Chapter - II

Present Status of Fruit Processing Units

- Introduction

- Progress of the Fruit Processing Units.

- Fruit Processing Industry in North Eastern Region.

- Infrastructural Development in North Eastern Region.
CHAPTER - II

PRESENT STATUS OF FRUIT PROCESSING UNITS.

Introduction:

Fruit processing industry is considered to be the backbone of horticulture industries as it takes care of gluts and all the wastes occurring, inspite of all improvements in the distribution and marketing of fresh produce. The agrarian base of India holds great promise with regard to processing of fruits and this segment of food processing industries is expected to grow fairly at high speed in coming years. The fruits because of their high productivity and value offer much higher economic returns per hectare acreage compared to cereal crops. They also have good export potential.

The prominent items processed in the fruit sector are fruit pulps and juices, fruit-based ready to serve beverages, canned fruit jams, squashes, ketchups, and pickles. More recently the industries has taken up the processing of freeze-dried fruits, fruit concentrates, and canned pineapple slices. This canvas of processed fruits is likely to expand in coming years and include minimally processed fruit pieces and slices, hurdle technology (HT) stabilized fruits besides other ready to eat more cost-effective substitutes for canned products. The progress of fruit processing industry in India is rather slow comparing with other countries.

Progress of the Fruit Processing Industry in India:

It was in the first World War that some mechanization and commercialisation entered into this industry mainly to meet the demand of the armed forces. The second World War gave it a much-needed fillip. Since then it
has been progressing fairly well and has been meeting the entire local demand and in a very limited way entered the exports market. It is, however, not a heavy weight industry but has the potential to develop into a ‘Sunshine Industry’ of the country. Inspite of the fact that India is the second largest producer of fruit in the world yet the commercial processing of fruits is less than 2 per cent. The main reason behind is that domestic consumption of processed items is quite meagre because of economic reasons and also as a matter of habit. The Indian consumers by and large very much prefer fresh fruits and vegetables. The high cost of packaging pushes up the cost of the processed items and thereby makes them out of reach of the common men. Because of the varied agro-climatic conditions some fresh fruits are available throughout the year. The fruits like bananas are non seasonal and apples, oranges, and potatoes etc. are put in the cold stores thus prolonging their shelf life and making them available in the off season too. Some fruits like guavas, oranges have two seasons so they are available in fresh form for four to five months in a year.

Processing Units and Installed Capacity:

Presently there is a little over 5293 units registered under the Fruit Products Order (FPO) of 1955 distributed all over the country. Most of the units fall in the cottage and small-scale sector. A few modern processing plants have, now come up and many more are in the pipeline. The installed capacity which was 11.08 lakh tonnes, in December 1993 increased to 21 lakh tonnes at the end of the year 2000.¹

Modern Units:

After the liberalisation of the economic policies in the country in 1991, a

¹ Annual Report, 2000-01, Ministry of Food Processing Industries, Government of India.
few modern plants to produce mango pulp, tomato paste etc. in aseptic packing, freeze drying of many fruits is being taken up. It is expected that in the years to come many modern state of the art plants shall come up, in food processing industries particularly in fruit industry.

Joint Ventures:

Since liberalisation in July, 1991 till February, 2000, 1120 proposals of industrial licenses and 100 per cent export oriented units were approved and about 248 such proposals have already been implemented. The important countries with which the Joint Ventures have been signed are U.S.A., U.K., Netherlands, Switzerland, and Germany. The proposals include in the fields like technology transfer, financial and marketing tie-ups. These tie-ups include production of items like banana and mango puree, fruit concentrates. A few proposals of frozen fruits and vegetables have also been approved.

Product Range:

The important items manufactured in the country are fruit pulps particularly of mangoes, ready to serve juices, canned fruits, jam, pickles, squashes, etc. Recently, items like frozen fruits, pulps, dehydrated and freeze dried vegetables, canned mushrooms etc. are also being produced. In the coming years new items like carbonated fruit drinks, dehydrated and freeze dried fruits, fruit juice concentrate are expected to be manufactured.

Exports:

India in a small way has been in the export market for almost 30 years.

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Among the popular items in export are mango chutneys, pickles, fruit juices, frozen and canned fruits. In the year 1997-98 the exports of processed fruits and vegetables were in the order of 299 thousand tonnes valued at Rs. 761 crore or US $ 200 million

The main markets for mango pulp are Saudi Arab, Kuwait, UAE, Netherlands & Hongkong. In case of pickles & chutneys the popular markets are USA, UK, UAE, Germany, and Saudi Arab. Other items like tomato paste, jams, jellies and juices are exported to USA, Russia, UK, UAE and Netherlands.

