Assam is an important State in the North-Eastern corner of India with a total population of 14625152 in a total area of 78523 square kilometres as against India's total population of 548159652 and in a total area of 3287782 square kilometres. Thus Assam represents 2.67 per cent of the total population and 2.39 per cent of the total area of the country. After the re-organisation of the North-Eastern Region in January 1971, Assam now consists of 8 (eight) plains districts, viz., Goalpara, Kamrup, Darrang, Nowgong, Sibsagar, Lakhimpur, Dibrugarh and Cachar with 14169795 of population and 63301 square K.M. of area and 2 (two) hill districts, viz., Karbi Anglong and North Cachar Hills with a population of 455357 and an area of 15222 square K.M.

By virtue of its geographical situation it occupies a strategic position in the political map of India and thus forms the core of the whole of North-Eastern Region of India and provides the links in transport and communication serving her farflung neighbouring States and territories, viz., Meghalaya, Manipur, Tripura, Nagaland, Mizoram and Arunachal Pradesh.

1. Census of India, 1971, Series I, India Part II A(i), General Population Table, p. 54
2. There are three Foreign Territories on its three sides - such as China in the North, Burma in the East and Bangladesh in the South-West.
Assam situated as it is at the North-Eastern Himalayan Sub-Region of India, is bounded by Hills on all sides except on the West, where the State has a common boundary with the Coach-Bihar district of West Bengal and a short-stretch of International boundary with Bangladesh on the South. Her northern frontier from the river Sonkosh on the West to the point of entry of the Brahmaputra into Assam on the East is guarded by the Sub-Himalayan ranges of Bhutan and the Arunachal Pradesh. On the South, it has a common boundary with the States of Nagaland, Meghalaya and the Union Territory of Mizoram and for a small portion it coincides with the international boundary with Bangladesh along the Western border of Cachar district. In the east, the State is bounded by the hills of Arunachal Pradesh.  

Topographically, the State can be divided into two distinct physical divisions - (i) the plains area comprising 8 (eight) plains districts out of which seven districts fall in the Brahmaputra Valley and one plains district falls in the Barak Valley; and (ii) the hills division consisting of the district of Karbi Anglong and the North Cachar Hills. The most dominating feature in the topography of Assam is the courses of the river Brahmaputra which runs directly West-wards for nearly 720 K.M. touching every district in the Valley until

3. World Agricultural Census 1970-71, p. 4. Also vide Map No. 1
4. The Brahmaputra Valley districts are Goalpara, Kamrup, Darrang, Nowgong, Lakhimpur, Dibrugarh and Sibsagar while Cachar district is in the Barak Valley.
it crosses the Goalpara district and enters Bangladesh and
turns to the South. The entire Brahmaputra Valley is flat with
gradual slope and is traversed in all directions by numerous
streams and rivulets from the neighbouring hills flowing down
to the main river.

The Barak Valley stretches to the South of the Shillong
plateau and is also alluvial. Cachar is the only district of
this valley included in Assam - the other district Sylhet having
formed part of erstwhile East Pakistan (now Bangladesh) during
the partition of India in 1947.

The hill areas within Assam comprise the two districts,
viz., Karbi Anglong and North Cachar Hills. Till 1971, both
the districts constituted a single administrative unit known
as United Mikir and North Cachar Hills. The entire area lies
in the Eastern part of the Shillong plateau and the Naga Hills.
The southern face of the region facing Cachar district is
remarkably abrupt, while the northern edge is gradually sloping
towards the Brahmaputra Valley.

Population Pattern:

The total population of Assam as revealed by the 1971
Census was 14,625,152 with 7,714,240 males (53 per cent) and
6,910,912 females (47 per cent) against the all India total
population of 54,815,9652 of which 28,404,9276 are males (51 per
cent) and 26,411,0376 are females5 (49 per cent). It ranks 15th

5. Census of India, 1971, Series I India Part IIA(i), pp. 54-55
among the States and Union Territories of India in terms of population. Inspite of her present reduced size, Assam has maintained the position she had according to the 1951 and 1961 Census. The density of population in Assam is 186 persons per square K.M. against the all India average density of 177 persons per square K.M. The percentage variation of population in Assam during 1951-61 and 1961-71 was 34.98 and 34.95 against the all India variation of 21.51 and 24.80, respectively. Of the total population of the State, 91.18 per cent are predominantly in rural areas and 8.82 per cent are in urban areas of the State against 80.09 per cent and 19.91 per cent in the rural and urban areas of the country as a whole. The sex-ratio (number of females per 1000 males in a population) of population of Assam is 896 as against 930 for the country as a whole. According to the 1971 Census, 28.15 per cent of the total population of Assam was literate against 29.45 per cent for the country as a whole.

