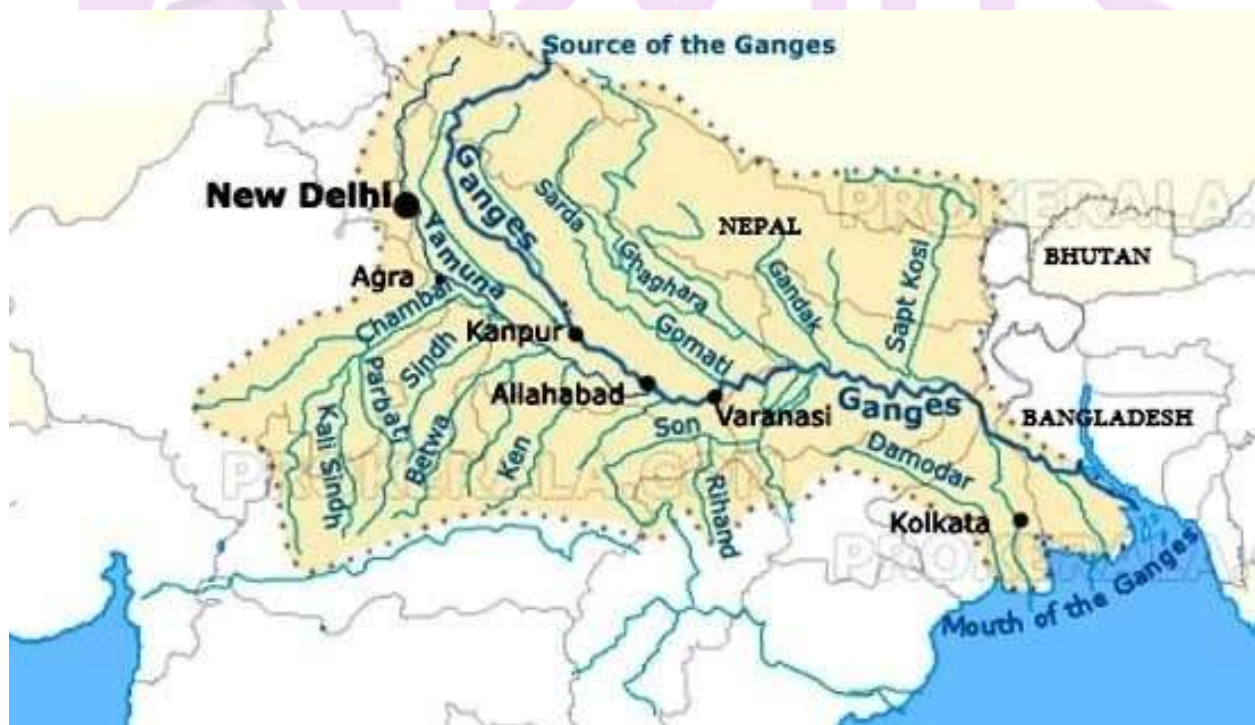


Drainage System of Uttar Pradesh

Geologically, the Uttar Pradesh is part of ancient Gondwana land and the Plateau region in the south is an extension of peninsular India towards the north which is made up of Vindhyan rocks formed in the pre-Cambrian period. The state can be divided into three physical divisions viz., Bhabar and Tarai belt; Ganga-Yamuna plain and Plateau region of the south. In this article, we shall discuss about rivers flowing through Uttar Pradesh irrespective of their origin.

A river is a natural stream of fresh water that has a current moving towards another body of water such as an ocean, lake or another river. A 'river's origin is called its source. Since rivers flow downhill, Origins are usually at high altitudes in the mountains where water comes from the snowmelt or from an underground spring. A river flows between its sides and or banks called its channels. The channel increases its sides as the river gains water from other smaller streams or tributaries. Rivers can be of different sizes, and its journey ends in a lake or a sea at a point called its mouth.



There are around **31 rivers in Uttar Pradesh**, which include both long as well as small rivers. Broadly, the rivers flowing through the Uttar Pradesh can be discussed from three regions, i.e. Himalaya ranges, Vindhya ranges and plain areas. Let us glance through some of the important rivers:



Important Rivers

I. Rivers originating from Himalaya:

The major rivers that originate for Himalayan ranges are- **Yamuna, Ganga, Ramganga, Sharda (also known as Kali), Rapti, Gandak**. The rivers mentioned here are in the direction of **west to east**.

1. **Yamuna:** It is the longest right bank tributary of Ganga and the second longest river after Ganga in the State. It originates from Yamunotri glacier at Uttarkashi in Uttarakhand. In Uttar Pradesh, it enters at Faizabad in Saharanpur. Thereafter, it forms the border between Uttar Pradesh and Haryana. It merges with the Ganga River at Triveni Sangam, Prayagraj, where the Kumbh Mela is celebrated which is a Hindu festival held every 12 years. It helps in the creation of the highly fertile alluvial Yamuna-Ganges Doab region between itself and the Ganges river in the Indo-Gangetic plain.
 - **Major tributaries of Yamuna** are Hindon, Chambal, Sind, Betwa, Ken (mentioned in the west to east order). Among these Hindon is a left bank tributary and the rest are right to bank tributaries of Yamuna. Other left bank tributaries are Rind, Sengar & Varuna.
1. **Ganga:** It originates from Gomukhin Uttarkashi of Uttarakhand and is regarded as the holiest river and revered by Hindus since past several thousand years. It enters the State at Bijnor and leaves the State at Ballia. Likewise, it flows through nearly 28 districts in the State.
 - **Left bank tributaries of Ganga are:** Ramganga (meets Ganga at Hardoi) (Passes through Jim Corbett National Park), Gomti (at Varanasi), Ghagra (at Revelganj in Bihar) and Gandak (in Bihar)
 - **Right bank tributaries of Ganga are** Yamuna (at Prayagraj), Tons (near Prayagraj) and Son (in Bihar) (mentioned in the west to east direction).

