sector and private corporate sector are based on enterprise approach and thus relate to product mix of the enterprise and not a single characteristic product (commodity). Thus it may happen that in a statement on public sector by industry of origin, an industry in public sector might show a higher estimate than in the total economy where the output of a industry is only the characteristic product (commodity).

33.6 Second, the SNA has recommended use of International Standard and Industrial Classification (ISIC) of all Economic Activities for classifying industries. However, for the purpose of national accounts, category for the activity of owner-occupied dwellings has been added. ISIC Division 70: Real estate activities and Division 71: renting of machinery and equipment without operator and of personal and household goods, include activities of renting commercial building and

renting & leasing of machinery and equipment. The contribution of services of ownership of dwelling is included under, "real estate, ownership of dwellings and business services".

33.7 Third, in India because of the existence of unincorporated enterprises and household industries which either do not maintain accounts or are wholly managed by self employed workers (own account enterprises) the factor incomes generated cannot always be separated between income from labour and entrepreneurship. It has, therefore, become necessary in such cases to introduce the additional item of 'mixed income of self employed' to take complete account of the factor incomes generated. The mixed income of self employed covers compensation of employees of own account workers as well as profit/loss generated in the unincorporated enterprises. In the NAS, the mixed income was being separately shown even before the 1993 SNA. However, following the 1993 SNA recommendation to show mixed income separately, the Indian national accounts are in line with the 1993 SNA recommendation, as far as mixed income is concerned.

33.8 In view of the foregoing discussions the estimates of factor incomes have been presented in the categories given below, in the NAS:

1. Compensation of employees
2. Operating surplus
3. Mixed income of self employed
4. Net value added (1+2+3).

33.9 However, in this connection it may be mentioned that in the NAS no imputation for rent has been made for using own building, machinery and equipments except for residential buildings.

Data Base and General Issues

33.10 The estimates of factor incomes are prepared by institutional sectors and by industry of origin. The institutional sectors, which are considered for preparation of estimates, are:

a) Public sector comprising administrative departments of the government, departmental enterprises and non departmental enterprises;
b) Private Corporate sector covering the joint stock companies in the private sector; and

c) Household and private unincorporated enterprises

33.11 The data base for covering above sectors is derived from a variety of sources such as budget documents, reports of non-departmental enterprises, Reserve Bank of India Bulletin, Publications of National Bank for Agriculture and Rural Development (NABARD) and various reports of sample surveys conducted by Central Statistical Organisation (CSO) and National Sample Survey Organisation (NSSO) along with ancillary sector/activity specific information from various sources.

Public Sector

33.12 A detailed discussion on public sector giving sources of data, concepts used for economic analysis of the data is included in the Chapter on public sector. Going through the details it can be seen that the budget documents are generally available for Ministries. Reports of non departmental enterprises are for each enterprise covering all establishments under the enterprise. Thus while analysing the budget documents to a large extent, effort has been made to reclassify each budget document according to kind of economic activity of individual departments under each Ministry. But due to non-availability of establishment-wise data in the annual reports, no such activity-wise reclassification could be made for non-departmental enterprises. Because of these limitations the estimates of public sector cannot be merged at individual sector level as such, yet for the economy as a whole breakup by public and private sector is possible.

Private corporate sector
Joint Stock Companies

33.13 Private corporate sector includes the joint stock companies registered under the Companies Act 1956. The sector covers a large number of companies. Data giving important aggregates for preparing national accounts aggregates, covering the entire sector are not available from any source. The only source for the data is the Company Finance Studies released by Reserve Bank of India. For the purpose of the study only a sample of private/public limited companies are considered. Although the sample is not based on any scientific sampling scheme, yet it is seen that the coverage in terms of paid-up capital is some what representative. The estimates of entire population are obtained by blowing up the estimates from the sample study on the basis of coverage in terms of total paid up

capital. Apart from the reservation from many sources about the appropriateness of blowing factor, a comparable series of paid up capital of all companies is not available from Ministry of Company Affairs. For want of comprehensive data, distribution of factor shares in the private corporate sector are not included in the NAS. However, wherever private corporate sector data is being used for preparing estimates of value added, the distribution of factor share derived from RBI studies on company finance are used for preparing the estimates. This component is merged in the private organised sector.

Cooperative Societies
33.14 The cooperative societies are broadly covered under two groups viz. Cooperative credit societies and non credit societies. Data for this institutional sector are released by NABARD (earlier, until early 80's, by RBI). The cooperative credit societies are financial institutions registered under Cooperative Societies Act enforced at the State level, functioning within the purview of Banking Regulation Act. These include State Cooperative Banks, Central Cooperative Banks, Industrial Cooperative Banks, Primary Agricultural Credit Societies, Primary non-agricultural Credit Societies, Land Development Banks, Grain Banks, Primary Cooperative Banks etc. On the non-credit side these societies cover various activities of manufacturing, trading and agriculture (including livestock, dairying, poultry etc.). Data on Income and Expenditure of these societies are published in two volumes, one relating to credit societies and other relating to non-credit societies. The time-lag in the availability of data on cooperative societies is, however, quite high.

