

THE NEED FOR CORE INFRASTRUCTURE AND THE DEVELOPMENT OF SMALL SCALE ENTERPRISES IN ASSAM (A CASE STUDY)

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INTRODUCTION:

The North East vision 2020 chalks out a participatory development strategy to catch up the national level of per capita income of Rs.78, 000 at 2006-07 prices by 2020. The vision document observes that on an average, the standard of living of the people of India's North East is 31% below the standard of living of an average Indian (2004-05). To fill this gap, the region will have to grow at the rate of 11.8% per annum. It is important to note that prior to independence, the per capita income of Assam – which constituted the seven North Eastern states; was 4% higher than the national per capita income. During 1990-91, the region's per capita income at current prices was 20% lower than the national average. By 2004-05, this deviation has gone up to 31%. The per capita income of Assam is the lowest among the North Eastern states (Debroy and Bhandari) with Rs. 15,219 at current prices during 2005-06.

To mitigate the regional imbalances in the levels of economic development, the Govt. has now tilted towards grass root development by aiming at decentralized industrial structure. Thus the development of Micro and Small Enterprises becomes the urgent need for the state of Assam. Having been realized the significance of entrepreneurial activities towards development of an economy, the Govt. of India as also the state govt. have been extending support services in numerous ways for promotion of small scale enterprises in the state. In spite of having such supports, the micro and small enterprises in Assam suffer from capacity under utilization, and it has become an endemic problem of such enterprises. The study report prepared by the Indian Institute of Entrepreneurship, Guwahati, during 2004, for submission to the Ministry of Small Scale Industries, Govt. of India observes that the Small Scale Industrial units in the region are mostly operating at a much lower capacity utilization level and there is a constant decline in the utilized capacity (IIE, 2004). As per the census report (Third All India Census of SSI, 2001-02) the incidence of sickness among registered units at national level is 3.38% as against 20% in case of Assam (Google Books result, Jan. 2010). Thus it becomes a matter of serious concern for the policy makers.

There are certain factors both internal and external to an enterprise, which inhibit an entrepreneur in utilizing the installed capacity of his / her unit. However, it is universally accepted that the inadequacy of core infrastructures viz. energy, transport and communication stands on the way towards capacity utilization of the enterprises as they are indispensable factors of modern industrialization. So far as the infrastructural status is concerned, in late 1990s, in a national level study, an attempt was made to calculate the physical infrastructure development of different states with the help of six representative indicators such as transport network (railway + road), per capita consumption of electricity, villages electrified as a percentage of total number of villages in each state, irrigation facility and telephone density. As per the study report in order of ranking Delhi, Punjab, Tamilnadu, Haryana, Goa, Gujarat, Maharashtra, Andhra Pradesh, Karnataka and Kerala are at top ten while Arunachal Pradesh, Mizoram, Tripura, Sikkim, Meghalaya, Assam, Manipur, Jammu & Kashmir, West Bengal and Madhya Pradesh are at the bottom (Purkayastha, 2008). It is therefore essential to examine to what extent this inadequate supply of infrastructures stands on the process of full capacity utilization of the micro and small enterprises operating in the state and thereby hindering their development.

Objectives of the study:

Keeping in view the above facts, a field survey was conducted during 2006-07 to examine the reasons behind capacity underutilization of the registered micro and small enterprises operating from Tinsukia district of Assam.

The present study based primarily on field survey aims to:

1. Find out whether and to what extent the inadequacy of core infrastructure affects the capacity utilization in micro and small-scale enterprises of the district.
2. Highlight the strategy for infrastructural development in the district.

Scope and methodology:

The present study takes the district of Tinsukia in Assam as its base. It is located at the Northern fringe of the state of Assam bordering the state of Arunachal Pradesh to the north (Lohit district) and east (Changlang and Tirap districts); while the district of Dibrugarh in Assam bounds the western and southern borders. The international border of Indo- Myanmar (Nampang in Arunachal Pradesh) is a little more than 100 kms. from the district headquarters of Tinsukia. The district occupies a tract of 3790 sq. km. of land with population of 11,50,145(2001) and divided into three administrative sub-divisions of Tinsukia (Sadar), Margherita and Sadiya. The density of population is 303 per sq. km. as against 340 per sq. km. for the state as a whole. The rate of literacy is 63.28% as against 64.28% of the state as a whole. The structure of population shows that 80.51% of the total population lives in the rural areas while 19.49% lives in the urban areas. The district is the pioneer in the industrial map of Assam and still occupies leading position in the industrial scenario

of the state with concentration of most of the medium and large-scale industrial units of the state. Some important medium and large-scale industries operating in the district are petroleum, coal, tea and plywood. As regards the number of small enterprises (registered under DICC) the district of Tinsukia occupies fifth position in Assam with 2206 functioning units as on 31st. March 2004. These 2206 units constitute the universe of the present study.