II. Rivers originating from Terai or plain region:

Gomati, Varuna and Sai river (mentioned in the west to east direction)

1. **Gomti:** The Gomti, a monsoon- and groundwater-fed river, have its origin at Gomat Taal (earlier known as Fulhaar jheel) near Madho Tanda, Pilibhit, Uttar Pradesh. The river is a tributary of Ganga and is one of India's transcendental rivers. It is monsoon and ground-fed river. The river cuts the Sultanpur district and Jaunpur in half.



2. **Varuna:** The river is a minor tributary of the Ganges river in the State. It originates at Phulpur in the Prayagraj and merges into the Ganges near Sarai Mohana in the Varanasi district. The 6 kilometres stretch between Sarai Mohana and Sadar in the Pratapgarh district is prone to flooding.
3. **Sai:** also known as the Adi Ganga, is a tributary of the Gomti River. It has its origin on the hilltop at Parsoi, in the Hardoi district of UP. It separates the region of Lucknow from Unnao.

III. Rivers originating from Vindhya ranges or the plateau region:

Chambal, Sind, Betwa, Ken, Tons, Son, Rihand (arranged from west to east)

1. **Chambal:** It originates from Janapav hills near Indore in Madhya Pradesh and enters Uttar Pradesh at Etawah district and meets the Yamuna at Muradganj. It is among the major tributaries of the Yamuna river and thus forming a part of the Gangetic drainage system. The flow of the river is north-northeast through Madhya Pradesh, later running for a through Rajasthan, then forming the boundary between the state of Rajasthan and Madhya Pradesh before turning southeast in order to join the Yamuna in Uttar Pradesh state.
2. **Sind:** It is a tributary of the Yamuna River flows through the Indian states of Madhya Pradesh and Uttar Pradesh. It originates on the Malwa Plateau in Vidisha district and flows north-northeast in Madhya Pradesh to join the Yamuna River in Jalaun district, Uttar Pradesh, just after the confluence of the Chambal River with the Yamuna River.
3. **Ken:** It meets the Yamuna at Banda and originates from Kaimur hills in Madhya Pradesh. It is a tributary of Yamuna and is one of the major rivers of a tributary of Yamuna, flows through Uttar Pradesh and Madhya Pradesh. The Raneh falls on the Ken river, and Ken Gharial Sanctuary are tourist attractions.
4. **Tons:** It originates from Madhya Pradesh and meets Ganga ahead of Prayagraj. Belan river is a tributary of Tons.
5. **Son:** It originates from Amarkantak hills from Shosakund flows through Sonbhadra in Uttar Pradesh and meets Ganga in the west of Patna. Rihand is a tributary of Son and meets at Sonbhadra.
6. **Rihand:** It rises from Matiranga hills, in the region south-west of the Mainpat plateau. It is a tributary of the Son River and flows through Chattisgarh and Uttar Pradesh.

Other important rivers in the State are:

1. **Hindon:** It originates in Saharanpur district, from upper Shiwalik in Uttar Pradesh. It is a tributary of the Yamuna river. The river finds its mention in



the Indus Valley Civilization as some settlements were found north to this river in the excavation. Hindon meets the Yamuna at Noida. The Hindon air-force Base of the Indian Airforce lies on its bank in the Ghaziabad.

2. **Ghagra:** It is a perennial river originates near Mansarovar Lake, joins Sharada river at Brahmghat in Uttar Pradesh. Ghaghara River joins Ganga at Dariganj, Bihar. It is the largest tributary of Ganges in terms of volume. The upper course of the river is famous for Gangetic dolphins.
3. **Ramganga:** The river has its origin at Doodhatoli ranges in the district of Pauri Garhwal, Uttarakhand. It is the first major tributary which joins the Ganges River. Ramganga dam is constructed on this river. It flows completely in two states of Uttrakhand and Uttar Pradesh.
4. **Betwa:** It enters Uttar Pradesh at Lakhimpur district and meets the Yamuna near Hamirpur.
5. **Sarayu:** it flows through the Uttarakhand and Uttar Pradesh. The Sarayu river forms at the confluence of Ghaghara and Mahakali River in Bahraich district. The Sharda or Mahakali River forms the western Indo-Nepal border. The historical city of Ayodhya is situated on the banks of the river Sarayu.
6. **Tamsa:** The river rises in a tank at Tamakund in the Kaimur range. It is a tributary of the Ganges flowing through the Indian States of Madhya Pradesh and Uttar Pradesh

