7.1 INTRODUCTION

Industrial planning is the result of a number of factors which enter into its complicated pattern of evolution and subsequent growth. Apart from the role of initiation, inspiration and direction provided by the government, the availability of adequate finance, the trained and hard working labourforce, the facilities for imparting the technical education, the proper survey and assessment of geonomic foundations, a balanced and integrated scheme of regional development upon the needs of the different parts of the country, a scheme for future expansion of industrial opportunities based on the study of present trends and future possible changing pattern and a combination and integration of all these factors in such a way that it would lead to the maximum social welfare are the valuable planks of any realistic approach to a democratic industrial planning (Tiwari, 1962).

Although, the rapid economic growth, salvation of poverty, enhancement of employment opportunities, illumination and elimination of regional disparities and to make the society independent have been the basic objectives of our Five Year Plans, after 40 years of planned development we are far away to reap the benefits of planning and we have a great mark of interrogation before us. The main problems of Indian society
are mass poverty, mass unemployment and inequitable
distribution of income and agriculture alone is unable to pace
them (Mishra, 1983). This situation necessitates the
development of other economic sector i.e. industrial sector
which can create the opportunities of employment and raise the
income and living standard of the people in study area.

We are quite aware of the fact that agriculture and
industrial establishments are two main bases, which can change
the lot of people in this materialistic world. The intensive
use of agricultural resources and industrial advancement side
by side can change the economic shape of the country.

The salvation of these problems warrants not only mass
production but production by masses so that the very production
process can also become the means for equitable distribution of
wealth. This can not be achieved by the development of large
scale manufacturing industries which despite the existence of
more than a century in India at a cost of billions of rupees,
could create only few (5.2) millions of job opportunities. With
this achievement to their credit, will it be wrong to conclude
that at best the big industries are capable of touching only
the fringe of gigantic problem of unemployment in this country
in the foreseeable future (Arora, 1979).

Viewing the gravity of the unemployment and stagnation in
the rural society of India the Estimates Community of Lok Sabha
(1977) has concluded that neither agriculture nor large scale
industries and nor even both can change the situation of the
rural societies; a well thoughtout and comprehensive programme
of decentralized industry in rural areas implemented with
drive, sincerity and sense of paramount urgency can provide an effective answer to the vast problems of rural unemployment.

Thus decentralized rural industrialization will not help merely in economic growth of countryside but also help in maintaining ecological balance and environmental qualities, and it should be accepted as an important component of integrated development planning (Tripathi, 1980).

This decentralized rural industrialization will check the migration of rural folk towards urban centres and rural problems will be solved automatically, and the rural employees will utilize their surplus energy and income in agriculture and animal rearing because the greater part of their working capacity is in the form of surplus labour not as the surplus labourers (Papolla, 1982). It will raise the agricultural productivity also.

The decentralization of rural industrialization at various (spatial, structural and technological) levels is quite essential to accelerate the growth of rural development. To achieve the goal of integrated development it is essential to establish medium and small scale industrial units based on local resources and traditions at central villages, service points, service centres and growth points for creating the employment opportunities and ideal production. The rural artisans of our society may play a very important and meaningful role in economic development. Unfortunately, due to modern industrialization and technological advancement our traditional engineers i.e. rural artisans such as Carpenters, Potters, Cobblers, Blacksmiths, Basket-makers and Stone-
sculptures etc. are totally deprived of their employment and have lagged behind in reaping the developmental benefits because of factors such as lack of money, raw materials, market facilities, obsolete technology or the non-availability of improved tools in the rural areas. Consequently, these rural artisans are migrating towards urban areas leaving their traditional and parental occupations. Till each and every section of the society gets proper share in the developmental process the country would be very far from the balanced development i.e. integrated area development (Mishra, 1983). This burning problem can be solved by developing small and cottage traditional industrial/occupational units at the village level (Singh, 1986).

Under rural industrial development programme, only these medium scale industrial units should be recommended to establish which can generate relatively larger employment opportunities with minimum investment. In this way only medium, small and cottage industrial units can generate employment opportunities and industrial activities will refine the traditional skill of the rural artisans. The techno-skill of rural artisans will be easily available at low cost. Thus these industrial units will produce maximum finished goods with minimum cost (Rai, 1977).