Households and Private Unincorporated Enterprises
33.15 The household sector including private unincorporated enterprises is the unorganised segment of the economy. The non-agricultural part of this segment has been covered in the Indian economy through various surveys organised in the regular programmes of National Sample Survey Organisation and follow up surveys of Economic Census organised/coordinated by CSO. The work on estimation of various socio- economic characteristics is being done through national sample surveys since early fifties but the coverage of these surveys was restricted to household enterprises only. In the year 1974-75, an effort was made to

cover the non household units but it could not provide reliable and coordinated data. However, of late, data on unorganized segments of various economic activities are becoming available regularly.

Organised Sector
33.16 The coverage of the organised sector in National Accounts Statistics is described below:

1) **Agriculture**
   ➤ government irrigation system, non-departmental enterprises and crop production in plantation crops of tea, coffee and rubber covered in private corporate sector
2) **Forestry**
   ➤ recorded production of industrial and fuel wood, as reported by the State Forest Departments
3) **Fishing**
   ➤ non departmental enterprises (public undertakings)
4) **Mining & quarrying**
   ➤ major minerals, as reported by the Indian Bureau of Mines
5) **Manufacturing**
   ➤ registered factories covered under Factory Act
6) **Electricity, gas and water supply**
   ➤ total activity of electricity, public sector part of gas and water supply
7) **Construction**
   ➤ construction works in the public sector and private corporate sector (Joint Stock Companies)
8) **Trade, hotels & restaurants**
   ➤ public and private corporate sector and cooperatives
9) **Railways**
   ➤ entire sector
10) **Transport by other means**
   ➤ public sector, private shipping companies, private airlines and road transport covered under the private corporate sector
11) **Storage**
   ➤ warehousing corporation in public sector, cold storage covered under Factory Act
12) **Communication**
   ➤ public sector and companies covered under the private corporate sector
13) **Banking and insurance**
   ➤ total activity except the commission agents attached to life Insurance Corporation of India and unorganised non banking financial undertakings including professional moneylenders and pawn brokers

14) Real estate, ownership of dwellings and business services
  ➢ real estate and business services companies in the private corporate sector and public sector

15) Public administration and defence
  ➢ entire sector

16) Other services
  ➢ public and private corporate sector medical, sanitary services, TV and radio broadcasting and other services and public and recognised educational institutions in the private sector

33.17 From the above description it can be noted that the concept of organised sector followed so far is somewhat different from the concept taken in the follow up surveys of the Economic Census. Although, the follow-up enterprise surveys cover private corporate sector and cooperative societies (thus constitute unorganized sector as per the concept of surveys), these segments are covered under organized sector in the national accounts. The factor incomes of these are prepared using the data available from the RBI.

Unorganised Sector

33.18 In order to fill the vital data gaps for planning, policy formulation and the estimation of national income, a central scheme called "Economic Census and Surveys" was launched by the Government of India during the Fifth Five Year Plan period. The scheme envisaged organising periodically, a countrywide census of all economic activities (excluding those engaged in crop production and plantation) followed by detailed sample surveys of unorganised segments of different sectors of non agricultural economy in a phased manner. For the purpose of collection of data, the unorganised segment of any sector of the economy in India is defined to comprise those operating units whose activity is not regulated under any legal provision so that the required data are available in a regular fashion. Thus, the surveys under the Economic Census covered the private non-agricultural sector in the manner that all factory units not registered under the Factories Act constitute unorganised segment of manufacturing. In the sectors of trade, transport, hotels & restaurants, storage & warehousing and services all non public operating units constitute the unorganised segment on the consideration of non availability of regular accounts of their activity. However,

recognised educational institutions, fully funded by government, have been included under the organised sector. Apart from this, some other activities were also excluded due to difficulties in collection of data.

