



---

## Resources Is Engine of Industrial Development

---

S. D. Kamble

Head Dept. of Geography, Shikshan Maharshi Bapuji Salunkhe Mahavidyalay, Karad.

Corresponding Author - S. D. Kamble

DOI - 10.5281/zenodo.14263875

---

### Abstract:

A resource is something that a country has and can use to increase its wealth. The existence or the absence of favorable natural resources can facilitate or retard the process of industrial development and Economic development. Natural Resources include Land, Water, fisheries, Mineral, Forest, Marine, climate, rainfall and topography. Some natural resources such as water, forest, fisheries are renewable other like mineral and mineral oil are exhaustible and can used only once. Industrialization has major role to play in the economic development of countries. Industrialization depends on the existence of favorable resources.

Present paper aim to study existence of land and water resources in Karad (Thasil) and Analysis of large scale sugar industries set up in study region.

**Keywords:** Resources, Industrialization, Economic Development, Large Scale Industries.

---

### Introduction:

Resource's regarding "it is anything directly or indirectly used by human being. It is clear that resources cover broad field. Typically resources are materials, energy services, staff, knowledge or other assets that are transformed to produces benefit and in the process may be consumed or made unavailable. Resources have been variously categorized such as biotic, abiotic, renewable, nonrenewable, potential, actual, etc.

Natural resources are derived from the environment. Many natural resources are essential for human survival, while other are used for satisfying human desire. Natural resources classified in different ways, abiotic resources as like water, land air, minerals. Biotic resource includes forest, and their products, birds, animals.

Typically resources cannot be consumed in their original form, but rather through resource development they must be processed into more usable commodities with increasing population, the demand for resources is increasing. Availability of natural resources can facilitate or retard the process of industrial development and Economic development of country.

### Study Region:

The selected study region for the present research work is Karad Tahsil (Satara dist. Maharashtra). Karad Tahsil is one of the important Tahsil in Satara district. It is situated on confluence of Krishna and Koyana River. The Tahsil extends between 17°18' north to 17°38'

north latitude and 73°52' east to 74°16' east longitude. According to 2011 census there are 217 villages in the Karad Tahsil. It covers an area about of 405.8 sq. km. which is 10.2 percent of Satara district. North– south length of Karad Tahsil is 55km. and East-West length is 36 km. Karad is famous place for its good location in Maharashtra. Total population of study region is 16,30,272 out of these 8,31,465 male and 7,98,807 female.



### Database & Methodology:

The Present study work is based on the secondary source data. Secondary data obtain from censuses of India, socio-economic abstract of Satara district (2011), annual published reports, research papers. Collected data are processed and represented by statistical and cartographic techniques.

### Objective:

- 1) Analysis of land and water resources in study region.
- 2) Analysis of large scale sugar factory in study region.

### Natural Resources in Study Region:

#### 1. Water:

The river is the main water source of the study region. The entire physiography is affected by the drainage pattern. The river and its tributaries covers major portion of the study region and facilitated intensive irrigation.

In the study region, there are five district river basins:-

1. The Krishna River - Flows from Northern part of Karad Tahsil.
2. The Koyana River -Flows to the west and meets to Krishna at Karad.
3. The Tarali River -North —Western part of study region.
4. The Mand River -Flows fast and meets Krishna.
5. The Vang River -South-west portion of Karad Tahsil.

The drainage pattern of study region is well developed. The Krishna is one of the third great rivers of southern India. The entire Tahsil belongs to the larger drainage system of the Krishna River. The Krishna River rises from the eastern part of the old Mahabaleshwar. The river Krishna enters in Karad Tahsil at Gandhinagar near Kashil. The confluence

of Krishna and Koyana rivers is on western side of Karad city. It receives two tributaries from right first is Tarali near Umbraj and another is the Mand near Shivade. Karad is famous for the confluence Rivers The Koyana is the largest river of rises on the west side of the Mahableshwar plateau. The river Vang meets to Koyana at Yervale. Khodashi dam is built was 1868 on Krishna River.

The water is supplied to farms through Krishna canal. The canals are very useful an extensive network and uses to agricultural areas.