The rational execution of rural industrial development programme will provide a solid economic ground to our society as well as to our nation and to great extent it will solve the unemployment problem by controlling and utilizing the man power and it will develop the aesthetic and artistic values of the
rural people (Singh, 1989). Such rural industrialization in Gujrat state has immensely increased the employment opportunities (Shah, 1986).

The decentralized rural industrialization programmes have strengthened the economic ground of societies and nations like Japan, China and Israel etc. Under this programme Japan Government has sprinkled a large number of prosperous small factories throughout the country side. Approximately 75 per cent of farmers of Japan add to their agricultural earnings by working in these factories. China, inspite of allied industries has established some of large scale non agricultural industries in rural areas and is reaping very fruitful results. Isreal has shown how small scale labour using light industries with low capital requirements could be established in rural areas to supplement employment opportunities in agriculture and rejuvenate the rural economy. Typical is Israel’s Agridus Programme, involving very neighbouring villages in maintaining agriculture, transport, marketing and financing a farm produce, establishing factories and workshops (Jain, 1975).

But in our democratic country, very least attention was paid in this side and from very beginning of our free government the main emphasis was given on heavy capital consuming large scale industries. Such heavy scale industrialization has generated regional disparities and destroyed the traditional occupations of rural artisans. It should not be incorrect to say that no detailed planning for an agro-industrial complex serving an area like a tahsil or a
group of tahsils or a cluster of villages has been attempted. The rural industries project, the khadi and village industries programme and the agricultural policy have all followed a vertical sectoral approach instead of a horizontal planning process with an overriding consideration for rural development (Nanjundappa, 1981).

Some urban oriented people give remarks that rural industrial development programme will not give any satisfactory result because, the people of countryside are generally conservative and they will not co-operate these programmes. But this false statement has no weight because, we have seen the successful green revolution in Punjab and it has proved that the villagers are quite ready to adopt and accept new ideas and technological scientific ideas if once they are convinced fully. They have the essential qualities of entrepreneurship. This only needs to be nurtured, supported and encouraged (Arora, 1979).

Therefore, an effort has been made to interrelate the agriculture and industrial sector by improving the industrial policy to solve the rural problems by the government of India in December-1977. Under this scheme a major step has been taken to set-up District Industries Centres (D.I.C.s.) in every district of the country in 1978 with the following objectives -

1- To accelerate the industrialization by generating employment opportunities through the establishment of small and cottage industries.

2- To provide all facilities and assistances like licensing, banking, financing and power etc. to the interpreneurs under one roof.

3- To develop industrially backward areas through the
eradication of regional disparities.

But this industrial policy did not give any fruitful result. The draft of Sixth Five Year Plan (1980-85) also says that D.I.C.s., by and large, have not made a very significant impact particularly in the traditional industries sector. It further illustrates that an industrial promotional structure at the district level seems unavoidable which will play a catalytic role in generating opportunities for self employment and in monitoring effectively the programmes of rural industrialization (Sixth Five Year Plan, 1980-85).

In Seventh Five Year Plan (1985-90) emphasis has been given to adopt a special joint policy to develop large, medium and small scale industries. Under this scheme arrangement has been made to provide all types of facilities to the small scale and cottage industries (Seventh Five Year Plan, 1985-90).

But inspite of the effective execution of this rural industrialization programme, we hardly observe any specific infra-structural change in rural life. This rural industrialization programme does not suit with the very spirit of the region and has destroyed the traditional occupations of the rural society.

In this way we see that such type of planning is not much more than a policy or a decision making and is always failure. The result of all these processes is that the rich have grown richer and the poor have either remained where they were or at times have even become poorer.

Now it is the need of the hour that local resource based large, medium, small and cottage industries should be
established on decentralized basis in rural areas to pull them out of the stagnated and contaminated conditions.

7.2 EXISTING INDUSTRIES

The study area lacks any large scale industrial unit. Here only some small scale and cottage industrial units are found. Table 7.1 shows that only 0.81 per cent (1044 persons) of the total workers are engaged in house hold industries in the study region.

