

## Chandrapur District: Impact of the Industrial Development on Agriculture

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### Abstract

Chandrapur district is rich in the angle of occupation and industries, it blessed by the nature for various resources. Chandrapur have (CSTPS) Chandrapur Super Thermal Power Station, Coal Industries, Cement Industries, Iron-ore Industries, Paper Industries, Industries of Defence material etc. only Chandrapur Super Thermal Power Station captured the land under cultivation from 52 (fifty two) villeges of district and made farmers landless. Environmental degradation is increasing only because of industries. These populations are very badly affecting on the health of people. So that Indian Government should accept the "Clean Coal Technology".

**KEYWORDS:**Degradation, Population, Impact, Development, Agriculture, Occupation, Cultivation

### Introduction :

Industrial geography is one of the branches of human geography. Since in the initiative stage of the modern age an industrial geography is the centre of the economic geography and mainly started from the second Five Year Plan. Into the subject of Geography various social and non-social problems are studied and in this thesis mainly the study of the problems related to agriculture land use which raised their head due to industrialization. The impact on agriculture land use started speedily from the industrial revolution. Into the Industrial Geography various geographer had studied about an industry, their location and distribution but some had studied on environmental degradation due to the industry, increasing urbanization and their problems. In this way the study of industrialization has been occurred and so on.

Present topic is the impact of industrialization which is the problem of agriculture land use, but after acquiring the stage of the industrialization it is described the regional and behavioral plight regarding to the urbanization process. Chandrapur is one of the main district of the Maharashtra state, having an area about 11,443 sq. km. It is on the fourth rank about the areal coverage 3.72% of the Maharashtra. In the 1956, Chandrapur came under the jurisdiction of the Mumbai and on 1<sup>st</sup> May 1960 after the formation of Maharashtra state it came into this state and 1964 this district got the name 'Chandrapur' from the previous 'Chanda'.

The district Chandrapur is rich in the angle of occupation and industries, it blessed by the nature for the various resources. Chandrapur have super thermal power station, coal industries, refrigerator, glass factory, plywood factory, cement industries, iron ore industry, paper industry, industry of defence material etc. These industries are increasing day by day, thus the agriculture land use is getting impact. With this aim this research work has been prepared.

### **Study Area :**

The Chandrapur district is one of the most important districts of the Maharashtra state in terms of area and population. It lies, Chandrapur district is situated between  $18^{\circ}41^I$  to  $20^{\circ}50^I$  North latitudes and  $78^{\circ}48^I$  to  $80^{\circ}55^I$  East longitudes, with a total geographical area of 10695 sq. kms. The district has shares the boundary with Gadchiroli district in east. Nagpur and Bhandara district in north Yevatmal district in west and Andhra Pradesh in south and south west Gondia district in north and Wardha district in North West. Chandrapur district has total population of about 2077909 (2001), out of which 67.63 percent live in rural area and 32.37 percent in Urban area. The climate of the district is generally dry except.

### **Data base and Methodology :**

For the present study related data is based on secondary as well as primary data sources i.e. census hand book of 1961-2001 census collected data is processed and presented in tables in the form at percentage and proportions. Processed data is represented through various cartographic techniques. This study of "Impact of industrial development on agriculture in Chandrapur district,". Commodity approach and Regional approach are used for the detail study of various main occupations & agricultural.

### **Objective:**

The objective of this paper is to make the study of impact of industrial development on agriculture and environmental degradation.

### **Discussion of Industrilization :**

Chandrapur district is gifted by the nature for the availability of the resources. In district about 490.22 sq.km. area having the coal deposits, thus the maximum coal mining industries occurred in this zone. Due to the availability of the raw material for the cement industries, as well as other metals such as bauxite, nickel, copper, fluorides, iron ore etc. Here most of the industries are developed. Open and underground coal mines are developed at Chandrapur, Ghuggus, Ballarpur, Majari, Murpar (Chimur). As well as the most popular industry in Asia continent, which is Super Thermal Power Station Chandrapur (CSTPS), Ballarpur paper mill, plywood industry and cement industries are developed at Chandrapur district.

### **Occupational Structure:**

Occupational structure of this district is divided into primary, secondary and tertiary occupation. In the studied period i.e. 1971 to 2001, it is observed that maximum people were engaged in primary and tertiary occupational structure. It is found that, due to the increased industrialization, the percentage of population engaged in tertiary occupation also increased. In comparison to 1991, there is a quite large difference in percentage of tertiary occupation engaged population in 2001.

### **Major and Medium Industries:**

Chandrapur district is known as a district of industries as well as Chandrapur city is known as 'Black Gold City'. There are about 702 industries in the district which are registered in the District Industries Centre, an office of government of Maharashtra. But the numbers of industries in the district are more than 800 as per primary assumption. Many of the industries in the district are depend on the forest product or they are dependent on the coal resources. An estimate of this royalty is about Rs.12,000 crore every year. The biggest industry in Asia of power generation based on coal is also

situated in the city. And it is producing the power about 2340 MW per day Chandrapur district is concern there are four cement industries, two paper industries and six sponge iron industries within the 40 km periphery of Chandrapur city. As well as after taking paddy crop, for the farmers so many rice mills are established in many tahasils.

#### **Industrial Classification:**

Chandrapur district have enormous industries, it is divided into three parts. They are as follows.