For the purpose of the present study, all the 2206 functioning units having permanently registered with the DICC, Tinsukia are categorized according to various industry groups to which each of them belongs. On being categorized, 5% of each group subject to a minimum of two units was taken under random sampling method. Thus 145 units emerged.

THE CASE STUDY:

The level of capacity utilization of an enterprise reveals the general health of the unit. In fact, the level of capacity utilization of an enterprise gives a true and fair view of its performance. “In other words, unutilized capacity of an enterprise is an index of its problems and all the problems faced by an enterprise leads to underutilization of installed capacity” (Prasain and Singh, 2007). Therefore an attempt has been made here to examine the performance of small-scale enterprises of the district in terms of average capacity utilization of the sample units.

1. Extent of Capacity Utilization by the Sample Enterprises:

With a view to depicting a general picture of the level of plant capacity utilized in the sample units, Table 1.01 is presented here.

Table 1.01:
Break-up of sample enterprises according to their level of capacity utilization

| Level of Capacity utilization (%) | No. of sample enterprise | % of total sample |
|--|---------------------------------|--------------------------|
| Below 20 | 11 | 7.59 |
| 20 – 35 | 17 | 11.72 |
| 35 – 45 | 24 | 16.55 |
| 45 – 55 | 27 | 18.62 |
| 55 – 65 | 27 | 18.62 |
| 65 – 75 | 21 | 14.48 |
| 75 – 85 | 11 | 7.59 |
| 85 – 95 | 2 | 1.38 |
| 95 & above | 5 | 3.45 |
| Total | 145 | 100 |

Source: Compiled from Field survey inputs

It is appreciable to find that as many as 93 (64.14%) of the sample enterprises are able to utilize their plant capacities at various degrees ranging from 45% to 100%; where in 18 (12.42%) utilize 75% and above of their plant capacities. Incidentally, 11 units, constituting 7.59% of the sample utilize less than 20% of their capacities. In a sense, these are the sick units. Therefore, it can be said that 7.59% of the sample enterprises in the district are sick as against 3.38% at national level (Third All India census of SSI, 2001-02) and 20% in case of Assam (Google Books result, Jan, 2010).

A study (Hyderabad and Korbu, 2009) conducted on the basis of 100 sample units drawn from Karnataka finds that 14% of the sample enterprises have operated above 75% of the installed capacity and 9% has utilized less than 25% of plant capacity.

Another study (Deb, 2007) conducted in Tinsukia district of Assam has recorded 7.9% of the sample enterprises utilizing less than 20% of their installed capacities, which is a little bit higher than the finding of the present study (7.59%).

A study (Bakal, 1993) conducted in Jammu and Kashmir during the period from 1980-81 to 1988-89, observes that 17% of the sample enterprises is operating below 20% of their productive capacities which is much higher than the finding of the present study. The study also finds not a single unit to utilize more than 60% of the plant capacities.

2. Sub division wise Average capacity utilization by the units under different groups of industry:

With a view to depicting a sub-division wise picture of the level of plant capacity utilized by the sample enterprises under different industry groups, Table 1.02 is presented here. It is evident from the table that the average capacity utilization of the sample enterprises in the district under present study is 51.54%.