Estimates of factor incomes

33.19 The estimates of factor incomes are prepared by distributing the estimates of net domestic product (NDP) in various economic activities. Broadly this process is done by dividing the sectors into three groups according to availability of data. The first group relates to components where regular data for preparing production account are available. This group apart from public sector includes registered manufacturing; private shipping companies etc. and poses no problem. In the second group those activities are included for which reliable estimates of net domestic product are available from recognised sources e.g. plantation, major minerals etc. and it is presumed that the activity is mainly concentrated in public or private corporate sector. In such cases fairly reliable estimates can be prepared by distributing NDP according to distribution of factor incomes of public and/or private corporate sector for relevant activity. In the third group the estimates of NDP are prepared using data available from various sample surveys & ancillary sources for the bench mark year and carried forward to other years using various quantity and price indicators. The distribution of factor incomes for the bench mark year are available from the original source. Individual component of factor incomes are carried forward to other years by suitable indicators. The major source of these estimates is based on data mainly provided by Economic Census and follow up surveys. A brief background on Economic Censuses and surveys on unorganized segments of economic activities is given below.

33.20 The Indian Statistical System has been making efforts to fill-up these data gaps right from the beginning of the Five Year Plans. The first National Sample Survey (NSS) Round (1950-51) covered non-agricultural household enterprises as one of its subject themes. Such enterprises were covered regularly up to 1955. Subsequently, selected activities were taken up for survey intermittently in different Rounds of the NSS. These efforts, however, were partial and sporadic. Since the NSS Rounds were mostly centered on household concepts, the unorganized economic activities in the non-household units were sparsely captured.

Thus, a complete directory of establishments in the unorganized sector of the economy to serve sampling frame for carrying out detailed surveys subsequently was not available at any point of time up-till 1976. The High level Evaluation Committee set up by the Government of India to review the work of Central Statistical Organisation had stated that it was through Economic Census and Follow-up Surveys only, that the detailed requirements of data for the unorganized sectors of the economy could be met. In a developing country like ours, Economic Census is the only answer to reach the unorganized sectors. In order to meet the long felt need for the availability of data in respect of unorganized non-agricultural sectors of the economy, a scheme of Economic Census and Surveys was launched by the Central Statistical Organisation in 1976. Since then, four economic censuses have been conducted by the Central Statistical Organisation, in the years 1977, 1980, 1990, the last being in 1998.

33.21 The main purpose of conducting economic census is to generate an updated frame of enterprises for detailed follow-up surveys. It yields essential data on number and distribution of enterprises engaged in different types of economic activities which forms the basis, mainly, for the detailed follow-up surveys. The result of these censuses also provides basic entrepreneurial data relating to different sectors of the economy for the purpose of planning, development and research etc. specifically for unorganized sector of the economy.

33.22 The first economic census was conducted through out the country, except Lakshdweep, during 1977 in collaboration with the Directorate of Economics & Statistics (DES) in the States/Union Territories (UTs). The coverage was restricted to only non-agricultural enterprises employing at least one hired worker on a fairly regular basis. Data on items such as description of activity, number of persons usually working, type of ownership etc. were collected.

33.23 The second economic census was conducted in 1980 along with the house-listing operations of 1981 Population Census. This was done with a view to economise resources, manpower, time and money. The scope and coverage was enlarged during this economic census. This time all enterprises engaged in economic activities - both agricultural and non-agricultural whether employing any hired worker or not - were

covered, except those engaged in crop production and plantation. All States/UTs were covered with the sole exception of Assam, where population census, 1981 was not conducted. The information on location of enterprise, description of economic activity carried on, nature of operation, type of ownership, social group of owner, use of power/fuel, total number of workers usually engaged with its hired component and break-up of male and female workers was collected. The items, on which information was collected in second economic census, were more or less the same as those collected in the first economic census. However, based on experience gained in the first economic census certain items viz. years of activity, value of annual output/turnover/receipt, mixed activity or not, registered/licensed/recognised and act or authority, if registered were dropped. The field work was done by the field staff consisting of enumerators and supervisors employed in the Directorate of Census Operations of each State/UT. The State Directorates of Economics & Statistics (DES) were also associated in the supervision of fieldwork. Data processing and preparation of State level reports of economic census and their publication were carried out by the DES.

33.24 The third economic census was synchronised with the house-listing operation of the Population Census 1991 on the same pattern as of EC 1980.The coverage was similar to that of EC 1980. All States/UTs except Jammu & Kashmir, where population census 1991 was not undertaken, were covered.

33.25 With a view to meeting the demand of various user departments for the data on unorganised sectors of the economy and considering the nature of large number of small units which are subjected to high rates of mobility and mortality, it was felt that the economic census must be brought back to its quinquennial nature so that an up-to-date and complete frame can be made available once in five years for conducting the follow up surveys. It was also felt necessary to assess the impact of economic liberalisation process on entrepreneurial activities of the country and to monitor the sectoral changes, particularly the emergence of the service sector. Keeping these aspects in view, fourth economic census was launched in 1998. The overall responsibility for organisation and conduct of the economic census rested with the Central Statistical Organisation (CSO). The DESs of respective States/UTs were made responsible for conducting the field

work and preparing the report. In the fourth economic census a complete enumeration of all agricultural (except crop production & plantation) and non-agricultural entrepreneurial activities was carried out through out the country.

