

Estimation of Rural and Urban Income, 2004-05

1. Introduction

1.1 The Central Statistics Office (CSO) has been compiling estimates of Rural and Urban income of the Indian economy in terms of net domestic product (NDP), for the base years of National Accounts Statistics (NAS) series, since the NAS, 1970-71 series. These NDP estimates with rural and urban break-up were so far compiled for the years 1970-71, 1980-81, 1993-94 and 1999-2000. The procedure adopted for compiling these estimates was the allocation method in which the activity-wise NDP was allocated between rural and urban areas using data on indicators available for each economic activity with rural and urban break-up. The major indicators used in this allocation method were the estimates of labour input, results of surveys and administrative records which provide rural and urban break up of data on these indicators.

1.2 Continuing with this practice and the sources and methods broadly adopted for the previous estimates, the NDP for rural and urban areas has been compiled for the year 2004-05, following the introduction of new NAS series with base year 2004-05.

2. Methodology adopted in estimating Rural and Urban Income, 2004-05

2.1 The approach and methodology for estimating the Rural and Urban income (in terms of Net Domestic Product –NDP), activity-wise, is given in the following paragraphs.

Agriculture

2.2 The Situation Assessment Survey (SAS) of farmers, 2002-03 conducted by the National Sample Survey Organisation (NSSO) provides the total area operated separately in respect of rural and urban areas. The ratio of area of land holdings in rural areas to the total area under land holdings as per the results of SAS is estimated at 95.86%. This ratio has been used for allocating the NDP of Agriculture between rural and urban areas.

2.3 For the livestock, the basic source of data for the livestock population is the 5-yearly All India Livestock Census. According to the results of the latest Livestock Census conducted in the year 2003, the proportion of livestock population (including poultry) in rural areas out of total livestock population has been estimated to be 94.18%. This ratio has been used for allocating the NDP of livestock between rural and urban areas. In the case of operation of irrigation system, the entire NDP has been allocated to rural areas.

Forestry & Logging

2.4 The data on production of Forestry products is not available separately for rural and urban areas. However, firewood production is estimated on the basis of firewood consumption, as available from NSS consumer expenditure surveys,

in the GDP estimates. For estimating the consumption of firewood separately in rural and urban areas, the data on per capita average monthly household consumption of firewood and chips is available in the NSS 61st Round Survey (Report no.508) separately for rural and urban areas. As per the results of this survey, the ratio of consumption of firewood in rural areas is 87.01%. For industrial wood, the major component is wood produced from trees outside forests (TOF). For this, the growing stock of TOF in rural areas as estimated by the Forest Survey of India (FSI) has been applied on the output of total Industrial wood to get the rural share of the output of this item. The ratio of growing stock of TOF in rural area out of the total area is 94.97%. The combined ratio of firewood and industrial wood in rural areas has been used to allocate the NDP of forestry sector between the rural and urban areas.

Fishing

2.5 The Fishing activity comprises production of inland fish and marine fish. The urban and rural workforce, multiplied by average wage for unskilled workers in urban and rural areas respectively as available in report No. 515 (Part II) of NSS EUS 2004-05 titled '**Unemployment and employment situation in India, 2004-05**' provided the ratio for allocation of NDP of fishing sector between the rural and urban areas.

Mining and Quarrying

2.6 The rural/urban proportions of workforce in mining and quarrying as available from the NSS Employment Unemployment Survey of 61st round, 2004-05 has been utilized to allocate the NDP of the activity between rural and urban areas.

Registered Manufacturing

2.7 For the registered manufacturing sector, the NDP has been allocated using the estimates of net value added (NVA) in rural and urban areas as available directly in the reports of the Annual Survey of Industries (ASI) for the year 2004-05.

Unregistered Manufacturing

2.8 For unregistered manufacturing sector, the differential in rural and urban GVA estimates obtained from the 62nd Round (2005-06) Survey of NSSO on unorganised manufacturing sector conducted in 2005-06 has been used to compute rural-urban estimates of NDP for unregistered manufacturing.

Electricity, Gas and Water Supply

2.9 The rural/urban proportions of the workforce for the year 2004-05, for Gas, Electricity and Water Supply sector, have been utilized to work out the rural/urban NDP estimates of this activity.