Table 1.02:
Industry group wise average capacity utilization under various sub-divisions

| Sl. No. | Sub-Division Industry Group | Tinsukia | | Margherita | | Sadiya | | Total sample units | Average capacity utilization (%) |
|---------|------------------------------------|--------------|----------------------------------|--------------|----------------------------------|--------------|----------------------------------|--------------------|----------------------------------|
| | | No. of units | Average capacity utilization (%) | No. of units | Average capacity utilization (%) | No. of units | Average capacity utilization (%) | | |
| 1 | Textiles | 9 | 56.11 | 3 | 67.11 | 3 | 68.89 | 15 | 60.89 |

| | | | | | | | | | |
|----|--|----|-------|----|-------|----|-------|-----|-------|
| 2 | Wood products | 5 | 46.27 | 2 | 16.00 | 2 | 26.67 | 9 | 35.18 |
| 3 | Food & Allied Products | 12 | 46.33 | 7 | 35.81 | 2 | 63.34 | 21 | 44.44 |
| 4 | Paper products | 6 | 80.56 | 2 | 55.83 | 2 | 24.17 | 10 | 64.33 |
| 5 | Chemicals | 3 | 57.78 | 2 | 40.00 | | | 5 | 50.67 |
| 6 | Metal products | 18 | 51.00 | 4 | 59.33 | 4 | 47.75 | 26 | 51.78 |
| 7 | Transport equipment & repairing | 6 | 43.28 | 3 | 39.11 | 4 | 41.25 | 13 | 41.69 |
| 8 | Ceramics | 5 | 61.67 | 3 | 50.56 | | | 8 | 57.50 |
| 9 | Machineries repairing | 6 | 46.06 | 0 | | | | 6 | 46.06 |
| 10 | Beverages | 5 | 75.80 | 1 | 80.00 | | | 6 | 76.50 |
| 11 | Leather & Allied products | 2 | 76.67 | 0 | | | | 2 | 76.67 |
| 12 | Non metallic mineral products | 6 | 48.89 | 4 | 42.17 | | | 10 | 46.20 |
| 13 | Rubber products | 2 | 50.34 | | | | | 2 | 50.34 |
| 14 | Bamboo & cane products | 1 | 55.00 | | | | | 1 | 55.00 |
| 15 | Misc. | 5 | 51.80 | 4 | 43.25 | 2 | 63.33 | 11 | 50.79 |
| | Total no/ Average capacity utilization of the respective total sample units | 91 | 54.41 | 35 | 45.82 | 19 | 48.30 | 145 | 51.54 |

Source: Compiled from Field survey inputs

The data presented in Table 1.02 also depicts the picture of average capacity utilization under various sub-divisions in the district under present study. The table shows that in Tinsukia sub-division the average capacity utilization of the 91 sample enterprises is calculated at 54.41%, which is higher than the district average of 51.54%, while Margherita (45.82%) and Sadiya (48.30%) sub-divisions record the average capacity utilization below the district average. In Tinsukia sub-division the average capacity utilization is the highest in Paper products group with 80.56% followed by Leather & Allied products group (76.67%) and Beverages (75.80%), while it is the lowest in Transport Equipment & Repairing group (43.28%). In Margherita sub-division the highest average capacity utilization is experienced by ‘Beverage’ group (80.00%) followed by Textiles (67.11%) and Metal products (59.33%) while the ‘Wood products’ group records significantly low rate with only 16.00%, utilization of the productive capacity. This may be attributed to the ban on felling of trees imposed by the Honourable Supreme Court of India during Dec. 1996, which resulted in shortage of raw materials to wood products group. Again, with slowing down of timber related business, enterprises manufacturing and repairing truck bodies, batteries as also those servicing automobiles failed to utilize their productive capacities installed earlier.

Further, the table reveals that in Sadiya sub-division, entrepreneurial activities are undertaken only in seven industry groups, among which “Textiles’ group records the highest average capacity utilization of 68.89% followed by Food & Allied products (63.34%) and Misc. (63.33%). It is notable that in Textiles and Food & Allied products groups the average capacity utilizations recorded by Sadiya are higher than those recorded by Tinsukia and Margherita sub-divisions. This is so because Sadiya being located in the Arunachal Pradesh border, the units operating under Textiles group of the sub-division are able to capture a part of the market in the neighboring state. Moreover, in Food & Allied products group, the units in Sadiya sub division are successful in utilizing high capacity as compared to their counterparts operating from the other two sub-divisions mainly because of two reasons – firstly, the units under the Food & Allied products group procure raw materials like rice, mustard oil seeds, milk etc. locally and secondly, the units under this group are not facing competition from outside as the outputs like bread, sweets and other milk products are perishable in nature and hence such products cannot regularly penetrate into the market from other parts of the state due to the transportation and communication problem of the sub-division. Contrary to this, in Paper products group Sadiya sub-division remains far behind with only 24.17% average capacity utilization as against 80.56% in Tinsukia and 55.83% in Margherita sub-division due to high input cost involved in operating the units by bringing raw materials from outside.

