CHAPTER - V

PATTERN OF DEVELOPMENT, PROBLEMS AND PROSPECTS OF THE EXISTING INDUSTRIES IN MANIPUR:

A. FACTORS AFFECTING THE DEVELOPMENT PATTERN OF THE EXISTING INDUSTRIES:

As the state is isolated from the rest of the country and even from its neighbouring states, the problems of industrial development of Manipur have become more complex than it would otherwise be. The per capita income of Manipur in 1980-81 is Rs.1085; which is much lower than that of all India level (i.e., Rs.1536.9) Fig. No.21 & Vide Appendix No. XIII. Thus limited markets arising from low levels of income of the people is a great inhibiting factor. It leads to low level of consumption. 60% of the people are below poverty line, since the Agriculture is the main source of income, the state is poorly developed.

The sub-standard and unorganised peasants do not produce much marketable surplus. The fertilizers consumption per hectare of gross area sown is 14.35 kgs. only during the year 1984-85. Manipur has also a very low intensity of cropping, viz., it had 124.76 intensity index during 1985-86, and during the year 1984-85, the number of tractors per thousand hectares of net area sown was 0.88. Percentage of area sown more than once to net area sown was 24.76, and percentage of cultivated area to total area was 9.41 and the net area sown per capita was 0.13 hectare only.
MANIPUR PER CAPITA INCOME 1970-71 TO 1980-81

FIG. 21
At present, barely 10% of the total cultivated area of the state is under irrigation. It is carried on over small sized holdings. During the years 1978-79 and 1979-80, the production of rice were 255.2 thousand tonnes & 227.53 thousand tonnes respectively. In recent years, due to frequent drought and floods conditions, the production of rice is further reduced.

There is no reliable data available for the production of wheat and maize because those crops are grown only in small pockets. The surplus agricultural outputs are to be sold outside but transport bottleneck stands in the way. Besides other factors, self-sufficiency in rice is vital for the state, for rice not only is the staple food of the population but it is also related with the socio-economic and political stabilities of the state.

More than 90 percent of the area of the state is hilly where traditional cultivation is carried on a limited scale. There is also the problem of soil erosion particularly due to shifting cultivation caused by indiscriminate cutting of trees. The production of agricultural crops is not varied and the area and production of crops other than paddy are insignificant. Cultivation is almost mono-crop with rice accounting for 90 percent of agricultural produce and 86 percent of the total cultivated area. Double-cropping is done only in a small areas where irrigation facilities are there.
So, the state is not self-sufficient in many agricultural crops like, rice, wheat, oil-seed, potatoes, onions etc. Her agro-based industries are being fed from outside the state. Still there is prospect for overall development of her agricultural activities including the production of industrial raw materials like cotton, silk, maize, tea, coffee, rubber, cane & bamboo, oilseed etc.

Agriculture contribution to the state domestic product has been about 57 percent in 1980-81. The agricultural economy in the state is important because the estimates of state domestic products fluctuate sharply from year to year depending upon the success or failure of crops which is based entirely on the seasonal rainfall.

Manipur's geographical isolation and its handicaps in other infra-structures (viz. on transport & communication, power, capital, Marketing facilities, & other industrial set up etc.) had been the deterrent factors for the growth of industries in the state. In addition, the reliable statistics on the industries in Manipur and industrial potentials of the state as well are also not properly surveyed. There is no available data regarding the import and export of commodities into and outside of Manipur. Reliable statistics in regard to production, investments, etc. are also not available.

So, it is quite necessary to analyse some of the industrial units which are already existing in the state. The findings of these units will be the basis for other units also, because, the factors affecting the development of all these industries are almost the same throughout the state.
Though there are no remarkable large and medium scale industries in Manipur, yet Khandasari Sugar factory, spinning Mill, a mini-cement plant, Bamboo chipping plant etc. can be stated as medium sized industries and the rest may be called as small scale and cottage type of industries.

THE KHANDASARI SUGAR MILL:

The Khandasari Sugar Factory of Wangbal at Thoubal District was set up with a crushing capacity of 60 MT per day. The total cost of the mill was Rs.17 lakhs and the power requirement of the factory is of 150 KW. The factor determining the choice of location of the mill is mainly influenced by the nearness of raw materials. The mill is located near Thoubal Town. The distance between the Thoubal town area and site of the mill is only about 3 kms. It is near the main road i.e. National Highway No.39 leading to Moreh.

The National Sugar institute of India, already surveyed the potential area of Thoubal. About 700 acres of land is under sugarcane farms near the site of the mill (Wangbal area). The following table shows the year-wise area under sugarcane according to the general Manager of the Mill.

<table>
<thead>
<tr>
<th>Year</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1972-73</td>
<td>1000 acres</td>
</tr>
<tr>
<td>2. 1973-74</td>
<td>1360 acres</td>
</tr>
<tr>
<td>3. 1974-75</td>
<td>1470 acres</td>
</tr>
<tr>
<td>4. 1975-76</td>
<td>1470 acres</td>
</tr>
</tbody>
</table>
Therefore, the factors determining location of the mill is related with the availability of raw materials and vicinity near the Thoubal town area which can be served as a growth centre. The detail report of the Mill is given below:

A Report from the General Manager of Khandsari Mill.

3. Land - Rs.15,000 (N.B. Free land of Govt., valuation may be fixed at Rs.15,000/-)
   (a) Rs.300/- per 62 acres.
   (b) Building for this 2.50 acres of land.
Land and building together may be fixed at Rs.7,87,000/- according to the approval of A.G. Manipur.
4. Building - Rs.7,72,000.
5. Plant & machinery - Rs.12,39,512
6. Transport equipment - Rs.22,484 (for office vehicles for running office work)
7. Gross value of the plant and machinery as at the end of accounting year (Rs. in thousand) 1177.54.
8. Materials, stores, fuels, etc. (opening balance) Rs. 20,121.
9. Products and by products - Rs.82,535 (total of 8 & 9) of physical working capital - Rs.1,02,656.
10. Detail of working:

Number of working days

<table>
<thead>
<tr>
<th>Manufacturing (Item)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 46 Repairs &amp; Maintenance</td>
<td>(1 &amp; 2) = 46</td>
</tr>
</tbody>
</table>

Total number of shifts = 138  
Shifts per day(0.0) = 3.0  
Length of shift(hrs. 0.0) = 8.0

No. of manufacturing days: Manufacturing work could not run well because of the shortage of power. It is also seasonal rather.

Employment and emoluments during the accounting year:

A. Men (Man-days worked) number = 16146  
   (N.B. Women and Children is nil)
   Worker employed directly Average no. of persons worked = 117
   Salaries, wages etc. = Rs. 58,338  
   (Bonus - nil)

B. Supervisory and Managerial staff
   Average no. of persons worked is 3  
   Salaries, wages etc. Rs. 12,960.  
   (N.B. Regarding - Men-days worked: for staff, office runs regularly as it is Govt. concern).

Other employee - Average number of persons worked = 16  
Salaries, wages etc. Rs. 72,850.
The area of the Mill is about 11 acres, out of this, 3 acres is for factory site and about 8 acres is for Sugarcane plantation farms. This mill is under the public sector. About 252 workers are engaged in the mill at the initial stage. Out of this 252 workers, 200 workers were unskilled labourers, about 30 labourers were from outside Manipur and 22 labourers were local. Next year the number of worker was also reduced to 117 persons due to lack of power. But in the third year the no. of workers again increased to 146 but production became very low. The following tables shows the year-wise production and workers of the khandsari mill:

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (in quintal)</th>
<th>P.C. of recovery</th>
<th>Skilled workers</th>
<th>Unskilled workers</th>
<th>Skilled Local</th>
<th>Skilled Outside</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-74</td>
<td>409</td>
<td>2.3%</td>
<td>52</td>
<td>200</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>1974-75</td>
<td>400</td>
<td>4%</td>
<td>28</td>
<td>89</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>1975-76</td>
<td>400</td>
<td>5.03%</td>
<td>25</td>
<td>121</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

(Target is 5%)

Source: General Manager, Khandsari Sugar Mill.

The crushing period of the mill is about 3 to 4 months (Viz, January to April or December to March); and the average yield rate of sugarcane is 15 to 20 tonnes per acre of land in
and around the site of the mill especially in Thoubal sub-division. The crop loan was also given to the farmers for the plantation of sugarcane. The loan distribution ranged from Rs. 300 to 800 per acre. During 1974-75, 107 farmers, in 1975-76, 106 farmers and in 1976-77 about 110 farmers received loan for sugarcane plantations. Recently, Agriculture Dept. has taken up the sugarcane plantations works seperately. The mill is giving direct employment to about 200 persons and indirect employment to about 1,500 persons.

As we know, the chemical consumption of the mill is mainly lime, sulphur, caster seed etc. These are imported from outside Manipur. About 800 tins of lime is consumed by the mill per day. Whereas, the share of sulphur per day crushing capacity of 60 tonnes is 0.2%. Still, the Manipur lime of Ukhrul area is not yet used by this mill.

The following figure also shows a clear picture of the chemical consumption during 1975-76 by the sugar factory.

1975-76
(Consumption of Chemical)

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Chemical</th>
<th>Quantity</th>
<th>Value in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Quick lime</td>
<td>147 tins</td>
<td>2,716</td>
</tr>
<tr>
<td>2.</td>
<td>Sulphur</td>
<td>330 kgs.</td>
<td>413</td>
</tr>
<tr>
<td>3.</td>
<td>Castor oil</td>
<td>155 kgs.</td>
<td>314</td>
</tr>
<tr>
<td>4.</td>
<td>Others</td>
<td>x</td>
<td>7,047</td>
</tr>
<tr>
<td>5.</td>
<td>Gunny bags</td>
<td>496 nos.</td>
<td>3,331</td>
</tr>
</tbody>
</table>

Sugar produced - tonnes - Value in Rs.
(a) Sugar - 400 - 1.19.040
During the year 1975-76 (from 1-4-75 to 31-3-76), the mill consumed 795 tonnes of sugarcane at a total cost of Rs. 88,477 and produced 400 quintals of sugar, of a total value is Rs. 1,19,040. The gross earning and Manday worked (during 1975-76) are shown in the following tables:

(A) April, 1975 to March, 1976 - Bonus - No. of persons worked.

1. Wages - Rs. 58,339.48 x 117
2. Salaries of staff Rs. 72,850.00 x 20
3. Salaries of A.G.M. Rs. 7,920 x 1
4. Supervisory staff Rs. 12,930 x 3
5. Lubricating oil Rs. 4,361.72 x
6. Postage & telephone Rs. 976.75

Insurance
Licence fee - Rs. 500.00

(B) Mandays worked (January to December, 1975)

<table>
<thead>
<tr>
<th>Month</th>
<th>Working days</th>
<th>Mandays worked</th>
</tr>
</thead>
<tbody>
<tr>
<td>January - 1975</td>
<td>27</td>
<td>517</td>
</tr>
<tr>
<td>February - 1975</td>
<td>27</td>
<td>624</td>
</tr>
<tr>
<td>March - 1975</td>
<td>31</td>
<td>2110</td>
</tr>
<tr>
<td>April - 1975</td>
<td>29</td>
<td>1980</td>
</tr>
<tr>
<td>May - 1975</td>
<td>8</td>
<td>263</td>
</tr>
<tr>
<td>June - 1975</td>
<td>24</td>
<td>190</td>
</tr>
<tr>
<td>July - 1975</td>
<td>23</td>
<td>155</td>
</tr>
<tr>
<td>August - 1975</td>
<td>18</td>
<td>118</td>
</tr>
<tr>
<td>September - 1975</td>
<td>19</td>
<td>56</td>
</tr>
<tr>
<td>October - 1975</td>
<td>24</td>
<td>79</td>
</tr>
<tr>
<td>November - 1975</td>
<td>24</td>
<td>159</td>
</tr>
<tr>
<td>December - 1975</td>
<td>27</td>
<td>158</td>
</tr>
</tbody>
</table>
During those days power shortage was the main problem but now Loktak Project has been completed and there is no problem of power. But, the factory is running without much progress due to shortage of Raw materials. Here, one point should be noted that the price of sugarcane at mill rate is 28 paise per one kilogram of raw sugarcane (i.e., Rs.28.40 P per quintal, at factory, 1986-91). Whereas, at present the market price of one stick of sugarcane varies from about Re.1 to Rs.4, weighing about 500 grams or 1 kg. So, under such price anomalies, all the farmers would like to reduce their sugarcane farms for other profitable cash crops and retain small fraction of their sugarcane farm.