Quality Control (ISO 9000):

There is an all round realization at every level that quality production of international standard is the watchword for survival now. Consequently, the processor, small or big, have started taking steps to improve quality right from the selection of the raw material and that of the ingredients. Side by side steps have also been taken by them to upgrade the hygienic and sanitary conditions of the workers, plant and machinery so as to ensure quality of the finished product. There is a much greater emphasis now to invest in research and development and also in product innovation. The Agricultural and Processed Food Products Export Development Authority (APEDA) gives subsidy to upgrade the laboratory facilities etc. It has also brought out a book entitled “ISO 9000 on The Food Industry : A Practical Guide”. It deals with the entire spectrum of quality control, e.g. documentation, installation, certification of quality management system etc.

3. Ibid
Fruit Processing Industry in North Eastern Region:

Characterized by the prevalence of tropical, sub-tropical and temperate climate and supplemented with high rainfall and favourable soil conditions, the North Eastern Region is highly conducive for the cultivation of diverse and exotic horticultural products. The fruits crops of the region vary from tropical fruits like litchi, papaya, orange, lemon, pineapple and banana to apples, plum, peach, pear and apricot predominantly found in the temperate zones. In fact, there is hardly any fruit which cannot be grown in North Eastern Region of India.

According to APEDA’s “Export potential assessment of horticulture and floriculture products for the North Eastern State’s Report, 1998”; the horticultural sector has not yet received due importance in an economy that is largely dependent on subsistence farming. Only one per cent of the total geographical land is under cultivation of horticultural produces where the cultivable area is around 26 per cent. The main fruits of the region are banana, citrus fruits (including orange) and pineapple. Banana accounts for 25 per cent of the area under horticulture crops, while citrus and pineapples have a share of 21 per cent and 19 per cent respectively. The other fruits cultivated in this region are jackfruit, apple, litchi, guava, papaya, mango, plum, peach, pear and others. Some rare fruits like passion fruits having good export potential are cultivated in Mizoram, Nagaland and Senapati district of Manipur. Though these fruits are not much in demand in the local market, but they have a good demand in international market. In recent years, the Government of Mizoram, Nagaland and Manipur have realized the potential and are encouraging the cultivation of passion fruit. However, production has to increase by many folds for the fruits
Table - 2.1  
Fruit crops in the North Eastern Region (1996-97)