It is worth noting that though entrepreneurship development in Sadiya sub-division is most underdeveloped in general, with only a few industry groups utilizing their capacities at much lower level; the average capacity utilization of all the sample units of the sub-division (48.30%) is even higher than that of the Margherita sub-division (45.82%). It is observed that the sub-division has high market potential. Without proper connectivity, this potentiality will remain untapped forever.

The office of the Development Commissioner, Small Scale Industries (MSME DC), govt. of India, in its ‘Survey of capacity’, allowed an efficiency factor of 75%, the remaining 25% being provided for repairs, maintenance, start up time and other production interruptions. This means that the capacity utilization of 75% is taken as the norm in the Micro and small enterprises taken together (Sarma, 1999). Accordingly, for the purpose of the present study, any sample entrepreneur utilizing 75% or more of the capacity installed in his/her enterprise is accredited as entrepreneur with full capacity utilization. Incidentally, 127(87.58%) sample entrepreneurs have unutilized capacity in their plants at varying degrees [Table 1.01].

Reasons behind Capacity Under utilization:

It should be noted that the extent of capacity utilized by an enterprise depends upon various factors, some of which are internal while some others are external to the organization. So far as the external factors are concerned, no entrepreneur has control over them and they almost equally affect every entrepreneur of a locality subject to their variations in industry groups in some cases. The magnitude of the impact of these factors on capacity utilization depends on the skill and intellect of an entrepreneur to manage the business affairs in right earnest

according to the environment to which his / her enterprise is subjected. The factors, which are found to be inimical to the sample enterprises in utilizing their productive capacities have been, classified under 8 categories as shown in Table 1.03. In order to find out the intensity of the factors responsible for capacity under utilization, the entrepreneurs were asked to indicate the order of intensity by ranking maximum of three reasons. Accordingly, weighted scores were calculated for each of the reasons by giving a weightage of '3' points to the most prominent one, '2' and '1' points respectively to the succeeding ones in that order. The total weighted scores for each of the reasons and ranks of all the reasons determined on the basis of those total weighted scores are presented in Table 1.03.

Table 1.03:
Sample entrepreneurs' ranking of reasons behind capacity underutilization

| Sl. No. | Reasons for underutilization | No. of entrepreneurs giving the rank of | | | Total weighted scores | Ranks | Total no. of entrepreneurs |
|---------|--|---|----|----|-----------------------|-------|----------------------------|
| | | 1 | 2 | 3 | | | |
| 1 | Problem of Transportation & power Shortage | 28 | 19 | 10 | 132 | 3 | 57(39.31) |
| 2 | Marketing problem | 65 | 11 | 7 | 224 | 1 | 83(57.24) |
| 3 | Working capital shortage | 13 | 12 | 4 | 67 | 5 | 29(20.00) |
| 4 | Shortage of materials | 11 | 17 | 4 | 71 | 4 | 32(22.07) |
| 5 | Dearth of casual skilled labour | 13 | 6 | 2 | 53 | 6 | 21(14.48) |
| 6 | Unfavourable climate | 2 | 7 | 8 | 28 | 7 | 17(11.72) |
| 7 | Poor law and order situation | 8 | 50 | 29 | 153 | 2 | 87(60.00) |
| 8 | Other (Restriction by pollution control board) | 0 | 1 | 3 | 5 | 8 | 4(2.76) |

Source: Compiled from Field survey inputs

Figures in the parentheses indicate the percentage of total (145) sample entrepreneurs of the district

Table 1.03 reveals that 'marketing problem' is the most prominent reason behind capacity under utilization which affects as many as 83 (57.24%) sample entrepreneurs wherein 65 reported it as the most severe one, thereby ranking first in order. The table further shows that the 'poor law and order situation' of the district resulting in frequent bandh calls, unauthorized collection of funds, threats from anti-social elements etc. affects as many as 87(60%) sample entrepreneurs in utilizing their installed capacities. As par the calculated weighted score, this factor ranks second in order, which stands in the way of utilizing installed capacities of the sample enterprises so reported. This is followed by 'problem of transportation & power

shortage', which affects 57(39.31%) sample entrepreneurs in the district under present study.