Usually, traditional farmers would like to switch over to paddy cultivation. Because rice is their main staple food crops and the general tendency of the farmer is that even other crops prove more profitable, so they would like to choose paddy cultivation. But efforts were made by the state Govt. to improve the mill at any cost. To make the factory fully utilised, both the building and office are to be expanded. For this purpose, during the sixth five year plan period (1980-85), a sum of Rs. 20 lakhs was approved and production of 300 MT sugar per day was targeted. Again, in the seventh five year plan (1985-90), and annual plan(1985-86) scheme-wise outlays of Rs.10 lakhs and Rs.2 lakhs were approved for Khandsari sugar Mill corpnn.
The factory is now running without cheap raw materials and profits. Even without examining the previous handicaps of Khandasari sugar mill the foundation stone of another sugar factory having crushing capacity of 1250 tonnes per day was laid at Kabowakching of Bishnupur sub-division on 26th Nov. 1980. For this a sum of Rs.11,050/- was spent for preparation of feasibility project report by the N.S.I. Kampur. It will cost Rs.300 lakhs when established. The total outlay during the year 1981-82 was 17 lakhs and approved outlay during the 6th plan period (1980-85) was of Rs.235 lakhs. The total outlays for this new sugar mill & distillery plant during the year 1985-86 annual plan was of Rs.10 lakhs and during the year 1985-90 (7th plan) was of Rs.100 lakhs respectively. Over nine-tenth of the area of Manipur is covered by hills, where on the slopes of the hills sugarcane can produced without disturbing the paddy fields. Low laying paddy fields are not suited for sugarcane plantation. High yielding or improved varieties of sugarcane like 'Khangara' having high sugar content, is better than that of local varities having low-sugar content. These H.Y.V. sugarcane is very suited to be grown on the foot hill areas of Manipur. So, if the Government is determined to do so, the authorities of the Khandasari sugar Mills can convert the barren hill slopes into sugarcane farms. Later on, these farms can supply sugarcane not only to this Khandasari mill but also to other sugar factory to be established in any other part of the state.
SPINNING MILL:

Manipur spinning Mill corpn. is a Training cum production unit of the cotton spinning of 25,488 spindles (i.e., its licensed capacity). It was established in March 1978. It is expected to cater the needs of about a quarter of the estimated 3 lakhs looms in Manipur. The state Govt. so far has invested Rs.227.70 lakhs as the equity share capital on the estimated cost. At present, the mill is running with 16,416 spindles and the total workers of the mill is 605 persons. The products of thread, which were sold in the year 1985 was of Rs.95,85,654 and it started production in the year 1984 on trial basis and its production in the subsequent three years were 3,40,173.12 kgs. (in 1985-86) 3,90,181.22 kgs. (in 1986-87) and 3,68,570.82 kgs. (in 1987-88) respectively.

The most popular "Forty-coil-thread" (Niphu kombi lung) is purchased by rich business men from the mill, at low price and it is resold by them at high price to the local weavers. Still the mill is running with low returns. As we know, the plantation of cotton in the hill areas of Manipur is now decreasing and new plantation of cotton both in hill and valley areas are also lacking.

So, a large quantity of raw-cotton at high prices is imported from outside Manipur. Moreover, power subsidy etc. are also not available in time and it makes heavy losses to the mill.
The local youths are also more interested in contract works than the plantation works or manual works. Thus, the mill is running under its capacity without adequate supply of cheap raw cotton.

In spite of all these factors affecting the development of the mill, the Govt. of Manipur has tried to improve the mill at any cost. During the seventh five year plan (1985-90) and annual plan (1985-86) the approved outlays were of Rs. 270 lakhs and Rs. 67 lakhs respectively.

The production of yarns by the mill has a high demand by the outsider firms. So, there is no question of yarns to remain in the godown. In the month of Sept. 1987 the mill produced yarns of different counts worth Rs. 9 lakhs (i.e. 30 thousand per day). At present it has increased her working force upto 644 workers and the mill spends more than 3 lakhs rupees per month as salary for both manual and clerical staff. Out of the total 16,614 spindles, mill is receiving only service of 58% due to shortage of required amenities.

If all the spindles (i.e. 16,614) are working then, there will be an income of about Rs. 17 lakhs per month.

At present the number of women workers are 171 and men workers are 381 in three shifts, working for 24 hours. Thus a colony is also planned for mill workers.
In the year 1987-88, 9021 spindles were added and the total number of spindles rose to be 25,635 costing about Rs. 4½ crores. The corporation requested to IDBI to give a loan of Rs. 332.5 lakhs of which 75% was granted.

The mill is consuming 3 lakhs power unit per month, and it spends more than one lakh rupees in power consumption. No power subsidy is given so far. There is a Govt. order to give 1 unit of power per 25 paise, but electricity Department collects 50 paise per unit (It is 47 paise per unit at Loktak Project). So, if they provided at subsidised rate, more profits can be earned by the mill. In other states, the power charge per unit is only 15 paise in the industrial units.

In the foregoing approximate receipts and expenditures accounts, the mill is now running with 'no profit no loss' trend. But in the long run, the mill will render a heavy loss.

HUNDUNG CEMENT FACTORY:

The Manipur cement Ltd. was incorporated as a separate company on 10-5-88, to manage the cement plant at Hundung (Ukhrul district). At present the total cement requirement of the state is imported from outside the state. The factory is based on the availability of 6.4 million tonnes reserve of limestone at various places in Ukhrul district as per G.S.I. report (1972). It was commissioned on 2nd Oct. 1987.
The followings are some of the facts and figures in relation to this mini-cement factory:

1. Capacity of Hundung cement factory: 50 tonnes per day.
2. Expansion potential: 100 tonnes per day.
3. Limestone deposit available: About 1 million tonnes (suitable for 100 tonnes per day plant)
4. Clay: Either from Nungbi of Ukhrul area or from Kangval of Churachandpur area.
5. Gypsum: From Rajasthan/Bhutan.
6. Water requirement: About 30,000 gallons per day (20,000 gallons for factory and 10,000 gallons for employees)
7. Manpower: About 160 persons
8. Power requirement: About 1000 KVA
10. Consultant: NEITCO, Guwahati
11. Infra-structural work: Govt. of Manipur
12. Sponsored by: NEC (for the plant only)

Moreover, the life span of Hundung cement factory is about 30 years only and Kangval deposit of clay is estimated at 2.52 million tonnes. Still, it is facing a lot of problems like mismanagement, breaking down of factory site & its machinery due to poor quality, etc.
At present, it is spending about 4 crores and 50 lakhs rupees and giving employment to 120 persons directly and 80 persons in Master rolls basis annually.

During the 7th plan, (1985-90) a sum of Rs.80 lakhs was approved. The approved outlay during the annual plan (1985-86) was of Rs.20 lakhs.

BAMBOO CHIPPING PLANT:

The bamboo chipping plant is being implemented under the overall supervision of the Manipur Industrial Development Corporation Ltd. The project report is prepared by the Hindustan paper corporation Ltd. Calcutta (A Govt. of India undertaking).

Its financial pattern is as under:

Total project cost - Rs. 158.13 lakhs
Finance by Equity - Rs. 90.00 lakhs
Finance by loan - Rs. 44.88 lakhs
Finance by subsidy - Rs. 23.25 lakhs

The planning commission has approved outlay of Rs.1.2 crores for this project during the seventh Five year plan.

Location: Kadamtala
Capacity: 75 ADMT per day
Total Capital cost: Rs.158.13 lakhs
Total cost of production per annum: Rs.110.50 lakhs
Cost per ADMT of Bamboo chip: Rs.497/-
Sales realisation per ADMT of bamboo chips: Rs.550/-
Total sales realisation per annum: Rs.122.22 lakhs
Debt equity Ratio: 1:2
Total working capital Requirement: Rs.29.78 lakhs
Working capital requirement from Banks: Rs.22.33 lakhs
Break even point: 67%
Life of the project: 14 years.
Pay back period: 7 years 4 months
Employment generation: Direct: 64, Indirect: 2,000
Capital output Ratio: 1:0.70
Total capacity subsidy available: 23.25 lakhs

The chipping plant has started functioning from the month of May 1990 at Kadamtala (Jiribam). After sometime this plant may utilised as a feeder plant for the proposed paper Mill (Bamboo based) at Jiribam not only this paper mill (Bamboo-based) with a 200 tonnes per day at Chandighat in Jiribam near the Raw materials site, but also another insulated paper mill of 25 tonnes per day capacity based on the pine trees grown in Manipur North, Manipur East & Tengnoupal districts is proposed to be set up at Karong in Manipur North district.
Although there are some handicaps for the time being but later on, it will serve as a sole industry for solving the economic and unemployment problems of the state. To fulfill this aim, a foundation stone of starch and glucose factory of 60 tonnes capacity per day based on the local maize production was laid on 12th Nov. 1980 at Nilakuthi of Imphal West-I sub-division. But a lot of mysteries are there to bring it into reality. Instead, MANIDCO has established one Vanaspati plant at Nilakuthi and it has employed 100 persons directly and it is expected to produce Rs.60 crores worth of Banaspati annually. The foundation stone of " Manipur State Drugs & Pharmaceutical Ltd." - a joint venture of Hindustan anti-biotic Ltd. under Govt. of Manipur, costing about Rs.2½ crores was laid on 5/6/89 at Nilakuthi, the place where Glucose, Vanaspati Mills are also proposed to be set up. It may employ about 160 persons directly and packing of bottles & plastics will be made there.

When the projects (Starch & Glucose) is completed, it will provide direct employment to 298 persons and indirect employment to about 1,500 persons. The Govt. is looking for a suitable entrepreneur for taking up this project either in private sector or in joint sector.

Recently, Manipur Electronics (MANITRON) located at Tak-yel is producing some electronics goods including T.V. sets, Radio etc. Manipur Electronics development corporation was established as a separate corporation w.e.f. 1-7-87, It is already
producing Black and white T.V. sets, portable Black & white T.V. sets and Colour T.V. sets etc. At present, it is producing 220 to 250 T.V. sets per month.

It has proposed to increase its production to 5000 numbers of colour and black & white T.V. sets per annum. It has been proposed to set-up an electronics complex to manufacture wireless sets and paging systems, small capacity electronics exchanges, cordless telephones, printed circuit boards etc. It is going to open a show room and ware house for electronics components at Imphal in collaboration with electronics trade and Technology Development corporation (A Govt. of India undertaking). In addition to the above, a centre for electronics design and Technology (CEDT) is going to be set up at Akampat in about 10 acres of land, Imphal. As a first step, a teaching complex costing about Rs.10 lakhs is already established in Manipur University campus and funds are provided by the Deptt. of Electronics, Govt. of India. But the Electronics testing and development centre at Luwangsangbam area is not yet established. Once established, the centre will provide training and assistance to entrepreneurs in setting up of electronics items manufacturing units.

During the 7th plan period (between 1985-90) a sum of Rs.300 lakhs and Rs.17 lakhs in annual plan (1985-86) were also approved for the Manipur electronics complex. Moreover, as a medium type of industry, the Govt. of Manipur established one
Mechanised Brick Manufacturing unit during the 7th plan period. A sum of Rs. 15 lakhs (1985-90) and Rs. 1 lakh during annual plan of 1985-86 were also spent.

Thus, during the seventh plan periods (1985-90) a sum of Rs. 950 lakhs and Rs. 130 lakhs were approved for large and medium type of industries in the state respectively.

But the achievements of the medium and small sized industries have been very poor. In short, almost all of these medium and small sized industries existing in the state are for a short life span and they may benefited to a small section of people. So, more emphasis should be given to the small scales and cottage types of industries, especially resource oriented and agro based industries.

Some of the factors which affect adversely the small scale and cottage industries of Manipur are, 'Transport handi-caps, marketing & lack of Govt's initiatives like financial institutions, loan, grant, subsidy etc.

As we know, the road communication system is under-developed and production & consumption of electricity is also very low. The main channels of communication is the 215 kms. road connecting Imphal with Dimapur, a railhead in Nagaland and another 224 kms. road connecting Imphal with Jiribam sub-division, a railhead in Manipur (border area near Gachar district of Assam).
But the roadway from Imphal - Jiribam (New Cachar Road) has a number of drawbacks. These roads (Imphal - Dimapur & New Cachar Road) pass through the hill tracts of Nagaland and Manipur and are liable to interruption especially during the rainy season. Still, goods moving in and out of the state are generally carried through the Imphal Dimapur Road. Thus, Manipur spends a lot as cost of transport and still has a large number of villages not well connected by road transport.

Indian Airlines operate daily services from Imphal to Calcutta & Delhi. But air transport is very costly and it has a number of limitations. Even after the completion of Loktak Hydro-Electric Project (commissioned on 6th August 1984), the power supply is irregular due to load shedding and inadequate power evacuations. A small share of power is received by Manipur state from this project. So, the non-availability of cheap electric power has been a major hindrance for setting up of viable industries in Manipur. So, proper attention should be given in this regard. Until recently, Imphal was the only place in Manipur which had adequate banking facilities and the rural areas are still not fully covered by the Banks. Most of the existing Banks have small working capitals. Moreover, the Banking potential even at Imphal has not been adequately tapped due to lack of Banking habit of the people as well as total absence of entrepreneurial talent in the state. Besides, the limited funds for agricultural and Industrial sector and the lack of loan provisions to viable production-units have further created difficulties.
The available opportunities are not known to the local people due to lack of knowledge & initiative and rigidness of the terms and conditions of getting loans and financial assistance. There is no data available, regarding the import and export of commodities into and outside of Manipur. The industrial potentials of the state are also not properly surveyed.

Handloom Weaving is a popular industry throughout the state. The weaving of both silk and cotton is a part of their culture. This handloom industry is performed by the women folk as a household industry on part time basis. For a population of one half million population, the state has about 2 lakhs looms. Moreover, this number of looms is not properly surveyed. Majority of the looms are loin looms and there are only about 60,000 fly shuttle looms. Only 10,000 of the handlooms have been brought under the co-operative system.

Dyeing is not standardised and more often the dyes are not fast. As a result, the industry has become traditional bound and the profitability is low. The total handloom production is estimated at about Rs.3 crores per year. The major problems being faced by this industry are non-availability of yarn at reasonable prices and absence of sufficient facilities for dyeing and processing. Recently one dye house was established but it is not fulfilling the requirements of these weavers. Only one
spinning mill in the state is also unable to meet the demand due to shortage of raw-cotton. Local youths are also not planting cotton but they prefer in Govt's contract works or white collar jobs. Even now the yarn trade is largely concentrated in the hands of outside traders. The transport cost of the yarn and the system of middlemen inflate the cost of yarn to the weaver.

