ABSTRACT

Industrialization is believed to be a definite and quick way to economic development of any backward and under-developed economy in the world. It has therefore been invariably the most predominant component of the historic development strategies in developed countries. The developing countries like India, which are now more or less passing through the earlier stages of economic development in their economic history are seriously opting to the goal of industrialization under the global policies of planned economic development. The Third world countries have observed that there is a strong and positive relation between the wealth and standard of living of a country and the extent of its industrialization. It is a fact that industrialization is a process which increase income levels, productivity, employment opportunities, promotes agricultural development; strengthens foreign trade and strategic industries in the country. Our study is based on the problems of "Capacity Utilization in Selected Basic Industries of India". Basic industries are those industries which provide essential inputs for the development of other industries and the economy or the process of industrialization.
bases upon these industries. The selected basic industries which mainly taken into account such as Power (Electricity), Fertilizer and Cement industries. They have purposely been selected because they provide basic inputs used for the further production. The sectoral development greatly depend upon these products, as fertilizer is most important in growing the farm crops raising the productivity of land. Similarly Power and Cement are both equally important for agricultural and industrial development, that is why their demand and supply both have been increasing faster, compared to other basic industrial inputs.

The objective of the present study is to analyse overall performance of capacity utilization in these three basic industries, namely, Power, Fertilizer and Cement industries. The objective may be categorized under two broad headings:

1) To evaluate overall development and performance of selected basic industries of India.

2) To examine the capacity utilization, problems and government policies in selected basic industries of India from 1980-81 onwards.
The methodology in this thesis is analytical in nature. We have tried to examine the problems relating to the subject with the help of the data, taken from Secondary Sources. Statistical tools have also been used to process the data and to reach the meaningful results.

The entire study has been divided into Seven chapters. A summary of each chapter is given chapterwise in the paragraphs that follows.

**Chapter - II:** This chapter deals the industrial set-up and structure in India in the pre and post-Independence. There was decline of rural and village handicrafts industries during British rule in India. This decay was caused partly due to the competition from British manufactured goods and partly due to discriminatory economic policy of the British Government. The impact of British connection and industrial revolution led to decay of Indian handicrafts industries. Factory system and the pattern of industrialization introduced during the British rule in India served only British interest. It did not result in the industrial development of India. Only few indus-
tries like cotton, jute, iron and steel, sugar, fertilizer and cement etc., developed but a systematic approach to industrialization was lacking, as it would have been against the British interest. There was, thus, lack of development of basic and strategic industries. The country was mainly dependent on imports of commodities meant even for daily use. Just after independence, Pandit Jawaharlal Nehru then, the first Prime Minister of India put great emphasis upon the development of heavy and basic industries that was synonymous to industrialization. Nehru's economic policy helped make remarkable achievements in agricultural productivity per hectare on account of application of seed, fertilizer, technology, building of reserves of foodgrains, a high degree of industrialization especially in the capital goods sector through a leading role played by the public sector. The Government of India introduced several industrial policies since 1948. Besides it the first priority was given to industries in Second Five Year Plan. At that time it was really a bold step for the industrialization and it was called as an ambitious plan. These steps have resulted in the diversification and expansion of India's
industrial capacity and capability. India ultimately became self-sufficient in consumer goods and in basic commodities like steel and cement, while the capacity of new industries like fertilizers is rapidly expanding. The present policy is much more conducive for both domestic and foreign investment than what it had been in the past. However, there are now a host of countries trying to woo foreign investment with much more conducive economic environment in India. Overall the industrial climate is now well developed and more favourable in India in comparison with other developing countries.

Chapter - III: This chapter deals with a certain selected basic industries and their respective role in the development process of a planned developing countries in general and that of India in particular. The selected basic industries are, namely, Power, Fertilizer and Cement industries. Power industry is the most useful, convenient and versatile form of energy. Therefore, demand of electricity has been growing at a faster rate than other forms of energies. Before independence there were a few and small power stations in India which were owned
and operated by private as well as public establishments. The Electricity Act 1948 forms the basis of the administrative structure of the electricity industry. The Act provides for the setting up of a Central Electricity Authority (CEA) and State Electricity Board (SEB) to develop a national power policy and to coordinate the activities of various agencies. Recently Government cleared Foreign Power Projects into different parts of the country. A huge investment of Rs. 265,779 crore has been proposed to be made in the electricity generation projects in the country. There are 280 projects under implementation or in the proposal stage.

