

# Distributional pattern of physiographic and drainage system in district Jaunpur

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#### **Abstract**

District Jaunpur has its important very sound and strong historical and Geographical background. Stablished in Sharqui Saltanat. The district four big historical masques says his medieval period historical background. Geographically there are five main rivers flows in the district westward to east ward, which main is Gomati, Sai Basuhi, Barna and Pili. The district altitude varies from 261-290 feet mean sea level. The district slopes in North West to south east. All the river streams present's the Dendritic Drainage patter in the district area.

**Keywords-** Drainage system, geological point, relief feature and physiographic future.

### Introduction

Jaunpur district has an important historical background. In ancient period the district constituted an integral part of the kingdom of Koshala and Vatsa. According to the Hindu mythology the name of Jaunpur is derived from Jamadagni Rishi, who used to live at the right bank of the Gomati River about half way between Jaunpur and Zafarabad. Primarily this place was named after Jamadagni Rishi and was known as 'Jamadagnipur which later came to be known as Jaunpur. The other opinion is that the name of Yamonyayampur' was inscribed one of the pillars of Lal Darwaza Masjid. After some time it changed to Yavanapur' or else Ayothayampur, which might have become Jaunpur subsequently. According to another Muslim evidence the specific reference of its name is found during the time of Feroz Tughlaq. He founded this place in 1350-60 A.D. in honour of his cousin Jauna (Muhammadbin Tughlaq) and commemorated his memory by naming the city after him. This historical evidence is more correct than all other evidences. At present people call this city a historical city Jaunpur. The four big masques-Atala, Jama, Jhanjhari and Lal Darwaza Masjid and a beautiful historical bridge on the

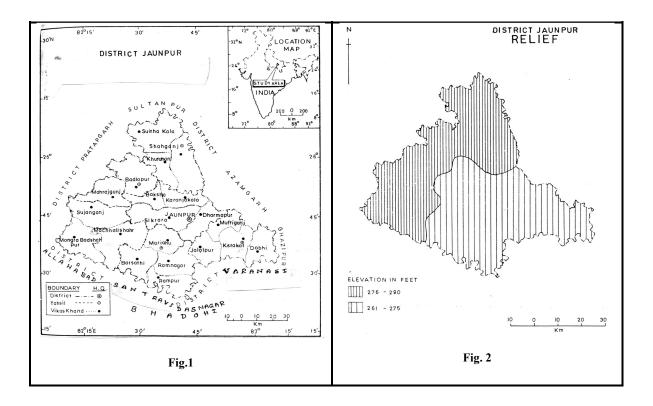
Gomati river shashi Pul and Shashi Quila. Who reminds us of the art and architecture of the Sharqui Kings. These medieval period monuments have important place in districts style of architecture.

### Materials and methods

In this research paper used secondary data of the district statistical year book, Census, National informatics Centre, Jaunpur official website, Gazetteer of the district maps, diagrams topographical sheets of the district Jaunpur. In this research paper main objectives is that to assess the spatial distributional pattern of rivers drainage system is district, Jaunpur. Jaunpur district lies in the eastern part of Uttar Pradesh known as Purvanchal'. It forms the northwestern portion of the Varanasi division and west portion of Azamgarh Davison. The district is situated between the parallels of 25°24' and 26°12' north latitudes and between the meridians of 82<sup>0</sup>07' East and 83<sup>0</sup>05' East Longitudes (Fig. no-1) its covers a geographical area of about 4038 sq. kms, 1559 mile, about 3998.0 sq. kms. Are occupied by rural areas and the rest 40.0 sq. kms by urban areas. Jaunpur district is a perfectly land-locked and its entire boundary is formed by land on all sides. It is surrounded on the North West by the district of Sultanpur. On the West Pratapgarh district on the south-west by Allahabad district, on the south by Sant Ravidas Nagar (Bhadohi) and Varanasi and one the North-East by Azamgarh and Ghazipur district. The Gomati River flows through the district from north-west to south-east direction and divides the district in to two parts. The district has been administratively divided in to six Tehsils and Twenty one development blocks. 218 villages Nayay Panchayats, 2052 Gram sabhas and 3245, inhabited villages and seven towns, among towns. There are three municipal boards' viz. Jaunpur, Mongrabad Shahpur and Shahaganj and five town areas viz. Machhalishahar, Mariahu, Rampur, Kerakat and zafarabad. The district area opens up in a great length, 85 kms. From north to south and widens 90 kms from east to west. However the shape of the district is more or less rectangular (Fig. 1 & Fig. 2).