6. Meghalaya and Mizoram came into being on 21.1.72 and so also Arunachal Pradesh was formed under Sec. 6 of the North-Eastern Areas (Reorganisation) Act 1971 out of Assam.
7. Census of India 1971, Series I, India Part II A(i), pp.54-55
8. Ibid., p. 124
9. Ibid., pp. 54-55
11. Census of India 1971, Series I, India Part II A(i), p. xxiv
In Assam, persons belonging to Scheduled Castes and Scheduled Tribes constitute 6.24 per cent and 10.99 per cent respectively of the total population of the State against the all India figures of 14.60 per cent and 6.94 per cent respectively. The population of Scheduled Castes is slightly more in urban areas than in rural areas in Assam - the percentage being 6.65 in urban and 6.20 in rural areas. The overwhelming majority of persons of Scheduled Tribes are found in rural areas where they constitute 11.94 per cent of the total rural population of the State as compared to only 1.11 per cent in urban areas.

Workers constitute 28.18 per cent of the Scheduled Caste and 25.44 per cent of the Scheduled Tribes population of the State as against 27.96 per cent of workers out of the total population. The percentage of workers engaged as cultivators is the highest among the Scheduled Tribes (85.31 per cent) followed by those among the general population (55.86 per cent) and the Scheduled Castes (53.52 per cent); workers engaged as agricultural labourers belonging to the Scheduled Castes are 13.50 per cent. The corresponding percentages for Scheduled Tribes workers and general workers are 7.13 and 9.92 per cent respectively. Thus it is found that 92.44 per cent of the

13. Census of India 1971, Series 3 Assam Part I A, p. 34
14. Worker is a person whose main activity is participation in any economically production works by his physical or mental activity.
workers belonging to the Scheduled Tribes is engaged in agriculture as against 67.02 per cent of the Scheduled Castes workers and 65.78 per cent of the general workers.\(^{15}\)

Of the total population of the State 27.96 per cent are workers. The participation rate for males is 48.83 and that for females is only 4.66. In terms of absolute numbers these were 4088493 workers in 1971 as against 4609277 in 1961 showing a decrease of 520784 workers in the year.\(^{16}\) Of the total workers in Assam, 55.86 per cent of the workers are cultivators and 9.92 per cent are agricultural labourers,\(^{17}\) against the all India percentage of 43.34 and 26.33 respectively,\(^{18}\) as cultivators and agricultural labourers. Thus agriculture alone accounts for 65.78 per cent of the workers in Assam. The pattern of distribution among the male workers is almost similar, the highest percentage (69.54 per cent) being engaged in agriculture. Cultivators account for 59.32 per cent and agricultural labourers for 10.22 per cent in Assam.\(^{19}\)

The overwhelming majority of 91.18 per cent of the population of Assam live in rural areas, while only 8.82 per cent live in urban areas - a fact which implies that the

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15. Census of India 1971, Series 3 Assam Part I A, p. 34
16. Ibid., p. 40
17. Ibid., p. 41
18. Census of India 1971, Series I India Part IIA(ii), p. xxviii (or p. 3)
19. Census of India 1971, Series 3 Assam Part IA, p. 41
economy of Assam is still largely agrarian. The rural population is spread over 23101 villages of which 21995 are inhabited and 1106 are uninhabited. More than 55 per cent of the total inhabited villages in the State are small with less than 500 persons in each village. In these villages live 21.42 per cent of the total rural population. The proportion of villages with 500 to 999 persons is 27.05 per cent. The persons living in these villages constitute 31.71 per cent of the rural population. There are 26 villages with 5000-9999 persons and only one village with more than 10,000. 20

Climate:

The climate of Assam is characterised by coolness and extreme humidity. The average monthly humidity in Assam in 1976 was 83 per cent. The average monthly maximum temperature for the month of January, April, June, and December in 1976 was 24°C, 31°C, 30°C and 25°C respectively and the minimum temperature for the same months was 10.2°C, 19.4°C, 23.4°C and 9°C respectively. Similarly, the annual normal rainfall in Assam for 1976 was 2566 millimetre. 21

Agriculture:

The economy of Assam is predominantly agricultural. Accordingly to the provisional estimate of State Domestic

20. Ibid., p. 48
Product for 1977-78 agriculture alone contributed 50 per cent of the total Domestic Product of the State. More than 70 per cent of the population in the State derive their means of livelihood from this sector.\textsuperscript{22}

Of the total workers of the State 55.86 per cent are cultivators, 9.92 are agricultural labourers\textsuperscript{23} against the all India percentages of 43.34 and 26.33 respectively, as cultivators and agricultural labourers.\textsuperscript{24} Thus agriculture alone accounts for 65.78 per cent of the workers in Assam. The pattern of distribution among male workers is almost similar with 69.54 per cent engaged in agriculture, cultivators account for 59.32 per cent and agricultural labourers form 10.22 per cent.\textsuperscript{25} The percentage of rural cultivators in Assam is 61.31 and that of agricultural labourers 10.82.\textsuperscript{26}