Table 7.1 population structure, 1981

<table>
<thead>
<tr>
<th>Sno</th>
<th>Category</th>
<th>Colonelganj actual no.</th>
<th>%</th>
<th>Tahsil actual no.</th>
<th>%</th>
<th>Gonda District actual no.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total population</td>
<td>436411</td>
<td>100.00</td>
<td>2834562</td>
<td>100.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Farmers</td>
<td>113567</td>
<td>87.53</td>
<td>704645</td>
<td>76.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Agl. labourers</td>
<td>9446</td>
<td>7.32</td>
<td>106623</td>
<td>11.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Engaged in house-hold industries</td>
<td>1044</td>
<td>0.81</td>
<td>12644</td>
<td>1.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Other workers</td>
<td>5014</td>
<td>3.86</td>
<td>81906</td>
<td>8.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Marginal workers</td>
<td>628</td>
<td>0.48</td>
<td>21353</td>
<td>2.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Total workers</td>
<td>129749</td>
<td>29.73</td>
<td>927171</td>
<td>32.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Total non workers</td>
<td>306662</td>
<td>70.27</td>
<td>1907391</td>
<td>67.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


N.B.:  
1- The percentage of total workers and non workers have been computed with total population.

2- The percentage of sno. 2,3,4,5 and 6 have been computed with total workers.

Table 7.2 emphasises that most of the industrial units of the study area are of cottage type. More than 90 per cent of the industrial units belong to flour mill and rice huller (cottage sized) and oil expeller. 859 flour mills are working in 284 villages of the study area which is 43.36 per cent of the total industrial units of the tahsil. 739 oil expellers and 199 rice
hullers are in operation in study area. Generally, these house hold industrial units are unevenly distributed.

Table 7.2 Existing industrial units, 1988

<table>
<thead>
<tr>
<th>Industrial establishments</th>
<th>No. of settlements with establishments</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td># Flour mill (using stone grinder) 284</td>
<td></td>
<td>859</td>
</tr>
<tr>
<td># Oil expeller 244</td>
<td></td>
<td>739</td>
</tr>
<tr>
<td># Saw mill 15</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td># Rice Huller 104</td>
<td></td>
<td>199</td>
</tr>
<tr>
<td>Dal Mill (S.S.I. Unit) 1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Handloom 2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Soap works 2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Cold storage 1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing and repairing of agricultural implements 3</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Light engineering works 3</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Furniture and carpentry 5</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Poultry 4</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Fishery 4</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Cement and Clay pot making 14</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Ban making 16</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td>Brick making 5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Cloth painting 2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Shoe/Chappal making 2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Printing press 2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Paper and strawboard 0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Dairy 2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Boot-polish 1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Scented oil making 1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Agarbatti making 1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Sugarcane crusher 2</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Source: D.I.C., Gonda and field survey.

N.B.: # shows "Cottage sized industrial units".

The units operated by electrical power are working in a very miserable condition because of very poor power supply. The units operated by mechanical power are running well but sometimes diesel crisis also makes them to suffer. Other industiral units are located generally at Colonel Ganj, Katra Bazar and Paras Pur. There are two Masoor Dal Mills functioning at Colonel Ganj. There are two sugarcane crushers located at
Masauli and Sugga Purwa (south-west of Dehras) villages of Colonel Ganj and Paras Pur blocks respectively. Other industrial units belong to soap making, manufacturing and repairing of agricultural implements, light engineering works, furniture and carpentry, poultry, fishing, cement and clay pot making, ban-making, brick making, cloth painting, shoe/chappal making, printing and dairy etc. (Table 7.2 and fig. 7.1). It is remarkable that boot polish, scented oil and agarbatti are also being done at Colonel Ganj.

7.3 PROPOSED INDUSTRIAL PLAN

Thus we see that the present industrial structure of the study area is very poor. But the prospectus of potential industrial development of both types of industries i.e. local resource based and demand based are bright in the study area. Since the area is agriculture dominated, hence agro based industries may flourish much in the study region. The ample human, agricultural, animal and forest resources are the main attraction for the industrial organisations.

Viewing the socio-economic conditions of the study area an industrial plan has been chalked out with the following objectives:

1- Creation of a viable structure of village and small industries sector to optimise the use of resources locally available.

2- Enhancement and creation of additional employment opportunities in a dispersed and decentralize manner to check the migration and brain-drain from country side.