33.26 In order to study the changes in the unorganized sectors of the economy, identifying regional disparities among unorganized sectors in respect of different economic activities, the following follow-up surveys have been conducted based on the frame given by the four economic censuses. The NSSO also conducted a number of surveys on unorganized segments, initially for the enterprises and establishments other than those covered under the follow-up surveys, and subsequently (after 2001-02) for all the enterprises/establishments.

(i) Unorganised Manufacturing Survey: 1978-79.
(ii) Survey on Trade, Hotels, Restaurants, Transport, Storage & Warehousing & Services: 1979-80.
(iii) Enterprise Survey on Hotels, Restaurant, Transport, Storage & warehousing & Service Sector: 1983-84.
(iv) Survey on Unorganized Manufacturing: 1984-85.
(v) Survey on Trade: 1985-86.
(vi) Survey on Hotels, Restaurants and Transport: 1988-89.
(vii) Survey on Unorganized Manufacturing: 1989-90.
(viii) Survey on Trade: 1990-91.
(ix) Survey on Service Sector: 1991-92.
(x) Enterprise Survey on Mining, Quarrying and Storage & Warehousing Sector: 1992-93.
(xi) Enterprise Survey on Hotels, Restaurants & Transport Sector: 1993-94.
(xii) Survey on Unorganized Manufacture: 1994-95.
(xiii) Directory Trade Establishment (DTE) Survey: 1996-97.
(xiv) Survey on Own-Account and Non-Directory Trade Survey: 1997.
(xv) Special Enterprise survey on Manufacture, Trade, Hotels, Restaurants, Transport and other services including Health, Education, Communication, Real Estate/ Business/ Legal/ Personal service: 1998-99.
(xvi) Special Enterprise survey on Manufacture, Trade, Hotels, Restaurants, Transport and other services including Health, Education, Communication, Real Estate/ Business/ Legal/ Personal service and construction (Proprietary and Partnership enterprises only for all activities): 1999-2000.
(xvii) Survey on Unorganised Manufacturing: 2000-01.
(xviii) Survey on Unorganised Services: 2001-02.

Adjustment for imputed banking charges

33.27 In the case of banks and similar financial intermediaries, actual service charges account for a small proportion of their income. The activities of these institutions are largely financed by the excess of property income they receive over the property income they pay out. The property income involved consists essentially of interest. The gross value added from banking activity includes income derived by banks in the form of interest on loans and dividend on other investments which are generated as factor income outside the banking sector. In the National Accounts Statistics such banking service charges are imputed to the depositors and to the institutions to which the loans are disbursed. The imputed banking charges (IBC) are estimated as the excess of the interest/dividend received over the interest paid and are taken as imputed income of banking activity. The sum total of such imputed income and actual income is considered as the output originating in the banking sector. The imputed income is considered as charges paid by different sectors to banking sector. To determine the service charges for each of the sectors, the imputed income is allocated to the relevant activities on the basis of institution-wise deposits with the banks and the institution-wise loan disbursement by the banks. The imputed service charges thus determined, have been allocated to various sectors as their intermediate consumption and thereby reducing the value added of the sector by that amount. This way the duplication which would have occurred if the value added from the banking sector was taken into account without any adjustment, has been avoided.

33.28 In the NAS while presenting disaggregated statements, the IBC (FISIM) is shown explicitly in whichever sector they have been taken into account. In fact the domestic product of a sector is arrived at by subtracting the IBC allocated to that sector

from the domestic product unadjusted for imputed banking charges. Thus, the net domestic product of a sector is the sum total of its compensation of employees, operating surplus and mixed income where the operating surplus in turn is the sum total of property incomes (rent and interest) and residual (profit/loss) less IBC. In the NAS, therefore, in the statements, where property payments (rent and interest) have been shown, the IBC has also been shown separately.

Estimates of property incomes

33.29 In the estimates of factor incomes published earlier by the CSO, the components of property incomes, namely, rent and interest, which are contained in the operating surplus, were shown to the extent feasible, separately. To facilitate comparability, separate statements are included presenting the estimates of property incomes and imputed banking charges (IBC) by different institutional sectors cross classified by industry of origin.

33.30 Data base for the estimation of property incomes is the same as that for factor incomes spelt out above. However another important point in this regard is that the rent in the surveys related to rent of commercial building and equipment rented by establishment and no imputation has been done for owned assets. Further, no separate estimates are available for building.