Previously, each and every family of Meeteis used to possess at least one loom or loinloom. But, now-a-days a large number of looms are not working and they may be regarded as "Sleeping looms". The number of looms (Co-op. sector cumulative) in the year 1980-87 and 1980-90 (Target) were 74,000 and 86,000 respectively.

So, there are some constraints for the development of handloom industry in Manipur. Among such constraint non-availability of yarn at reasonable prices, lack of local raw-cotton products, deficient character in dyeing and designing, quality control, processing, inadequate financial support to the poor weaver, inadequate financial institutions and marketing facilities, unorganised and widely dispersed nature of handlooms, lack of entrepreneurship and managerial skills, competition between the low priced mill cloths, cheap imitation of indigenous design by the heavy textile mills, the taste and attitude of the local people etc. are worth mentioning.
Moreover, the weavers in this industry have been always attached to one of the traders through their local middlemen though they have worked in their own houses on their own looms.

Thus, in an industry with a specialised demand, the general weavers worked entirely to the order of the middlemen. In some cases, the weavers are possessing their own loom but mostly are being exploited by the middlemen. The poor weavers who used to work at the extra-loom of the middlemen are called "Khunek-weaver" or "Hired weaver". These Khunek-weavers use to work at these extra looms in their own houses or in the house of the middlemen. On an average there is only one loom in each weaver's house, but a small number of rich weavers possess, sometimes, as many as two to three looms.

Now-a-days, "Co-operative weavers" Societies" are brought up under the Manipur Handloom and Handicrafts Development Corp., Ltd. (A Govt. of Manipur Undertaking, established in the year 1976). But these "Co-op. Societies" are in a dying conditions. Moreover, it can't face the challenge posed by these capitalists. So, a large number of women folk is now engaging themselves in other activities of life. But, some weavers never gave up their age old practices of handloom industry and they are still working on it with great hardship.
B. CONSTRAINTS IN THE EXISTING INDUSTRIAL ACTIVITIES OF THE STATE IN PURVIEW OF ITS LOCAL CONDITIONS.

(a) TRANSPORT CONSTRAINT:

As stated above, Manipur's geographical isolation and a few other handicaps infra-structures viz. Bottleneck in transport & communication, shortage of power & capital, difficulties in marketing, Financial and entrepreneurship, and other institutional set-up etc. have been the deterrent factors for the growth of industries in the state. The constraints are still continuing in the process of industrialization of the state.

As we know, 90 percent of the state's area is hilly, where there are a few facilities for mechanised transport. Out of five hill districts, three district headquarters viz, Tamenglong, Ukhrul, and Chandel are yet to be connected with black topped road of the standard of state highways. The sub-divisional headquarters at Henglep and Tousem are still not connected by a good road. Even the sub-divisional headquarters at Phungyar(specially at Tolia), Chassad, Chingmei Khullen, Kasom Khullen, Saikul and Singhat are connected with only fair weather roads and thus many roads in the state are not usable throughout the year.

As mentioned above, National Highways No.39, Kamagaon Moreh road passes through hilly regions of Nagaland and Manipur. Another road of considerable economic importance is the 224 kms. long New-Cachar road connecting Imphal with Jiribam. It passes
through dense forest and difficult terrains of the Manipur west District. The opening of this road brings many benefits and general development of the state. So, this road is the 'Second life-line' of the state and it is now regularly operated by vehicular traffic and it links Cachar district of Assam with Manipur state. But, this route has some constraints. Recently, the North Eastern Frontier railway has extended its route from Silchar (Assam) to Jiribam (Manipur). The total length of this route is about 50 kms. and out of this total length of railway line, there is about 1.3 km of railway line in Manipur. It covers about 4 hours journey. Everyday it is having both passengers and goods train services. The benefits shared by this new railhead at Jiribam will not improve the overall development of the state if the Imphal-Jiribam-road is not improved. Still roadways plays a vital role inside the state.

In the state, the number of motor vehicles per lakh of population is 248, which is smaller than the all India rate of 350 as on March, 1973. But, during the year 1984-85, the motor vehicles on the road were 12,328, i.e. about 78.0 motor vehicles per ten thousand of her population. This sudden increase of vehicles might be due to more possession of private jeep & cars, motor-cycles, scooters, Luna-moped etc. Thus, it indicates that there is a little increase of goods vehicles and other public service vehicles.
Again, in 1982-83, the number of motor vehicles per ten thousand of population was 58.0 and the number of motor vehicles on roads per 100 sq.km was about 35 only. In short, it is about 1 motor vehicle per 200 persons. The problem of motor transport is that motor transport covers a large area in the valley and small portion in the surrounding hill areas.

There is a daily flight between Imphal and Calcutta, Imphal via Delhi/Gauhati, Imphal/Calcutta via Silchar etc. A Vayudoot service between Imphal and Dimapur is also operating. But air transport is generally costly. Water transport is almost negligible. Some forms of water transport are found in the Loktak lake and big rivers like Barak. So, there is possibility of minor water transport in some rainfed rivers in the state.

(b) POWER CONSTRAINT:

Shortage of power even after the completion of Loktak Project is a major hindrance for setting up of industries in Manipur. Oil, gas and coal are also not exploited for commercial uses, those there are believed to be existing in the state. Wood is, on the other hand, consumed mostly for domestic uses and some industrial purposes. So, there is a problem of ecological imbalance in the state.
There is no remarkable utilisation of wind power, solar energy, nuclear energy etc. But some demonstration works in this regard are done by Dept. of Science and technology, Government of Manipur. The state's rich in hydro-power potential which is estimated at 0.865 million KW at 60 percent load factor which constitutes 2.1 percent of the country's potential (excluding Bhakra complex)\(^1\).

At the moment the per capita power consumption in the state is awfully low i.e. about 25.84 KWH (in 1984-85) against 93 KWH for all India (1975-76)\(^2\). The rates of domestic as well as industrial consumption of electricity is not cheap in the state although the Loktak hydro electric project has been completed with successful power generation. Even during the lean season the project keeps power supply on a restricted basis.

The present rate of electricity in the state for "domestic" consumption is 70 paise per unit for units upto 50 and in respect of "Light and fan" it is 90 paise per unit for units above 50 units. Again, the energy charges for "domestic" consumption is 60 paise per unit for units upto 100 units per month and in respect of "power", the energy charges is 75 paise per unit for units above 100 units.

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1. Ibid. (Eco.-Rev.) 1981-82. P.36
2. Eco., Review 1975-76 P.27.
Loktak project has so far generated more than 830 million units of energy. It achieved the generation targets and has even exceeded the designed plant capacity of power generation. The project with an installed capacity of 105 MW is capable of generating 70 MW of firm power at 60% load factor and at present the daily generation figure varies between 65 MW to 70 MW depending upon the power demand from the beneficiary states.

Out of the total power generation by the project, Manipur consumes 22 MW, Nagaland 10 MW and the rest is drawn by Assam, which is the major consumer. Thus, the power evacuation in the state is very inadequate.

(c) BANKING CONSTRAINT:

Until recently, Imphal was the only place in Manipur which had banking facilities. Since nationalisation, United Bank of India has opened many branches and it has become the leading bank in the state. But due to unpleasant law and order situations inside the state, the branch offices at remote areas are not functioning well. In the state the number of banks are inadequate and the rural areas are not fully covered by the banks service. Most of the existing banks have small working capitals. Moreover, these banking potentials even at Imphal, have not been adequately tapped due to lack of banking habit of the people as well as total absence of entrepreneurial talent in the state. Likewise, limited funds for agricultural and industrial
sectors and lack of giving loan to viable production units, have created a feeling of discrimination.

By 1984-85, the number of banking offices (including branch offices) per lakh of population is 5.1 and number of banking offices (including branch offices) per 1000 square kms. of area is 3.6 and percentage of advance deposits of scheduled commercial bank is 72.00. Recently, some banks have been nationalised, but their culture has not changed and they are still geared to serve the rich. Even in the urban area, banks are mostly used by rich businessman. The available opportunities are not known to the local people due to lack of initiative as well as from such rigidness of the terms and conditions of getting loans and financial assistance.

(d) ENTREPRENEURIAL CONSTRAINT:

Entrepreneurship depends in part upon the appearance of persons with a certain psychological make up favourable for entrepreneurial activity and, in part, upon the social and economic environment in which individuals with the proper personal inclinations will find it attractive to apply them to the appropriate economic ends. "A timid person, a person who has a great need for cordial and friendly attachments with others, a person who wants power over other man, will not become an entrepreneur.
The first because he lacks venture someness, and second because he will sacrifice achievement for the sake of friendship, and third because he wants to control and dominate others, not lead them in a mutually profitable enterprise. But a person who has a high achievement orientation, that is, a man who sets a goal for himself which he strives to attain, who is willing to take a calculated risk, and who is eager to exploit a new and potentially challenging situation and use it to his best advantage, is a man who may become an entrepreneur and may be very successful in his career.  

Entrepreneurship here is taken in its largest meaning as self-employment, non-traditional ways of earning a livelihood, entailing, decision making and financial risk taking. Without money an entrepreneur or the community as a whole cannot grow. He has to show that 'making-money' is an honourable occupation if it is carried out in a socially justified manner.

But, in a state like Manipur, where different tribal people are concentrating, the training of tribal entrepreneurs is in the initial stage.

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The Socio-economic attitudes of the tribals are those of village communities still living in a "Pre-capitalistic" or "Pre-monetary" system. 4

"Shopkeeping" is a task left to village traders and tribals are farmers first of all. They'd rather prefer to continue to be exploited by petty shopkeepers who double as money lenders, than engage themselves in such an avocation. Among modernised tribals, entrepreneurship in small scale business or industry is not yet high on the scale of honour-fetching avocations. Service in Govt., in army, in teaching, and as doctor, as political leader, and service in mission institutions are preferred to self employment.

The present efforts of the Govt. to promote entrepreneurship training through D.I.C.s authorities is a step in the right direction but it can not go far enough, if real socialism is to be attained. If the Govt. wants to live up to its objectives as started in the fifth five year plan and other consecutive plan


Periods to spread entrepreneurship amongst disadvantaged communities, its efforts must reach out to potential entrepreneurs in tribal villages too. One of the priorities of the Government of India is to wipe out the lag that separates under-privileged communities from the rest of the country, inspite of the progress that has been made during the past 30 years. The fourth and fifth five year plans mentioned this problem as requiring urgent attention. More entrepreneurship training programmes are expected from the Govt. of Manipur. Because, majority of the people of the state are still tradition bound and are lacking in entrepreneurship talent.

(e) OTHER CONSTRAINTS IN CERTAIN ECONOMIC ACTIVITIES:

As the state is isolated from the rest of the country and even from its neighbouring states, the problem of development of Manipur has become more complex than it would otherwise be. The per capita income of the state is lower than that of all India level. About 60% of the total population is below poverty line. The limited No. of markets arising from low level of income of the population is another inhibiting factor. Thus it leads to low level of consumption. In the circumstances, the surplus outputs are to be sold outside but transport bottleneck stands in the way, besides other factors. Self sufficiency in rice is vital for the state.

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6. Govt. of India, planning commission, fourth five year plan 1969-74 Draft, 1969, pp. 4,5,15-16 and,
for rice not only is the staple food of the population but it is also related with the Socio-political-economic stability of the state. The present situation is that where there is no crop failure, the production may be assumed to be self sufficient. Causes of crop failure are primarily floods & draughts. No severe draught happened in the past but in recent years, when it happened, irrigation was realised. At present barely 10% of the total cultivated area of Manipur is under irrigation as against 25% of all India.

Tanks, tube-wells and wells irrigation are in the initial stage and canal (mostly private canals of small hill streamlets) irrigate to some extent. The sub-standard peasants do not produce much marketable surplus. The fertilizers consumption per hectare of gross area sown is 14.35 kgs. during the year 1984-85. It is much lower than that of all India level of consumption. More than 90% of the area are hills where cultivation is carried on a limited scale and traditional cropping pattern is not changed. There is also the problem of soil erosion particularly in hill areas where there are shifting cultivation and indiscriminate cutting of trees.

The state is not self-sufficient in many agricultural crops, like pulse, potato, onion and therefore these are imported from other states every year. Production is so low even in the case of paddy, when the valley is affected by vagaries of nature, that paddy has to be brought in from outside.

In the hill areas of the state, the productivity of paddy is also very low due to 'Jhum' cultivation. "Manipur which has the least area available for jhumming, the area exploited under shifting cultivation is proportionally higher in percentage (60%) than that of Mizoram, Tripura and Nagaland (10% to 12%)."

According to the chief conservator of forests, the area under present "Jhumming" in Manipur is about 1,800 sq.kms. and another about 900 sq.kms. of virgin land is burnt down every year for the extension of new Jhum land. Officially, it is also estimated that about 65,000 hectares of land are brought under Jhum cultivation every year.