Construction

2.10 The estimates of NDP in the construction industry have been distributed between rural and urban areas for each of the three institutional sectors, namely public sector, private corporate sector and household sector using the following methodology:

2.11 For each of the different sub-sectors in different institutions, norms for apportioning the estimates of total NDP in construction industry into rural and urban categories have been prepared based on census and different surveys' results. The norms are described below:

- (i) For the public sector, estimate of NDP is prepared for each of the three sub-institutions, namely, (i) administrative departments, (ii) departmental commercial undertakings (DCU) and (iii) non-departmental commercial undertakings (NDCU). Again with in each of the sub-institutions, estimates of NDP are prepared for different types of assets like buildings, roads & bridges and other construction. The estimates of NDP in construction in public administration and DCUs have been apportioned between rural and urban areas in proportion to rural urban differential in labour input (LI) of this component as available form the Employment Unemployment Survey of 61st round, 2004-05. This proportion is 86.9 and 13.1 in rural and urban areas respectively. For NDCUs, the NDP is apportioned industry wise. The construction in Agriculture & allied and Mining & Quarrying is attributed to rural areas only. Whereas the construction in industries like construction, trade, hotel & restaurant, transport, storage, real estate etc, and other services are taken in urban areas only. For the other industries, the NDP is apportioned in rural and urban areas based on rural-urban distribution of new construction of joint stock companies from ASI 2004-05.
- (ii) In case of the private corporate sector, the estimates of NDP are prepared separately for each of the sub sectors namely (i) joint stock companies (ii) other scheduled commercial banks (iii) cooperatives (credit and non-credit) and (iv) new companies under construction. For item no. (i), (iii), and (iv), the NDP is apportioned industry wise. The construction in Agriculture & allied activities and Mining & Quarrying is attributed to rural areas only. Whereas construction in industries like construction, trade, hotels & restaurants, transport, storage, real estate etc, and other services are taken in urban areas only. For other industries, the NDP is apportioned between rural and urban areas based on rural-urban distribution of new construction of joint stock companies as available from the results of ASI 2004-05. The NDP for other scheduled commercial banks (private banks and foreign banks) has been apportioned into rural and urban sectors in proportion to the rural-urban share of sum of deposits and credits of other scheduled

commercial banks for the year 2004-05. The source of this data is the RBI's statistical tables relating to banks in India, 2004-05. The respective rural-urban proportions in this case are 25.85% & 74.15%, respectively.

- (iii) In the household sector, specific activities like construction of rural residential buildings and urban residential buildings have been allocated to their respective areas as presently being compiled for the annual GDP estimates. The entire NDP obtained for expenditure on plantation of crops, wind energy systems etc. has been earmarked to rural sector. The expenditure on account of residual part of construction (after netting public, private corporate and household parts construction from the overall output of construction) has been apportioned into rural and urban areas by the proportion of labour input (LI) working in rural area and urban area as available from the Employment Unemployment Survey of 61st round, 2004-05. For the construction on account of non-residential buildings and other construction works, the estimate has been apportioned into the rural and urban areas based on the of rural urban expenditure on new construction as available from All India Debt and Investment Survey (AIDIS) 2002-03.

Trade, Hotels and Restaurants

2.12 The GVA for this sector is prepared in three parts namely, public, private organised and unorganized. The GVA of public and private organised sector is allocated to rural and urban areas on the basis of rural-urban differential in total workforce of the respective segments as derived from the EUS-2004-05. For the unorganized part, the GVA estimates are available separately for rural and urban areas in the annual NAS estimates. The differential in rural and urban GVA thus obtained has been applied on total NDP in the household sector to get rural and urban estimates of NDP. For trade activity, the GVAPW has been taken from the 55th Round (1999-2000) survey of NSSO on Informal Sector and for Hotels and Restaurants, the GVAPW has been obtained from Enterprise Survey of NSSO of 57th round (2001-02).

Transport other than railways and storage

2.13 The GVA estimates of rural and urban areas have been prepared using the methodology similar to that of Trade, Hotels and Restaurants. The GVA of public sector is allocated to rural and urban areas on the basis of rural-urban differential in total workforce. For the private organized and unorganized part, the GVA estimates are available separately for rural and urban areas in the annual NAS estimates. The differential in rural and urban GVA has been applied on total NDP to obtain rural and urban estimates of NDP. To compute GVA from unorganized component of all these sectors, the GVAPW has been obtained from Enterprise Survey of NSSO conducted in its 63rd Round (2006-07).