Methodology and Sources of Data

33.31 The estimates of factor incomes for public/private corporate sector and cooperative societies are based on regular data as discussed earlier. The data base for the estimates of factor incomes and property incomes for the economy as a whole by industry of origin, coverage of individual sectors is same as given in the domestic product. For preparing the estimates, sectoral net domestic product has first been divided into organised and unorganised segments as per concept given above. The estimates of factor incomes from government irrigation, electricity, railways, communication, public administration & defence, education, health & sanitary services are directly derived from data available from budget documents and annual reports of non-departmental undertakings. Similarly the estimates for registered manufacturing sector and recognized educational institutions in the private sector are derived from Annual Survey of Industries and Education in India

released by Central Statistical Organisation and Ministry of Human Resource Development respectively. The methodology and data base are described below:

Agriculture

33.32 The estimates of factor incomes for the agriculture sector are prepared by classifying first the net value added in the public sector and private sector. The public sector consists of operation of government irrigation system. Factor income components for this are derived from the data contained in budget documents and the annual reports of the Non-departmental Commercial Undertakings. The output of private sector has been divided into three categories viz. plantation crops, crop production excluding plantation crops and animal husbandry. This output is subsequently converted to net value added using data available from Tea, Coffee, Rubber Boards, Cost of cultivation studies and NSS reports. As the procedure of growing plantation crops is significantly different from other crops and the activity is largely identical to work being done in the private corporate sector, these crops are considered to be under the private organized part. The distribution of factor incomes and property incomes for the plantation crops is derived from the Company Finance Studies conducted by the Reserve Bank of India (RBI) and the annual reports of these Boards. The value of output of all other crops and the livestock sector are taken to be in the unorganized sector.

33.33 The estimates of factor incomes for crop production (excluding plantation) and animal husbandry are prepared by estimating compensation of employees and rent for crop production using data contained in the cost of cultivation studies; and compensation of employees for animal husbandry sub sector using data contained in NSS reports. Further estimates of interest payments are based on All India Debt and Investment Survey AIDIS. Assuming that there is no rent component in the animal husbandry sub sector these components have been subtracted from total net value added to get the mixed income of self-employed.

33.34 The cost of cultivation studies are being conducted regularly by Directorate of Economics & Statistics, Ministry of Agriculture (DESAg) and are released in the Publication entitled 'Cost of Cultivation of principal crops in India'. The publication gives cost of Human Labour (casual, attached

and Family) and rent paid for leased in land per hectare. The coverage of the cost of cultivation studies (CCS) varies from state to state and year to year. These data are available for 19 states covering about 27 crops. The procedure adopted for computing factor incomes and property incomes from CCS is given below.

(i) Extract data on Human Labour (casual+ attached, Family), bullock labour, mechanised labour, seed, manure, fertilizer, insecticides, irrigation charges, rent paid for leased land, rental value of owned land, depreciation on implements & farm buildings, main products, by products per hectare from CCS for different crops and states.

(ii) Obtain net value added (main products + by products - seed - manure - fertilizer - insecticides - irrigation charges - bullock labour - machine labour -depreciation), compensation of employees (for casual + attached labour), family labour, rental value of owned land and rent paid for leased land per hectare by crops & states.

(iii) Obtain weighted sum of aggregates derived in step (ii) using area under the crop in the state for the crops covered in the study.

(iv) Obtain ratio of compensation of employees, family labour, rental value of owned land and rent to net value added for each year.

(v) Obtain net value added for crop production using output to net value added ratio from CCS and NAS for each year.

(vi) Product of steps (iv) and (v) gives estimates of compensation of employees, family labour, rental value of owned land and rent for crop production.

33.35 In the animal husbandry sub sector, the NSSO conducted two studies. First pertains to the year August 1956-January, 1957 (11th Round, Report No. 65: Tables with notes on Animal Husbandry) and the second relates to the year July 1975-June 1976 (30th Round draft report on "The Survey of livestock number, product and enterprises"). The first report contains the data on rates at which hired labour was paid per day on account of services like herding, attending, medical, pedicure and other services per agricultural household. Number and value of livestock possessed by the household were also determined irrespective of the use to which they are put. In the 30th Round survey only those households were considered to have dairy enterprise if on the date of listing, it possessed five or more adult cows and she-buffaloes taken together. The rates and ratios available from these surveys are used to segregate the net value added in livestock sector between compensation of employees and operating surplus. However, recently, few states are conducting type studies on this industry, and the factor incomes will be computed on the basis of the results of these studies. The steps for obtaining estimates of compensation of employees in this sub sector are given below:

(i) Estimate the livestock population, by categories of livestock from the previous two livestock censuses through projections;

(ii) Convert the livestock population in the number of cattle equivalents and divide them between agriculture, livestock and transport; and

(iii) The cattle equivalent population in the livestock sector is multiplied with average compensation of employees per cattle obtained from the NSS data, after bringing them the current year's prices.