The period of cycle of Jhum is changed from place to place or from one area to another area. Previously, a Jhummia used to return at the same plot of land after resting a duration of about 30 to 40 years. But, with the growth of population these time intervals are totally changed. As the same plot of land is Jhummed for two to three years only and then abandoned, the number of years before the Jhummia returns to the same plot of land would depend upon the availability of land to the particular community. The general duration of a Jhum-cycle usually takes about 5 to 7 years and in some cases, it may be more than this i.e. 6 to 8 years. But, in the hill areas of Manipur south district, the

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8. Miss F.K. Wadia Director (E & M): "Control of shifting cultivation in the north-eastern Region", North-Eastern Council Secretariat, Shillong, PP.2-3 (Table - E)

duration of Jhum cycle is about 3 to 5 years in every 21 sq.kms. of its area. It is due to high density of population (specially by immigrant Kuki-Chin groups). In Senapati district where density of population is 48 persons per sq.kms by 1981 census, the duration of Jhum cycle is 7 years in every 30 sq.km of area. Here, every year above 600 sq.kms of new jhum lands are extended. It is also due to high density of population specially by the Nepalese graziers and kuki groups etc. Manipur south (Churachandpur) district is also a place for heavy jhum cultivation. It is next to Senapati district. Its density of population is 29 persons per sq.km. According to 1981 census, the population of Manipur is about 14.21 lakhs. Out of this population about 3.88 lakhs are tribals, out of which 3 lakhs are engaged in their traditional practices of Jhum cultivation. In every 5 member-tribal-family, they require a Jhum land of about one hectare. So, they are extending their jhum land in the new virgin lands without any consent. As we know, jhum cultivation disturbs the ecological balance and it is also not profitable to the farmers. The jhumming system sustains the nomadic hill people for barely 6 to 8 months in a year and for the rest of the year they have to go out for hunting and fishing in the forest area.

With the cycle of jhumming getting smaller, increase in population and diminishing fertility of the soil, the economy of the people dependent on this form of cultivation has reached a
critical point. But no amount of decision making or publicity would help in dissuading the tribals from jhumming if the alternatives offered to them are not better. While trying to solve one problem, it should not happen that new ones of a completely different type arise.

Moreover, the forest estate is in a neglected state. In spite of the plan expenditures in the last 30 years, a complete demarcation, enumeration, preparation of working plans etc. have not been made. Recently, some work has been done on forest. In the absence of the detailed information of the species grown, the existing stock, annual cut etc.; it is very difficult to know what these forests possess. Except some qualitative information, nothing is found on this line. Forest revenue in the year 1982-83 was of about Rs.47,65000. Agriculture including livestock contributes 57.05% in the state Domestic product by industrial origin at current prices 1980-81. Whereas, the forest and logging contributes 1.14% in the state domestic products which is very low. Therefore, state economy is very unbalanced.

Though agriculture occupies a very dominant position in the state, its contribution to total SDP varies sharply from year to year depending upon the capricious rainfall on which the success or failure of crops, particularly rice lies.

Similar fluctuation are seen in the total SDP both at current and constant prices. The SDP falls when the contribution from Agricultural sector falls and rises when agricultural contribution rises. This is the most distinguishing feature of the state's economy where there is no definite upwards trend.

The state is very backward in industries. There is not a single large scale manufacturing industries worth the name and as such the contribution from large scale manufacturing industries was only 4.13% to the total SDP during 1980-81 estimates. (Vide appendix No.II)

Even the small scale industries of Manipur are smaller in scale as compared to that of the all India standard. They are hardly distinguishable from cottage industries. The most important industrial activity is handloom weaving. But this industry itself has a number of problems which always retard it progress.

The major problems facing this industry are non-availability of yarn at reasonable prices and absence of sufficient facilities for dyeing and processing etc. Although there is one dye house at Eroisemba, and another spinning mill at Loitang khunou, quality yarns are purchased from almost all over India and mainly from South India. Recently the Govt. has started distribution of yarn to co-op. societies is even though the yarn trade is largely concentrated in the hands of outside traders. The transport cost of the yarn and the system of middlemen inflate the cost of yarn to the poor weavers.
Thus the main reasons for the limited success of the handloom industry in Manipur are given below:

(1) Non-availability of yarn at reasonable prices.

(2) Absence of sufficient facilities for dyeing and processing, quality control and designing.

(3) Inadequate financial support of the poor weaver and inadequate financial institutions.

(4) Lack of marketing facilities for the innumerable handloom owners and the exploitation of the poor weaver by the middlemen.

(5) Unorganised and widely dispersed nature of the industry with lack of entrepreneurship and managerial skills.

(6) Presence of competition between the low priced textile cloths of capitalists and cheap imitated cloths of indigenous design.

(7) Lack of more Govt. initiatives.

Out of the above mentioned adverse factors in the progress of the handloom industry, in Manipur the presence of low priced textile (cloth) of the capitalist owners of the mills is the greatest obstacle. This handloom weaving industry, being the most important and widespread among all the Manipur handicrafts, needs the best care and observation in its various changes, designs and stages of progress by the authorities as well as the public.
The first stage in the industry belongs to the group of independent women weavers working generally in making of ordinary course cloth, and disposing of the wares locally. These people have almost no capital and can only buy small amounts of yarn from the local dealers. Everytime they have to work it up, and lastly they have to sell their finished product before they buy another instalment of yarn. This is the first stage of introduction of the middlemen - in most cases the yarn dealers. Generally, the weaver and the dealer seem to have no link. Here, the local middlemen commonly known as 'Phroubi' or 'Phinekpi' are playing a great role. They contact the weaver and invest money to them, in the form of cash or thread, on the demand of a particular type of cloth by capitalist yarn dealers.

When, the independent women weaver has only a small quantity to sell at each time, it becomes necessary for her that she should sell it at once. The demand for the finer cloth is limited, so it does not arise much problems. When she (the weaver) once becomes indebted she can no longer wait to sell her cloth directly to the customer but she has to sell it to a middlemen who gives her a return immediately.

Sometimes, the yarn dealer and the cloth merchant are different persons, but in most cases they are the same. Indeed the yarn dealer is almost compelled, in many cases, to become also a dealer in cloth. The weavers in this industry are always
attached to one of the traders through their local middlemen.
The weavers, of course, worked in their own houses on their own
looms. Thus in this industry with a specialised demand, the ge-
neral weavers worked entirely to the order of the middlemen. So-
me weavers are so compelled to circumstances that they even lose
their looms. At this time, they work for other. They are called
'Khunek weavers' or 'Hired weavers'. These middlemen, then emp-
loy these 'Khunek weavers', to work at the extra looms in their
own houses or in most cases, they (women weaver) work in their
own houses. In many cases, the weavers are possessing their own
loom but they are financed by these rich middlemen/cloth merchant.
On average there is only one loom in each weaver's houses, but
the group of rich weavers possess sometimes as many as two to th-
ree looms.

The introduction of a factory system in the handloom co-
tton industry is not possible. It is because of the facts that the
majority of the weavers are part-time workers in their own houses.
Moreover, the demand is fairly stable due to poor income of the
people. Not only this, but there are other reasons also viz, the
constraints like quality control; deficient character in dyeing
and designing, processing, etc.

The most important reason seems to be the economy affected
by a factory organisation of the handloom industry will not be la-
rge enough to make it profitable to the capitalist so
that he has to pay a substantially higher wage than what the weaver already earns on the domestic system.

For any economy to be gained by an improvement in the handloom, introduction of the fly-shuttle, can be made while the weaver is working at home. Then, the economy can not be very large and, therefore, the extra wage necessary to induce the weaver to leave his home and to keep him regularly at work in a factory, may not be offered by the capitalist. "The domestic system, therefore, is gaining ground and is the predominant form of organisation in the industry."\[11\]

The organisation of the silk weaving industry is similar to that of the better class of cotton goods. In this, these weavers are working entirely for the dealer. As a result, the handloom industry has become tradition bound and the profitability is also too low. The total handloom product is estimated at about Rs. 3 crores per year. A notable feature of Manipur is that its women have a high rate of participation in the working force. About 80 percent of them are engaged in producing handloom cloths. Weaving (both silk and cotton) is a part of their culture, a way of life with them and the absence of this skill in a Meetei woman is considered unbecoming. Now-a-days, co-operative weavers' societies are brought up under the "Manipur handloom and Handicrafts Development corpn. Ltd."(A Govt. of Manipur undertaking, established in the year 1976). But these Co-op.

Societies" are in a dying conditions. Moreover, it can't face the challenge posed by the capitalists.

So, a large number of women folk are now engaging themselves in other activities of life. But, some weavers have never given up their age old practices of handloom industry and they are still working on it with great hardship.

Not only the mechanised dye at Iroisemba for quality dyeing of cotton yarn has been established by Manipur handloom and handicrafts development corp. Ltd. but another process house for dyeing of acrylic yarn as well as processing of handloom fabric, is also proposed to be set up shortly with the assistance of the Development, commissioner(Handlooms).

At present, the Manipur handloom and Handicraft Development Corp. is trying to assist handloom and handicraft artisans by supplying raw-materials, improving their methods of productivity by introduction of modernised looms and equipments and by marketing the products of individual artisans. Moreover, the handloom and handicrafts artisans under the co-operative fold are assisted through the primary weaver co-op. societies and the Apex co-operative weavers societies. Presently, the handloom and handicraft development corporation is implementing the 'Hill areas handloom development project' by setting up training cum production centre in the five hill districts, as part of the centrally sponsored programme. Recently, one handloom workshop was
constructed under NCDC's schemes at Kamong in Imphal West-I. Thus, the state Govt. has taken many steps through co-operative system, both for handloom weavers and sericulturalists. So, in future they might be developed slowly and steadily.

Besides there are a few printing presses, automobile servicing and repairing units, electronics units tyre retreading units, saw mills, and a factory for manufacturing hume pipes, Fruit preservation and canning centres, cycle parts assembling units, Brick fields, Furniture units, a medium sized khandansari sugar factory, a training cum spinning mill, a mini cement factory and a medium sized Bamboo chipping plant etc. But all of them are still facing the problem of power supply. With a small population and low level of income, the demand for many of the consumer goods is too limited to warrant the setting up of large production units.

The limitation of transport also does not permit substantial export of manufactured goods from Manipur. Other infra-structures like market, banking and credit facilities, power, irrigation, medical facilities etc. are lacking in the state. The state is also deficient in entrepreneurial and managerial skill.

Therefore, the industrialization programme of the state has to be formulated within these constraints initially with a long term strategy aimed at removing these constraints.
C. APPRAISAL OF THE EXISTING RESOURCES AND INDUSTRIES IN THE STATE:

As we know, Agriculture is the main occupation of the people of the state, and out of the total working force of Manipur, about 71 percent is engaged in Agricultural sector alone. This indicates the agrarian economy of the people. It is greatly controlled by the physical and cultural factors such as climate, soils, Topography, Socio-economic conditions etc. Its (Agricultural) contribution to the state domestic product was about 57.05 percent in 1980-81 at current prices and further the ups and down of S.D.P. is also greatly influenced by agricultural sector. Agriculture with its allied services such as forestry and fishing together constitute 59.97 percent. This means that the economy is not diversified. Moreover, a good agricultural year always shows a positive growth of S.D.P. If there were drought during some years, then S.D.P. was also severely affected.

According to the village papers, the total area under land utilisation of the valley is 1,58,340 hectares (out of 2,23,000 hectares the total geographical area according to surveyor general of India, 1977-78) and out of this total area, 26,914 hectares hectares of land is not available for cultivation and 1,003 hectares is occupied by forest such as Keibul Lamjao reed forest in the south of Loktak Lake and other small groves located here and there in the valley. Other cultivable land
excluding current fallows accounts for 28,696 hectares. The total area of fallow land is 1,851 hectares only.

Out of the total cropped area (i.e., 2,25,000 hectares) during the year 1982-83, net area sown and area sown more than once were 2,15,000 hectares and 10,000 hectares respectively in the state. Here, out of the total geographic area (i.e. 22,356 sq.km.), the area covered by forest is 15,154 sq.km, 2,25,000 hectares of cultivable land is under total cropped area. So, if we deduct these two areas from the total geographic area, then, less than one-third of the land area is available for settlement purpose and in every 10 years, the average increase of population is about 3 lakhs. The density of population is also very high specially in the valley areas (i.e. more than 500 persons per sq.km) but, it is low in the hill areas of the state (i.e. only 64 persons per sq.km.).

So due to increase in population the per capita cultivable land has been decreasing day by day, specially in the valley areas of the state. Consequently the average land holding in the valley areas is below one hectare. So, further fragmentation of land is not desirable rather more lands should be brought under the co-operative farming societies. At present in this state, both, a little advanced type of agriculture (specially in the valley areas) and primitive (Jhum) type of agriculture (specially in the hill areas) are going on.
The improved agricultural practices include the introduction of high yielding varieties of crops, application of fertilizers, adoption of plant protection measures etc. The area covered under high yielding varieties of crops by the end of the 6th five year plan was 70,000 hectares, against the area of 40,000 hectares of the base level of the sixth five year plan (1979-80). Coverage of high yielding varieties had already reached 70% of the cropped area in the valley. The rice production has gone up to 2500 kgs. per hectare by high yielding varieties.

The consumption rate of fertilizers went up from 18 kgs. per hectare by the end of 1979-80 to 45 kgs. per hectares at the end of 6th plan (1984-85). Fertilizer consumption reached to 56 kgs. per hectare during 1986-87 as against the national coverage of 50 kgs. per hectare and it was the highest amongst the northeastern states. In the valley the consumption of fertilizer has reached to 92.6 kgs. per hectare, with the irrigation potentiality created under major and minor irrigation projects. Double cropping with the introduction of the first crop of paddy (a kharif crop) and Rabi crop after main paddy have been introduced wherever irrigation facilities are available. Area brought under first crop of paddy was increased from 6,500 hectares during 1985-86 to 17,303 hectares during 1987-88. Under 20 point programme, the production of pulses & oilseed went up to 13,800 tonnes and 17,500 tonnes respectively during the year 1987-88.
Recently, Govt. of Manipur has established "Manipur Agro-Industrial corporation" for the reduction of poverty and attainment of economic self reliance in the state. All the plans have been designed to provide infra-structures for stabilization of the economy particularly in the agricultural sector. There are schemes for control of jhumming cultivation and measures to supplement income of farmers by diversifying of agricultural production, utilising natural resources through establishment of agro-based and forest-based industries, making provisions for wide avenues of employment opportunities, primarily to weaker sections of the society. Recently, programmes for insurance schemes for landless cultivators and crop-insurance schemes have been started. Insurance scheme for landless farmers (between 18 years to 60 years of age) introduced by Govt. of India (on 15th August 1987) is also made available in Manipur from 1988 by the Agricultural Department. A sum of Rs.1,000/- will be given to the landless farmers under this scheme. Self sufficiency in main food items and generation of employment opportunity are the two main objectives of the Agricultural programme introducing in the state.