### **Structure and Geology**

Jaunpur district is a part of the middle Ganga Plain which signifies a vast alluvial stretch between the foot hills of Siwaliks in the north and southern hills and plateaus in the south. This vast alluvial plain was originally an elongated depression between the Gondwana land and the Himalayas in the Pleistocene and sub-recent periods, it was filled up with a huge quantity of alluvial sediments and brought down by the numerous rivers from the Himalayas resulting in to a level plain with very gentle seaward slope. The recent aeromagnetic survey of the Ganga valley throws new light which does not support the possibilities of the frontal plains forming either a fore-Deep' or a deep 'Rift valley' as postulated by Oldham, Suess & Burrard.



The depth of the alluvium is not regular. It varies much from one part to the other; the average depth of the plain has been estimated to be between 1300 to 1400 meters by the survey of India. Besides it is a vast, flat and almost featureless plain with slight undulations caused by rivers and streams that drain the flood plain, buffs belt of ravines and Bad Lands formed by the gully erosion along the rivers is the notice able relief feature.

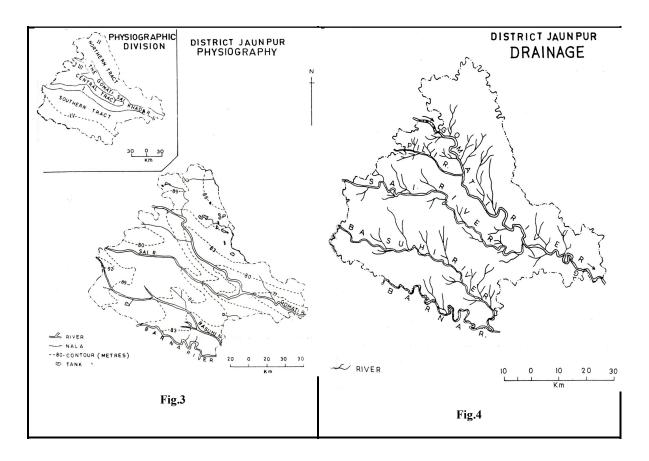
The Geological point of view district's total area is underlain by a thick mantle of quaternary sediments of the Ganga river system. Which has led to the formation of a flat and featureless alluvial plain. In this district the Ganga river system associated with the district main river's like the Gomati, Sai Basuhi, Varuna and Pili. The district river's shows the dendritic pattern .In this pattern all the rivers associated with like a Tree which all the branches of just like attached with the main branch trunk. All the small river's attached in the district main river's like Gomati & Sai who join's the main river Ganga sytem of the north india. The Alluvial sediments are divided in to two types the younger the older alluvium. In the upland areas bankers which are the limestone concentrations are the common sight. The river flood plains exhibit the stretches of sand and clay. The study area slightly slopes from north-west to south-east. (Fig No. 2) Some undulations have been caused by rivers and their tributaries. The average height of the area above the mean sea level is 261-290 feet (85 meters with 92 meters) in the west to 77 meters in the east The Average temperature of district lie between 04.3C (39F.)-44.6°C (111°F.), average rainfall 1098, mm. However, the area is physiographically homogeneous. The

topography of the district is mainly a flat plain with shallow river valleys .Gomati and Sai is the main parental rivers, besides these, Varuna, Basuhi, Pili Mamur and Gangi are the smaller rivers are here. The rivers of Gomati and Basuhi divide the district in to nearly four equal land masses. The soils are mainly sandy, loamy and clayey.Jaunpur district is often affected by the disaster of floods. The economic development of the district is mainly depend on agriculture. The chief cause of this is the absence of heavy and medium and small scale industries. The general physiographic characteristics of the area as discussed above allow for the following physiographic divisions like The Gomati and Sai Khadar, The northem Tract, the Central Tract and The Southern Tract. (Fig. 3)