<table>
<thead>
<tr>
<th>Fruit crops</th>
<th>Assam</th>
<th>Arunachal Pradesh</th>
<th>Manipur</th>
<th>Meghalaya</th>
<th>Mizoram</th>
<th>Nagaland</th>
<th>Tripura</th>
<th>Total of North East</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pineapple</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>13.99</td>
<td>6.63</td>
<td>9.95</td>
<td>8.79</td>
<td>1.03</td>
<td>1.81</td>
<td>5.02</td>
<td>47.22</td>
</tr>
<tr>
<td>P</td>
<td>207.84</td>
<td>29.92</td>
<td>69.65</td>
<td>77.20</td>
<td>7.15</td>
<td>44.17</td>
<td>44.47</td>
<td>480.40</td>
</tr>
<tr>
<td>Mandarin orange</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>5.90</td>
<td>5.57</td>
<td>0.83</td>
<td>--</td>
<td>7.02</td>
<td>1.27</td>
<td>4.48</td>
<td>25.07</td>
</tr>
<tr>
<td>P</td>
<td>68.53</td>
<td>11.84</td>
<td>3.32</td>
<td>--</td>
<td>28.07</td>
<td>18.03</td>
<td>21.00</td>
<td>149.79</td>
</tr>
<tr>
<td>Other citrus</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Lemon/Lime</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>A</td>
<td>7.37</td>
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<td>0.97</td>
<td>6.96</td>
<td>0.96</td>
<td>1.16</td>
<td>2.71</td>
<td>21.69</td>
</tr>
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<td>P</td>
<td>40.64</td>
<td>3.98</td>
<td>5.89</td>
<td>32.98</td>
<td>2.79</td>
<td>16.55</td>
<td>3.52</td>
<td>91.80</td>
</tr>
<tr>
<td>Banana</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
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<td>A</td>
<td>41.34</td>
<td>2.65</td>
<td>1.41</td>
<td>5.37</td>
<td>2.81</td>
<td>1.51</td>
<td>4.93</td>
<td>60.02</td>
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<td>9.50</td>
<td>10.72</td>
<td>63.97</td>
<td>14.87</td>
<td>23.36</td>
<td>33.63</td>
<td>751.31</td>
</tr>
<tr>
<td>Mango</td>
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<td></td>
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<tr>
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<td>1.36</td>
<td>0.08</td>
<td>0.16</td>
<td>--</td>
<td>0.48</td>
<td>0.17</td>
<td>5.02</td>
<td>7.27</td>
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<tr>
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<td>7.81</td>
<td>0.06</td>
<td>0.88</td>
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<td>2.56</td>
<td>0.46</td>
<td>41.27</td>
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</tr>
<tr>
<td>Guava</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3.08</td>
<td>0.68</td>
<td>0.70</td>
<td>--</td>
<td>0.34</td>
<td>0.45</td>
<td>--</td>
<td>4.25</td>
</tr>
<tr>
<td>P</td>
<td>40.82</td>
<td>2.61</td>
<td>2.10</td>
<td>--</td>
<td>1.32</td>
<td>3.23</td>
<td>--</td>
<td>50.08</td>
</tr>
<tr>
<td>Litchi</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>4.06</td>
<td>0.18</td>
<td>--</td>
<td>--</td>
<td>0.08</td>
<td>0.55</td>
<td>5.42</td>
<td>10.29</td>
</tr>
<tr>
<td>P</td>
<td>17.56</td>
<td>0.25</td>
<td>--</td>
<td>--</td>
<td>0.27</td>
<td>0.17</td>
<td>2.79</td>
<td>21.04</td>
</tr>
<tr>
<td>Papaya</td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>7.48</td>
<td>0.46</td>
<td>1.85</td>
<td>0.48</td>
<td>0.30</td>
<td>0.29</td>
<td>--</td>
<td>10.86</td>
</tr>
<tr>
<td>P</td>
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<td>1.94</td>
<td>10.18</td>
<td>3.93</td>
<td>2.43</td>
<td>2.48</td>
<td>--</td>
<td>131.36</td>
</tr>
<tr>
<td>Jackfruit</td>
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<td>18.40</td>
<td>0.12</td>
<td>0.26</td>
<td>--</td>
<td>0.22</td>
<td>0.23</td>
<td>8.12</td>
<td>17.35</td>
</tr>
<tr>
<td>P</td>
<td>160.20</td>
<td>0.71</td>
<td>1.04</td>
<td>--</td>
<td>1.39</td>
<td>0.91</td>
<td>214.58</td>
<td>378.83</td>
</tr>
<tr>
<td>Apple</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>-</td>
<td>2.37</td>
<td>--</td>
<td>--</td>
<td>0.03</td>
<td>0.08</td>
<td>--</td>
<td>2.48</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>5.41</td>
<td>--</td>
<td>--</td>
<td>0.03</td>
<td>0.45</td>
<td>--</td>
<td>5.89</td>
</tr>
<tr>
<td>Pears</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>-</td>
<td>0.58</td>
<td>--</td>
<td>--</td>
<td>0.09</td>
<td>0.75</td>
<td>--</td>
<td>1.42</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>1.67</td>
<td>--</td>
<td>--</td>
<td>0.44</td>
<td>2.46</td>
<td>--</td>
<td>4.57</td>
</tr>
<tr>
<td>Plum &amp; Peach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>-</td>
<td>0.73</td>
<td>0.61</td>
<td>--</td>
<td>0.18</td>
<td>0.93</td>
<td>--</td>
<td>2.45</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>1.90</td>
<td>3.97</td>
<td>--</td>
<td>0.52</td>
<td>3.43</td>
<td>--</td>
<td>9.82</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>92.98</td>
<td>22.77</td>
<td>16.74</td>
<td>21.60</td>
<td>14.54</td>
<td>9.70</td>
<td>36.66</td>
<td>209.37</td>
</tr>
<tr>
<td>P</td>
<td>1259.06</td>
<td>69.79</td>
<td>107.75</td>
<td>178.08</td>
<td>52.04</td>
<td>115.70</td>
<td>383.66</td>
<td>2127.13</td>
</tr>
</tbody>
</table>

Sources:  
1. Basic Statistics of North Eastern Region 2000. (NEC Shillong)  
2. APEDA Guwahati  
Note A = Area  
P = Production.
to earn an exportable status. Most of the north eastern states like, Tripura and Meghalaya, the fruits grown in the border areas are exported almost in totality, as the cost of selling inland is often more than the prevailing market price. In such places the export market is merely seen as the extension to the local market and the trade carried on is basically unofficial in nature.