It further envisages to increase production of food grains through introduction of high yielding varieties (HYV) of crops, distribution of fertilizers, measures for plant protection, agricultural education & training, soil conservation etc. diversifying agricultural production and exploiting the immense potentialities for development of Horticulture.
More emphasis is being given to grow plantation crops like tea, coffee, cotton, Rubber, oak Tasar etc. and setting up farmer's service centres, both for mechanisation and supply of essential inputs and services. Commercial production of mushroom by unemployed and under employed persons and setting up of agro-based industries for more employment opportunities. Measures are also being taken up to raise the quality of cattle, buffaloes, poultry, pig and other animals. Schemes for development of pisciculture have been taken up in the state's cultivable water area of 19,000 hectares.

Manipur is already self sufficient in respect of paddy seeds. Foundation and breeder seeds are produced at the rice research station, Wangbal and I.C.A.R. at Imphal. From 1986-87, agriculture Department has started production of foundation seeds of mustard. Some quantities of foundation seeds of mustard have been supplied to Nagaland and Mizoram. Two seed-farms (viz Regional seed farm for major field crops at Kharung and Regional pulse and oilseeds production farm at Senapati, Gamphazol area) have started production of seeds from 1988. Moreover, construction of a one thousand tonne capacity cold storage had already been started during 1987-88. So, during the seventh five year plan(1985-90), the financial outlay in different heads in agriculture was properly distributed and it has given some chances to push up the agricultural activities in the state.

If these surplus agricultural raw-materials and viable agro-based small units run by individual enterprises act as ancillary units to the larger ones either public or co-op. sectors in the near future; they may bring prosperity and rise the income of the people, leading the state to a moderate industrialization.

As regards the forest resources, Manipur has a vast area of forest covering i.e. of about 15,154 sq. kms., constituting 68% of the total geographic area of the state as against 23 percent of the country as a whole.

In these forests, varieties of trees, bamboos and canes are found. The most important trees are Sahi(Castanopsis-Indica), Uyung(Oak-Tasar/Quercusgenera), Uchan(Pinus-longifolius), Agar (Aquilaria agallocha), Mekruk (Caesalpinia), Chingshu(Tectona grandis), Uningthou(Phoccha Hensiana), Tairen(Cedrela-toona), Tumitla(Cinnamomum-Cececophnne), Usingsha(Dalchini/Cinnamon), Heirukokthong(Artocarpus Hiruta), Usol(Schimawallichii) etc. in addition to canes, bamboos and some other forest products such as :

(A) Cane :- Li, Yairi, Lipop etc.

(B) Bamboos:- Longnga, Utang, Khokwa, Saneibi, Maribob, Laiwa, Mobiwa, Oonal etc. more than hundred species
(C) Fodder, incense, perfume, medical herbs, rare animals, birds, and orchids (viz. Siroi lily, Lilium Napalensis, Irish-Bakerli, Vanda coerulea, Dendrobium Wardianum Album, Cypripedium spicerianum etc., (more than 150 species)

These rare species of flora and fauna can be used for her economic development.

TABLE - 24

Distribution of tree forests

<table>
<thead>
<tr>
<th>Class of forest</th>
<th>Area(Sq.Km.)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wet temperate forest</td>
<td>1451.01</td>
<td>9.57</td>
</tr>
<tr>
<td>2. Coniferous forest</td>
<td>2442.77</td>
<td>16.12</td>
</tr>
<tr>
<td>3. Wet-hill forest</td>
<td>6590.59</td>
<td>43.49</td>
</tr>
<tr>
<td>4. Semi-evergreen forest</td>
<td>644.89</td>
<td>4.25</td>
</tr>
<tr>
<td>5. Teak-Gurjan forest</td>
<td>610.69</td>
<td>4.08</td>
</tr>
<tr>
<td>6. Bamboo forest</td>
<td>3268.43</td>
<td>21.57</td>
</tr>
<tr>
<td>7. Grassy blanks</td>
<td>146.56</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>15,154.94</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

(i.e. 67.87% to its total geographical area)

Source: Economic review 1981-82(Govt. of Manipur)
These woods are used for furniture, pillar, electric post, match box, and boxes, firewood, perfume, Incense etc. Moreover, paper mill (both bamboo & pine based) and cane & bamboo works can be established in plenty at any region in the state.
Manipur is not very rich in mineral resources because proper geological survey is not yet organised. However, the G.S.I. has undertaken some survey in the three districts of the state viz Ukhrul, Churachandpur and Chandel. Thus, it has discovered some valuable deposits of minerals. Out of this a large deposits of limestones & serpentine Rocks at Ukhrul, Hundung, Kangkhui, Nungsong etc. and some amount of lime deposits at Tengnoupal, Chandel, Churachandpur, Chakpikarong etc. are worth mentioning. Asbestos deposits at Tengnoupal & in Moreh areas, Iron at Kakching and Chakpikarong; Chromite deposits in Ukhrul and Chandel areas; Idocrase at Chandel etc. are have also been found out. Clays are also found at many places in the state, viz at Nungbi(Ukhrul) & Kangval(Churachandpur) etc.

There are a number of salt springs in the state, viz at Sikhong, Mingel, Chandrakhong, Walkhong, Shajikhong, Moirangpren, Nungbrang etc. Other minerals which are also known to exist in the state are: Cobalt, Nickel, copper, Lignite coal, gas, petroleum, gold, rare stone etc. Out of these mineral wealths of the state, Idocrase can be used for costly ornaments & serpentine rocks for manufacturing the serpentine slab(a costly carpet) and chromite for producing the good quality steel goods. On limestone deposits, there is already one mini-cement factory located at Ukhrul.
According to oil and natural gas commission, Guwahati, Manipur and Tripura may ultimately turn out to be "most prospective oil and gas fields in future."

As mentioned above, Manipur has no large scale industries but there are some medium and small sized industrial units. They are also not comparable with the same type industries of all India level. Still, the state has some scope for establishing industrial units, specially agro-based industrial units, Forest based, demand based consumer goods and a few other industrial units.

Planning for starting a few medium sized industries based on the locally available raw materials had been drawing attention since the 4th five year plan. In this regard, I present some of the medium and small scale industrial units which are already existing in the state.

The Manipur spinning Mill corporation Ltd. started commercial production from 1st April, 1985 with a number of 25488 spindles at full capacity. The mill produced 2,78,261 kg. of yarn during 1985-86 and sales turn over was of Rs. 95,83,654 lakhs. The production increased to 4,82,938 kg. of yarn during 1986-87 and the sales turn over increased up to more than Rs. 1.19 crores. This corporation (Govt. of Manipur undertaking) is now giving direct employment to 643 persons and has a projected potential for employment of 1250 persons when full capacity spindles are installed. A sum of Rs. 6.19 lakhs was spent for implementation of

13. Source : Telegraph 18th June 1988, P.1(Oil struck in Manipur).
water supply scheme by public Health Engineering Department, Manipur. Another sum of Rs.1.17 lakhs was spent for improvement of power supply and there is no longer any problem of power. The corporation will be diversifying into the area of Arcyclic yarn production for which project Report has been prepared by the MINDC.

The Manipur electronics which was formerly a production unit of electronic goods under MANIDCO, was incorporated on 30th January 1987 and is now functioning as a full fledged corporation. The electronics industry is particularly suitable for Manipur in view of the inborn skill of the local people and the dustfree environment, etc. and also because of the low volume and high value added items produced. So far the unit has taken up production of various electronic goods such as 2 band Radio sets, 51 cm. black & white T.V. sets, 51 cm. colour T.V. sets in collaboration with KELTRON, Trivandrum. Recently, the production range has expanded in the areas of 36 cm. black & white(portable) T.V. sets, electronics wall clock etc. in collaboration with HARTON and KEONICS.

The planning commission approved an outlay of Rs.3.00 crores for development of electronics during the seventh five year plan. The electronics corporation is fully set for rapid development of electronics in the state and will also open up avenues for employment to a large number of highly skilled engineers and technicians in the state. Training programme for development of skilled man-power is being undertaken within and outside the state.

Moreover, the Dept. of Electronics, Govt. of India has decided to established the centre for electronics Design & Technology at Akampat, Imphal for the whole eastern Region, including West Bengal, Bihar, Orissa etc. The Govt. of Manipur has allotted 30 acres of land at Akampat for the CEDT and MANITRON complex free of cost. The Dept. of Electronics, Govt. of India has allocated a sum of Rs.12.70 crores for the 1st phase of works. The construction works at the site has already started by the N.I.D.C.

Govt. of India also issued a letter of intent on 13-10-86 for the establishment of a sugar factory of a 1250 tonne capacity per day in Manipur. The Project was incorporated on 23-4-87 and was to be commissioned within 39 months from the date of issue of letter of intent. The estimated cost of the project was of Rs.11.80 crores, out of which the contribution of state Govt. was of Rs.5.50 crores. The plant will ultimately required 4000 to 4500 hectares of sugarcane and 14615 tonnes of sugarcane during the crushing seasons on the basis of 8.70% to 9.25% of sugar recovery. The project will provide direct employment to about 583 persons and indirect employment to more than 10,000 persons.

A Khandari sugar factory at Khangabok was started in the year 1973 with an installed crushing capacity of 60 tonnes per day. However, full utilisation of the installed capacity has not been possible due to acute shortage of sugarcane. The power
requirement is 150 KW during crushing seasons and the minimum requirement of sugarcane is 60,000 quintals.

The actual cane which was received by the Factory during the year 1986-87 and 85-86 was 40,600 quintals, 4,200 quintals respectively. The sugar factory collected a revenue of Rs.13,43,842 till the end of March, 1987 on sale of its product at the rates fixed by the Government from time to time. 560 quintals of sugar was produced during 1986-87 against 288 quintals during 1985-86.\(^\text{15}\)

So, just to remove the problem of under utilisation of the installed capacity, some remedial measures have been taken-up. They are the installation of two D.G. sets of 200 KW for ensuring steady supply of power, incentives for increasing the area of cultivation under sugarcane crop and fixing of remunerative prices for procurement of sugarcane. The procurement price of sugarcane has been revised from Rs. 16/- per quintal to Rs. 19.50 per quintal at factory gate and Rs. 18/- per quintal at the procurement centres at Kakching Lankhai of Thoubal district and Yumnam khunou and Kwakta of Bishnupur district. Further, to improve the production of sugarcane the Indian overseas Bank is giving loan of Rs.1,24,300 to 81 cane growers and will cover an area of 124.3 acres. Sugarcane will also be grown in an area of 100 hectares at Heirok.

\(^{15}\) Ibid :- P.4(Manipur toward rapid Industrialization)
A mini-cement factory with a total capacity of 50 tonnes per day was also set up at Hundung (Ukhrul District) with man-power requirement of 200 persons.

The Manipur cycle corporation which was incorporated as a public limited company on 28th June, 1985, has made good progress. It employs 100 persons directly and another 1,000 persons indirectly through ancillaryisation for which 21 items have been identified. The project cost is Rs.89.85 lakhs. The company assembled 1,187 number of cycles in collaboration with the cycle corporation of India Ltd. (A Govt. of India undertaking) during 1986-87. A sum of Rs.4.00 lakhs was realised as sales proceed during the same year. The corporation produces 100 bicycles per working day and 30,000 bicycles per annum under the brand of "Sangai".

Recently, a Bamboo chipping plant was also inaugurated at Kadamtala (Jiribam) in the month of May 1990. Under the overall supervision of the Manipur Industrial development corporation Ltd. with a total cost of Rs.158.13 lakhs with a total capacity of the plant of 75 AMT per day. The life of the project is 14 years and it will provide employment to 64 persons directly and 2,000 persons indirectly. If Bamboo culture is done in a war footing then the life of the project will be extended for a number of years.
A Mechanised Dye House was commissioned on 29-6-87 by the Manipur Handloom & Handicrafts Development corporation Ltd. (A Govt. of Manipur Undertaking). This is a project under the central sector scheme of Ministry of Textile with a project cost of Rs. 74.00 lakhs. The installed capacity is 220 MT dyed/bleached/mercerised yarn per annum (733 kg. of yarn i.e. 163 bundles per day) in single shift.

The corporation will soon be in a position to meet the demands of Manipur and neighbouring states. Uniformity and fastness of colour is assured. The Mechanised Dye House Iroisemba is the second of its kind in the whole of North Eastern Region and the work is entrusted to NEITCO on turn-key basis.