**Total Cropped Area:**

The total cropped area in Assam for 1972-73, 1973-74 and 1974-75 was 3019514, 3076232 and 3103904 hectares of which the area sown more than once was 596761, 618095, and 561377 hectares, respectively, and the net area sown was 2422752, 2458137, 2542527 hectares, respectively, for the same years.\textsuperscript{27}

\begin{itemize}
\item \textsuperscript{22} Economic Survey of Assam 1978-79, p. 10
\item \textsuperscript{23} Census of India, 1971, Series 3 Assam Part I A, p. 41
\item \textsuperscript{24} Census of India 1971, Series I India Part IIA(ii),p.xxviii
\item \textsuperscript{25} Census of India 1971, Series 3 Assam Part I-A, p. 41
\item \textsuperscript{26} Census of India 1971, Series 3 Part IA, p. 104
\item \textsuperscript{27} Statistical Abstract of Assam 1978, p. 83
\end{itemize}
PRINCIPAL CROPS GROWING AREAS IN ASSAM

INDEX:

- ⚫⚫ RICE GROWING AREA
- ✔️ SUGARCANE AREA
- ✗ ✗ JUTE AREA
- ⚫ ⚫ MUSTARD SEED AREA
- ☞ ☞ COTTON AREA
- ✔ ✔ TEA AREA

MAP NO. 2.
as may be seen from Table 2.1.

Table 2.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Total cropped area</th>
<th>Area sown more than once</th>
<th>Net area sown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>2793205</td>
<td>557296</td>
<td>2235909</td>
</tr>
<tr>
<td>1971-72</td>
<td>2888827</td>
<td>567883</td>
<td>2320944</td>
</tr>
<tr>
<td>1972-73</td>
<td>3019514</td>
<td>596761</td>
<td>2422752</td>
</tr>
<tr>
<td>1973-74</td>
<td>3076232</td>
<td>618095</td>
<td>2458137</td>
</tr>
<tr>
<td>1974-75</td>
<td>3103904</td>
<td>561377</td>
<td>2542527</td>
</tr>
</tbody>
</table>

Average of 5 years: 2976336 580282 2396054

Source: Statistical Abstract of Assam 1978, p. 83

From Table 2.1 it is seen that the average total cropped area in Assam for the period 1970-75 was 2976336 hectares of which the average net cropped area for the same period was 2396054 hectares. Similarly, the average area under principal crops was 2556 thousand hectares for 1970-75 - as may be seen from Table 2.2 below - out of the average total cropped area of 2776 thousand hectares, 85 per cent of areas being under principal crops in Assam.28

28. Vide Map No. 2
Table 2.2

Area under Some Principal Crops in Assam

(Area in '000 hectares)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rice</td>
<td>2035.0</td>
<td>2096.5</td>
<td>2107.5</td>
<td>2107.5</td>
<td>2035.0</td>
<td></td>
</tr>
<tr>
<td>2. Sugarcane</td>
<td>32.0</td>
<td>35.6</td>
<td>33.3</td>
<td>37.1</td>
<td>42.3</td>
<td>36.0</td>
</tr>
<tr>
<td>3. Jute</td>
<td>128.0</td>
<td>133.9</td>
<td>127.8</td>
<td>146.9</td>
<td>112.6</td>
<td>129.8</td>
</tr>
<tr>
<td>4. Rape and Mustard</td>
<td>137.5</td>
<td>144.1</td>
<td>143.4</td>
<td>153.0</td>
<td>147.0</td>
<td>145.0</td>
</tr>
<tr>
<td>5. Sesamum</td>
<td>9.8</td>
<td>11.8</td>
<td>12.5</td>
<td>12.7</td>
<td>12.0</td>
<td>11.7</td>
</tr>
<tr>
<td>6. Cotton</td>
<td>4.1</td>
<td>5.0</td>
<td>4.1</td>
<td>3.6</td>
<td>3.3</td>
<td>4.0</td>
</tr>
<tr>
<td>7. Tea</td>
<td>180.1</td>
<td>182.3</td>
<td>184.2</td>
<td>185.1</td>
<td>188.5</td>
<td>184.0</td>
</tr>
<tr>
<td>8. Mesta</td>
<td>6.7</td>
<td>12.8</td>
<td>10.7</td>
<td>10.6</td>
<td>13.6</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2472.5</strong></td>
<td><strong>2486.8</strong></td>
<td><strong>2551.6</strong></td>
<td><strong>2645.5</strong></td>
<td><strong>2626.8</strong></td>
<td><strong>2556.3</strong></td>
</tr>
</tbody>
</table>