Forestry and Logging

33.36 The organised part of the sector comprises of net value added corresponding to recorded production of timber and fuel-wood. Since major share of forest is with the government and no information other than contained in budget documents is available, the net value added for recorded production of timber and fuel wood has been distributed according to distribution of factor incomes available from the budget documents. The remaining part of this sector, balance net value added, is treated as mixed income of self employed in the unorganised sector.

Fishing

33.37 The contribution of non-departmental enterprises has been taken in the organised segment of the sector and rest of the activity under unorganised sector. The estimate of compensation of employees for the unorganized sector is based on the information contained in the two reports entitled Inland fish marketing in India and Marine Fish Marketing in India published by Indian Institute of Management (IIM) Ahmedabad. These publications present cost structure for different type of activities such as pond fishing, filtration farms,

brackish water culture, fishing in estuaries, lakes and swamps, marine fishing for representative states, but in the absence of any weighting pattern available, simple average of factor incomes distribution has been superimposed on the net value added. However, recently, few states are conducting type studies on this industry, and the factor incomes will be computed on the basis of the results of these studies.

Mining and Quarrying

33.38 The activity relating to extraction of major minerals has been included in the organised segment, whereas minor minerals have been included in the unorganised segment. In the case of this industry, substantial share of major minerals is covered in the public sector. Therefore, use has been made of distribution of factor incomes and property incomes derived from non-departmental enterprises engaged in this activity. In the case of minor minerals, the estimates of factor incomes are based on the latest results of enterprise surveys.

Manufacturing: Registered

33.39 The data on factor incomes and property incomes are available from the results of Annual Survey of Industries (ASI). The compensation of employees comprises total emoluments and Employers' Contribution to provident and other funds. The proportional composition of factor incomes as worked out in case of units covered under ASI is applied on the total NDP of the registered manufacturing sector.

Manufacturing: Unregistered

33.40 The components of factor incomes and property incomes for this sector which is taken as unorganised are based on results of NSS 56th Round (2000-01) survey on unorganized manufacturing. The benchmark estimate of compensation of employees, rent and interest prepared for the year 2000-01 are subtracted from the net value added to get the estimates of mixed income of self employed. The bench mark estimate of compensation of employees is moved backward and forward with the help of composite index of working force and index of wages. The index of wages is also a combined index number of wages of rural skilled worker and index of wages of factory workers in urban areas drawing less than Rs.1000/- per month, weight being the working force for rural and urban areas given by the population census. The component of rent in the bench mark year have been moved to other years using the estimate of

rent in Annual Survey of Industries (ASI) and interest with the help of the index of outstanding credit of scheduled commercial banks at the end of the year to the small scale industries obtained from the RBI publication on banking statistics.

Electricity, gas & Water Supply

33.41 Electricity: The activities covered in this industry are organised in nature. The estimates of factor incomes and property incomes of electricity industry are based on the basis of analysis of annual accounts of electricity undertakings. The activities undertaken departmentally are covered through the budgetary information and that of non departmental enterprises and private companies covered through their respective annual reports. While analysing the reports, care has been taken to exclude value added corresponding to construction activity undertaken by the NDCUs.

33.42 Gas: The factor incomes and property incomes from liquefied petroleum gas (LPG) are estimated on the basis of the components, compensation of employees, rent & interest as available for the industry group of petroleum refineries of Annual Survey of Industries. In the case of Gas Authority of India Limited, factor income and property income estimates are based on the results of the analysis of annual reports. In the case of Gobar Gas, the components of value added is assumed to be mixed income of the self employed as the whole activity is in the unorganised sector.

33.43 Water Supply: The value added in water supply activity is arrived at by estimating the compensation of employees and operating surplus, separately for public and private segments. The estimates of compensation of employees are built up on the basis of information available in the budget documents of the public sector. The estimates of factor incomes in the private unorganised sector is in the form of mixed income of self employed as no details are available. Therefore, the entire NDP in respect of unorganized sector is taken as mixed income.

Construction

33.44 The estimates of factor incomes and property incomes in construction are prepared separately for the organised and unorganized segments. The organised segment comprises public sector and private organised sectors (including plantations). The unorganised

segment comprises urban and rural residential and non residential buildings in the unincorporated enterprises including households. However, the construction work done by public and private corporate sectors through contractors, which are part of unorganised sector, has been included in the unorganised sector. For preparing the estimates of factor incomes, the net value added of the sector is divided first between the organised and unorganised segments. The value added for the unorganised sector is derived from value of construction in this segment and using method given in the chapter on construction. The factor income distribution of net value added in the organised sector other than NDCUs, public authorities and plantations is prepared on the basis of the relevant proportions determined with the help of the data from the sample studies on finances of public and private limited companies conducted by the RBI and the data on total paid up capital received from the Ministry of Company Affairs. In the case of NDCUs and public authorities engaged in construction, the factor income estimates are obtained directly by analysing their annual reports and budget documents, respectively. As no data on rent etc., are available in the case of public authorities, the whole of the net value added of such authorities is treated as compensation of employees. In the case of construction activity connected with plantations, total value added from this activity is taken as compensation of employees as these are mainly of labour intensive type.