## 2. Agricultural Land:

Land provides food to the people as well as provides raw material for theagro based industries like sugar factory, oil mills, cotton mills etc. In the study region Land under Cultivation or net Sown Area is about 74.39 percent of total geographical land. 70 percent people engaged in agricultural activities. Basic economy depends upon agricultural area. Land under forest is about 10.07 percents in the study region. Very less area is covered under forest land in the particular region. Land which is not available for cultivation is 4.18 percents as covered to total geographical area. Fallow land as 10.69 percent in the study region.

### Karad Tahsil: Land Use Pattern

| Sr. No. | Land Use Pattern                   | Area In Hectors    | Percent to Total |
|---------|------------------------------------|--------------------|------------------|
| 1       | Net Sown area                      | 78181.4            | 74.42            |
| 2       | Fallow land                        | 11238.62           | 10.69            |
| 3       | Land not available for Cultivation | 4395.3             | 4.18             |
| 4       | Forest Land                        | 11237.62           | 10.69            |
|         | <b>Total</b>                       | <b>105062 hect</b> | <b>99.98%</b>    |

## 3. Soil:

The soils of Taluka are generally classified into following three main categories.

### 1) Deep Black Soil:

Deep black soil found mainly middle part of Karad Tahsil and along with the Krishna and Koyana River. This soil is usually characterized by a rich and fertile black soil. Organic matter content is high. Its colour is dark gray to dark gray Brown.

### Karad Tahsil: Distribution of Soil

| Sr. No. | Soil Type         | Surface Colour            |
|---------|-------------------|---------------------------|
| 1       | Deep Black        | Black to Dark Gray        |
| 2       | Medium Deep Black | Dark to Grayish Brown     |
| 3       | Deep Laterite     | Yellowish to Redish Brown |
| 4       | Medium Laterite   | Light to Dark Brown       |

Source-Agriculture Office, Soil Dept. Karad

**2) Medium Black Soil:**

Medium Black Soil discovered mainly eastern part of study region. Upper and lower part of Koyana River. Eastern part of medium Black soil locally Known as Malron or Murmmad .The soil is hard and rocky in Shamgaon region. Surli Ghat region and its surrounding area covered medium black soil. Soil colour is dark brown to grayish brown. Nitrogen, organic carbon and phosphorus can yield good produce only if bulky manures. Heavy fertilizers are used and provided a proper irrigation in medium Black soil.

**3) Laterite Soil:**

The colour of late rite soil is red and yellowish Brown. Many parts are locally known as Tamadi. It is found in western part of study region. Especially in mountain range along the Koyana valley. The laterite soils are subjected to heavy rainfall and heavy leaching and high degree of erosion. The reason for the red colour is high content of iron-oxides in the sequin-oxides of at these soils.

**4) Medium Laterite:**

Soil Medium laterite soil the colour of is light brown to dark brown. It is found as mainly North-Eastern part of study region. This region is hilly region and less rainfall. Less organic matter in this soil. But use a heavy fertilizer to land.

**Industrial Development:**

Above analyze resources motivate the industrial development in study region. Water agriculture land resources favorable for growing cash crops. Sugar cane is

major cash crop in study region, due to suitable climatic condition for that. So sugar industries set up in study region and develop gradually. In this research work major large scale sugar industries elucidate as fallow.

**Y.M.Krishna S.S.K.Ltd, Rethre Bk.:**

Y. M. Krishna Cooperative Sugar Factory is established in 1955 at Rethare Bk. in the Satara district. Now day's plant running successfully 10000 T.C.D. This Area produces sugarcane crop. Temperature of this region is minimum 210c and maximum 310c. Deep rich loamy soils and black soil are Ideal for the sugarcane production, the region is covered by black soil. The sugarcane crop needs a fairly large quantity of water. The sugarcane cultivation requires a large quantity of water and Because of uncertain rainfall Krishna Sugar Factory established a Krishna Sugar Factory Irrigation Scheme In 1967. Krishna Sugar Factory Irrigation Scheme is widely spread particularly in the Krishna and Koyana river basin. The total area of this factory is developed in Karad, Walwa and Khanapur tehsil, but the Irrigation scheme is developed only in Karad and Walwa tehsil. The farmers of this region used to make full Use of river water for growing sugarcane. The area was irrigated by lift irrigation scheme. Krishna Sugar Factory lift irrigation was operated on river banks with Jack-well. The management has first constructed the Jack-well at five places. The demand of water supply increased in this region therefore