3- To increase the income potentiality and productive efficiency of rural artisans and other house hold industrial activities so that each family could become economically a viable unit (Mishra, 1983).
7.3.1 RESOURCE BASED INDUSTRIES

7.3.1.1 AGRO BASED INDUSTRIES

The agriculture is the main axis of the economy of the study area. Food grains are the main agricultural products and approximately 30 per cent of the agricultural products (refined or non-refined) are exported to other regions and remaining quantities are consumed by the people of the region. As illustrated in preceding chapters that the present surplus agricultural production will be increased enough in coming years and a considerable quantity of raw materials will be available for industrial processing in the study area. Based on these estimates, a number of medium, small and cottage units with enough employment potentials are being proposed to be established here (fig. 7.2 A & B).

RICE MILLS

At present paddy production is about 44604 metric tonnes (1987-88) and is estimated that this quantity will increase up to 56148 and 58296 metric tonnes respectively in 1994-95 and 1999-2000. It is estimated that approximately 60 per cent of total paddy production will be available for milling in 1994-95 and this percentage will increase up to 80 per cent in 1999-2000. Because the need of well refined rice is increasing day by day consequently hand pounding will decrease.

At present the study area has no rice mill therefore, it is being recommended to establish rice mills with daily processing capacity of 25 metric tonnes each at Colonel Banj, Katra Bazar and Paras Pur upto 1994-95 and at Balpur and Dubha Bazar upto 1999-2000 (table 7.3).
Table 7.3 Proposed rice mills

<table>
<thead>
<tr>
<th>Sno.</th>
<th>Details</th>
<th>Quantity in Metric Tonnes</th>
<th>1994-95</th>
<th>1999-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total estimated paddy production</td>
<td></td>
<td>56148</td>
<td>56296</td>
</tr>
<tr>
<td>2</td>
<td>Quantity available for milling (60 &amp; 80 per cent in 1994-95 &amp; 1999-2000 respectively)</td>
<td></td>
<td>33688</td>
<td>46636</td>
</tr>
<tr>
<td>3</td>
<td>Existing rice mills</td>
<td></td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>No. of proposed rice mills (with daily consuming capacity of 25 metric tonnes)</td>
<td></td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

BY PRODUCTS OF RICE MILLING

RICE BRAN & RICE BRAN OIL MILL

Table 7.4 shows the percentage of various rice milling products -

<table>
<thead>
<tr>
<th>Paddy</th>
<th>Products (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>60</td>
</tr>
<tr>
<td>Husk</td>
<td>17</td>
</tr>
<tr>
<td>Screening</td>
<td>12</td>
</tr>
<tr>
<td>Bran</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Among these products bran is an important by product. Modern rice mills separate bran from other by products and approximately 60 per cent of bran may be utilised further as raw material for obtaining rice bran oil and deoiled rice bran. The remaining 40 per cent can be used as cattle food. Bran processing is possible only by Oil Solvent Extraction plants which produces the following by products - raw bran oil 15 per cent, deoiled bran 70 per cent and wax and sugar 15 per cent.
Rice bran oil is highly digestive and can be utilised in soap manufacturing. Refined bran oil is edible and superior to other cooking oils due to the lower content of saturated fatty acids in it.

Deoiled bran is lightly digestible and nutritive and may be utilized as human food. After grinding to a fine powder and mixing with wheat flour it can be used as a good gradient for biscuits, breads and other confectionary products. The distance between solvent extraction plant and its supporting mills should be not more than 50 kms. as the bran should be utilized same day of milling before it starts fermenting.

The bran is a blending of wax and sugar also, which can be easily extracted from it. The light brown coloured wax is a suitable raw material for making polishes and emulsifiers. Rice bran sugar is edible and may be utilized for making medicines because it contains vitamin-B and glucose in it.

Table 7.5 Proposed rice bran oil mill

<table>
<thead>
<tr>
<th>Sno</th>
<th>Details</th>
<th>Quantity in metric tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total estimated paddy production</td>
<td>56148</td>
</tr>
<tr>
<td>2</td>
<td>Quantity available for milling</td>
<td>36688</td>
</tr>
<tr>
<td>3</td>
<td>Availability of bran from rice mills</td>
<td>11117</td>
</tr>
<tr>
<td>4</td>
<td>Availability of bran for milling</td>
<td>6670</td>
</tr>
<tr>
<td></td>
<td>(60 per cent of the total)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Existing solvent extraction plant</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>No. of proposed solvent extraction plants (with daily consumption capacity of 15 m. tonnes in 1994-95 &amp; 25 m. tonnes in 1999-2000)</td>
<td>1</td>
</tr>
</tbody>
</table>

It is clear from the table 7.4 that 6670 and 9234 metric tonnes of raw materials will be available for rice bran oil milling in 1994-95 and 1999-2000 respectively. Therefore, a
solvent extraction plant with capacity of 15 metric tonnes per-day should be located at Colonel Ganj in 1994-95 and of 25 metric tonnes per-day at Paras Pur and Katra Bazar in 1999-2000 (fig. 7.2 A & B).