Another starch & Glucose factory is trying to be set up at Nilakuthi, Imphal district, Manipur with an installed capacity of 60 tonnes per day. The raw materials for this factory will be maize, which is produced abundantly in Manipur. The project cost as per the project report is being up-dated and it is likely to be Rs. 8.50 crores. The Govt. is looking for a suitable entrepreneur for taking up the project either in private sector or in joint sector. Preliminary works such as land development, construction of some barrack type building, approach road, compound wall etc. are being completed. The project when completed will provide direct employment to 298 persons and indirect employment to about 1,500 persons.
According to statistical data, the area and production of Maize in the state during the year 1984-85(P) are 5.44 thousand hectares and 12.19 thousand tonnes respectively. The yield rates of maize per hectare during 1984-85 was about 2,241 kgs. The area & production of Maize during the year 1984-85(P) in Manipur is given below:

**TABLE - 25**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of District</th>
<th>Area (in '000 hect.) 1984-85(P)</th>
<th>Production (in '000 tonnes) 1984-85(P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Senapati</td>
<td>1.79</td>
<td>4.38</td>
</tr>
<tr>
<td>2.</td>
<td>Tamenglong</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3.</td>
<td>Churachandpur</td>
<td>1.12</td>
<td>1.62</td>
</tr>
<tr>
<td>4.</td>
<td>Ukhrul</td>
<td>1.60</td>
<td>4.60</td>
</tr>
<tr>
<td>5.</td>
<td>Chandel</td>
<td>0.19</td>
<td>0.15</td>
</tr>
<tr>
<td>6.</td>
<td>Imphal</td>
<td>0.64</td>
<td>1.27</td>
</tr>
<tr>
<td>7.</td>
<td>Bishnupur</td>
<td>0.06</td>
<td>0.09</td>
</tr>
<tr>
<td>8.</td>
<td>Thoubal</td>
<td>0.04</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td><strong>Manipur State</strong></td>
<td><strong>5.44</strong></td>
<td><strong>12.19</strong></td>
</tr>
</tbody>
</table>

P- Provisional, Source: Statistical Handbook of Manipur 1985
Directorate of Econ. & Statistics, Govt. of Manipur PP. 66-67.
The state produces huge quantity of maize and uses to export outside the state every year. In order to enable the state to process the raw materials locally for the production of starch and Glucose and to expand employment scope of this factory having 60 tonnes per day capacity is under proposal since the sixth five year plan period at Nilakuthi.

For this, a sum of Rs.200 lakhs was kept as an approved outlay. During the year 1980-85 Rs.5 lakhs was utilised for land development in 1980-81 on fencing etc. & there was another provision of Rs.7 lakhs during 1981-82. During the 7th plan period (1985-90), a sum of Rs.50 lakhs were kept as an approved outlay and Rs.4 lakhs was approved for the year 1985-86.

Some other manufacturing plants are also proposed to be established in the state. For a Mechanised Brick manufacturing plant to meet the growing requirement of bricks, the planning commission provided a sum of Rs.15 lakhs during the VIIth plan i.e., from 1985-90, in addition to Rs.1 lakh for the year 1985-86.

The department of Industries has also decided to set up one Ginger Dehydration plant at Churchandpur for which planning commission allocated a sum of Rs.1.00 lakh for the year, 1987-88. The National Research Development corporation on (NRDC) has requested to prepare a feasibility report for the project.
Recently, a 'drug market survey' has been carried out by the Manipur University after being sponsored by the industries Deptt. On the basis of this findings and survey report, a number of pharmaceutical units can be established in Manipur, and accordingly industry Deptt. will take up the matter with the National Organisation like IDPL, etc. to help the state in setting up a joint venture of pharmaceutical units. In this regard, a foundation stone was laid on 5th June '89 at Nilakuthi for "Manipur state Drugs and pharmaceutical Ltd." which is under the joint venture of Hindustan anti-biotic Ltd. and Govt. of Manipur. Its total cost is about Rs.2½ crores and it may employ about 160 persons directly. Bottle and plastic packing will be made available there. The annual profit of this unit may be about Rs.60 lakhs and the main products will be anti-inflammatory products, anti-tuberculosis, gastro-intestinal products, etc.

Moreover, a centre for central institute of plastic engineering and tools (CIPET) is being established at Imphal for the whole North eastern Region. This has to be done under the initiative of the Deptt. of chemical and petro-chemicals, Govt. of India. The Govt. of India has estimated a total cost of nearly Rs.2,60 crores for the purpose. The Govt. of Manipur will contribute Rs.1.29 crores for this.
Two paper mills (one bamboo-based with a 200 tonnes per day at Chandighat, in Jiribam Sub-division and another one pine based insulated paper mill of 25 tonnes per day capacity at Karong in Senapati District), are also going to be established inside the Manipur state, considering the vast bamboo resources available in the west and south district of Manipur particularly in the Barak drainage area, covering approximately 1,500 sq.km. of Bamboo forest. The pulp and paper mill at Chandighat in Jiribam will have the capacity of 200 tonnes per day.

A sum of Rs.1,61,940.50 p. has been so far spent on preparation of the project report. Its objective is to produce paper locally for local consumption as well as for exporting outside the state and also to give employment to unemployed youths. The project however remains yet to be cleared. There was no provision during the 7th plan but a sum of Rs.1 lakh and another Rs.6 lakhs (1980-85) were kept for the year 1981-82 and for the period 1980-85 respectively as approved outlay. These were for land acquisition, land development and fencing etc.

Again, one insulated paper mill (pine based) is proposed to be established at Karong with the pine-wood trees grown in the three districts of Manipur-North, East and Tengnoupal. Land acquisition of 30 hectares has already been processed and a sum of Rs. 1,50 lakhs was spent for this during the 5th plan. Since the raw
materials are found in abundant, this project is found feasible under the scheme of state's industrialization, and also to expand state's employment opportunity and income. So, during the 6th plan period (1980-85) a sum of Rs. 4 lakh was kept as an approved outlay. But, there has been no provision for this during the 7th plan period.

Manipur has also some possibilities of establishing a few large and medium size industries based on the resource potentialities of the state. In the initial stage, imported raw materials have nothing to do with these viable industrial units in the state, because they have high transportation cost resulting in a high cost of production.

The state has a good potentials of mineral, forest and agricultural products. If the necessary infra-structures are duly provided, these raw materials can be used properly for the development of viable large and medium sizes Industries. At present a small fraction of working force is employed in a few small medium sized industries. But, in future there is scope for giving employment to a large portion of the working force. It has to be done by setting up some viable large scale industries, like paper and pulp industries, Rubber industry, Starch and Glucose factory, tea and Coffee industries etc.
As mentioned above, the Govt. of Manipur has already taken up some necessary steps in this regard. But, the bamboo based paper mill at Jiribam (the railhead of Manipur) and insulated pine-based paper mill at Senapati (on National highway No. 39) are being delayed. These viable industries will employ more persons in the long runs and which is clearly proved by other paper mills existing in the neighbouring states of Nagaland and Assam.

These valuable raw materials are exploited by some capitalists and Govt.'s officials. Most of these valuable raw materials are exported to the neighbouring paper mills (viz, the paper mill of Cachar, sponsored by H.P.C. paper Mill of Guwahati-Jariroad in Assam, sponsored by NEC and paper Mill of Calcutta etc.).

The paper mill of Cachar district at Panchgram near Silchar town (Assam) is functioning from April 1, 1987 under the public sector, sponsored by H.P.C. It has a high demand of Manipur's bamboos and it will be maintained by the two 15-MW Bhel turbine generators and Assam state electricity Board, has also agreed to supply 10 MW of steady power to this project. The one lakh tonne plant will reach 100 percent capacity utilisation by 1988 and the plant will require 100 tonnes of Bamboo a day in the initial stage. Later, at the peak production level, the supply will be raised to 660 tonnes a day. The other input requirement are coal (1070 tonnes per day) limestone 200 tonnes, and chemicals including salt, (330 tonnes per day).
Nagaland has also possesses one mini pulp paper mill at Tuli. It has been established under the joint venture of Govt. of Nagaland and Hindustan paper corporation Ltd. and in regard to share capital, the contribution is to be made in the ratio of 7:1 by Hindustan paper corporation Ltd.(HPC) and Govt. of Nagaland. So, far, H.P.C. has contributed Rs.40,32,31,000 and Govt. of Nagaland has contributed out of its share Rs.5,82,07,4000 respectively.\(^\text{16}\)

Further, the recent decision of Govt. of Manipur, for establishing one mini-paper plant at Jiribam is appreciable. Manipur is also having her resource potentiality for the production of large quantity of papers and the Bamboo chipping plant which is already existing in the Jiribam area, will supplying the necessary raw materials.

As regards the Rubber industry, there is much scope for development of this industry in the hilly areas of the state, especially at Jiribam and in adjoining areas. Formerly, the area covered by Rubber plantation at Jiribam was about 721 hectares and it was started with the plantation of 72 thousand Rubber trees. Rubbers are grown there successfully except some problem of constant weeding.

Moreover, during the financial year 1988-89, Jiribam Rubber processing unit earned Rs. 1,15,700, out of which Rs. 21,000 by selling rubber seeds alone. At present, raw rubber is extracted from the mature tree of about 4,000 Rubber plants. Another 4,000 rubber trees are also ready for extraction of raw rubber.

In the beginning by 1976, only 16 hectares of land was planted by Rubber trees. After sometime, 620 hectares were covered by Rubber plantation. Another 340 hectares were covered by plantation of Rubber trees during the 7th plan period. Another Rubber processing unit at Boroikhali is also proposed. It is estimated that, about 200 quintals of raw rubber may produced in a year. Moreover, to improve the Rubber farm, the NEC has granted Rs. 4.5 lakhs. At present, this farm employs 200 persons including 5 officers and 19 supervisory staff. So far, Forest Dept., Govt. of Manipur, has spent Rs. 12.54 lakhs for extension works. Another Rs. 20 lakhs has been sanctioned by it during the year 1989-90. Other places for Rubber plantation are also being investigated.

In India, Kerala, Tamil Nadu, and Karnataka are having Rubber farms. During 1986-87 the total Rubber plantation in India was about 3,84,000 hectares. Kerala alone is having about 2,19,363 hectares i.e. 90% of the total area under Rubber plantation in India. India has purchased 40,000 tonnes of Rubber from outside countries and her production of Rubber during the year 1988-89 was
2,55,000 tonnes only. Under Rubber plantation about 5 lakhs hectares is targeted during the year 2000 A.D. in India. Out of this total area under Rubber plantation, about 1,05,000 hectares of Rubber plantation will be located in N.E. region of India.

Manipur has every possibilities for establishing large scale tea and coffee industries. Tea is also grown widely in some pockets of the state. Tea and coffee both are very suited to the climate of Manipur. The Manipur Tea estate at Jiribam runs under Manipur plantation crops corporation. It was established in the year 1981-82. In an area of 425 hectares of Tea estate at Jiribam, thousands of tea plants have already planted. There is a full scope for its development in near future. Moreover, coffee farms of None (Tamenglong district), Churachandpur and other areas of the state are also developing slowly and steadily. In future, these plantation industries will be providing more employments in the state.

Recently, an "Agro-Industrial Multipurpose Project" at Singjamei, Imphal (Manipur), sponsored by Rubber Board, Ministry of Commerce, Govt. of India arranged some training cum camping programmes at Mangkang Rubber estate, Moreh. It was taken up under the programme of soil conservation cum plantation works. These programmes were taken up under the guidance of Rubber Board, Spices Board, Coconut Board, Agriculture, ICAR and forest Dept.
There are more than 2.5 lakhs (i.e. 2,78,482) unemployed persons on the live register of employment exchanges of the state as on 31st August 1987. Out of this 60,431 are females youths. But such a large section of unemployed persons may be easily absorbed by agro-based small scale and cottage industries, because Manipur has a good scope for establishing many small scale industries based on the local resource potentialities. In this regards we can analyse some bright aspects of handloom industry, sericulture industry and some other agro-based and resourced based small scale industries in the state.

The handloom industry accounts for a good number of female workers of the working force, specially in manufacturing, processing, servicing and repair activities. All along, it has been carving a niche in the production of handloom goods, and the products have been in great demand, both within and outside the country. In 1977-78 the production of handloom industry was about 20m. metres of cloths.

A small scale industries corporation is helping the weavers in supplying raw materials and in marketing of finished products. The "Manipur Handloom and Handicrafts development corporation Ltd." was set up in Oct. 1976 to implement the Intensive Handloom Development project of the Government of India, mainly to provide facilities to individual weavers who are outside the co-operative fold.
During the sixth plan period the corporation could provide facilities to 4500 individual weavers. During 1986-87 the corporation covered 1,000 weavers. During the same period the corporation purchased yarn worth Rs.4.61 lakhs and produced Handloom clothes worth Rs.6.24 lakhs and sales turnover was of Rs.10.13 lakhs. The corporation has sales emporia at Delhi and Calcutta. New sales emporia will also be opened at Dimapur and Guwahati. In addition to assisting individual weavers the corporation will also implement new schemes such as Janata Cloth scheme, Polyester cloth production scheme and Hill area Handloom Development project for the welfare of individual weavers during the current year.

The Govt. of India introduced the hill areas Handloom development project in 1986-87 for the development of individual weavers in the Hill areas of the state. The Govt. of India sanctioned the project for Manipur in January, 1987. It is the 2nd project of its kind so far sanctioned in the country after Uttar Pradesh.

Out of the total estimated cost of Rs.2.12 crores approved by the development commissioner for Handloom, the central Government and the state Govt. have sanctioned Rs.10.00 lakhs and Rs.2.00 lakhs respectively during the year, 1986-87 for the implementation of the said project.
The Manipur Handloom & Handicrafts development corporation which is the implementing agency has arranged to start 5 (five) Training cum Demonstration centres at the District Head quarters of the five hill districts by hiring suitable buildings before the corporation can construct their own buildings. As regards the arrangement for purchase of raw materials i.e. acrylic yarn, loom and appliances etc., posting of necessary staffs is also being made.

