

INTRODUCTION I

It is widely acclaimed that the economic development of developing countries mostly agrarian, should be followed by industrial development. India is predominantly an agricultural country. The majority of its population lives on agriculture. The standard of living, therefore is very low. In order to - change these living conditions, efforts are being made since Independence, to introduce radical agrarian reforms. An agri- -cultural revolution alone will pave the way of a rapid indus- -trial development.

Industrial development has various inherent virtues. It increases the output, generates more income, creates new - employment opportunities and by diffusion of ownership of means of production helps the decentralization of the industries. It can obviously be used as a tool of absorbing surplus - - population from agriculture.

Kolhapur District, as agriculture is concerned, is most favourably placed. The river Panchaganga and its tributaries flow in this region. The Soil is rich. The agriculturists here since long, utilized these facilities for raising cash crops e.g. sugar cane. Formerly, the agricultural operations were - carried on in the customary way, but in recent years they have been adopting modern methods of agriculture, in which tradi- -tional technique was replaced by modern technique of production. Besides they are increasingly making use of machines and the agricultural implements, such as tractors, Oil engines, electric pumps, power tillers etc. The oil engine, in fact substituted - the mhoote and gave a great impetus to irrigation.

The agricultural implements and many other modern means of cultivation can be manufactured in the small, medium and large sized plants, taking into account the needs of cultivators and the size of their land holdings. Industry, in its turn, can help - agriculture in many ways as mentioned below :-

- 1) It provides a market for the surplus agricultural production by placing purchasing power in the hands of the employees
- 2) It supplies requisite inputs needed in agriculture e.g. fertilizers, implements and the machines used in the farm operation.
- 3) It can utilize the surplus income from agriculture, to open employment opportunities by investing the same in various types of industries.
- 4) The establishment of small scale industry can effect decentralization and thus would achieve diversification and diffusion of wealth and economic power.
- 5) It can create - possibilities of reconciling the high productivity with decentralized industrial pattern.
- 6) From the mechanical point of view, the modern industrial technique is most suitable for decentralization in power, transport, communication, interchangeable parts of machinery, close co-operation and the exhibition of individual skill of workers.
- 7) From organizational angle, it may be said that the communications, new ideas in organization in management, labour relations seem more advantageous to small operational units as against the larger factories.
- 8) A large scale development of small units tends to reduce the disparities between urban and rural levels of the standard of living and culture. Education and modern ideas spread along with the industry in the country side. This is a Socio-economic advantage.
- 9) The Small-scale industries absorb a large number persons depending on agriculture and thus raise the number of non-agricultural workers gradually.

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10) Small scale industries play important role in -
' area development ' by linking agriculture and industry.

In India since the 1st five year plan, regular ----
attempts have been made to develop the industrial sector by -
stating ' industrial policy ' or acts, 'Industrial development
and regulation act', The problem of unemployment, regional --
disparities, agricultural self sufficiency are still some ---
important unsolved facts. The industrial development with its
stress on building the infrastructure, like basic, heavy and
engineering industries, on which self-sufficient and broad base
industrial development is possible was emphasized during the
second five year plan.

Thus the needs of agriculture and the support given
to industrial development left its impact everywhere in the -
country. In Kolhapur also we find the efforts of farmers to -
irrigate larger and larger acreage of lands were assisted by
the manufacturers of oil engines. The manufacturers took the -
timely hint of growing demand for oil engines from the farmers.
These manufacturers are mainly small scale industrialists. --
Economies of scale are beneficial to small units.

The small units when they specialize in some - - -

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ancillary items and sell to large firms derive the benefits - of economies of scale in their narrow specialized fields.

The project is based on a survey which I could ---- conduct mainly due to the grant given to me by the university.

I have collected the data and information on some - aspects of existing industrial units in the light engineering sector of Kolhapur city.

I have tried to present an analysis of the nature - of these units and the factors favoring or hampering their -- development. An attempt is made to understand the beginning of transformation of engineering industry from its traditional - pattern to modern Sophisticated stage.

I have tried to suggest scopes and recommend measures for promoting the development of these engineering units.

The study of the engineering industry in Kolhapur - has been undertaken against the background of its topographical and physical and economic aspects, with the belief that these factors have a definite bearing on its growth and scope in -- future.