Source: Statistical Abstract of Assam, 1978, pp. 75-81

The average total production of some of the principal crops in Assam for 1970-75 as may be seen from Table 2.3 below reveals that the average total production of rice was 2029.2 thousand tonnes, Sugarcane 134.7 thousand tonnes, Jute 968.6 thousand bales, Rape and Mustard seeds 63.8 thousand tonnes, Sesamum 5.7 thousand tonnes, Cotton 1.6 thousand tonnes, tea 238.4 thousand tonnes and Mesta 39.2 thousand bales.
Table 2.5  
Total Production of Principal Crops in Assam  
(Production in '000 tonnes)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rice</td>
<td>1986.8</td>
<td>1894.5</td>
<td>2127.4</td>
<td>2085.4</td>
<td>2052.1</td>
<td>2029.2</td>
</tr>
<tr>
<td>2. Sugarcane</td>
<td>125.5</td>
<td>116.4</td>
<td>133.1</td>
<td>140.2</td>
<td>158.4</td>
<td>134.7</td>
</tr>
<tr>
<td>3. Jute*</td>
<td>928.0</td>
<td>1063.7</td>
<td>961.8</td>
<td>1120.7</td>
<td>769.2</td>
<td>968.6</td>
</tr>
<tr>
<td>4. Rape and Mustard</td>
<td>56.4</td>
<td>67.7</td>
<td>57.5</td>
<td>80.9</td>
<td>56.7</td>
<td>63.8</td>
</tr>
<tr>
<td>5. Sesamum</td>
<td>4.7</td>
<td>5.7</td>
<td>6.0</td>
<td>6.3</td>
<td>5.8</td>
<td>5.7</td>
</tr>
<tr>
<td>6. Cotton*</td>
<td>1.6</td>
<td>2.0</td>
<td>1.7</td>
<td>1.5</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>7. Tea</td>
<td>212.0</td>
<td>223.7</td>
<td>239.2</td>
<td>251.8</td>
<td>265.3</td>
<td>238.4</td>
</tr>
<tr>
<td>8. Mesta*</td>
<td>25.7</td>
<td>39.5</td>
<td>40.1</td>
<td>39.9</td>
<td>51.0</td>
<td>39.2</td>
</tr>
</tbody>
</table>

*Jute, Cotton and Mesta are in '000 bales of 180 kg.

Source: Statistical Abstract of Assam, 1978, pp. 76-81

The average yield of the principal crops in Assam as shown in Table 2.4 reveals that the average yield during 1970-75 of Rice was 1012 kg per hectare, of Sugarcane 38074 kg, of Jute 1338 kg, of Rape and Mustard seeds 439 kg, of Sesamum 483 kg, of Cotton 73 kg, of Tea 1295 kg and that of Mesta 679 kg.
Table 2.4

Average Yield in K.G. per hectare of Principal Crops in Assam

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rice</td>
<td>1022</td>
<td>981</td>
<td>1060</td>
<td>1009</td>
<td>989</td>
<td>1012</td>
</tr>
<tr>
<td>2. Sugarcane</td>
<td>37217</td>
<td>36784</td>
<td>38192</td>
<td>39855</td>
<td>38323</td>
<td>38074</td>
</tr>
<tr>
<td>3. Jute</td>
<td>1305</td>
<td>1430</td>
<td>1555</td>
<td>1375</td>
<td>1229</td>
<td>1338</td>
</tr>
<tr>
<td>4. Rape and Mustard</td>
<td>410</td>
<td>470</td>
<td>402</td>
<td>528</td>
<td>386</td>
<td>439</td>
</tr>
<tr>
<td>5. Sesamum</td>
<td>485</td>
<td>481</td>
<td>482</td>
<td>491</td>
<td>480</td>
<td>483</td>
</tr>
<tr>
<td>6. Cotton</td>
<td>71</td>
<td>73</td>
<td>74</td>
<td>74</td>
<td>77</td>
<td>73</td>
</tr>
<tr>
<td>7. Tea</td>
<td>1178</td>
<td>1226</td>
<td>1298</td>
<td>1360</td>
<td>1416</td>
<td>1295</td>
</tr>
<tr>
<td>8. Mesta</td>
<td>692</td>
<td>680</td>
<td>675</td>
<td>675</td>
<td>675</td>
<td>679</td>
</tr>
</tbody>
</table>

Source: Statistical Abstract of Assam, 1978, pp. 76-81

In Assam for administrative purposes holdings below 8 bighas* are taken as marginal farmers and holdings from 8-15 bighas are taken as small holdings. Farmers operating less than 3 bighas are classed along with landless cultivators. Small holdings can be grouped into three categories — such as (i) Small holdings having area from 1 to 2 hectares; (ii) Marginal holdings from 0.5 hectares to 1 hectare; (iii) Sub-marginal holdings less than 0.5 hectares.

* 1 hectare = 2.47105 acres or 10,000 square metre or 7.48993 bighas.

In Assam, out of 1,964,376 numbers of holdings in 1970-71 with an area of operation of 2,882,573.00 hectares, small and marginal holdings (0.5 to 2.00 hectares) comprise 1,587,096 numbers of holdings with 1,170,824.87 hectares representing about 80.80 per cent of the total holdings and about 40.27 per cent of operated area. In other words, lands available for cultivation are found to be 29 lakh hectares only.