PULP AND BOARD:

Paddy husk is a fine raw material for manufacturing pulp and board. Therefore, it is suggested to establish a small scale pulp and board factory at Colonel Ganj up-to 1994-95 and at Katra Bazar up-to 1999-2000.

RICE CEMENT:

On the basis of advanced technology such techniques have been developed to utilize the byproducts of paddy in making rice cement. Therefore, a rice cement factory is being suggested to be installed at Bal Pur Hazari in 1994-95 and at Paras Pur in 1999-2000.

FLOUR MILL:

The study region produces a considerable quantity of wheat. A major portion of wheat production is consumed by the local people and remaining quantity is exported to the other regions. Therefore, it is being suggested to establish flour mills at Colonel Ganj, Katra Bazar, Paras Pur, Bal Pur Hazari, Dubha Bazar up-to 1994-95 and at Bhanbhuwa and Dhanawa up-to 1999-2000.

SUGAR MILL:

Sugarcane is the main commercial crop of study area, but the total production of sugarcane is exported to other regions because there is no sugar mill in Colonel Ganj Tahsil. At present approximately 125438 metric tonnes of sugarcane is
produced every year and it is estimated that this quantity will increase up-to 163553 and 218718 metric tonnes in 1994-95 and in 1999-2000 respectively.

Therefore, it is being suggested to instal a sugar factory at Colonel Ganj. This establishment will provide a solid economic ground to the people of study area and enhance the employment opportunities for development.

SUGARCANE CRUSHER / KHAND SARI UNITS:

The small and marginal farmers face very difficulty in selling their sugarcane to sugar mills. This ample production of sugarcane in the region allows to establish sugarcane crusher and khandshari unit at every service point upto 1994-95 and further at Pachmari, Khargu Pur and Jamthara upto 1999-2000.

CORN PROCESSING UNIT

Maize is also a most important crop in the tahsil. Approximately 30242 metric tonnes of maize has been produced in 1987-88 and it is estimated that this quantity will increase upto 42432 and 58862 metric tonnes in the respective years of 1994-95 and 1999-2000.

Therefore, it is being suggested to install corn processing units at Colonel Ganj, Katra Bazar and Paras Pur upto 1994-95 and at Dubha Bazar, Balpur Hazari, Bhanbhuwa, Paska, Dhanwa, Chhiras, Mohammad Pur and Mangura Bazar upto 1999-2000.

DAL MILL

At present per capita/per day pulse consumption/production in study area is 31 grammes and due to increased availability in future, it has been estimated that
this quantity will increase up to 53 and 78 grammes in the respective years of 1994-95 and 1999-2000. The main pulse crops in the study region are gram, masoor, arhar and peas. At present only two dal mills are working at Colonel Ganj in the study area.

Therefore, keeping in view the future production, it is being proposed to establish dal mills at Paras Pur and Katra Bazar up to 1994-95 and Bal Pur Hazari, D hubha Bazar, Paska, Bhanbhuwa, Dhanawa, Chhiras, Mohammad Pur and Mangura Bazar up to 1999-2000.

OIL MILL

In 1987-88 it has been recorded that per capita per day oil consumption/production in study area was only five grammes which is expected to increase in future.

Therefore, it is being suggested to establish oil mills at Colonel Ganj, Katra Bazar and Paras Pur up to 1994-95 and at Balpur Hazari, Dubha Bazar, Paska, Bhanbhuwa, Dhanawa, Chhiras, Mohammad Pur and Mangura Bazar up to 1999-2000.