Coverage :

The production units which are studied include oil

engines, castings, Repairs and spares, job working and -----
finishing, steel welding and fabrication units and units ----
producing flywheels and other. These units including oil ----
engines exhibit ancillary character . Ancillaries are dependent
units of some major oil engine units. An ancillary unit is --
defined as a unit manufacturing parts and components for ----
supply against known or anticipated demand of one or more ---
large units manufacturing / assembling complete products and-
which is not a subsidiary or controlled by any large unit in -
regard to the negotiations of contracts for supply of its ---
goods to any large unit." This definition covers units -----
specializing in and supplying the castings and forgings for the
ancillary or assembling unit is the industry. In Kolhapur ----
there are manufacturers of oil engines 2) assemblers iii) spare
parts iv) and component manufacturers. The first two are known
as manufacturers and 3rd & 4th are called as "ancillaries".

Research Methodology of Survey :

1) First round of the survey.

In the first round of the survey, it was decided to ---
contact small factories by adopting the technique of random -
sampling. In order to prepare sampling frame the register ---

of establishments which is maintained by Kolhapur municipal corporation for the purpose of shop act is used. Since the number of small factories / establishments which are covered under shop act is more than 2500 in 1974-1975 and they are of various types i.e. textile, spinning and weaving, oil engine repairs, spare parts bidi making tailoring, manufacturing of potteries etc. It is found impracticable to use the register as a base for sampling frame. Hence with the prior permission of officers of corporation, engineering establishments (manufacturing establishments) included in the register were properly numbered on the register itself. The total number of establishments so registered is 353. Out of these 353 establishments, 35 or 10% establishments are selected by adopting circular systematic random sampling technique. The factories so selected were contacted later on by investigators and the necessary data were collected with the help of questionnaire.

Second round of survey :

In the second round of survey the factories which are registered under the Factory Act were only taken into consideration. The total number of engineering industries thus registered in 1974-1975 was 144. Out of these 144 factories 14

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or 10% factories were selected at random and data were collected. In the process of preparation of sampling frame the permission of officer of Industry department was taken for using its register. The sampling numbers are marked in the register itself in the --- manner adopted for the sampling frame prepared for first round of the survey.

The survey of the engineering units in Kolhapur was planned in two rounds with objective to collect the data of the small as well as large units , hence factories which are covered under the shop act and factories which are covered under factory act are taken into consideration. " All manufacturing units ---- employing 10 or more workers and using power or 20 or more workers not using power are subject to registration under factories act, and are known as registered units under Indian factories act.

Small scale industry-- Before 1960, Small Scale units were defined as industrial establishments having less than 50 -- workers (if power is used) or less than 100 workers if power is not used and have than Rs. 5 lakhs of fixed capital. Now from 7.50 to 10 lakhs the capital limit is raised. In 1960, the capital -- investment limit was raised to Rs. 10 lakh for units working as --

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ancillaries to large scale industries and producing parts and components of bicycles, automobiles, sewing machines, agricultural machinery etc.

At present small scale units are those units where -- investment in fixed assets in plants and machinery do not exceed rs. 10 lakh, and ancillary industrial units are those undertakings having investment in fixed assets in plant and machinery not -- exceeding ra. 15 lakhs and engaged in manufacture of plants -- components, sub-assemblies, tooling or intermediaries b) rendering of services and supplying or proposing to supply or render 50% of this production or the total services to other units for --- production of their articles".

" In calculating the value of plant and machinery the original price paid by the owner will be taken into account."

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CHAPTER - I

BACKGROUND OF KOLHAPUR DISTRICT .

The district of Kolhapur is one of the constituent districts of the fertile belt areas classified by the Government of Maharashtra . The district is predominantly an agricultural district. In 1973-1974, 43% of national income of the district is generated from agriculture as compared to national average of 43%.

Location :

Kolhapur district lies in the Kvishna Panchaganga basin. It is located between 15⁰ and 17⁰ North latitude and 73⁰ and 74⁰ east longitude. The district forms a part of the Deccan - Plateau in the rain shadow of the sanyadree and is situated at the extreme south of the Maharashtra State. The Physical ---- features of the district are of varied nature, consisting of -- plains, plateaus and hill ranges, The district comprises of 12 talukas. It is bounded on the north by the district of Satara, on the West Ratnagiri District and on the South and the East by the Belgaum district of Karnatak State. It has fairly compact area and its major portion forms an irregualr part of the South Deccan Plateau.

Soil :

Major portion of the district is hilly and ranges and numerous streams, the soil varies from tract to tract.

The district is divided into 3 natural zones.

- a) Mountainous tract of the Western zone.
- b) The fertile central part.
- c) The dry eastern zone.

a) Mountainous tract of the Western Zones.