The area and the production figures of fruits are given in table-2.1 above. On a rough estimate, the area under fruit crops in this region is about 209.37 thousand hectares with an estimated production of 2,127.13 thousand tonnes of fruits. Among fruits, production of banana rank first with 751.31 thousand tonnes followed by pineapple with 480.40 thousand tonnes, jackfruits with 378.83 thousand tonnes and oranges with 149.79 thousand tonnes.

The nature of horticulture in most of the hilly states of North - Eastern Region is consumption oriented, traditional horticulture and in some related pockets or areas gradual transition is taking place from subsistence horticulture to market oriented commercial horticulture.

Among the horticultural crops fruits are highly perishable commodities and due to lack of adequate post harvest handling facilities and proper infrastructure in the region, post harvest losses due to spoilage are very high. Actual post harvest losses of fruits have been estimated to be as high as 30-40 per cent in the region.

Hence, processing has a special significance in the region because of the

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high rate of spoilage on account of lack of storage facilities and inaccessibility to far-flung market centres. But the processing scenario of the entire region is far from satisfaction. As per the list provided by the Department of Food Processing Industries, Eastern Region, Kolkata, till November 1999, there are only 61 units of fruit processing in the region shown in the below table 2.2.

**Table- 2.2**

**No. of Fruit Processing Units in the North Eastern Region.**

<table>
<thead>
<tr>
<th>State</th>
<th>Public</th>
<th>Co-operative</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arunachal Pradesh</td>
<td>3</td>
<td>Nil</td>
<td>Nil</td>
<td>3</td>
</tr>
<tr>
<td>Assam</td>
<td>2</td>
<td>1</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Manipur</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>2</td>
<td>Nil</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Mizoram</td>
<td>1</td>
<td>Nil</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Nagaland</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Tripura</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>5</strong></td>
<td><strong>42</strong></td>
<td><strong>61</strong></td>
</tr>
</tbody>
</table>

*Source: List of NE Region Fruit Processing Units ; Deputy Director (F &VP) Eastern Region, Calcutta Ministry of Food Processing Industries, Govt. of India.*

As many as 25 units are in Assam, followed by 13 units are in Manipur, 8 units in Meghalaya, 6 units in Nagaland, 4 units in Tripura, 3 units in Arunachal Pradesh and 2 units in Mizoram. The present status of these units are shown in the appendix - 1. More detailed study with the help of the above table-2.2 shows that there are 14 public sector unit which are run and own by the public, 5 units are under co-operative sector and 42 units i.e. 68.85 per cent of the existing units in the region are run under private ownership. When we look at the figure of Assam, Manipur, Meghalaya and Nagaland, indicated in the above table,
it shows that out of 25 units in Assam 22 units i.e. 88 per cent of the unit in the state are under private sector, in Manipur out of 13 units 9 units i.e. 69.2 per cent of the total units belongs to private sector, and in Meghalaya also out of 8 unit 6 units i.e. 75 per cent of the total units exists in the state are run by private entrepreneurs. In Nagaland also 60 per cent of the total units are under private sector. Therefore, it is obvious to said that private sector plays an important role in the processing of fruits and vegetables in the North Eastern Region. On the other hand the role of co-operative sector is negligible as its contribution to this sub-sector is just around 8 per cent in the region. This could be one of the reason for slow progress of processing units in the region where there is vast potentiality in growing horticulture crops particularly the fruit crops in the North Eastern Region.

**Part - II**

**Infrastructural Development in North Eastern Region**

Rapid development of the economy depends on adequate investment in infrastructure, a key issue here is imposition of appropriate user charges necessary to provide adequate returns on investment. There is a common belief that the North Eastern Region of India is the most backward region in infrastructure development such as power, transport, and communication. The Ministry of Finance, Government of India appointed a group headed by Dr.(Mrs) I.K. Borthakur to examine the problems of industrialisation of the region in 1994 has made the following observation “the group felt that the basic infrastructure in the North Eastern Region was not as bad as generally believed. On the contrary the region was far better than most of the other states of the
country in terms of per unit population and per unit of geographical area served by the national highways, railways, power and communication. However, most of the facilities were under utilized."

And to quote late G.M.C. Balayogi speaking about the problems of the North East while inaugurating the North East Regional Commonwealth Parliamentary conference at Gangtok on May 22, 2001. He said "The problems of the North East stem from lack of connectivity, dearth of basic need, inadequate infrastructure facilities, socio-economic backwardness and insurgency, while all these factors have led to inhibited development of the region, perhaps the most crucial has been the insurgency".