NON EDIBLE OIL INDUSTRY

There is an acute need of non edible oils for the use in soap, paint, pharmaceutical pesticide, confectionary and acid industries. The seeds of Mahuwa, Neem and Rendi etc. are abundantly found in study area and may be utilised as the raw material for this industry. The husk and shell can be used for hard-board, fuel, activated carbon and compost manure. Khadi and Village Industries Commission provides essential technical and financial support for this industry. Non edible oil industry should be located at Colonel Ganj in first phase and
Katra Bazar and Paras Pur in second phase.

COLD STORAGE

At present one cold storage of a very low capacity is located at Colonel Ganj. But that is not in working order. The increasing trend of potato production demands this facility at large scale. Hence, it is being suggested to establish the cold storages at Colonel Ganj in first phase and at Katra Bazar and Paras Pur in second phase.

DEHYDRATED POTATO CHIPS AND PAPAD MAKING INDUSTRY

The study area will produce ample quantity of potato in coming days, so, to enrich the economic status of the people it is necessary to establish industries based on potato.

Therefore, in first phase such industries should be established at Colonel Ganj and in second phase at Katra Bazar and Paras Pur.

ALCOHOL INDUSTRY

Molasses received from sugar factories, Mahuwa, Barley and Potato may be utilized as raw materials for alcohol industry and these raw materials are abundantly found in the study region.

Therefore, in first phase an alcohol factory should be located at Colonel Ganj and in second phase it should be located at Katra Bazar and Paras Pur.

7.3.1.2 INDUSTRIES BASED ON ANIMALS

Livestocks are spread over the entire length and breadth of the region and may be utilized in many ways.
DAIRY UNITS

The region possesses good potential for the development of extensive dairy activities both in the form of small units which would be part of the mixed farming system as well as in the form of large scale units.

Small and marginal farmers should be encouraged to take-up dairy farming as a subsidiary occupation (Mishra, 1983). So it is being suggested to establish medium sized dairy industries at Colonel Ganj, Katra Bazar and Paras Pur up-to 1994-95 and mini sized dairy farming at every central village up-to 1999-2000.

LEATHER PROCESSING AND LEATHER GOOD MAKING UNITS

Leather goods making has been traditional occupation of Chamars in rural societies but due to advanced technology and improved finished leather goods this traditional occupation has been destroyed. Now raw leather is processed into processed leather by technical processing with the help of chemicals and dyes. Khadi and Village Industries Commission has introduced a small hot plating machine which can serve for this purpose. Various refined leather goods can be made from this refined leather.

Such units should be establish at service point. The rural artisans i.e. Chamars can run these units in a very efficient manner if they are being provided with financial and technical support.

BONE MEAL UNIT

Bone, in its converted form as bone meal may be utilized in fertilizer factories and as poultry feed. A furnace
developed by Khadi and Village Industries Commission can convert bone into bone meal. These products may be locally utilized and may be exported to the outside markets of the country.

Hence, suggestion is being made to establish such units at Colonel Ganj, Katra Bazar and Paras Pur. One thing is remarkable that such units should be located at some distance from settlement sites keeping in view the direction of local winds.

PIG REARING

Pig rearing has been the main occupation of Khatiks/Chamars in the rural societies of the study area. This occupation should be developed on modern techniques and the industrial rearers and labourers should be encouraged piggery rearing.

This occupation will strengthen the economic status of weaker sections of the society. Such units should be developed at every central village in the study area.

BEE KEEPING

Bee keeping is a very beneficial occupation and farmers of the study area can increase their earnings in their spare time by bee keeping. The oil seed crops like mustard, linseed, sunflower etc.; pulses like urd, moong, arhar, pea and gram etc.; vegetables and fruits require honey bees for cross pollination. Bee pollination not only increases the production but also improves the quality of seeds and fruits in this way farmers will get the God gifted precious, sweet honey from
their open farms on one hand and at the same time it will increase their agricultural products on both the quantitative and qualitative grounds.

FISHERY

2.97 per cent of the total area of the study region is under waterbodies of which approximately 25 per cent contains water throughout the year. It would be better to utilize these waterbodies for pisci-culture. Even the seasonal ponds can be utilized for this purpose with a little investment (Sharma, et.al., 1978). This scheme requires financial and technical help and some legal assistance which is possible only when our democratic government will take keen interest at village level.

Hence, it is being suggested to utilize bigger and safe ponds of the study area for pisci-culture.