The Gomati is Chief River of the district, it is the most vigorous and largest in magnitude and coverage. Its master consequent tributary is the Sai and second is the Pili River. The other important river is the Basuhl and the Barna River. These rivers units in the extreme south and eventually discharge their water in to the Ganga river. The Gomati Rivers joins the Ganga on the left side. The Gomati and its main tributary the Sai River run almost parallel to the Ganga river before Sai Joins the Gomati river, but afterward only a few kilometers away from this place to merges with the Ganga river, Thus two broad river systems can be identified in the district Jaunpur drainage pattern. In the district Jaunpur mainly there are two drainage systems like the Gomati and the Sai drainage system and the Basuhi and the Barna drainage systems (Fig No. 4) Annual average rainfall of the district is 1098 mm. Average 46, rainy days per year, 31 occur monsoon season (Fig. 4).

#### The Gomati and the Sal river Drainage system

These two rivers are main drainage channels in the district Jaunpur. The Gomati is the main river of the district with 137 kilometers length. The tributaries are the Sai and Pili rivers. The Gomati is more remarkable river for the length of its course than for its size and beautiful meanders. The main source of this river is in the Pilibhit district. It separates this district from Sultanpur district. Its direction is at first Easterly and then turns South at alamgirpur, Lostly it again takes an Easterly tum and flows in to the Jaunpur district. The Gomati River divides the city Jaunpur in to two parts northern part and southern parts. At Jamaitha on the eastern boarder, it bends southward towards Zafarabad and afterwards it flows south-east in the Kerakat tehsil market area, it leaves the district in the south-east a short distance above its confluence with the Ganga river. The river bank of the Gomati is generally steep and scored by ravines which carry down the water in to the drainage from the land on either side. The Gomati channel is Well-defined and seldom changes its course the other river Sai is master consequent of the Gomati River. It enters the district from western corner of Pratapgarh district and flows eastward direction. Its total length is the district is only 19th kilometers.



It joins the Gomati River near Rajapur village. The course of the river is very tortuous and its river banks are broken by ravines. The other tributary of the Gomati is the Pili River which joins the Gomati at Dariaoganj. It has also a very tortuous course and to banks are fringed with ravines.

### The Basuhi and the Barna river drainage pattern system

The Basuhi and the Bama river is the second main drainage pattern of the district. This system main river is Basuhi which rises in the Machhalishahar tehsil on the Sujanganj block. After entering the Tehsil flow southward and bends south-eastwards for a few kilometers and lastly continues in the same direction through the Machhalishahar and Mariahu tehsils. It forms the boundary between the Gopalpur for as the confines of the Sant Ravidasnagar (Bhadohi) and Varanas districts. Afterwards it tums south and falls in to the Barna Rivers. Its other tributaries are Barna, Arsi and Ghursor are little streams in the only rainy seasons. (Fig. No. 4) The Bama is another important river of this system. It does not flow through this district but for a long distance forms southern boundary. It separates this district from Sant Ravidas Nagar (Bhadohi) and Varanasi districts. After leaving the Jaunpur district it flows eastward through the Sant Ravidas Nagar (Bhadohi) and Varanasi district. The channels of the above rivers present the dendritic drainage pattern is the district Jaunpur. All the main rivers of the Jaunpur district like the Gomati,

Sai, Basuhi, Barna and Pili constract a natural beauty and full coverage of the district area.

### Conclusion

The district of Jaunpur is a part of the middle Ganga plain which signifies a vast alluvial stretch between the foot hills of siwalik in the north and souther hills plateaus in the south. The district western part is elevation of sea level is 276-290 feet and eastem side, 261-275 feet. The Gomati, Sai, Basuhi, Barna and Pili is main rivers of the district, which presents the dendritic drainage pattern system in the district Jaunpur. The district regularly suffers draught and pestilence. The rivers of Jaunpur flow from North West to south east and the land slopes is the same direction. Thus there is a more elevated area in the North West portion and less elevated area of level in the south east portion.

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