The area is hilly and receives heavy rain fall.

Lands here are terraced and brought under cultivation for paddy, ragi and millets. Bawada, Panhala, Radhanagari, Shahuwadi ---- tehsils and the Western parts of Ajara, Bhudargad and Karveer tehsils fall in this zone. The soil here is laterite and red - clay.

b) The fertile central zone :

There is brownish well-drained soil in the central part of the district. The farmers here take the crops like rice, jowar, groundnut in Kharif season. Vegetables and Sugarcane are the perennial crops in regions where irrigation facilities are

available. Sugarcane is an assured crop where water is made available for a fairly good period. Hatkanangle, Karveer, - Radhanagari, Bhudargad and Ajara fall in this area, unlike, - the lands in the canal areas. The rich alluvial lands near - Kolhapur do not get cane-sick and hence Kolhapur sugar mills have an advantage over others.

c) The Dry Eastern Zone.

This zone receives sufficient rains to grow crops such as jowar tobacco, chillies. Large stretches of black and medium black soil of fair depth are found here. Sugar cane is grown by lift irrigation. The soils are amenable to irrigation and sugarcane, paddy, vegetables are grown on them, successfully. The soil is deep black. The talukas of Shirol, ----- Hatkanangle, Karveer, Kagal and Gadhinglaj have such soil.

Rivers :

The important rivers of the district are the - Krishna, the Warana, the Panchaganga, the Dudhaganga, the - Vedganga and the Hiraynakeshi. All these rivers cover - south-east, south-west, North-east regions. These rivers have developed the highly significant flood plains and flood -

terraces which are highly prized for soil fertility.

Hill ranges :

Main part of the district is traversed by the Sahyadrian mountains in the west. The major portion of the district is 390 to 600 metres above mean sea level.

Rainfall :

Throughout the district rain falls from May to November. The main rainy Season is from June to October. July is the month of maximum rainfall throughout the district. In October, November rains are scanty when crops need water. The average annual rainfall in the district varies from 525 mm. in Hatkanangle, Shirol area in the north east to over 6200 mm in Gaganbawada area near Sahyadri in the West. About 75% of the district territory receives more than 1000 mm rainfall annually.

The tensils of Ajara, Chandgad, Gaganbawada, Radhanagari, Shahuwadi come in the heavy rainfall tract which exceeds 2000 mm.

The tehsils of Bhudargad and Panhala are covered under large rainfall tracts, receiving rainfall between 1200 mm and 2000 mm.

Sufficient rainfall tract comprises of

Gadhinglaj and Karveer districts where rainfall is between 900mm and 1200mm.

Kagal tehsil receives rather insufficient rainfall between 650 mm and 950 mm.

The tehsils of Shirol and Hatkanangle are ----- included in the poor rainfall tract as rainfall in this area is below 650 mm.

" From this we find that the range between the maximum and minimum is large and varieties of rainfall great. This variation is indeed very great and it is rightly said that in the Kolhapur territory rainfall changes from mile to mile."1

In this situation, the crops do not get sufficient water, so water must be conserved." To get good crops therefore you have either to provide more water by way of irrigation or conserve as much of the rainwater as you can by preventing losses."2

Ref : 1. The late Raobahadar P.C.Patil: " Regional Survey of Kolhapur" Page 39.

2. The late Raobahadur P.C.Patil" Regional Survey of Kolhapur" Page 44.

The rainfall in Kolhapur state, though less subject to great variations from year to year is nevertheless, frequently, -very unevenly distributed, during the latter months of the monsoon. (September and October) Which is the critical time for both rice and jowar crops."

" The main justification for irrigation - - - facilities in the state is therefore to make good the - - deficiencies of rainfall in September and October so as to - ensure good crops in all years. At the same time irrigation - schemes will save the bullock and man labour and economise - cost, due to lift irrigation."3

Thus we find farmers in Kolhapur have been - - trying to control the vagaries of monsoon by supplying water through the use of oil engines and or electric pum-ps. The - area which receives less than 650 mm. water have been - - provided with irrigation facilities and have become - - - - economically better. The important factor behind this change is the manufacturing of oil engines in Kolhapur. The - - - manufacturers rescued the farmers from the difficulties --

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Ref. 3 : The late Raobahadur P.C. Patil "Regional Survey of Kolhapur " Page 46.

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posed by vagaries of monsoon by manufacturing oil engines in their plants.

It is against this background that we will study the development, nature and magnitude of the problems of engineering industry in Kolhapur.