During the 7th plan more emphasis was given in the development of handloom industry, in Manipur and Rs. 480 lakhs was approved during this plan period in different heads of handloom and handicrafts schemes. Recently, one handloom workshop (out of the proposed 15 workshop) has been constructed under NELC'S scheme at Kamong in Imphal west-I.

Sericulture holds a very good future in the state. It has an extensive oak growing area and thus has a tremendous potential for development of tasar culture. The Director of Central Tasar Research Station, Ranchi and a number of the central silk boards who visited oak growing areas in Manipur in October 1971. They estimated 25 to 100 crores of Cocoons, worth crores of rupees, could be harvested annually in Manipur and further which could be a foreign exchange earner. Since then the state has made a good progress in sericulture.
The following table indicates some progress so far achieved during the year 1986-87.

**TABLE - 26.**

Cocoon & Silk yarn production during 1986-87

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Sector</th>
<th>D.F.Ls No.</th>
<th>Cocoons</th>
<th>Silk yarn</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Oak Tasar</td>
<td>4,22,000 gm.</td>
<td>21,60,000 nos.</td>
<td>600</td>
</tr>
<tr>
<td>2.</td>
<td>Mulberry</td>
<td>4,87,000</td>
<td>1,95,000 kgs.</td>
<td>20,000</td>
</tr>
<tr>
<td>3.</td>
<td>Eri</td>
<td>3,60,000</td>
<td>1,44,000 kgs.</td>
<td>46,400</td>
</tr>
</tbody>
</table>


The programme is of particular relevance to the hill areas of Manipur. It can provide a substantial employment amongst the tribal population by utilising the rich resources. 90 sericulture farm/extension centres have been established mostly nearby S/T & S/C villages. 40,000 hectares of land have been brought under systematic plantation of Oak trees for rearing of oak Tasar silkworm. Moreover, 460 hectares of land have been brought under systematic plantation of mulberry near the foot hills of Manipur. 375 villages have been identified as sericulture villages. 52 sericulture co-op. societies have been organised. 12,000 families have been brought under the domain of sericulture.
During the year 1986-87, 19 science Graduate, 43 Matriculates and 35 under Matriculates altogether 97 trainees went under sericulture Training at Berhampore, Mysore and Kwakta (Manipur). Besides, one inservice candidate is also undergoing training for the advance course for specialisation in Mulberry Agronomy at the International centre for training & Research in Tropical Sericulture at Mysore. During the 7th five year plan (1985-90) and annual plan (1985-86), a sum of Rs. 560 lakhs & 64 lakhs were approved respectively for sericulture developments.

As regards the other industrial schemes include the small scale industries, cottage or Khadi and village industries. They can be divided into two broad categories:— (i) Resource based industries and (ii) Demand based industries. Most of such industrial activities are concentrated in and around Imphal town. Among the resource based small scale industries the pineapple fibre-based textile industry (with a capacity of 2,800 tonnes of fibres a year from about 92,000 tonnes of wasted pineapple leaves of fruit grown in 5,000 acres of land in the state) is worth mentioning. Establishments of other resource based small scale industries of Manipur consist the following industries:

(a) Fruit preservation and canning industry at Imphal;
(Viz. Magfruit, Heirang and latest "Sana" A family of food products, Sega Road, Takhel Leikai, Imphal financed by MAMIDCO.)

(b) Safety Match industry near Imphal;
(c) A cane based furniture unit at Imphal (cane & Bamboo products)

(d) Cinnamon Bark oil (At present one private unit at Mantripukhri which manufactures Bark oil from cinnamon trees grown in plenty in the forests of Manipur) industry at Imphal.

(e) Lime kilns, at Ukhrul

(f) Bristle processing from pig bristles and production of any type of brushes, at Imphal.

(g) A tannery unit for tanning sole leather from wasted hides available in the state, at Imphal.

(h) Veneer for plywood from soft wood available in the state, at Imphal.

(i) Saw mill seasoning plant-cum-joinery composite unit, at Imphal.

(j) Pine-oil extraction unit, at Imphal.

(k) Mushroom industries, at Imphal.

(l) Grinding industries (specially species) at Imphal.

(m) Ginger dehydration unit at Churachandpur.

(n) Ginger pickle unit at Imphal.

(o) Other food processing (Agro-based industrial unit, e.g. Janata flour mill, at Mantripukhri) Imphal.

(p) Paper unit from water Hyacinth (Two units are going to be established in the state. One at Bishnupur district under the co-op. sector and another already established by Rural development organisation at Lamsang Bazar, Imphal). The total cost of this unit was Rs. 15 lakh and 50 thousand with a production capacity of 1 quintal per day. This unit was established with the technical help from Rural Research Laboratory, Jorhat).
Besides the above mentioned listed existing small scale industries, there is also scope for setting up new mineral based industries in Manipur, viz. manufacturing of serpentine slab for costly carpets from serpentine Rocks which is found abundantly in Ukhrul area and other eastern parts of the state. This type of serpentine slab is very beautiful and costly.

Another mineral based industry is the manufacturing of rare stones for ornaments from "Idocrase" which is found abundantly in Chandel district. Moreover, some small scale industrial units can be established for the manufacturing of steel goods from Chromite, which is found abundantly in Ukhrul and Chandel districts of Manipur. A proposal had been submitted for setting up of a Chromite Grinding and processing unit in Manipur. The firm has also submitted a Memorandum of Understanding which is under the active examination of the Govt. If the project is implemented the raw material for the unit will be available in the districts of Chandel and Ukhrul.

Some quantity of limestone deposits in the state can be used for chalk industries in the form of village or cottage industry. Recently, one diamond cutting unit (at Kakching) and a plywood unit (i.e. Manglam plywood Industry) have been established in Manipur. Almost all of these small scale industries are under private sectors.
The demand based small scale industries of Manipur consist of the following industrial units:

(a) Bicycle tyres and tubes and cycle accessories unit. It includes cycle parts such as Mud-guard, Stand, carrier, Chain-cover, Lock, Paddle, Handle-grip, Pump and Tyre-Retread (M/S Far east tyre Retreading, Mantripukhri) at Imphal.

(b) Cycle assembling or manufacturing unit, specially done at Takyel industrial estate under Manipur cycle corporation, having a production capacity of 30,000 bicycles annually.

(c) Bricks and tiles unit near Imphal (M/S Himalayan steel pipes, Iroisemba & M/S Manipur polypipes industry, Mantripukhri).

(d) Plastic goods and polythene bags unit (M/S Manipur plastic industry, Industrial estate, poly plastic Industry, Singjamei Kongba Road, Imphal).

(e) Footwear unit at Imphal, (North-east Foam Rubber, Hao-bam Marak, Iron Leikai).

(f) Soap units (Little paradise Soap & Chemical Industries located at the Takyel Industrial estate) at Imphal.

(g) Sheet metals units like steel buckets and steel trunks manufacturing at Imphal.

(h) Ink and Adhesives at Imphal.

(i) Handmade paper and stationary works making items like exercise books, registers, envelopes etc. at Imphal.
(j) Rolling mill for brass sheets at Imphal.

(k) Steel re-rolling at Kanglatongbi, (Senapati district) in private sector. (Total cost=Rs.1.35 crores, employment potentials=800 persons produces various steel products) and steel fabrication works - M/S Imphal Metals, Industrial Estate.

(l) Bakery and confectionery unit at Imphal.

(m) Builders' hardware at Imphal.

(n) Nail manufacturing unit at Churachandpur.

(o) Aluminium utensils making unit at Imphal.

(p) Umbrella manufacturing at Dewlal and Imphal.

(q) Poultry feed and pharmaceutical units, Imphal.

(r) Wooden utility goods & furniture (photo frames, toys, electrical accessories & other luxury goods) at various centres of the state.

(s) Agricultural implements at various centres.

(t) Cotton hosiery at Imphal.

(u) Phenyle at Imphal.

(v) Handloom accessories (Reeds, shuttles etc.) at Imphal.

(w) Truck body building at Imphal.

(x) Candle making units at Imphal.

(y) Watch repairing and making of wrist watch i.e. MATAM etc. at Imphal.

(z) Electronic goods (specially Radio, T.V. sets, Arc-welding electrodes, electronic bulb etc. Under M/S Manipur Electronics, Industrial Estate & M/S Kamalini Electricals, in Tera Akham Leikai and M/S J.K. Cables, Mantripukhri and M/S Manipur conductors, Mantripukhri, Manipur conductors & cables private Ltd. Thangmeiband, Imphal etc.)
Out of these small scale industrial units under private sector, manufacturing unit of hume pipes, required for construction of culverts, has been functioning satisfactorily. Four units for manufacture of polythene bags required for packaging, have also come up during the last few years. One unit manufacturing polythene pipes for water supply and four units for manufacture of electrical cables and one unit manufacturing electrical bulbs and another manufacturing tyre retreads and cycle tyres, are functioning very satisfactorily.

A small project for personal computer and business computers has been proposed. This project may be costing about Rs.2.86 crores. Another project for computer will also be set up at Imphal by inter continental computer power Ltd., New Delhi.

In addition to the above listed small scale industrial units, there are many large number of cottage industries in the state. Among the most important cottage industries in the state, the workshops of goldsmith, blacksmith, comb-making (specially for handloom), Mat-making (specially from 'Kouna' a long & rounded type of grass grown in the swampy areas, i.e. Reed, Bamboo, & cane), pottery, carpentry, Turning and Dyeing, painting, Fine-Arts, handmade-paper, silk and Muga culture, Leather-works, cloth manufactures & Tailoring, Ready-made cloths, Embroidery & knitting, cane & bamboo works, salt-manufacturing, Bee-keeping, Doll making, Decoration and Block making, Shoe-making, Poultry, Fisheries, Animal husbandary, Dairying etc. are worth mentioning.
During the year 1985, khadi & Village industry of Manipur earned Rs. 450 lakhs for the production of khadi goods. But it was Rs. 144 lakhs only in the year 1979-80. At the end of the sixth plan, 'the khadi and village industry' of Manipur employed 13,000 persons. It also constructed 30 biogas plants in the village area of the state.

Recently, 'Manipur Khadi and village industries Board,' Lamphelpat, Imphal (Manipur) is giving financial and other assistance to the private individuals, societies, institutions etc. for the promotion of following industries:

1. Fibre industry
2. Carpentry & Blacksmithy Industry
3. Lime Industry
4. Aluminium Industry
5. Pottery Industry
6. Non-edible oil and soap Industry
7. Gur and khandasari Industry
8. Leather Industry
9. Processing of cereals & pulses Industry
10. Cane & Bamboo Industry
11. Village oil Industry
12. Forest plants and Fruits for medicinal purposes
13. Fruit and Vegetables processing and preservation Industry.
14. Hand made paper Industry
15. Bee-keeping Industry
(16) Cottage Match & Agarbati making Industry
(17) Textile Industry
(18) Servicing Industry
(19) Gobar gas plants, etc.

Traditional skilled artisans in the trade of bronze, bell-metal wares and aluminium, foundry are found concentrated in the areas like Khongnang pheiāekpi and Chingamakha of Imphal district. Skilled artisans in the trades of jewellery & silver wares are concentrated at Wahengbam Leikai, Keishampat, Kwakkeithel & Singjamei Bazar. Artisans in the trade of Reed mat making are concentrated in Wangkhei, Kongpal & Khongmal areas of Imphal East. Artisan specialised in yarn dyeing industry are concentrated in Wangkhei area of the Imphal district. Artisans of Cane & Bamboo works are found concentrated at Sagolband & some parts of Imphal west-II Block.

During the year 1987, the registered industrial units in Manipur were 4,208. The following table indicates the industrial growth in the state during the years 31-3-81 to 31-3-1987.
TABLE - 27

INDUSTRIAL GROWTH IN MANIPUR

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>No. of Industrial units</th>
<th>Capital Investment (Rs. in lakhs)</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>31-3-81</td>
<td>758</td>
<td>296.91</td>
<td>4219</td>
</tr>
<tr>
<td>2.</td>
<td>31-3-82</td>
<td>1124</td>
<td>406.80</td>
<td>6692</td>
</tr>
<tr>
<td>3.</td>
<td>31-3-83</td>
<td>1410</td>
<td>485.07</td>
<td>8274</td>
</tr>
<tr>
<td>4.</td>
<td>31-3-84</td>
<td>1739</td>
<td>670.49</td>
<td>10169</td>
</tr>
<tr>
<td>5.</td>
<td>31-3-85</td>
<td>2163</td>
<td>853.46</td>
<td>11665</td>
</tr>
<tr>
<td>6.</td>
<td>31-3-86</td>
<td>3317</td>
<td>1418.03</td>
<td>16132</td>
</tr>
<tr>
<td>7.</td>
<td>31-3-87</td>
<td>4208</td>
<td>1853.94</td>
<td>20553</td>
</tr>
</tbody>
</table>


Moreover, D.I.C. Imphal proposed for establishment of Rural Marketing and service centre(R.M.S.C.) during the 7th plan period in co-ordination with the other Development organisations like Khadi and Village industries Board, National Industrial Corporations and District Rural Development Agencies. On the initiative of the National productivity council, New Delhi, a survey of
village artisans of the Imphal East-division was conducted by the erstwhile D.I.C.(C) and a comprehensive report thereon with schedules has been handed over to the above council. Their decision for feasibility of setting up of a RMSC. In Imphal East Sub-division is being awaited.