33.45 The factor incomes and property incomes in the unorganised sector are estimated in terms of compensation of employees, mixed income of self employed and interest. Due to non-availability of data, rent payments in such construction are assumed to be negligible. The proportion of borrowings to total expenditure in construction has been estimated on the basis of data on 'average amount of finance raised per construction by source of finance and type of structure and nature of construction' given in the report No. 377 on building construction, 44th Round (NSSO, 1990), for rural and urban areas separately. The total borrowings for each type of construction activity in unorganised sector has been estimated with the help of this proportion from the total construction expenditure based on AIDIS, 2002-03. The rate of interest used is the weighted average rate of interest derived on the basis of data on ' interest rate of loans contracted by agency giving loans

for individual owners and organisations' and the 'average amount of finance raised per construction by source of finance' type of structure and nature of construction' again thrown by the same NSS 44th Round in report No. 377 on Building Construction. This interest rate is applied on the amount of borrowings to estimate the total interest payments. The value added net of interest payments is distributed between compensation of employees and mixed income of self employed on the basis of the ratios estimated with the help of the data on average amount of wages per construction for hired labour and household labour obtained from the above mentioned NSS Report. The proportion observed have been applied to all the years on net value added in the unorganised sector.

Trade, hotels & restaurants

33.46 Trade: The factor incomes and property incomes estimates in respect of trade have been prepared separately for organised and unorganised segments. The organised part comprises public & private corporate sector and cooperatives. The estimates from public sector are based on actual analysis of annual reports. In the case of cooperatives, the requisite data have been culled out from the publication *'Statistical Statements Relating to Cooperative Movement in India'* by National Bank for Agriculture and Rural Development (NABARD). The estimates for private corporate sector are prepared using the data based on detailed analysis of finances of joint stock companies as supplied by Reserve Bank of India. In the case of unorganised part, factor incomes estimates for 1999-2000 are based on NSS 53rd Round survey results.

33.47 Hotels & Restaurants: The estimates are prepared in two parts, namely, organised part and unorganised part. The organised part comprises public and private corporate sectors. The estimates for public part are based on analysis of the annual reports and those for private corporate sector are based on the RBI data like those on trade. In the case of unorganised part, the estimates of factor incomes and property incomes for 1999-2000 are based on the results of NSS 57th Round survey.

Transport, Storage and Communication

33.48 Railways: Data on compensation of employees, operating surplus and property incomes for government railways (excluding railway workshops and manufacturing establishments) are available from the budget documents of the Central Government

and annual reports of the Indian Railways. The amount of interest for the entire railway sector (given in the budget documents) is bifurcated into transportation and manufacturing (including railway workshops) activities on the basis of the capital-at-charge in respect of various railway units published annually in the Explanatory Memorandum on Railway Budget. As the value added from non-government railways is negligible, no separate estimates of factor incomes have been made in respect of non-government railways. However, the factor incomes of NDCUs, Konkan Railways and Delhi Metro Rail Corporation are separately compiled from their annual reports.

33.49 Transport by other means: The factor incomes and property incomes estimates in the organised part of the transport by other means, which consists of passenger and freight transport by road in public sector; sea transport by shipping companies; port trusts, ports and pilotages; light houses and light ships; air transport, flying and gliding clubs and air ports, are obtained by analysing the budget documents/annual accounts of the public sector departments/non-departmental enterprises and private shipping companies. The estimates of the road transport for the private corporate sector which also forms part of the organised sector are based on the RBI studies on "Finances of Private and Public Limited Companies".

33.50 In respect of unorganised transport segment, the factor income and property income estimates for the base year have been prepared by using the results of NSS 57th Round survey. The estimates so obtained for the base year are moved to other years with the help of appropriate indicators. The compensation of employees are moved with the help of combined index of working force and index of wages. The index of wages is also a combined index of wages of rural skilled workers and consumer price index number of urban non-manual employees using hired workers in rural and urban areas respectively. The indicator for rent is the combined index of working force and implicit index of rent of dwelling. Interest is moved with the index based on the outstanding credits of scheduled commercial banks. Mixed income of self-employed is obtained as a residual.