In Manipur (Prasain & Singh, 2007) Power scarcity was ranked as number one reason for underutilization of capacity by 19.4% of sample entrepreneurs followed by Lack of finances and Slackness of demand (16.3% each) and Lack of raw materials (12.2%).

Intensity of the problem of power shortage:

The present study finds that out of 57 sample entrepreneurs reporting the 'problem of transportation and power shortage', as many as 51(35.17%) attributed 'power shortage' as a reason behind underutilization of their plant capacities. Therefore, to depict a more vivid picture on to what extent the malice of power shortage affects the smooth functioning of those 51 enterprises Table 1.04 is presented here.

Table1.04:
Break up of the 51 sample enterprises suffering from power shortage at varying degrees.

| Daily production hour loss | No. of enterprises suffering | Percentage of total (51) |
|-----------------------------------|-------------------------------------|---------------------------------|
| Up to 3 hours | 8 | 15.69 |
| 3 to 5 hours | 32 | 62.75 |
| 5 to 7 hours | 10 | 19.61 |
| 7 hours and above | 1 | 1.96 |
| Total | 51 | 100.00 |

Source: Compiled from Field survey inputs

$$\bar{x} = 3.69$$

The table shows that out of the 51 sample entrepreneurs who attributed power shortage as a reason behind capacity underutilization of their units, as many as 32(62.75%) sustain interruption in their production for 3 to 5 hours daily, while 10(19.61%) suffer 5 to 7 hours loss of production in a day. Thus on an average, as is evident from the calculation of mean value ($\bar{x} = 3.69$ hours) from the table, approximately 4 working hours is lost daily by the industrial enterprises for power shortage. It is important to note that out of these 51 sample enterprises, only 6 work for double shifts in a day with eight (8) hours per shift. The remaining 45 enterprises operate for single shift (8 hours) only per day. If on an average 4 working hours is lost per day out of 8 working hours for break down of power, the gravity of the

problem is easily understandable. Further, all the entrepreneurs reporting a loss of 5 to 7 hours (10 nos.) and 7 hours & above (1 no.) are rural based. Thus, the pinch is more painful in rural areas.

A study conducted in Manipur (Prasain and Singh, 2007) records 67(63.2%) units suffering from uncertainty of power supply as the most severe problem followed by 19 units (17.9%) complaining against the scarcity of power supply. While the scarcity of power was felt mainly by food-based industries (26.3%), the uncertainty of power supply was suffered maximum by automobile and engineering units (26.9%). As most of the units installed generators for running the units without any power breakdown, the problem of high cost appeared.

INSTALLATION OF POWER GENERATING SET:

As modern enterprises rely mostly on power driven machineries, the availability of regular and adequate supply of power is essential for smooth operation of the enterprises. Thus, to minimize the loss of production hour due to power shortage the entrepreneurs have to make some alternative arrangement in their production units either by installing or by hiring power generating set. Following table shows a picture of sample entrepreneurs' using or otherwise of power generator in their units.

Table 1.05

Break Up of sample entrepreneurs using (installed / hired) or otherwise of power generator in their units.

| SUB DIVISION | No. of Entrepreneurs | | Total (No) |
|---------------------|------------------------------|----------------------------------|-------------------|
| | Using power generator | Not using power generator | |
| Tinsukia | 37(40.66) | 54(59.34) | 91(100) |
| Margherita | 6(17.14) | 29(82.86) | 35(100) |
| Sadiya | 9(47.37) | 10(52.63) | 19(100) |
| Total | 52(35.86) | 93(64.14) | 145(100) |

Source: Compiled from Field survey inputs

From Table 1.05 it is evident that out of 145 sample entrepreneurs, 52(35.86%) have installed/ hired power generators in their units to manage the power crisis. Further, the table shows that the proportion of entrepreneurs using power generator (own/hired) is the highest in Sadiya (47.37%) as the problem of power shortage is much critical in the sub division. In Sadiya some entrepreneurs are found to install diesel motors instead of power driven motors. These alternative arrangements made

by them results in rising cost of production and as a consequence the entrepreneurs are to face marketing disadvantages.