POULTRY

Everywhere the demand for egg is increasing day by day. At present six poultry farms are in operation in the study area. These poultry farms are tiny in size and unable to fulfil the local demands. Therefore, there is much scope for potential development of poultry farms in study region. It requires less investment and gives much income in comparison to other industrial activities within very short span of time. Therefore, it is being suggested to start poultry units at every central village.

GOAT AND SHEEP REARING

Goat and sheep rearing is very much beneficial and this occupation suits with the very spirit of rural economy.
Therefore, it is being suggested to start sheep and goat rearing units at every central village.

Some other industrial units based on livestocks like horn-processing and blanket weaving works can be popularised in study area which will provide additional income to the people of countryside.

7.3.1.3 FOREST BASED INDUSTRIES

PAPER MILL

Raw material for paper mill is available in the form of soft wood, bamboo, rice and maize straw and grasses in the study region. Besides, some by products of industrial units like sugar factory and rice mill etc. will also provide raw materials to paper mill. It is therefore, being recommended to install a medium sized paper mill at Colonel Ganj upto 1994-95 and small scale units at Katra Bazar and Paras Pur upto 1999-2000.

SAW MILL

There are 34 saw mills working in the study area. But their spatial distribution is not uniform. Therefore, to fulfil the various wood requirements, it is essential to make saw mills available at every central village.

SERI CULTURE INDUSTRY

The region has rich prospect for the development of seri culture. It can also absorb some surplus man power. State Seri Culture Department provides technical and financial assistance to farmers for establishing seri culture units.

Therefore, a silk reeling, spinning and weaving unit should be established at Colonel Ganj and seri-culture farming
work should be started at large in the study region.

CARPENTARY

The carpentry has been a traditional occupation of carpenters of the study region. But now a days the occupation is in a miserable condition. This trade can be well developed by providing improved tools, technical assistance and training to the carpenters living in almost all the villages of the study region.

Besides, furniture, ban-making, mats and twines and packing cases units can also be established at every central villages in the study area.

7.3.2 DEMAND BASED INDUSTRIES

AGRICULTURAL IMPLEMENTS MANUFACTURING/REPAIRING

The introduction of mechanised farming requires a number of improved tools and implements for agricultural practices and are generally imported from outside the region. Therefore, agricultural manufacturing units should be established at Colonel Ganj, Katra Bazar and Paras Pur upto 1994-95 and at all service points upto 1999-2000.

Further, these implements will require repairing and servicing. Therefore, it is being recommended that general repairing workshops should be opened at Colonel Ganj, Katra Bazar and Paras Pur and repairing centre at every service point upto 1994-95 and repairing shop should be introduced at every central village upto 1999-2000.

SEED PROCESSING UNIT

To make available the processed seeds in required quantity it is being proposed to start seed processing units at
Colonel Ganj, Katra Bazar and Paras Pur.

HANDLOOM AND SPINNING

Handloom industry requires intensive labour and low capital investment and provides ample opportunities for employment. This cottage industry suits with the very spirit of the rural economy. Handloom products suit every mood, every occasion, every season and every purse. Therefore, in rural areas, more and more handloom units should be setup and prospective enterpreneurs should be given liberal loans and grants besides working space for setting up these units (Mishra, 1983). For efficient and prompt working it is essential to ensure continuous and regular supply of yarn at reasonable costs.

At the same time spinning units may also promote economic earnings of the villagers. So such handloom and cottage spinning units should be started at every central village and all other centres of higher order in the study region.

READYMADe GARMENTS AND HOSIERY UNITS

The demand of readymade garments and hosiery goods is increasing day by day everywhere. Consequently, it is being proposed to start readymade garment units at Colonel Ganj, Katra Bazar and Paras Pur in study region.

CARPET, KALEEN AND WOOLLEN PRODUCTS

A considerable quantity of these products is required in study area. Therefore, it is being proposed to establish such units at Colonel Ganj, Paras Pur and Katra Bazar.

BLACKSMITHY

Like carpentry blacksmithy is also an oldest traditional
occupation of rural society of the region but due to advanced technology this occupation has been destroyed. Consequently, it needs some technical and financial help and proper training which should be given to these rural artisans. Improved tools and financial assistance may change their poor working and these traditional engineers may be proved expert mechanics to repair the agricultural implements. Therefore, blacksmithy units should be encouraged at every central village upto 1994-95 and in every village upto 1999-2000.