**Pressure of Population on Land:**

The pressure of population on land in Assam can hardly be reduced unless alternative avocations to agriculture are found for the people now engaged in agriculture since the total area of land in the State is 78 lakh hectares only, while the population was 146 lakhs as per 1971 Census, reducing the area of land per capita to 0.5 hectare only. The available agricultural land per capita was 0.27 hectares in 1961 and 0.20 hectares in 1971 as against 0.30 and 0.25 hectares respectively, for the country as a whole. It is obvious that a decreasing trend in per capita availability of cultivable land is bound to occur with the increase in population. This situation is likely to be more acute in the case of Assam than in the case of the country as a whole. This is accounted for by the overwhelmingly rural population (91.18 per cent) of the State viewed against 80.09 per cent of rural population for the

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country as a whole, and also by the very high growth-rate of population in Assam (34.95 per cent) in the last decade against that of 24.80 per cent for India as a whole - facts which clearly indicate the conspicuously increasing pressure of population on land in Assam.

Another aspect of the pressure of population on land may be seen from Table 2.5. From the table it will be seen that the percentage of total rural labour household in Assam has increased to 73.7 during 1974-75 from that during 1964-65 against 39.0 per cent increase in India for the same period, and the total rural labour households with land increased to 119.3 per cent against 56.1 per cent increase in case of India. So also the increase without land in Assam was 38.0 per cent in Assam against 26.0 per cent increase for the country as a whole.

Similarly, the increase of total agricultural labour household in Assam was 203.0 per cent during 1974-75 from that during 1964-65 against the increase of 36.0 per cent only for the country as a whole and the increase of agricultural labour household with land in Assam was 196.2 per cent against 52.0 per cent increase for India as a whole, while the percentage increase of agricultural labour household without land for Assam was 212.5 against 23.0 only for the country as a whole. 32

Table 2.5

Rural labour households and Agricultural labour households 'without land' and 'with land' 1964-65 and 1974-75 in Assam and India in '000.

<table>
<thead>
<tr>
<th>1. Rural labour households</th>
<th>1964-65</th>
<th>1974-75</th>
<th>% increase in 1974-75 over 1964-65</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assam</td>
<td>India</td>
<td>Assam</td>
</tr>
<tr>
<td>(a) Total</td>
<td>274</td>
<td>17845</td>
<td>476</td>
</tr>
<tr>
<td>(b) Without land</td>
<td>155</td>
<td>10089</td>
<td>215</td>
</tr>
<tr>
<td>(c) With land</td>
<td>119</td>
<td>7755</td>
<td>261</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Agricultural labour households</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Total</td>
</tr>
<tr>
<td>(b) Without land</td>
</tr>
<tr>
<td>(c) With land</td>
</tr>
</tbody>
</table>


In respect of density of population, Assam has 186 persons per square K.M. as against 75 in Rajasthan, 94 in Madhya Pradesh, 141 in Orissa, 149 in Tripura, 136 in Gujarat, 164 in Maharashtra, 153 in Mysore and 177 for India as a whole. 33

33. Census of India 1971, Series I, India Part II A(i) General Population Table, pp. 54-55
The rate of production of some agricultural crops (quintals per hectare in 1974-75) in Assam is very low, such as, the rate of production of rice in Assam was 9.6 as against 16.0 in Andhra Pradesh, 20.7 in Punjab, 18.6 in Tamil Nadu, 15.1 in Kerala, 16.9 in Karnataka and 14.2 in Haryana.

In the case of wheat, the rate of production in Assam was 12.7 as against 23.6 in Punjab, 19.8 in West Bengal, 18.1 in Gujarat, 17.5 in Haryana, and 13.5 in Bihar. In case of pulses, the rate of production in Assam is 3.7 as against 7.4 in Punjab, 6.8 in U.P., 5.7 in Bihar, 4.1 in Orissa, 5.0 in Maharashtra. Similarly, the rate of production of rape and mustard seeds is 5.3 in Assam, 8.8 in Bihar, 7.0 in Gujarat, 9.3 in Haryana, 6.5 in Tamil Nadu and 6.0 in Orissa. 34

Rural Indebtedness:

The burden of rural indebtedness is also considerable in Assam although it is less than that in some States of the country. The percentage of rural households reporting rural indebtedness in proportion to total rural households ending June 1971, was 27.2 in Assam against 42.8 in India. The average aggregate debt for rural households for the same period was Rs. 186.00 in Assam against Rs. 500.00 in India. Similarly, the average aggregate debt per reporting rural households ending June 1971 was Rs. 672.00 in Assam as against Rs. 1167.00 in India. 35

34. Statistical Abstract, Assam, 1978, pp. 552-553
35. Ibid., p. 562
In India, the incidence of indebtedness in Assam, as may be seen from Table 2.6 among the agricultural labour has come down considerably from 43.5 per cent to 28.2 per cent during the period 1964-65 to 1974-75 as against an increase from 60.6 per cent to 66.4 per cent in India for the same period. A comparison in regard to the incidence of indebtedness between the agricultural labour households 'with land' and 'without land' shows that the incidence of debt was more among the households 'with land', i.e., 31.6 per cent, than that among households 'without land', i.e., 24.0 per cent in Assam as against 71.0 per cent and 61.8 per cent respectively for the country as a whole - for 1974-75.