Severity of transportation problem:

One of the preconditions for successful production management is the adequate and timely flow of raw materials. Therefore, it becomes the responsibility of the entrepreneurs to ensure uninterrupted and adequate supply of raw materials. However, in many cases their supply is interrupted due to the transportation bottlenecks particularly in case of entrepreneurs acquiring raw materials from other states. Thus, an attempt has been made here to examine how the setback in transportation services creates problem to the sample entrepreneurs in procuring their raw materials. The study makes an enquiry on the nature of problems involved in the procurement of raw materials confronted by the sample entrepreneurs, which reveals that the ‘High price’, ‘Scarcity’ and ‘Delayed supply due to Transportation problem’ are the major three problems as reported by the sample entrepreneurs by giving first, second and third ranks to them respectively. Table 1.06 is compiled and presented here to show the intensity of the problem of ‘Delayed supply of raw materials due to transportation bottleneck’ in the three subdivisions of the district.

Table1.06:
Severity wise entrepreneurs’ Ranking of the major three problems involved in procuring raw materials

| NATURE OF PROBLEM | No. of Entrepreneurs giving the rank of | | | RANK ON THE BASIS OF TOTAL WEIGHTED SCORE | | | | Total No. of Sample entrepreneurs suffering from the problem | | | |
|--|---|-----|-----|---|-----|-----|----------|--|-----|-----|-----------|
| | ‘1’ | ‘2’ | ‘3’ | TSK | MGT | SAD | DISTRICT | TSK | MGT | SAD | DISTRICT |
| DELAYED SUPPLY DUE TO TRANSPORTATION PROBLEM | 18 | 8 | 3 | 3 | 3 | 1 | 3 | 10 | 3 | 16 | 29(20.00) |
| SCARCITY | 24 | 5 | 0 | 2 | 2 | 3 | 2 | 20 | 6 | 3 | 29(20.00) |
| HIGH PRICE | 56 | 14 | 1 | 1 | 1 | 2 | 1 | 45 | 18 | 8 | 71(48.97) |

Source: Compiled from Field survey inputs

Figures in the parenthesis indicate the percentage of total (145) sample entrepreneurs of the district

Table 1.06 reveals that ‘delayed supply of raw materials due to transportation problem’ affects 29(20.00%) sample entrepreneurs, out of which 18(62.07%) report the problem as the most menacing one, while for 8 number of sample entrepreneurs it

is the second severe problem faced in procuring their raw materials. Further, it is observed from the table that in Sadiya sub division “delayed supply due to transportation problem” tops the rank which affects as many as 84.21%(16 nos.) of the total sample enterprises in the sub division.

Major findings:

From the above study it can be fairly summarized that:

1. The average capacity utilization of the sample enterprises in the district under present study is 51.54%.
2. As many as 127 (87.58%) sample enterprises have unutilized capacity in their plants at varying degrees.
3. As a reason behind capacity under utilization the ‘problem of transportation & power shortage’ affects 57(39.31%) sample enterprises in the district and thereby ranking third in order.
4. Out of 57 sample entrepreneurs reporting the ‘problem of transportation and power shortage’, as many as 51(35.17%) attributed ‘power shortage’ as a reason behind underutilization of their plant capacities.
5. On an average approximately 4 ($\bar{x} = 3.69$ hours) working hours is lost daily by the industrial enterprises for power shortage.
6. All the entrepreneurs reporting more than 5 hours losses of production (11 nos) due to power shortage are rural based. Thus the problem is more severe in rural areas of the district.
7. The proportion of entrepreneurs using power generator (own/hired) is the highest in Sadiya (47.37%) as the problem of power shortage is much critical in the sub division which results in increasing cost and thus marketing disadvantages on the part of the entrepreneurs from Sadiya.
8. The ‘high price’, ‘scarcity’ in supply and ‘delayed supply due to transportation problems’ are the major problems faced by the sample entrepreneurs in procuring raw materials to meet their input requirements.
9. ‘Delayed supply of raw materials due to transportation problem’ affects 29(20.00%) sample entrepreneurs, out of which 18(62.07%) report the problem as the most menacing one.
10. In Sadiya sub division “delayed supply due to transportation problem” is the most severe problem faced in procuring raw materials, which affects as many as 84.21%(16 nos.) of the total sample entrepreneurs in the sub division.

