Chapter Nine

VISIBLE AGRICULTURAL UNDEREMPLOYMENT

in

INDIA

9.0 Underemployment is not a peculiar phenomenon of Indian agriculture alone, it has persisted in acute degrees in East European countries, in years preceding the World War II. Estimates of the degree of underemployment in these countries varied from 25 to 45 per cent. All the methods that were employed to measure underemployment are based on certain norms such as 'work-unit' or 'crop-unit' or 'per capita output' or 'disparity between agricultural and non-agricultural incomes'. It is also not clear whether the aim is to measure the actual surplus labour-power or that which would result according to the norms adopted. In India also, efforts have been made recently by some economists for measuring agricultural underemployment. But all of these estimates are based on the conception of 'work-unit' of cultivation.

9.1 Thus the methods so far adopted for measuring agricultural under-employment have been very crude and arbitrary. No attempt has been made to estimate the degree of under-employment, by first

1. These are: Estonia, Latvia, Lithuania, Poland, Czechoslovakia, Rumania, Hungary, Jugo-slavia, Bulgaria, Albania, and Greece.
3. (a) Tarlok Singh: 'Poverty and Social Change'; Longmans, Green and Co. Ltd.; pp. 25. (b) Gupta, M.L.; 'Problems of Unemployment in India'; pp. 25.
estimating the total amount of labour-time utilised in the industry in a given year, and the total amount of labour-time available. The concepts regarding different forms of underemployment have also not been clearly stated.

**VISIBLE AGRICULTURAL UNDEREMPLOYMENT**

9.2 Underemployment may exist in an industry in three forms: Visible, Invisible and Potential. Visible underemployment measure the proportion of surplus labour time in an industry to total labour time available.

\[ U = \frac{W - E}{W} = 1 - \frac{E}{W} \]

where \( U \) is the degree of visible underemployment; \( W \), the labour-time available; and \( E \), the labour-time actually utilised. Invisible underemployment measure the proportion of labour-time, that would be released without reducing total output, to total labour-time utilised if such labour-saving techniques of production and organisation are adapted that do not involve any net addition of capital outlay. Potential underemployment refers to the labour-time that would be released when some fundamental changes in the techniques of production or organisational structure are introduced that involve a net addition of capital outlay. The main purpose of this chapter is to study the degree of visible underemployment in India which is of immediate concern to the people in general and to the planners in particular.

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4. See 'International Labour Review' June 1952 'Underemployment in South East Asia'
LABOURTIME AVAILABLE IN AGRICULTURAL INDUSTRY IN 1950-51.

9.3 The rural population in India in 1950-51 was 294,810,628. The percentage of earners, helpers and dependants to the total rural population was:

<table>
<thead>
<tr>
<th></th>
<th>Earners</th>
<th>Helpers</th>
<th>Dependants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>22.5</td>
<td>7.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Female</td>
<td>6.9</td>
<td>9.0</td>
<td>13.9</td>
</tr>
<tr>
<td>Boys + Girls</td>
<td>1.0</td>
<td>2.4</td>
<td>35.0</td>
</tr>
</tbody>
</table>

9.4 The occupational structure of the rural labour-force, i.e., of earners and helpers is not identical with that of the families. This is shown in the following statement. For purposes of this classification, the occupation of the helper is taken to be that of the head of the family, whom he helps.

<table>
<thead>
<tr>
<th></th>
<th>Land-owners</th>
<th>Tenants</th>
<th>Agricultural workers</th>
<th>Non-agricultural workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family occupation</td>
<td>26.6</td>
<td>25.7</td>
<td>30.4</td>
<td>17.3</td>
</tr>
<tr>
<td>Occupation of labour-force</td>
<td>26.4</td>
<td>25.6</td>
<td>26.9</td>
<td>21.1</td>
</tr>
</tbody>
</table>

9.5 As the helpers are expected to follow the family occupation, the occupational distribution of earners can be discovered by deducting the number of helpers from the total number of workers in each occupation. This is brought out in Appendix V, table II. About

6. Rural Manpower and Occupational Structure; Government of India, Ministry of Labour, Agricultural Labour Enquiry pp.509, Appendix VI.
7. Ibid, pp. 19, Statement VII.
8. Ibid pp. 19 line 1.
26 per cent of the total number of earners had subsidiary occupations and the remaining had to depend only on the occupation, inadequate, though it may be.