The present discussion confines itself into the four basic area of infrastructure viz. power, transport, communication and banking and finance, endeavours to highlight the present scenario with the comparison among the north eastern states and with that of all India existing position.

Transport:

An adequate and efficient transportation network is essential for the economic growth of a region. Road is the major means of transportation in the whole North Eastern Region. The presence of railway network, which is one of the economic means of transportation in the region, is negligible except in Assam which has 2373.52 Km. railway network. However, in the matter of road length, North - Eastern states like Tripura, Assam and Nagaland are above all India average. The total road length per 100sq. km. of Tripura is 140.4 per cent

5. NERC, IDBI, Guwahati: Proceeding of the meeting held on December 18, 1995 at Guwahati.
of Assam is 86.8 per cent and that of Nagaland is 82.8 per cent against 73 per cent for the country as a whole, but the percentage of the whole North Eastern Region is just 52.08 which is less than the all India average as the percentage of the other state in the region are comparatively low, as it is shown in the table - 2.3, below. Further, longevity and quality of road of the region as compared to other states of the country is very poor.

Communication:

The development of industries without better communication system becomes impossible for continuity. The communication through postal, couriers, telecommunication are vital for the development of industries. The present status of communication in the region compared to national average is poor. Population per post office of the region is 3555 against 5502 of all India average as indicated in the below given table. Though the population per post office is less, about 75 per cent of the region’s geographical area are hilly and it is difficult for prompt delivery and easy communication. Therefore, the number of post offices should be increased to reduce in population per post office with better telegraphic and telecommunication facilities. Population per Telecommunication exchange in North Eastern India is 53391. The ratio indicated for Arunachal Pradesh (13471) and Mizoram (19801) are satisfactory comparing with Manipur and Assam having 72383 and 64189 persons respectively per telephone exchange. More telephone exchange should to be installed to reduce number of persons per telephone exchange. The private communication network by way of courier, STD/ISD/E mail/Internet and other information technology should be encouraged to reach the people with least effort.
### Table 2.3
Selected Infrastructural Indicators of North East India.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Arunachal Pradesh</th>
<th>Assam</th>
<th>Manipur</th>
<th>Meghalaya</th>
<th>Mizoram</th>
<th>Nagaland</th>
<th>Tripura</th>
<th>NE.</th>
<th>All India</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transport:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Road per Sq. Km.</td>
<td>12.20</td>
<td>86.8</td>
<td>48.2</td>
<td>37.40</td>
<td>32.8</td>
<td>82.8</td>
<td>140.4</td>
<td>52.08</td>
<td>73.0</td>
</tr>
<tr>
<td>- Railway Network (Km)</td>
<td>1.26</td>
<td>2373.52</td>
<td>1.35</td>
<td>------</td>
<td>1.50</td>
<td>12.85</td>
<td>44.72</td>
<td>2435.2</td>
<td>------</td>
</tr>
<tr>
<td>- Road per 1000 population</td>
<td>11.38</td>
<td>3.05</td>
<td>5.98</td>
<td>4.66</td>
<td>9.87</td>
<td>11.44</td>
<td>5.45</td>
<td>4.23</td>
<td>2.85</td>
</tr>
<tr>
<td>2. Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Population per post office as on 31-3-99</td>
<td>3028</td>
<td>5814</td>
<td>2719</td>
<td>3682</td>
<td>1783</td>
<td>3974</td>
<td>3885</td>
<td>3555</td>
<td>5502</td>
</tr>
<tr>
<td>- Area served by a post office</td>
<td>294.72</td>
<td>22.45</td>
<td>33.14</td>
<td>46.86</td>
<td>54.52</td>
<td>53.74</td>
<td>14.66</td>
<td>------</td>
<td>21.42</td>
</tr>
<tr>
<td>(Sq. km.)</td>
<td>13471</td>
<td>64189</td>
<td>72383</td>
<td>42705</td>
<td>19801</td>
<td>52333</td>
<td>58021</td>
<td>53931</td>
<td></td>
</tr>
<tr>
<td>- Population per Telecommunication Exchange as on 31-10-99</td>
<td>13471</td>
<td>64189</td>
<td>72383</td>
<td>42705</td>
<td>19801</td>
<td>52333</td>
<td>58021</td>
<td>53931</td>
<td></td>
</tr>
<tr>
<td>3. Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Installed (MW) (Hydro)</td>
<td>23.6</td>
<td>2.00</td>
<td>2.80</td>
<td>185.2</td>
<td>5.40</td>
<td>3.30</td>
<td>16.00</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>- Potential (MW) (Hydro)</td>
<td>26756</td>
<td>351</td>
<td>1070</td>
<td>1040</td>
<td>------</td>
<td>1455</td>
<td>176</td>
<td>------</td>
<td>31857</td>
</tr>
<tr>
<td>- Per capita power consumption (1995-96) KWH</td>
<td>78</td>
<td>100</td>
<td>118</td>
<td>143</td>
<td>128</td>
<td>79</td>
<td>73</td>
<td>------</td>
<td>335.42</td>
</tr>
<tr>
<td>4. Banking and Finance as on 31.03.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- No. of Scheduled commercial banks</td>
<td>198</td>
<td>1307</td>
<td>104</td>
<td>216</td>
<td>NA</td>
<td>95</td>
<td>223</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>- Population (in 1000) per bank</td>
<td>17</td>
<td>21</td>
<td>28</td>
<td>13</td>
<td>12</td>
<td>22</td>
<td>20</td>
<td>------</td>
<td>15</td>
</tr>
<tr>
<td>- Aggregate deposit (Rs. In Lacs)</td>
<td>55874</td>
<td>73472.55</td>
<td>43674</td>
<td>135859</td>
<td>35025</td>
<td>68457</td>
<td>110245</td>
<td>1184606.6</td>
<td>------</td>
</tr>
<tr>
<td>- Aggregate Advance (Rs. In Lacs)</td>
<td>10754</td>
<td>239849.9</td>
<td>20787</td>
<td>25964</td>
<td>8195</td>
<td>14547</td>
<td>38786</td>
<td>358882.9</td>
<td>------</td>
</tr>
<tr>
<td>CD Ratio</td>
<td>19.25</td>
<td>32.61</td>
<td>48</td>
<td>19.11</td>
<td>23.4</td>
<td>21.25</td>
<td>35</td>
<td>30.29</td>
<td>55.50</td>
</tr>
</tbody>
</table>