Table 2.6

Incidence of Indebtedness among Rural and Agricultural Labour households during 1964-65 and 1974-75

<table>
<thead>
<tr>
<th>Category of Rural Labour</th>
<th>Percentage number of indebted families</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1964-65 Assam</td>
</tr>
<tr>
<td>1. Rural labour households of the total rural labour households</td>
<td>32.5</td>
</tr>
<tr>
<td>2. Agricultural labour of the total rural labour households</td>
<td>43.5</td>
</tr>
<tr>
<td>3. Scheduled Castes labour households of the total agricultural labour households</td>
<td>46.0</td>
</tr>
<tr>
<td>4. Scheduled Tribes labour households of total agricultural labour households</td>
<td>23.4</td>
</tr>
</tbody>
</table>

Source: Rural Labour Enquiry Report, 1974-75, pp. 60-62

36. Rural Labour Enquiry Report 1974-75, p. 60
37. Ibid.
From Table 2.6 above, it may also be seen that the incidence of debt in case of Scheduled Castes and Scheduled Tribes agricultural labour households in Assam was 32.5 per cent and 25.2 per cent respectively during 1974-75 as against 46.0 per cent and 23.4 per cent during 1964-65.

The Rural Labour Enquiry Report reveals that the average amount of debt in monetary terms per indebted agricultural labour household in Assam increased from Rs. 119.00 during 1964-65 to Rs. 230.00 during 1974-75 as against Rs. 244.00 to Rs. 584.00 respectively for the country as a whole. 38

The average debt for agricultural labour household belonging to Scheduled Castes and Scheduled Tribes was Rs. 65.00 and Rs. 77.00 during 1964-65 as against Rs. 201.00 and Rs. 179.00 during 1974-75, respectively. These were, however, lower than the all India averages of Rs. 247.00 and Rs. 164.00 during 1964-65 as against Rs. 556.00 and Rs. 374.00 respectively during 1974-75. 39 And the average amount of loan for household consumption was Rs. 154.00 during 1974-75 as against Rs. 82.00 during 1964-65, 40 out of the total of Rs. 204.00 and Rs. 119.00 for the corresponding years. 41

38. Rural Labour Enquiry Report, 1974-75, p. 64
39. Ibid., p. 65
40. Ibid., p. 90
41. Ibid., p. 93
Flood:

Frequent occurrence of floods is the main hurdle for agricultural development in the State. The extent of damage due to flood has been very heavy after the great earthquake of 1950. The Table 2.7 will show the extent of damage to crops during the last 5 years in the State.

Table 2.7
Damage caused by Floods in Assam

<table>
<thead>
<tr>
<th>Year</th>
<th>Area affected in lakh hectares</th>
<th>Population affected in lakhs</th>
<th>Cropped area affected in lakh hectares</th>
<th>Value of the crops damaged in Rs crores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>29.00</td>
<td>40.00</td>
<td>3.25</td>
<td>N.A.</td>
</tr>
<tr>
<td>1975</td>
<td>1.24</td>
<td>2.31</td>
<td>0.17</td>
<td>1.25</td>
</tr>
<tr>
<td>1976</td>
<td>14.19</td>
<td>14.63</td>
<td>2.70</td>
<td>8.65</td>
</tr>
<tr>
<td>1977</td>
<td>10.24</td>
<td>45.49</td>
<td>4.52</td>
<td>26.14</td>
</tr>
<tr>
<td>1978</td>
<td>3.06</td>
<td>9.17</td>
<td>2.54</td>
<td>3.93</td>
</tr>
</tbody>
</table>

Source: (1) Economic Survey of Assam, 1975-76, p. 22
(2) Economic Survey of Assam, 1978-79, p. 21

Irrigation:

The irrigation facilities in the State are not at all encouraging for the development of agriculture. The net area under irrigation in 1970-71 in Assam was 572 thousand hectares.
(20% of the total area sown) only against 3313 thousand hectares in U.P., 2160 thousand hectares in Bihar, 2888 thousand hectares in Haryana, 1480 thousand hectares in Madhya Pradesh, 1149 thousand hectares in Orissa. Of the total area under irrigation, irrigation by government canals was 71 thousand hectares in Assam, 2497 thousand hectares in U.P., 1579 thousand hectares in Andhra Pradesh, 1286 thousand hectares in Punjab, 951 thousand hectares in Haryana, 812 thousand hectares in Bihar, 709 thousand hectares in M.P. and 231 thousand hectares in Orissa.  

Table 2.8 will show the relative position of Assam in irrigation development.  

