



## **A Study of Drainage Pattern in Latur District**

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### **Introduction:**

Drainage is one of the most important components of physical environment, which affects population directly and indirectly. It includes surface as well as underground water flow. It is the result of a combination of numerous factors including climate particularly precipitation, insolation, humidity, cloudiness, wind force and direction, structure and type of rocks, vegetation, soil and human utilization, human obstruction to natural water-flow such as roads, railways, dams and reservoirs also change its nature. Groundwater in fluent becomes the base flow that maintains the flow of streams in fair weather when we speak of surface water we mean stream flow regardless of its source.

### **Objectives:**

The objective of this research paper is to analyse the drainage pattern in Latur district.

### **Study Area:**

Latur District is situated between 17<sup>o</sup> 52' and 18<sup>o</sup> 50' north latitudes and 76<sup>o</sup> 12' and 77<sup>o</sup> 18' east longitudes. It is surrounded by Bid and Parbhani Districts in the north, Nanded District in the northeast, Karnataka State in the south east and Osmanabad District in the south-west and west. The District has an area of 7,157 sq.kms., and as per 2011 Census it has a population of 24,54,196 persons. While the area of the District accounts for 2.33 percent of the total area of the State, the District population constitutes 2.18 percent of the total population of the State. The density of population is 343 persons per sq. km.



Among the 35 Districts of the State, the District ranks 23rd in terms of area, 20th in terms of population and 11th in terms of density. Latur is the headquarters of the District to which it gives its name. Latur city is connected to Kurduwadi by Railway and has a population of 3,82,940 persons.

### **Drainage Pattern in Jalna District:**

The river-wise drainage pattern of the district is explained below.

#### **Manar:**

The Manar is the the northern most river of the district. It rises on the north-eastern slopes of the Balaghat plateau near Dharmapur in Beed district. It flows in the north-easterly course of along 40 kilometers within the district. It continues in this direction into Nanded district as far as Kadhar, after which it flows in as easterly or south-easterly direction to join the Manjara.

#### **Tiru:**

The Tiru river rises on the eastern edge of the plateau near Chakur and has a course of about 56 kilometers within the district. It flows generally eastwards to join the Lendi at kharaka in Nanded district.

#### **Lendi:**

The Lendi river rises similarly on the edge of the plateau near Udgir. Further it flows towards the east and has only a small course within the district. It is joined by the Tiru at kharka in Nanded district and flows past Deglur in Nanded district before it joins the Manjara river.

#### **Devni:**

Devni is the smaller left bank tributaries of the Manjara. It has course of about 20 kilometers within the district. On the south bank of this river, Devni village is situated, famous for its breed of cattle bearing its name.

#### **Manjara:**



Manajara is the main river of the district. The Manjara river rises above Gaurwadi near the northern edge of the Balaghat plateau in Beed district and flows in south easterly direction towards Osmanabad district. It forms the district boundary for the greater part of its easterly course, barring a few deviations of the boundary some to the north and some to the south of the river. Where the Reena river joins the Manjara, the later turns south continuing the direction of this tributary and after Halki flows in a south –easterly course as far as Chichaundi within the district, after which it forms the state boundary as far as Aurad Shajahani. Here it turns eastwards into the Karnataka state.

### **Gharni:**

Gharni is the only river of small size flowing as a left bank tributary of the Manjara. The Gharni river is about 40 kilometers long. It rises three kilometers north of Wadval-Rajura and flows southwards passing by Wadval-Rajura, Gharni, Nalegaon all situated on the western bank. It joins the Manjara river near Jawalga. The Gharni project is situated on the river near Jogial village with both left and right bank canals each of 24 kilometers in length, having irrigation potential is about 2800 hectares.

### **Tawarja:**

The chief right bank tributaries of the Manjara are the Tawaraja and the Terna. The Tawarja river is about 50 kilometers long, rises near Murud railway station. It has a general easterly course till it joins the Manjara near Seoni village.

### **Terna:**

The Terna river, over 150 kilometers in length from the source to its confluence with the Manjara. It has the longest course of all the rivers laying entirely within the district. The Terna project consists of an eastern dam on the river Terna above the village of Thail, south of Dhoki, with only one canal. On the right bank on account of the low relief of the adjoining divides, the dam has



to be very long and of low height giving rise to a storage covering a wide area but of shallow depth.

### **Conclusions:**

The drainage pattern in the district is somehow uneven. Most of rivers in the district become dry in summer season. The water in the rivers should be stopped by building canals, katiwares and other appropriate measures so as to benefit the farmers.

### **References:**

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