



Drainage Pattern of Jalna District: A Study

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Introduction:

Drainage is a comprehensive expression in geography. 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. Drainage is one of the most important components of physical environment, which affects population directly and indirectly. 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.

Study Area:

For the study Jalna district has been selected. The district is located in the central part of Marathwada region in Maharashtra State. It is located between 19⁰15' and 20⁰32' North latitudes and 75⁰36' to 76⁰45' east longitudes. The north-south extension of Jalna district is 150 Kms and east-west stretch of the district is 110 kilometers. Jalna district has a significant location on Deccan plateau. Except Ajanta and Satamala range and river basins, majority part of the district comes under plateau region. The region has major portion under flat topography, hence it supports high concentration of population. Jalna district comprising 8 tahsils, 4 sub-divisions and eight panchayat samities.

Drainage Pattern in Jalna District:

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



Godavari:

The Godavari forms at close quarters the complete southern boundary of the district for about the 100 kilometers and sequesters the district from Beed district. It flows through Ambad, Ghansawangi, and Partur tahsil. Its principal tributaries are Dudhana and Galhati from the central part of the district.

Dudhana :

The largest tributary of the Purna is the Dudhana, which is nearly as long as the main river up to the confluence point. The Dudhana rises above the Kankar village on the northern slopes of the easterly trending off, shoot of the Ellora range forming the divide between this stream and the Sukna. This river flows through Partur, Jalna and Ambad tahsils for a distance of about 126 kilometers. The Dudhana has a further long course in Parbhani district before it joins Purna.

Purna :

The Purna river rises in the Ajanta range about 8 km. northeast of the Satmala hill above Mehur village (Aurangabad district) at the height of about 775 meters and has the longest course of any river within the district. It flows through Bhokardan and Jafarabad tahsils for a distance 93 kilometres.

Musa :

The Musa river rises east of the Ambad hill and flows southwards for a distance about 17 kilometers towards the Godavari and join it at Jogladevi village.

Girja :

The Girja river is the longest tributary of the Purna in the district on the right bank. This river rises on the eastern slopes of the Ellora range to the west of Takali village. It flows through Bhokardan tahsil for a distance of about 23 kilometres.



Galhati:

The Galhati river rises in the Satmala range and flows by Pachud Burung in a southeasterly direction to join the Godavari at Chincholi. The eastern dam of the Galhati project is build across this river downstream of Baraswada village. It flows through Ambad tahsil for a distance of about 34 kilometers.

Khelna :

The head stream of the Khelna river lie within a short distance (less than a km) of those of the *charna* in the Ajanta range. This river flows through Bhokardan and Jafarabad tahsils for a distance of about 41 kilometres.

Dhamna :

The Dhamna rises in the *Lagina* hill in the Ajanta range and flows nearly southwards past Vadhona, Dhamangaon and is joined by the Raighol at Takali. The river forms the district boundary beyond which it flows the outside the district. It flows through Bhokardan and Jafarabad tahsil for a distance of about 50 kilometres.

Kundalika :

The Kundalika river rises further east from Dudhana -Girja divide. After an initial, course in a south – westerly direction up to Ghanewadi, it change into a southeasterly course passing through Jalna town. Dam was constructed near Ghanewadi, which provides water to Jalna city.

Sukna:

The Sukna rises to the west of the course of the course of Lahuki above the Kolthan village and has an initial course parallel to the Rauri river. Sukna flows through Jafarabad and Jalna tahsils.

Jui:

The Jui is an important tributary of Khelna river which rises above Undangaon. It flows through Bhokardan tahsil for a distance of 30 kilometres. Jui project is constructed on Jui river.



Lahuki:

The Lahuki river is a small stream rising near the source of the Dudhana on the southern slopes of the divide. It flows through Jalna district tahsil for a distance of about 20 kilometres.

Jivrekha :

The Jivrekha is the right bank tributary of the Purna. Raising above Longaon. It flows at first in a northeasterly course as far as Akola. After Akola it turns and flows in more northerly course passing by Tembhorni and joins the Purna a little upstream of the Khelna confluence.

Kalyani:

The Kalyani river rises on the same divide further eastward above warud village and flows southward up to Pirkalyan. This river flows through Jalna district for distance of about 32 kilometres. Most of the rivers of Jalna district become dry in summer season. Almost rivers become dry in winter season also. Government should have construct Kolhapur type bandhare's over this river so that plenty of water will be available to the agriculture and other purpose.

Most of the rivers in the district remain dry during summer and winter season. Only few rivers like Godavari, Dudhana has positive effect on irrigation pattern of the Jalna district.

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