Recommendations:

On the basis of findings of the present study, the following recommendations are made:

1. The study finds that power shortage is a severe problem, which adversely affects the capacity utilization of the micro and small enterprises of the district. While power is an essential concomitant of modern industrialization, the present power scenario of the state of Assam is at a pathetic condition, with production of only 290 MW as against the peak hour requirement of 800 MW. Despite the fact that the state has high potentiality for both thermal and hydel power generation, its potentiality is remaining untapped for long. Recently the state Govt. has seen to take some positive steps to set up thermal power generation projects in the state based on coal. Of late the central Govt. has given its clearance to setting up of a mega thermal project at Bongaigaon based on coal and NTPC is setting up a 750MW coal based Thermal Power Station at Bongaigaon. Further a proposal has been given for another coal based thermal power plant with 60 MW at Borgolai near Margherita on the basis of new technology suitable for Assam coal. Once this proposed project succeeds, it can reduce the power crisis of the region.

It is therefore recommended that the construction of the proposed power generation projects be started without further delay and be completed within time frame.

2. The study also finds that the transportation bottleneck poses problem, which results in delay in supply of raw materials. In this regard it is worth mentioning that in Sadiya subdivision of the district the entrepreneurial operations are limited to a few industry groups. This is due to the non-availability of raw materials within the sub-division and the problem of importing the raw materials from outside for transportation bottleneck. Moreover, the entrepreneurs from other two sub divisions viz, Tinsukia and Margherita sub-divisions are able to utilize the scope of ancillarization provided by the large-scale industries of the district, while those from Sadiya sub-division fail to take this advantage at all due to the problem of transport and communication. The sub-divisional head quarter of Sadiya is separated from the main land of the state by the river Brahmaputra (Lohit) and it is connected with Saikhowa ghat only by means of water transport. This results not only in high cost of transporting raw materials due to transshipments, but also their delayed and irregular supply, thereby obstructing the uninterrupted operation of entrepreneurial activities in the sub-division.

Therefore, the construction of a motor cum railway bridge over river Brahmaputra (Lohit) connecting Saikhowa ghat with the sub-divisional head quarters of Sadiya is the pressing need of the hour to bail out Sadiya sub-division from vicious circle of backwardness.

3. The market potentiality of Tinsukia district of Assam is immense and beyond any doubt. In addition to the market within the state it can expand its market to the neighbouring state of Arunachal Pradesh in a much bigger way. In this context it is important to point out the district is bordered by Arunachal Pradesh, which has an international border with Myanmar and China. Once the district gets connected by roads and railways with different parts of Arunachal Pradesh the entrepreneurs will find a market in the neighbouring state.

4. In fact, the entire region of India's North East has a very narrow link with rest of the country. This geo-strategic situation of the region will ever remain as a hurdle towards its development unless this disadvantage is translated in to advantage. With 98.0% border (4500 km) of the entire region bounded by international boundary, there is ample scope for expansion of industrial and trading activities with the South-East Asian countries including China in the present day of globalization. In this context, reopening of the Historic Stilwell Road that starts from Lekhapani near Ledo in Margherita sub-division of the district under study and passes through the state of Arunachal Pradesh to reach Myanmar, connects China and South-East Asian countries, will go a long way in creating the district of Tinsukia in particular and the entire North-Eastern Region in general, a prominent industrial and commercial hub of India in addition to opening up the scope for development of tourism industry. It is worth mentioning in this context that since Myanmar is a member of the ASEAN, India as a close trade partner, there is ample scope for expanding India's trade with the ASEAN trading block having combined GDP of US\$1,505.7 billion (2008) and the combined per capita income of \$2,609, via Myanmar through the Stilwell Road.

As per the latest information available, the govt. of India at present is unwilling to reopen the Stilwell Road due to reluctance of its Myanmarese counterpart to react against the ultras that are strongly based and operating from the Kachin province of Myanmar. However, it is hoped, sooner or later, these extremist groups will foil and lose their holds in the area paving the way for reopening of the historic road.

Thus, there is ample scope for expanding the market spread by improving the over all transportation system in and around the district.

Conclusion:

The growing social unrest in the district is a clear message that it has exhausted the capacity to bear the consequences of economic backwardness. Thus, to make any effort for balanced economic development and to address the problem of educated unemployment in an effective way there is the need for giving both direct and indirect boosting for promoting first generation entrepreneurship in this region of the country. To achieve this goal the problems like connectivity, electrification with uninterrupted power supply etc must have to be addressed in war footing. This apart, malpractices and corruption at all levels must have to be stopped if we really want to see the small-scale entrepreneurs as our growth agents.

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