33.51 Storage: The estimates of factor incomes and property incomes of the organised part of the storage, namely state warehousing corporations/central warehousing corporations are obtained by analysis of their annual accounts. Regarding the cold storage, the estimates are based on ASI data. In the case of warehousing, in the private sector and storage not elsewhere classified, the estimates are based on the results of Enterprise Survey, 1992-93, which has been super imposed on net value added on all the years.

33.52 Communication: The estimates of factor incomes of postal (excluding post office savings banks and postal life insurance) and departmental telecommunication services are obtained through the analysis of data contained in the Central Government Budget Documents. The factor incomes in respect of non-departmental undertakings and those in the corporate sector, are prepared on the basis of data contained in the annual accounts of these undertakings. The unorganized segment's estimates of factor incomes are compiled using the results of NSS 57th Round survey.

Financing, Insurance, Real Estate, & Business Services
Banking & Insurance

33.53 In respect of commercial banks and the banking department of RBI, factor incomes are estimated from the data contained in "Special compilation on income and expenditure of banks" made available by the RBI. The factor income estimates in respect of post office savings banks are prepared on the basis of data contained in the annual budget documents of Department of Posts. The only factor income in respect of this activity is the compensation of employees, which is estimated as a proportion of the management expenses. The proportion of compensation of employees to the management expenses as worked out in respect of commercial banks is applied in case of post office savings banks also. The estimates in respect of Cooperative Credit Societies are worked out from the data on income and expenditure contained in the statistical statements received from the RBI/NABARD. The factor income estimates in respect of public sector non-banking financial corporations and companies, including Employees' Provident Fund Organisation (EPFO) are prepared from the data contained in their annual accounts. In respect of private financial companies, the estimates are based on the sample studies of the RBI on "Performance of financial and investment companies". However, in this case, rent is estimated as a proportion of other expenses.

The proportion as observed in the case of public sector financial corporations and companies is applied on private non-banking financial companies also. The entire income generated by the activities of money lenders, pawn brokers, etc. is taken as the mixed income of self employed which is estimated as one third of the net value added of the public sector and private sector non-banking financial companies.

33.54 Factor incomes in respect of Life Insurance Corporation of India (LIC), General Insurance Corporation (GIC) and its subsidiaries are worked out from the data contained in their annual accounts. However, in respect of General Insurance Corporation and its subsidiaries, the 'rent' is included under 'expenses of management'. The details of 'expenses of management' are collected directly from the GIC and its subsidiaries, which are analysed to work out the factor incomes as well as the rent component. In case of Postal Life Insurance, the factor incomes are estimated on the basis of data in respect of this activity contained in the budget documents of the Department of Posts. The commission paid to the agents by the LIC, GIC and its subsidiaries is treated as mixed income of self employed.

Real estate, ownership of dwellings & business services
33.55 The estimates of factor incomes and property incomes are prepared separately for organised and unorganised segments. The organised part comprises of Real Estate and business services comprises units under private corporate sector and public sector. Remaining part is treated as unorganised. The organised sector has been further broken up into public & private corporate sectors. The methodology used for preparing the estimates of factor incomes is given below:

33.56 Real Estate and business services: Organised activities here originate in public and private joint stock companies. The estimates of this sub sector are prepared by analysing the reports of the companies. These estimates are blown up by the ratio of the total paid up capital of all real estate companies to the

paid up capital of the companies covered under analysis. The entire NVA of unorganised sector has been treated as factor incomes in form of mixed income of self employed.

33.57 Ownership of Dwellings: The entire NVA of unorganised sector has been treated as factor incomes in the form of mixed income of self employed.

Community, social & personal services
33.58 Public Administration and Defence: The only factor income of this sector is the compensation of employees which is estimated by analysing the data contained in the budget documents of the Central and State Governments and the local authorities. Compensation of employees in respect of the Issue Department of the RBI, which is treated as an administrative department, are also added to it. However, compensation of employees in respect of the EPFO, which is treated as an administrative department, are not included to it, but shown separately under banking and insurance.

33.59 Other Services: The estimates have been prepared separately for organised and unorganised sectors. The organised sector comprises of public and private corporate sector medical, sanitary services, TV and radio broadcasting and other services and public and recognised educational institutions in the private sector. The remaining services are considered in the unorganised sector. For all the organised activities (excepting T.V. & Radio), in the public sector, the factor incomes consist of compensation of employees only. For T.V. and Radio, it comprises both compensation of employees and operating surplus. However, the components of rent and interest are not there in this case. The factor incomes in respect of private corporate segment are prepared on the basis of RBI data on company finance studies, as well as, the information available from the results of NSS 57th Round survey. For the unorganized segment of these economic activities, the factor are prepared using the results of NSS 57th Round survey.

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