### Subsidiary Occupation of Earners

**All India**

<table>
<thead>
<tr>
<th>Main Occupation</th>
<th>Percentage of earners having subsidiary occupations</th>
<th>Percentage of earners having the following subsidiary occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ownership</td>
<td>%</td>
</tr>
<tr>
<td>Ownership</td>
<td>5.1</td>
<td>-</td>
</tr>
<tr>
<td>Tenancy</td>
<td>5.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Agricultural labour</td>
<td>8.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Non-agricultural labour and other non agricultural work</td>
<td>7.8</td>
<td>2.6</td>
</tr>
<tr>
<td>All earners</td>
<td>26.1</td>
<td>6.5</td>
</tr>
</tbody>
</table>

9.6 From the above table it is seen that the percentage of owners, tenants, and agricultural labourers having non-agricultural secondary occupations was 2.3, 2.3, and 3.3 respectively and that of non-agricultural workers having agricultural subsidiary was 6.9. It can be stipulated that about one-third of labour-time of a worker is utilised in the subsidiary occupation. It means that the percentage of labour-time of owners, tenants and agricultural labourers utilised in non-agricultural occupations was .77, .77 and 1.1 respectively and that of non-agricultural workers in agricultural work was 2.3.

9. Ibid pp. 21, Statement II.
On the basis of the above, the net number of agricultural earners can be calculated. The adjusted figures for agricultural earners are given in Appendix VI, table 2.

9.7 A male worker cannot work on all days of the year. On some days he is not able to work for reasons other than want of work such as ill health, bad weather, festival and festivities. It is assumed that a male worker can work on 350 days per year. If, as is the case in other industries, a week is taken of 6 days only, then a male agricultural worker can work for 300 days only. A female worker who participates in agricultural work is assumed to work for 120 days in a year. A boy or girl worker is assumed to work for 150 days in agriculture; The assumptions are based on the findings of Agricultural Labour Enquiry regarding agricultural labouring families.

9.8 The total number of labour-days available in 1950-51 in Indian Union was 30021821000 on the assumption of 350 working days for men and 26536596000 on the basis of 300. This has been worked out in Appendix V, table 3.

**Labour Days Worked in Indian Agricultural Industry in 1950-51**

(a) Labourdays worked in growing main crops;
(b) Labourdays worked in growing other crops;
(c) Labourdays worked in the up-keep and maintenance draught cattle.

9.10 The estimate of labourdays worked in growing main crops are based on NSS contained in the schedule no. 2.1 of 5th, 6th and 7th

10. This is based on the estimates made by the "Report on Intensive Survey of Agricultural Labour, Government of India, Ministry of Labour, Vol. I, All-India pp.42.
11. Ibid pp. 32 and 83.
rounds. Average number of labour-days worked for growing a major crop per acre were arrived at by dividing the total number of labour-days worked for growing a major crop by the total acres under it for all the three rounds and for all the seasons. For minor crops, first an arithmetic average of labour days per acre was taken for all seasons and for each round and then a geometric mean was calculated after discarding the abnormal figures. This is shown in tables 4 and 5 of Appendix VI.

9.11 The number of labourdays worked per acre were then multiplied by the number of acres under each crop in 1950-51. The total number of labour-days worked in growing main crops is shown in table 1, Appendix V.

9.12 The total number of labourdays worked in growing other crops has been taken as the average of total number of labour days worked in the 5th and 6th rounds, for which alone data were available. This is shown in table 2, Appendix V.

9.13 The number of labour-days utilised in cattle services were calculated on the basis of two and half hours per cattle per day or 114 labour days per year. The NSS gives very exaggerated estimates amounting to about one labour day per cattle per day. Hence it could not be accepted, and the present calculation was based on the average labour-time spent for the up-keep and maintenance of one draught cattle on the non-mechanised agricultural farms in North India. This is shown in Appendix VI, table 3.

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13. Area under crops was obtained from 'Abstract of Agricultural Statistics' India 1953.
14. fruits, fuel-wook, fodder, other plants
9.14 The total estimated number of labourdays worked in 1950-51 was:

<table>
<thead>
<tr>
<th>Labourdays (in 000)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main crops</td>
<td>3785328</td>
</tr>
<tr>
<td>Other crops</td>
<td>2133022</td>
</tr>
<tr>
<td>cattle-service</td>
<td>7343766</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15262116</td>
</tr>
</tbody>
</table>

**VISIBLE AGRICULTURAL UNDEREMPLOYMENT IN INDIA IN 1950-51**

9.15 Total number of labourdays available in Indian Agricultural industry in 1951:

\[
W_1 = 30021821000 \\
W_2 = 26536596000
\]

where the subscripts 1 and 2 denote whether the number of working days for men has been taken 350 or 300 per year respectively.

9.16 The total number of labourdays worked in 1950-51

\[
E = 18262116000
\]

9.17 The visible agricultural underemployment in India in 1950-51

\[
U_1 = \frac{W_1 - E}{W_1} = 0.3917 \\
U_2 = \frac{W_2 - E}{W_2} = 0.3118
\]

This shows that visible underemployment was about 39.17 per cent on the assumption that a man worker works for 350 days a year and 31.18 per cent on the assumption of 300 day.

9.18 Various authorities and institutions have tried to estimate agricultural underemployment in various countries. Appendix VII gives a summary of these attempts.