- ❖ Large scale Industries.
- ❖ Small scale Industries.
- ❖ Cottage and Rural Industries.

Maharashtra Electromelt, Ballarpur Paper Industry, Ordnance Factory, Western Coal field, Cement Industry, Ballarshah Plywood, Vidarbha Organic Chemicals, Sollar Chemicals, Bashira oil mill, MIDC etc. are the large scale industries in Chandrapur district and about 184 small industries depending on these large scale industries.

In this district Chandrapur region has 35.48% coal mines, Bhadrawati has 19.35%, Ballarpur 6.45%, Warora 6.45%, Ghuggus 6.45%, Rajura 22.59%, Gadchandur 3.23% etc. Chandrapur tahasil has maximum percentage of coal mine industry and Gadchandur tahasil has minimum percentage of coal mine.

Chandrapur tahasil has highest amount of the large scale industries i.e 46.87% and their depended employees are 30.87%, Korpana has 12.50% large scale industries and their employees are 22.73%, Rajura has 9.40% large scale industries and depended employees are 3.02%, Ghugus has 6.25% with the 8.75% employees, Ballarpur has 12.50% with the 28% employees. Chimur, Warora, Brahmapuri and Mul tahasil each has 3.12%, large scale industries while depende employees are 1.12%, 3.72%, 1.54% and 0.25% respectively. In short, Chandrapur tahasil has the maximum percentage of large scale industries compared to Rajura, Chimur, Bhadrawati, Gadchandur, Ghugus, Ballarpur and so on.

Ghugus has 20% large scale cement industries and their depended employees are 21.76%, Korpana has 80% large scale cement industries and their depended employees are 78.24% in Chandrapur district.

Under the Maharashtra Industrial Development Corporation, Chandrapur has 35% industries. MIDC has established in Chandrapur, Warora, Ghugus, Mul, Chimur tahasil.

In chandrapur district about 302 different kind of small scale industries. Chandrapur has maximum 52.73% of small scale industries. Warora, Ballapur and Mul tahasil have 8.60%, 5.96% and 3.31% small scale industries respectively, while Bhadrawati, Korpana and Nagbhid have 2.64% each. Pombhurna, Jivati and Gondpipari tahasil have 1.32%, 0.66% and 0.33% small scale industries respectively as well as Rajura and Chimur tahasil have 1.98%, while Sindewahi tahasil have 2.31% small scale industries.

In case of the cottage industry, Chandrapur district has 43.39% of such type of industries. Bramhapuri, Sindewahi and Warora tahasil have 10.69% 10.06% and 8.80% cottage industries respectively. Nagbhid and Chimur tahasil have 6.28% each while 6.91% in Mul tahasil. Ballarpur and Korpana have 1.88% Rajura 3.21% and Gondpipari 0.62% cottage industries. In Chandrapur district there are 159 cottage industries and 23 rural industries with total 155 employees.

The large scale, small scale and cottage industries of Chandrapur district play an important role in national economy.

### **Impact of Industrialization on agriculture:**

Indian economy is based on agriculture. Agriculture is the main occupation of Indian people. In India near about 70% people are earning their bread and butter depending only on agriculture. Our nation is also earning a big part of economy from this occupation. Not only this but agriculture provides the raw material to the industries. So that agriculture is one of the reason for industrial progress. In India some industries are developed only because of agriculture, in spite of that some industries are depended upon agriculture. Agriculture is one of the important part of Indian economy. Nation is getting 50% part of income from agriculture occupation.. in the year 1948 to 1949 the nation earned 86.5 billion Rs. Out of that 42.5 billion Rs earned from agriculture. In the year 1955-56 the nation earned 145.5 billion Rs. Out of that 68.2 billion Rs. And in the year 1969-1970 the nation earned 311.7 billion Rs. Out of that 137.1 billion Rs. earned from agriculture. Though the nation got 43.7% income from agriculture, 70% people are depend upon agriculture. Generally farming is suitable on the area of plain surface or silent slop area. But in Chandrapur district huge buildings are standing on that plain surface area. So that, the land is not useful for agriculture. Due to industrialization in Chandrapur district, an index of productivity is decreased.

### **Conclusion:**

Chandrapur is the most polluted city in the world and is one amongst the 5 Indian cities having maximum pollution and this been proved by satellite pictures. Only due to the expansion of various industries, the surrounding forest and agricultural area in Chandrapur district is decreased and huge buildings took place of that area. In the period of year 1991 to 2001 the distribution are developing vertically not as horizontally. In the period of 1980 to 2005 land use capacity is increased by 1.03%. in the period of 1951 to 1981 the population growth was normal but industrial growth developed speedily. The population growth rate is very high as compared to national population growth rate.

Under the estimate of Maharashtra Pollution Control Board and IIT'S that Chandrapur has fourth rank about pollution, it is very shocking to the native of this zone. Due to urbanization water pollution, land pollution, air pollution, noise pollution, Marine pollution, Thermal pollution and nuclear hazards, etc. are increasing day by day. Open cast coal mine, MIDC urjanagar, Maharashtra Electros melt Ltd. (M.E.L.) are another reasons of air pollution and water pollution. Air pollution and noise pollution is increasing continuously because of increasing number of vehicles.

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