Communication

2.14 The GVA of public sector is allocated to rural and urban areas on the basis of rural-urban differential in total workforce. The private communication part includes (i) Courier activities (NIC-98, code-64120), (ii) Activities of the cable operators (NIC-98, code-64204) and (iii) Other communication (NIC-1998, code-642 (-) 64204). For Courier activities and cable operators, GVA estimates are available separately for rural and urban areas in the annual GDP estimates. For other communication, estimates of GVA for private organized part is taken to be in urban areas whereas estimates of GVA for unorganized part is available separately for rural and urban areas in the annual GDP estimates. The differential in rural and urban GVA thus estimated, has been applied on total NDP to allocate between rural and urban estimates of NDP.

Banking & Insurance

2.15 In the case of Banking & Insurance sector, the rural and urban break-up of deposits and credits of scheduled commercial banks has been used as an indicator for allocation of the NDP between the rural and urban areas. The data on deposits and credits of scheduled commercial banks has been obtained from the Reserve Bank of India publication –“Basic Statistical Returns-2004-05”.

Real estate, Ownership of dwellings & business services

2.16 The economic activities covered in this activity are (i) ownership of dwellings (occupied residential houses), (ii) real estate services (activities of all types of dealers such as operators, developers and agents connected with real estate), (iii) renting of machinery and equipment without operator and of personal and household goods, (iv) Computer and Related Activities, (v) Accounting, Book-keeping and Related Activities, (vi) Research and development, market research and public opinion polling, business & management consultancy, architectural, engineering & other technical activities, advertising and business activities n.e.c. and (vii) legal services. Ownership of dwellings includes the imputed value of output of owner occupied dwellings.

2.17 For all the activities of this sector except for private organized part of software and ownership of dwellings, estimates of GVA are prepared separately for rural and urban areas as a product of GVAPW and work force in the annual GVA estimates. The entire GVA of software services from organized sector has been allocated to urban areas.

2.18 For GVA estimate in respect of ownership of dwellings, 2001 census households and rent per household obtained from results of NSS 61st round has been used to estimate the gross rental in urban areas. Cost of repair & maintenance has been subtracted from the gross rental, to get the GVA estimates for urban areas. For rural areas, the user cost approach is used to estimate GVA. The NDP is allocated to rural and urban areas on the basis of rural-urban differential in GVA.

Public Administration and Defence

2.19 For “Public Administration and Defence” the distribution of employees in different pay scales has been taken from the publication “Census of Central Government Employees as on 31st March, 2004” of the Directorate General of Employment and Training (DGE&T). The information on pay and allowances in the different city/towns available in the brochure on “Pay and Allowances of Central Government Civilian Employees, 2004-05’ published by the Pay and Research Unit of Ministry of Finance has been combined with the number of employees in respective categories to compute income of employees in different cities. The cities categorized A1, A, B1, B2 and C are assumed to be urban areas and the residual is assumed to be rural areas. The rural and urban differential in total earnings (salaries and allowances) has been used to allocate the total NDP between rural and urban areas.

Railways

2.20 For Railways, the rural and urban differential in workforce from RGI-Population Census 2001 has been applied on the NDP of railways to allocate the NDP of railways between rural and urban areas.

Other Services

2.21 The economic activities covered under this sector are (i) Coaching and Tuition, (ii) Education excluding Coaching and Tuition, (iii) Human health activities including veterinary activities (iv) Sewage and refuse disposal, sanitation activities, (v) Activities of membership organisations, (vi) Recreational cultural and sporting activities, (vii) Washing and cleaning of textiles and fur products, (viii) Hair Dressing and other Beauty Treatment, (ix) Funeral and related activities, (x) Pvt. households with employed person, (xi) Custom Tailoring, and (xii) Extra Territorial organisations and Bodies.

2.22 For the public part of education, medical, sewage and television & radio (Prasar Bharati), the GVA is allocated between rural and urban areas on the basis of rural-urban differential in total workforce as per EUS 2004-05. For all other activities of this sector, the estimates of GVA for private organized and unorganized are available separately for rural and urban areas as a product of GVAPW and work force in the annual GVA estimates. The rural-urban GVA thus obtained has been used for allocating the NDP between rural and urban areas.