PLASTIC GOODS UNIT

At present the demand for plastic goods is increasing day by day. It has touched each and every corner of the society. These plastic goods may be prepared into various forms. It opens employment opportunities and strengthens the economic status of the people. Therefore, it is being proposed to establish plastic goods units at Colonel Ganj, Paras Pur and Katra Bazar upto 1994-95 and at every service point upto 1999-2000.

TAT-PATTI UNITS

Today tat-patties are necessary for packing and sacking of several things. Therefore, it is being proposed to start tat-patti units at Colonel Ganj, Katra Bazar, Paras Pur and at every service point upto 1994-95 and at every central village upto 1999-2000.

CEMENT WORK

The modern trend of urbanization and construction of new buildings needs some artistic type of cemented things like zalis, statues and various designs of attractive sceneries.
Besides, to decorate the buildings cement pipes and pillars are in great demand. Therefore, it is being suggested to start cement units at every service centre upto 1994-95 and at all central villages upto 1999-2000.

Other demand based industries to be proposed for the study area are the manufacturing of soap, candle, detergent powder, engineering works, ice candy works and agarbatti making etc. The soap and candle manufacturing units should be located at every central village.

7.4 OPERATIONAL STEPS FOR DEVELOPMENT OF PROPOSED INDUSTRIAL UNITS

For the successful execution of rural industrialization in study region it is essential to locate the rural industrial units in decentralized manner. For proper maintenance and protection of the industries the following operational steps are necessary to be taken-

1- The setting up of industrial units need ample investment of capital and the villagers of the study region are unable to invest in industrial establishment. So our first and foremost duty is to promote these rural folk by assisting them on technical and financial ground.

2- The bureaucratic functionary agencies of government should not become a bottle neck in the way of help and advise to the prospective entrepreneurs. Entrepreneur’s energy and time should not be wasted in running from pillar to post to avail the facilities which the state is providing generously (Mishra, 1983). Therefore, it is being suggested to form a co-ordinating committee in all planning units. At least 50 per cent members of this co-ordinating committee should be elected from local entrepreneurs. Such provision must be illustrated in the constitution of the committee.

3- The areas having rich resources for potential development require decentralized promotional measures.

4- The co-operative industrialization is the best way to develop rural industrialization. So the system of co-operative net work should be evolved in the region to
promote the rural industrialization programme.

5- To accelerate the speed of development of rural industrialization, there must be provision of proper management system and financial assistance because, in backward area the entrepreneurs do not come forward in establishing the industries. So, to encourage them the subsidies and loans on nominal rate of interest should be provided and without banking facility at central village level it would not be possible. Consequently, as suggested in previous chapter, there should be branches of banks at every central village to fulfil the objective.

6- Without marketing and exchange facilities no industrial unit may flourish. To facilitate the entrepreneurs for proper operation of rural industries there must be a Rural Marketing and Exchange Centre (RMEC) at every service point. This RMEC should work under the supervision of co-ordinating committee. The main work of this centre should be the adequate supply of raw material to the rural industrial units and purchasing of finished goods on exchange pattern. The fair working of the working committee is essential. It would be possible only when good workers are awarded or not but bad fairers must necessarily be punished.

7- There should be a regular and proper electricity supply in rural areas on nominal rates.

8- As already mentioned, there should be a proper transport network and communicational facilities for transportation of raw materials and finished goods in the region. These physical infra-structural facilities are quite essential for rural industrialization.

9- Proper training, demonstration / exhibition and prize distribution may play a significant role in rural industrialization and in developing competence and confidence in rural artisans and prospective entrepreneurs. For this purpose farmer's training centres are being proposed to establish at growth points and woman craft training centers at all service points. Job oriented education in colleges may prove fruitful in this regard.

10- The various programmes and schemes like TRYSEM, SELF-EMPLOYMENT without TRYSEM should be reviewed in order to remove its shortcomings so that these schemes could do something good for the sake of rural poor.

From the foregoing discussion it may be concluded that the various industries proposed to be set-up in the study area are based on available local resources, skills and markets. These proposed industries will not only generate employment
opportunities but also raise the level of productivity and earnings of the rural peoples and thus, are fully capable to accelerate the process of economic development and modernization in the study area.
REFERENCES


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