**Sources:**
1. Basic statistics of North Eastern Region, 2000. (NEC Shillong)
2. North Eastern Institute of band management, Guwahati, Assam.
3. NE Newsletter vol. 1 No. 6 May 2000, Ministry of Home Affairs.
Power:

Power is the backbone of the industries and plays vital role in fostering industrial activity. The per capita consumption of power during 1995-96 in the region compared to national average is very poor. The above tables- 2.3 shows that Meghalaya state has the highest per capita consumption of power in the whole region with 143 KW against the all India figure of 335.42 KW. But the state like Tripura and Arunachal Pradesh has the lesser per capita power consumption of 73KW and 78 KW respectively, which is the very indication of backwardness in the industrial development of the region. Out of the seven states in the region, Meghalaya is the only state which could meet their power supply requirement having an installed hydro power capacity of 185.20 MW where as, the remaining states purchases power from other states to fill the requirement and very often power cut is taking place in many of these states. Arunachal Pradesh has great potential for power resources but due to lack of initiative taken by the state government, NEC and the central government, the potential hydro power resources of Arunachal Pradesh are lying as sleeping beauty.

Banking and Finance:

Needless to mention, finance is the main pre-requisites of every productive operation. The very success or otherwise of an industrial unit depends considerably upon this factor, for many of the business problems find their solution on financial strength of the unit.

Adequate and timely supply of finance at the least cost of capital are the

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most essential factors to minimise gestation period, avoid project cost escalation, and, their fruitful co-ordination for industrial growth and development. Finance for the industrial development schemes can come only from a network of banking facilities. There were 1307 banks in Assam, as on March 1999, followed by Tripura (223) and Meghalaya (216). The remaining states like Arunachal Pradesh, Manipur and Nagaland have bank branches of 198, 104 and 95 respectively. Figure for Mizoram is not available. However, the average number of persons served by a bank branch for Manipur is 28,000 against all India average of 15 persons per branch. The figure for Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland and Tripura were 17, 21, 13, 12, 22 and 20 thousands respectively.

To conclude, the available infrastructural facilities in the region are inadequate to support the growth of fruit processing units in the region. The state Meghalaya alone has sufficient power to meet the industries’ developmental requirements, but the transport and communication facilities are still lacking behind as indicated in the above table. Hence, the infrastructural facilities are to be considered and developed first, if the fruit processing units in the region are to be fully developed.