Table 2.8

<table>
<thead>
<tr>
<th>Year</th>
<th>State</th>
<th>% of total cropped area irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-76</td>
<td>India</td>
<td>25.10</td>
</tr>
<tr>
<td>1974-75</td>
<td>Punjab</td>
<td>83.50</td>
</tr>
<tr>
<td>1976-77</td>
<td>Assam</td>
<td>9.56</td>
</tr>
<tr>
<td>1951-52</td>
<td>India</td>
<td>18.00</td>
</tr>
</tbody>
</table>

Source: Assam Tribune dated 20.6.80 - "Brahmaputra Subansiri Barrages Complex'  

42. Statistical Abstract of India, 1974, p. 670  
43. 'Brahmaputra Subansiri Barrages Complex' by Assam Institute of Development Studies - Assam Tribune dated 29th June, 1980
From the above table it will be seen that the present level of irrigation development in Assam is about half the national average during 1951-52, the base year of the Planning period.

Industry:

Assam, inspite of being endowed with rich natural resources, is industrially backward compared with many other States as well as the country as a whole owing to lack of economic pre-requisites and inherent infra-structure inhibitions. Although a few resource and demand-based industries in the State have been established in the State, both in the Public and the Private sectors, all those are in fact confined to urban areas only.

Some of the important industries which have been commissioned recently in the State are (1) The Assam Petro-Chemicals Ltd. at Narmrup, (2) The Ashok Paper Mills Ltd. at Jogighopa, (3) Narmrup Unit of the Fertiliser Corporation of India, (4) The Bokajan Cement Factory, (5) Bongaigaon Refinery and Petro-Chemicals Ltd. (BRPL), (6) Paper Mills at Jagiroad under Hindusthan Paper Corporation, etc. But these industries have had very little impact on employment of rural and agricultural surplus labourers of the State.

The number of registered factories in Assam in 1975, 1976, and 1977 was 1715, 1742 and 1783, respectively, and the number of workers employed daily was 79780, 80646 and 82996.
respectively.  

According to the Annual Survey of Industries, the number of factories in Assam in 1973-74, 1974-75 and in 1975-76 was 1390, 1946, 1606, respectively, employing 86.2, 106.8 and 102.2 thousand persons, respectively, of all categories.  

Similarly, an All India Census of Small Scale Industries was conducted in 1973-74 with reference to year 1972. According to this Census, the contribution of the registered Small Scale Industries to the value (Rs. in lakhs) added by all manufacturing industries was 8 per cent in Assam against 15 per cent at all India level, although it has relatively higher percentage for some States like Manipur (48 per cent), Punjab (36 per cent), Kerala (27 per cent), and Haryana (25 per cent).  

As regards employment, the Small Scale Industries accounted for 10 per cent of the total employment in all manufacturing industries taken together at the all India level.  

In the case of Assam, the percentage was 12 against 28 per cent for Punjab, 24 per cent for Chandigarh, 15 per cent for Tripura and 13 per cent for Kerala.  

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47. Ibid., p. 43  
48. Ibid., p. 93
Under the Khadi and Village Industries Board in Assam, there were 178 numbers of industrial units employing 37157 persons while in 1976-77, the number of such units was 128 employing 41353 persons. But as per Census the total percentage of workers in household industry is only 1.39 against 3.5 per cent in India, of which 1.17 per cent in rural areas in Assam against 4.1 per cent in the rural areas of the country.

Unemployment:

The bulk of unemployment in India as a whole as well as in Assam manifests itself in rural areas. Rural unemployment has two aspects - namely, seasonal and perennial. It is so because of seasonal activities in agriculture which is the principal employment avenue in the rural areas. For at least five to seven months in the year, a sizable population remaining idle for want of any subsidiary occupation. The second aspect of unemployment is the perennial underemployment or chronic disguised unemployment due to surplus population dependent on agriculture who are not productively required for that purpose.

In Assam the number of persons registered under the Employment Exchanges increased from 108 thousand in 1977 to

50. Census of India, Assam, Series 3, Part IA, pp. 102-104; Census of India, India, Series I, Part II(B i), pp. 18-21
142 thousand in 1978. The number of persons in the Live Register of Employment Exchanges which was 93.8 thousand in 1971 increased up to 287.2 thousand till February, 1979. During the year 1978, 5.6 thousand persons were placed in employments through Employment Exchanges as against 6.0 thousand in 1977, which shows that in 1977, 102 thousand persons and in 1978, 136 thousand persons did not get employment.

Another facets of this problem was that the number of applicants in the Live Register of Employment Exchanges of all categories in Assam was 176020 in 1974, 256896 in 1976 and 338809 in 1978 of which farmers were 15948, 19100 and 25886, respectively, for the same years.

Similarly, the number of educated job-seekers in the Live Register of Employment Exchanges in Assam was 85365 in 1975, 91546 in 1976, 99159 in 1977, and 119369 in 1978 of which placement was 2034 in 1975, 1832 in 1976, and 2238 in 1977, which also indicates a backlog of educated unemployed of 83331 in 1975, 89714 in 1976 and 96921 in 1977.