Fertilizer has become an international commodity among the all crop production inputs that help to increase world's food supplies. In India the use of chemical fertilizers started at the end of nineteenth century by import of nitrate from Chile. In the beginning, the use of fertilizer was mainly confined to the fertilization of tea and coffee plantations. The first fertilizer produced was single Super Phosphate (SSP) in 1906 at Ranipat in Tamil Nadu. According to the 1956 Industrial Policy
Resolution, Government very much emphasized the production of fertilizers establishing the factories in public sector and allowed the private and cooperative sectors to do the same. Fertilizer industries have shown a remarkable progress and a number of fertilizer factories have been established in every corner of the country. India has been producing only nitrogenous and phosphatic fertilizers and demand for potassic is being met through imports.

Cement industry is important for economic development of every country in the world and it has importance for construction activity on a large scale. The Indian cement industry is the fifth largest producer in the world, with an aggregate turnover of over Rs. 100 billion in 1993-94. Cement industry came into existence in 1904 in India. After independence, cement industry in India is mainly located in Madhya Pradesh, Tamil Nadu, Andhra Pradesh, Rajasthan, Gujarat, Bihar and Karnataka. After decontrol of cement in 1982, India is exporting cement to the neighbouring countries like, Nepal, Pakistan, Bangladesh and Sri Lanka. The cement industry has
achieved a growth rate of 8.3 percent in the current year over the corresponding period of the last year.

Chapter - IV: This chapter analyses the trends of power, fertilizer and cement production, consumption and their exports-imports in India. India has achieved tremendous progress in raising power consumption. In the 1950s, per capita consumption of power in the country was around 16 KWH only. It increased the 283 KWH per capita power consumption in 1992-93. The industrial sector is the largest consumer of power in the country. The demand for power has been increasing rapidly from 120.1 billion KWH in 1980-81 to 378.2 billion KWH in 1995-96. On the other hand supply of power has also been increasing from 104.9 billion KWH in 1980-91 to 351.3 bn. KWH in 1995-96. So far as the generation/production of power in the country is concerned it is some better shape but the supply of power has been very much irregular and defective. Agriculture and industry both faced a lot of problem due to low shedding and timely and untimely cuts. Due to large infrequency in the supply of power our production as well as transportation is very much inversely affected.
Consumption of nitrogenous, phosphatic and potassic fertilizers went up from 69.8 thousand tonnes in 1950-51 to 12,364.4 thousand tonnes in 1993-94. Production of both nitrogenous and phosphatic fertilizers increased from 40.1 thousand tonnes to 9100.9 thousand tonnes in 1993-94. The gap between consumption and production also rose from 29.7 thousand tonnes to 3263.1 thousand tonnes during the same period. This gap is filled by imports of fertilizers in the country. It may be said that increase in demand and insufficient progress in domestic production imports of NPK fertilizers reached as high as 3167.3 thousand tonnes during 1993-94 as against 2960.8 thousand tonnes in 1992-93. The value of imports also increased Rs. 22160.1 million in 1993-94 as compared to Rs. 19341.9 million in 1992-93. The study of the trends in production of fertilizers, their consumption and the imports reveal that Government of India paid its attention to provide more and more fertilizers to the farmers so that their use might be widespread in obtaining the highest possible agricultural production in the country.
India is one of the top eleven producers of cement in the world but currently in 1992, it has attained the fourth position among the producing countries after the USA, China and Japan. Cement production went up 18.60 million tonnes (MT) to 63 MT from 1980-81 to 1993-94 and consumption increased from 27 MT to 60 MT during the same period. It is clear that demand and supply showed a continuous upward trends in the country and production was in surplus. It touched the level of 3 MT in 1993-94. Therefore, India is now exporting cement to the SAARC countries.

