

## CHAPTER II

### FORESTRY AND LOGGING

#### Coverage

2.1. The economic activities considered include (i) forestry (gathering of uncultivated forest products, charcoal burning carried out in the forests and the like) and (ii) logging (felling and rough cutting of trees, hewing or rough shaping of poles, blocks, etc.) and transportation of the logs upto the permanent lines of transport. The forest products are classified into two broad groups, viz., (a) major products comprising industrial wood (timber, round wood and match and pulp wood) and fuel wood (fire wood and charcoal wood) and (b) minor products, comprising a large number of heterogeneous items such as bamboo, sandal wood, charcoal, lac, etc.

#### Methodology and Source Material

##### Estimates at current prices

2.2. The domestic product is measured following the 'production approach'.

##### Value of major products

2.3. For major products, statewise data on quantities exploited and royalty value are released annually in *Forestry in India* by DESAg in a mimeographed form. For recent years for which information is not available from DESAg, production and wholesale prices (inclusive of trade and transport margins) data at assembling centres are obtained from the Chief Conservator of Forests in each state.

2.4. For estimating the value of output of major products, the recorded production is evaluated at producers' prices at the state level. The producers' prices are estimated by adjusting the wholesale prices for trade and transport margins which are determined from the details available in the "*Timber Trends Study for the Far East, Country Report for India*" (Inspector General of Forests, 1958).

2.5. The available evidence shows that considerable quantities of industrial and fuel wood escape official recording. A rough estimate of the extent of under reporting/illegal removals of major forest products for the year 1957-58 is given in the "*Timber Trends and Prospects in India, 1960-75*" (Ministry of Food and Agriculture, 1962). On this basis an allowance of 10 p.c. of the value of recorded production is made to cover all such unrecorded production for major forest products.

##### Value of minor products

2.6. Information on the minor products available is in the form of royalty value or contract fee realised by the government and not the economic value of output of these products. The reported figures are therefore adjusted to

arrive at their economic value. The value of output is therefore worked out indirectly from the royalty value using the ratio of the total value of output (recorded and unrecorded) to royalty value of the major products. However, to the extent data on production and prices of different categories of minor forest products (e.g. charcoal in Kerala and A. P., bidi leaves and sandal wood in A. P., bamboo in A. P. & U. P. and resin in H. P.) are available, their value is estimated separately and included in the total.

##### Value of inputs

2.7. The inputs under this economic activity refer to operational costs and expenditure on repairs and maintenance of roads and other assets. Information on purchase of commodities and services for government forests are available from the budgets of the State governments and union territories. On the basis of these details, the total value of operational costs, and repairs and maintenance is taken to be 4 p.c. of the value of output. Using similar details from the budgets, expenditure on consumption of fixed capital is estimated at 1 p.c. of the total value of major and minor forest products.

##### Estimates at constant prices

2.8. In the case of major forest products (industrial wood and fuel wood) for which information on physical output is available, statewise constant price estimates of the value of output are obtained by evaluation of state level output by the corresponding base year (1970-71) prices. For minor forest products for which data on the value of output only are available, the method of deflation is used to estimate the value of output at 1970-71 prices. The relevant index is the weighted average price index of major forest products specially constructed for the purpose using the 1970-71 production figures as weights. The statewise weighted annual average prices per unit of industrial wood and fuel wood are worked out given the data on physical production and value of output. The same proportions of value of operational costs, repairs and maintenance and consumption of fixed capital to value of output as for estimates at current prices are used to obtain estimates of gross and net added values at constant prices.

##### Reliability, Objectivity and Current Status of Data

##### Outturn

2.9. *Indian Forest Statistics* (DESAg) provides detailed information on forest statistics relating to area, volume of standing timber, annual out-turn and value of timber and fire wood,

value of minor forest products etc. This publication, however, has a time lag of more than ten years. The information on area, out-turn and value of forest products is also released in a mimeographed form in the 'Forestry in India' by DESAg (with a time lag of three to four years). These results are made use of for revision of the estimates as and when available. For estimates for recent years, data on production are obtained directly from the Chief Conservators of Forests (also the original source for data published by DESAg). The data on out-turn of major forest products can be said to be comparatively more reliable than those on the minor forest products.

2.10. Considerable quantities of forest products escape reporting as these are removed by unauthorised agencies. The quantity of unauthorised removals is estimated using the proportion worked out using details in the *Timber Trends Study in the Far East, Country Report for India* (Inspector General of Forests, 1958) and the *Timber Trends and Prospects in India, 1960—75* (Ministry of Food and Agriculture, 1962). This is only a point estimate and relates to 1957-58. Further, this estimate of unautho-

rised removals is prepared from consumption angle and as such may not be comprehensive.

#### Prices

2.11. The data on prices of major forest products are obtained from the Chief Conservators of Forests. The data provided by them relate to the price prevailing in the markets and as such do not represent the producers' prices. The number of marketing centres covered is also very limited in most of the states. In order to correct these prices, a deflation factor worked out on the basis of the data given in the *Timber Trends Study in the Far East, Country Report for India* is used. The deflation factor which relates to 1953-55 calls for updating on the basis of more recent information with better coverage.

#### Inputs

2.12. No objective enquiries have so far been conducted to provide the estimates of repairs and maintenance and consumption of fixed capital in respect of this sector. This, in a way, is the most important data limitation for this sector and affects the reliability of the estimates presented.