the management Constructed another ten schemes in this area. Today the management has developed the 15 irrigation sub Schemes for the water supply. In this irrigation scheme taped water from Krishna and Koyana rivers is allowed to reach the field through small channels. In this irrigation scheme high power electric motors are used for taping the water. The total Catchments area of sugar factory is 70000 hectare. In this total area the irrigated scheme covered some 13500 hectare area only. Remaining all the area is irrigated by the private well and lift irrigation, and Commercial irrigation scheme. The scheme has covered 81 villages of this region. In this way water resource fulfill the requirement of plant.

**Sahayadri Sahakari Sakhar Karkhana Ltd. Yashwantnagar:**

Completed all the formalities a foundation stone was laid on sahapur mal (Yashwantnagar, karad) on 08/04/1970, at the auspicious hands of late vasaotraoji naik the chief minister of Maharashtra state and in presence of late Yashwantraoji Chavan finance minister of India.

The area of operation of this factory comprise of following of which the main sugar cane growing villages are within the radius of 15 k.m. from factory. Major river Krishna, Koyana and their tributaries flow through the length and breadth of the victory's area of operation. Total 64 villages include in area of operation of this sugar industries. Govt. of

India issued this factory 6th Aug 1970 to erect plant of 1250 T.C.D. The plant was erected and was commissioned in the year 1974. Due to irrigation facilities and activities led to considerable enhance the area under sugar cane cultivation in area of operation. First crushing season 74-75 sugar cane cultivation in area of operation was 4534 hect. Where as it has increased about 18500 hect at present.

This situation of surplus sugar cane compelled us to undertake expansion of initial project of 1250 T.C.D. First expanded capacity of 2200 T.C.D. started in 1982. Then expansion 2200 to 5000 T.C.D. is functioning well from 1994-95 crushing season. Next expansion of plant for 5000- 7500 T.C.D. Were commissioned on 15th Nov 2000. Now days plant running very smoothly.

**Rayat Sahakari Sakar Karkhana, Ltd. Shewalewadi (Mahasoli):**

Rayat sahakari Sakar karkhana established in 1996 with crushing capacity 2500T.C.D. factory located near undale village. Major river daxin mand and its tributaries. NH-04 is with distance of 19 km from factory.

This sugar factory include in developing stage. Area of operation of this sugar factory is very large, plenty of agricultural land resource. But lake of irrigation facility therefore sugar cane cultivation area is very low. Potential productivity of this area is very high. In future sugar factory may maintain very good production, by fulfilling the require

facilities to enhance the sugar cane cultivation area.

**Conclusion:**

Sugar industries in study region are well established, due to presence of agricultural land and water resources. Industrial development increase employment. In sphere of area of operation of industries new small scale industries and other firm set up and helpful for Economic development of study region. This situation enhances the study region being developed.

**Suggestion:**

In study region plenty of resources for the sustainable development following recommendation are as fallows

1. Do not overuse of water.
2. Protect the agricultural land resource from degradation.
3. Bring maximum area under irrigation.

4. Use ecofriendly techniques for increase productivity.
5. DO not over use of chemical fertilizer and pesticides.

**References:**

1. Ruddar Datt, K.P.M, Sundaram: Indian Economy
2. Dr. B. N. Ghopane: Environmental degradation of river Krishna in Maharashtra: A Geographical Study.
3. Prabhat Patnaik: Industrial development in India since Independence.
4. Rajhans Snehal Makrand: Impact of irrigation scheme on agricultural development: A case study of Krishna sugar factory irrigation scheme, Rethare Bk. Satara dist. Maharashtra.
5. Ravindra Kumar Sharma: Industrial Development of India in pre and post reform period.