Among these three basic industries, namely, Power, Fertilizer and Cement that cement industry has emerged as a most progressive basic industry. During this period the level of its production not only to cater the internal demand for cement but it has also been exporting a good amount of cement to the neighbouring countries. For the country like India it is a good sign of searching out such item for earning some foreign exchange.
Chapter - V: This chapter deals with the utilization of capacity and problems of these basic industries of India from 1980 onwards. The installed capacity of power industry was 30214 MW in 1980-81 and it increased to the level of 81164 MW in 1994-95. The compound annual rate of growth is estimated 6.8 percent of capacity during the same period. On the other hand, production of power increased from 12653 MW to 40071 MW during the year from 1980-81 to 1994-95. The compound annual rate of growth of power generation is estimated 7.9 percent during the corresponding year. The correlation between capacity and production of power industry is 0.93 that shows positive correlation between them. But capacity utilization is only 50 percent on an average during the entire period of study. The capacity utilization of power industry is very poor. The co-efficient of variation in 15 years is calculated 25.07 percent only. There are still a number of problems which adversely affect the capacity utilization of power industry in India. The problems are such as plant load factors, transmission and distribution system, poor quality of coal, irregular transportation facilities, economic pricing and other factors.
The production of fertilizers went from 301 MT to 910 MT and capacity increased from 592 MT to 1133 MT during the same period i.e., from 1980-81 to 1993-94. The correlation between production and installed capacity of fertilizers is highly positive that is the level of 0.98. On the other side the compound annual growth rate of capacity in 14 years is 4.7 percent and 8.2 percent compound annual growth is estimated for production of fertilizer. The capacity utilization of fertilizers increased from 51 percent to 80 percent in the corresponding year i.e. from 1980-81 to 1993-94. In these periods the coefficient of variation in capacity utilization is satisfactory and it becomes the level of 13.43 percent. But there are some problems in attaining the full capacity utilization in fertilizer industry due to power cuts, shortage of supply of raw-materials, equipment problems, etc. Therefore, there is a remarkable progress both in capacity and production of fertilizer industry in India.

Cement industry is well developed in the country and it shows upward trends. Capacity of cement industry touched the level of 79.09 MT in 1994-95 from 26.99 MR in
1980-81. Additional capacity increases yearly during the same period. The compound annual growth rate in 15 years is estimated 7.4 percent. Production of cement increased from 18.60 MT to 65 MT during the period i.e. from 1980-81 to 1994-95. The compound annual growth rate from 1980-81 to 1994-95 is calculated 8.6 percent. The correlation between capacity and production is highly positive and it comes to 0.99. The capacity utilization increased to 82 percent from 69 percent during the same period. The co-efficient of variation of capacity utilization is 7.33 percent. Cement industry in India has achieved tremendous progress as compared to power and fertilizer industry. This progress is mainly due to modernization and decontrol policy of the government. But it is also facing several problems like inadequate and defective method of transportation and railway, power shortage, poor supply of coal, technological problems, etc.

Chapter - VI: This chapter highlights the Government policy of basic industries in India and to make a critically assessment. It also throws light upon the development of power, fertilizer and cement industries.
and protection of the interest of these industries.
The main finding of this chapter about power is that
the recent liberalization of the industrial and economic
policy coupled with amendment to the Indian Electricity
Act 1910 and Electricity Supply Act 1948, have apparently
created the requisite climate and environment for invest­
ment by private companies in power sector. It has ensured
an impressive response to the Government’s package to
attract private capital. The government has so far received
application from the private companies for creating about
25000 MW capacity. A realistic assessment in the Department
of power is that about 5000 MW additional capacity may be
created in the Eight Plan. Government has also introduced
other policies for the development of power industry in
the country. The fertilizer policy is multi-dimensional
and having mainly three objectives namely, raising produc­
tion of indigenous fertilizers, improving the supply condi­
tions and encouraging the farmers to use the larger amount
for raising the productivity and production of agricultu­
ral commodities specially of the foodgrains in the country
through the relaxation in price, subsidy, lead fertilizer
scheme, etc. To put the cement industry on the rapid
growth path, action has been taken at different levels of the government and financial institutions. Government of India made a reasonable policy for the development of cement industry and introduced a number of steps in it as from control to decontrol or free market, relaxation in excise duty, modernization of technology and also provision for some other incentives.

Chapter - VII: The concluding chapter VII is the summary and it contains observations based on the study. After critical study it has been well established that capacity utilization is a major problem of power industry. The problem is not self-confined but similar problem has also been passed on the other two selected industries. If this problem is anyhow solved in the power industry it will ultimately solve the problem of industrialization in other industries also. Therefore it is suggested that modern management system needs to be improved in State Electricity Boards. Maintenance may also be improved through skilled personnel and its proper training may help facilitate in these industries. It is also suggested that for the healthy growth of these industries and its
also needs formulate of agreed policies and programmes. The type of combined efforts through close and constant interaction and better coordination among different organizations of power, fertilizer and cement industries in the country would certainly be highly beneficial to the growth and development of these industries in the nation.