52. Ibid., p. 55
53. Educated here includes Engineering graduates, Medical, Agricultural, Veterinary graduates, I.T.I. passed, general graduates and post-graduates, H.S.L.C., H.S.S.L.C., P.U., diploma holders etc.
State Income:

The State net domestic product at factor cost at current prices in 1974-75 was Rs. 1326.3 crores out of which Rs. 788.3 crores was from agriculture. Thus the percentage of income from agriculture alone to the total net domestic product was 59.4.\(^{56}\) At constant (1970-71) prices, the State net domestic product in 1974-75 was Rs. 856.6 crores out of which Rs. 479.5 crores was from agriculture, the percentage from agriculture to the total net domestic product was 56.0.\(^{57}\)

Thus agriculture proper is still playing a key role in the economy of the State. In terms of percentage, its contribution to the State economy at current prices was 57.4 per cent in 1970-71, 57.3 per cent in 1972-73, and 59.4 per cent in 1974-75.\(^{58}\) Similarly at constant prices (1970-71), contribution of agriculture proper to the State economy was 57.4 per cent in 1974-75.\(^{59}\)

The State net per capita income at current prices in 1974-75 was Rs. 817.6 and at constant prices (1970-71) in 1974-75 was Rs. 528.1.\(^{60}\)

From the above analyses it is evident that the vast majority of the weaker sections\(^{61}\) of people in Assam live in

57. Ibid., pp. 420-421
58. Ibid., p. 419
59. Ibid., p. 421
60. Economic Survey, Assam, 1978-79, p. 79
61. Weaker section here includes - rural agriculturist, landless agriculturist, small and marginal farmers, scheduled castes and scheduled tribes, etc.
the villages and do not seem to have benefited much by planned programmes and still live in the midst of unemployment with small holdings, low yields and without any remunerative work in agriculture. Our resources in agriculture are not adequate for providing livelihood to our rapidly growing rural population. On the other hand, urban oriented approach to industrial development has failed to reduce the pressure of population on land. So there is hardly any other alternative avenue to agriculture that can reduce the pressure of population on land.

Therefore, the key to solving the problems of rural unemployment, of small holdings, and low yields lies primarily in the promotion of co-operative production ventures of farmers which are termed as Agro-based co-operative processing industries. Agro-based co-operative processing industries would provide a clue to the balanced economic growth of rural and semi-urban sectors. It is imperative that large and small industrial units processing agricultural raw materials in rural and semi-urban areas will stimulate rise in production, more employment to surplus labour in agriculture, fair prices to growers, and a multiple socio-economic effect on the whole economy of the State. The implementation of the above suggestions is also likely to have a healthy impact on the cropping pattern of rural areas, by encouraging diversification of agriculture.

Agro-based co-operative processing industries should also find a more important place in the planned programme of
economic development to be in conformity to the Directive Principles of State policy which are envisaged to promote the welfare of the people by securing a social order ensuring social, economic and political justice, right to an adequate means of livelihood, decentralisation of wealth and means of production to the common good. 62

Further, the development of agro-based industries in the country-side based on processing of agricultural raw materials also suits other factors, namely, scarcity of capital, dearth of entrepreneurial leadership and low level of skills coupled with the growing labour-force - factors which leave hardly any scope for modern industries to come up in rural areas. Moreover, the choice should be in favour of industries which are technologically efficient and labour intensive and which require relatively small amounts of capital and skill. 63

Agro-processing industries can be located close to raw-materials. D.R. Gadgil rightly says that 'perhaps the most important base for rural industrialisation immediately is raw-materials available in rural areas, 64 and co-operation offers them the best form of organisation to derive full benefit out of their agro-processing industrial development by co-operativising control and management. The committee on co-operation set up by the National Co-operative Development

62. Second Five Year Plan, 1956, p. 44
63. Dutta, B., 'Economics of Industrialisation', 1957, p. 186
AGRICULTURAL PROCESSING CO-OPERATIVES
IN ASSAM
SURVEYED

INDEX:

Sugar Mills
Jute Mills
Cotton Ginning Mills
Khansari Mills
Fruit Processing Unit
Solvent Extraction Plant
Rice Mills
Oil Mills

MAP NO. 3
Corporation (1975) opined that 'the potential of agricultural processing industry cannot be fully exploited for the benefit of the growers unless they themselves own and control them and also participate in their management. In practice, co-operative processing industry has demonstrated its superiority not only as an upholder of the farmer's interests, but also as an instrument in developing social culture.'

At present, the structure of the agro-processing units organised co-operatively in Assam has two distinct patterns, i.e., (i) units established by individual processing societies such as Sugar Mills, Jute Mills, Cotton Ginning Mills, Khansari units, Solvent Extraction Plant etc. and (ii) units adjunct to co-operative marketing societies such as Rice Mills, Oil Mills and fruit-processing units. These two types of Agricultural Processing Co-operatives will be discussed in detail in subsequent chapters.

65. Quoted by R. S. Sisodia 'The Co-operator', vol. XV, No.10, p. 263

66. Vide Map No. 3