Govt. of India, under the Industrial policy on 23rd Dec. 1977, sanctioned 346 D.I.C.'s(1978-79) and out of this, six D.I.C.s were in Manipur. These district industrial centres (D.I.C.) aimed to encourage the development of cottage and small industries which are widely scattered in the rural areas and small towns in the country. In Manipur, the number of industrial units registered with D.I.C. were 342 in 1979-80 and the financial assistance in the form of loans and grants amounted to Rs.9 lakhs and 3 lakhs respectively in 1978-79.

Number of beneficiaries from D.I.C.s of Manipur under self-employment programme upto 1989-90 went upto 7911 youths. More than 30 thousands youths applied for the scheme. In the year 1989-90, about 749 youths (Both Matriculate & I.T.I. passed) were selected and about 2 crores 9 lakhs of rupees were spent on them.

During the 7th plan period, a sum of Rs.130 lakhs was approved for D.I.C.s in the state. The National small industries corporation (N.S.I.C.) which was established in India in the year 1955 has so far sanctioned Rs.70 lakhs to Manipur for financing
in purchase of machineries for small scale industries. This was done through its new branch office (N.S.I.C.) at Imphal. A full fledged branch of the NSIC was opened on 2nd Oct. '86 at Imphal. The NSIC had an amount of Rs. 1.00 crore allocated for the year 1987-88. NSIC has helped in financing many small entrepreneurs on hire-purchase basis of machineries during this short span of its operation.

Realising that adequate infrastructure for industrial development is not available, one industrial Estate at Takyelpat Imphal was set up in the year 1971 wherein arrangements for power and water supply as well as ready built industrial sheds for accommodating small scale industrial units were made. At present, eight number of small scale industrial units are located in this industrial estate. The offices of the MANIDCO, small industries service institute (SISI), Manipur electronics development corporation (MANITRON) and the Manipur cycle corporation are also provided accommodation in this Industrial Estate.

Manipur small industries corporation Ltd. (MSIC) was first incorporated in 1969 for looking after the developmental activities of small scale industries in Manipur and has been upgraded as MANIDCO on 29th April, 1987. It is now functioning as Industrial Development and Financial Corporation of the state with an authorised share capital of Rs. 2.00 crores. The activities of MANIDCO
(Manipur Industrial Development Corporation Ltd.) were on a very low key basis till 1985-86, when the state Govt. took initiative to revive its operations as a major development and financial institution.

The IDBI (The Industrial development bank of India) opened at Imphal on 20-1-86, has been providing substantial direct loans to the corporations in Manipur. It has also provided loan through Refinance scheme. The corporation has extended financial assistance to 594 individual units during 1986-87 and sanctioned a sum of Rs.655 lakhs as loan. These industries have been the transport, hotels, food and food preservation, textile, brick fields and other services. The corporation has now extended its activities in the areas of civil construction, lifting of scarce raw materials, such as paraffin wax, printing paper, mutton tallow etc. to supply them to the registered SSI units at control prices.

During 1986-87, the corporation received an aggregate amount of Rs.3.45 crores in the form of share capital (Rs.20 lakhs), refinance (Rs.2.75 crores) and subscription to ad-hoc bond (Rs.50 lakhs). So, far, a large portion of assistance has gone to valley districts, specially Imphal. The corporation is making efforts to increase the flow of assistance to hill districts. MANIDCO is going to establish one industrial estate in every district of Manipur
from the year 1990-91 action plan. In the 1st stage, one industrial estate, each at Jiribam and Churachandpur, is going to establish in near future. One is going to be established at Imphal.

Moreover, "Kanglatongbi" Industrial growth centre," costing about Rs.30 crores, is also going to be established. In the financial year 1985-86 to 1989-90, MANIDCO has given loan to 9205 educated unemployed persons under self employment programme and Rs.16 crores & 26 lakhs have been distributed so far to them as loans.

I.D.B.I. has also sought permission from Manipur Govt. to establish one industrial training centre in Manipur, costing Rs.50 lakhs. In this regard, Manipur Govt. has already allotted 5 acres of land. NECON is also working under I.D.B.I. for the consultation of entrepreneurs of Manipur, Nagaland, Tripura and Mizoram in their setting up of different types of viable industrial units. In the recent past i.e. on 28-6-87, the IDBI has inaugurated the North Eastern Industrial consultant Ltd.(NECON) at Imphal to supplement the activities of the technical consultancy, so far rendered by NEITCO (North Eastern Industrial and Technical consultancy organisation). For the time being one branch of small industries service Institute (SISI) located in Industrial Estate Takyel,
Imphal, has been upgraded to a full fledged and independent Institute since 1986. In the past, it was under the control of SISI, Guwahati, The services of SISI to various entrepreneurs will now be readily available in the state.

SISI acts as an arm of Ministry of Industry, Govt. of India, to motivate, assist and facilitate the growth of small scale industries in the states of Manipur, Nagaland, & Mizoram. The role of small scale industries is one of the most important features of our planned economic development. The small scale sector has continued to play a vital role in the fulfilment of socio-economic objectives. So, after knowing the importance of this sector, more emphasis is being given to handicrafts, handloom, small and village industries to grow and update their technology.

According to SISI, the definition of small scale industries means "Undertakings having investment in fixed assets in plant and machinery, whether held on ownership terms or by lease or by hire-purchase, not exceeding Rs.35 lakhs". By Ancillary industries means "Undertakings having investment in fixed assets in plant and machinery, not exceeding Rs.45 lakhs and engaged in:

(a) The manufacture of parts, components sub-assemblies, toolings or intermediates, or in

(b) The rendering of services, and supplying or rendering or proposing to supply or to render 50 percent of their production or the total services as the case may be to other units for production of other articles."
Tiny units means "Undertakings having investment in fixed assets in plant and machinery not exceeding Rs. 2 lakhs" and small scale service establishments means "Establishments/enterprises engaged in personal or household services in rural areas and towns with population of 5 lakhs or less and having investment in plant and machinery not exceeding Rs. 2 lakhs.

Again, according to census of India 1981(Series 13 Manipur, part-III, A & B General Eco. Tables & part-IV A-social & cultural Table) "A household industry should relate to production, processing, servicing, repairing or making and selling (but not merely selling) of goods. (such as handloom weaving, dyeing, carpentry, bidi-rolling, pottery manufacture, bicycle repairing, blacksmithy, tailoring etc.) It does not include professions such as a pleader or Doctor or Barber, Musician, Dancer, Waterman, Dhow, Astrologer etc. or merely trade or business, even if such professions, trade or services are run at home by members of the household. It is conducted by the head of the household himself/herself and or by the members of the household at home or within the village in rural areas & only within the precincts of the house where the household lives in urban areas. The larger proportion of workers in a household industry should consist of members of the household including the head and the industry should not be run on the scale of a registered factory which would qualify or has to be registered under the Indian factories act."
There may be an industry which is being run by a large joint family of more than 10 persons, and where power is used, or more than 20 persons where power is not used. In such cases, though only family members are involved, this will not be treated as household industry.

Thus, the meaning of the term 'run on the scale of a registered factory' refers to such cases even if these are not registered as such. The main criterion of a household industry is the participation of one or more members of a household. This criterion will apply in urban areas too.

The SISI also offers many initiatives to the young entrepreneurs and viable industrial units. They are giving economic information; Technical assistance; Training in industrial management viz, Industrial Management courses, specialised courses in management, Techno-managerial courses, Ad-hoc courses in management subjects etc.; Technical training, entrepreneurial development programme, common facility services, Ancillary Development and sub-contracting exchange, Modernisation programme; viz, Improvement in production technology, product development Design, Testing, design and quality control, Machinery and equipment selection of proper raw materials, Application of improved management technology etc.; Industrial seminars, Industrial clinics, industrial workshops, modernisation courses and study visits.
Moreover, the Govt. of Manipur is extending all kinds of grants, aids, loans, subsidies etc. for the development of small scale industries in the state. All the districts in Manipur have been declared as "No Industry District." Any entrepreneurs willing to establish an industry in the state is given subsidy @ 25% on fixed capital investment (land, building & machineries) subject to a minimum of Rs.25,00,000/-. 90% of the expenditure on inward transport of raw materials and outward transport of finished goods between Silguri and the factory sites in Manipur is also re-imbursed to the units.

Other opportunities in small scale industries in Manipur are as follows:

(i) CHEAPER ELECTRICITY: Expenditure on power consumption by a registered small scale industrial unit is re-imbur- sed to the extent of 25 paise per unit consumed.

(ii) CONSULTANTS: A small scale industrial unit can seek assistance of an approved consultant in preparing their project and feasibility report. Expenditure to incurred by the unit is subsidised to the extent of 75% of the actual expenditure subject to a maximum of Rs.15,000/-

(iii) CHEAPER FINANCE: Directorate of Industries and District Industries centres tie up term loan and working capital loan from financial institutions for economically viable and feasible projects.

17. Opportunities in small scale industries in Manipur - issued by Directorate of industries, Govt. of Manipur, Lamphelpat Imphal. FR. 1-3.
The amount of interest charged by the financial institutions over and above 5% per annum is reimbursed to the unit by the state Govt. subject to a maximum of Rs.10,000/- per annum. This interest subsidy is available to a unit only for a period of 5 years from the date of the entrepreneur becomes liable to pay the interest to the financial institution.

(iv) EQUIPMENT SUBSIDY: Trainees of various training centres under the department are given equipment subsidy at the rate of 50% of the cost of tools and equipments after completion of their training to help them to start their own enterprise.

(v) ASSISTANCE TO REGISTERED INDUSTRIAL CO-OPERATIVE SOCIETIES: Registered industrial co-operative societies are given managerial subsidy at a sliding scale of Rs.5,400/-, Rs.4,050/-, Rs.2,300/- and Rs.1,350/- in the first, second, third, and fourth years respectively.

(vi) SEED MARGIN MONEY LOAN: A part of seed/margin money required by the financial institutions from the unit for financing the project is given by the Govt. in the form of loan. The margin money loan is given upto 25% of the total cost of the project, subject to a maximum of Rs.40,000/- for general entrepreneur and Rs.60,000/- for entrepreneurs belonging to scheduled castes and scheduled Tribes.
(vii) **EXEMPTION FROM SALE TAX**: Registered industrial units in the state are given exemption from payment of sale tax at the first point of the sale of their finished products for a period of 5 years. Exemption orders are issued by the Govt. for each case separately.

(viii) **MARKET SUPPORT AND PRICE PREFERENCE**:

(a) Registered small scale industrial units in the state are eligible to get price preference upto 15% while purchasing their products by the Govt. and Semi-Govt. organisations.

(b) Units having ISI certificate for their products are eligible to get a further price preference of 3%.

(c) Registered SSI units are exempted from paying earnest money and 50% of the security deposit while tendering their rate to the Govt. and semi-Govt. organisations of the state Govt.

(d) The Govt. and semi-Govt. organisation give preference for purchase of Handloom/Hand crafts products from SSI units.

(e) SSI units willing to supply its products at DGS and D rate contract should register itself with the N.S.I.C. and thereafter they will get all the tender notices, tender forms etc. free of cost from N.S.I.C. All incidental expenditure is borne by the N.S.I.C. on behalf of the unit.
(ix) FACTORY - SHEDS: Factory sheds are provided to the entrepreneurs in the state industrial estate at a concessional rent of 50% of the actual rent for a period of 5 years.

In addition, to develop managerial and technical skills and entrepreneurship among the educated un-employed youths, traditional industrialists and artisans etc., a number of training programmes for entrepreneurship development are being organised by the state Govt. from time to time with the help of National institutions like IDBI, NECONS, NEITCO, SEITE etc. (Fig. 22).

Study tours for entrepreneurs outside the state are also organised from time to time to give them a better exposure of industrial climate and working, outside the state. The Manipur small industries corporation has been declared and recognised as state industrial development corporation and it has also started financing various industrial units with the help of I.D.B.I.

As mentioned above, raw-materials-transport-subsidy of 90% is allowed by central Govt. (especially for the air transport of Electronics products from Imphal to Calcutta). Over and above 75% transport subsidy is already allowed by central Government.
90% of the expenditure on inward transportation of raw material (viz. Coal & others) and outward transport of finished goods between Siliguri and the factory sites in Manipur is also re-imbursed to the units. But, the North Eastern Regional standing committee has recommended for 100% transport subsidy for the whole N.E. Regions. Recently, the investment limit for which an industrial licence is not required, has been raised from Rs.15 crores and in the case of units located in backward areas to Rs.50 crores.

Manipur is famous for her scenic beauty. So tourism is also announced as an industry in the state by the state Govt. Some of the attractive tourist centres of Manipur are Loktak Lake, Sendra, Kaina, Waithou, Khongjom, Churachandpur, Moreh, Siroi (Ukhrul), INA(Moirang) and Mao etc.

Since all types of small scale agro-based industries can be established in the state, there is much scope for the industrial upliftment in the state. So these small scale industrial units need to get more facilities like exemption of sale tax, security deposits & earnest money etc. Thus more efforts are to be made to fight the problem of un-employment and to fulfill the needs for a self-sustained growth of the state. To achieve these goals, the industrial programmes of the state during the seventh five year plan were prepared with the twin objectives of creation of resources as well as the development of industries within the state. (Vide Appendix No.XIV)

19. "Opportunities in small scale industries in Manipur" - P.6 - By: Directorate of Industries, Govt. of Manipur, Lamphelpat.
20. "Manipur towards Rapid industrialization" by Directorate of Industries, Govt. of Manipur. (A meeting held at Imphal on the 26th & 27th June, 1987, under the Chairmanship of Hon'ble Union Minister of State, Labour) P.14.