

The drainage system falling in Arabian Sea

The total area drained by this system is very small as compare with the area drained by the drainage system falling into Bay of Bangal.

Rivers draining Himachal Pradesh, Jammu and Kashmir and the Punjab states flow generally westwards. Rainfall in the Punjab Haryana plain decreases sharply towards the west. Small streams after leaving the swalik Range there for fail to continue for a long distance and lose themselves in the Punjab Haryana plain after traversing about 35km or so. Owing to progressive desication towards the west, streams do not originate in the Himalayas and traversing this plain, therefore do not receive tributaries and their water levels falls as they flow westwards. The Indus the Jhelum and the Chenab in Jammu and Kashmir, the Ravi, the Bias and the Sutlej in Himachal Pradesh and the Punjab form important river systems of Trans Himalaya or Himalaya origin.

1. **The Indus:** After originating from the northern slopes of th Kalash range (Tibet). The northern slopes Tibet and Ladakh. It follows a long and nearly straight course in Ladakh running between the Ladakh range and the Zasker range here the gradient of the rivers is quit gentle (about 30 cm/km). The Shyok and the Gilgit are its important right bank tributies. After crossing the Himalaya through a very deep gorge (5181 meters at Bunji north of the Nanga Parbat). It turns to the south west and enters Pakistan. Like the Ganga and other rivers having their sources in the trans-Himalaya regions, it has developed antecedent drainage in Jammu And Kashmir State. It leaves the mountains at Attock and flows roughly southwards until it falls into the Arabian Sea near Karachi. It has a length of 2897 km from its source to the Arabean Sea.
2. **The Jhelum:** It rises in a spring at verinag situated in the south eastern part of the Vale of the Kashmir. It flows northwards from its source to Wular Lake and further down south west ward until it enters a gorge cut by this rivers in the Pir Punjal Range. The gorge lies between Burmula and Muzaffarabad. Its gradient is gentle in the Vale of Kashmir and is navigable between Anantnag and Barmula. It turns to the North West below Uri and to the south below Muzaffarabad and continues until Mangla is reached. Its right bank tributary, the Kishan ganga joins at Muzaffarabad. Between muzafarabad and Mangla it runs roughly along the Indo Pakistan border. It joins the Chenab near Jhang in Pakistan.
3. **The Chenab:** The Chenab of Jammu and Kashmir state is known as the Chandrabhaga in Himalachal Pradesh. Thechandra and the Bhaga, the head streams of the chandrabhaga originate from either side of the Bara Lacha Pass in Lahur. The Chandrabhaga flows north-westwards and runs parallel to the pir panjal Range for some distance. Near Kishtawar, it cuts a deep gorge in the Pir Panjal Range and turns south wasrds and flows in this direction for a short.
4. **The Ravi:** The source of the rivers lies near the Rohtang pass. It flows to the North West from its place of origin and drains the area lying between the south eastern parts of the Pir Panjal range. Some distance below chamba, it turns to the south west, cuts a gorge In the Dhola Dhar range and enters the Punjab plain near Madhopur. Before entering Pakistan, it rums almost along the northern boundary of Gurdaspur and Amritsar district. It being a part of Indo- Pakistan

boundary, the river has some strategic significance. It joins the chea in Pakistan. Its total length is 720 km.

5. **The Beas:** It originates from a place known as Beas kund, near the Rohtang Pass. In its early stage it runs from north to south part. Manali and Kulu where its valley is popularly known as the Kulu Valley. It crosses the Dhauladhar range through a deep gorge. Further down, it turns to the west and enters the Punjab plain near Murthal. Since some of its tributaries originating from the southern side of the great Himalaya are snow fed, it has relatively a large volume of water even during the long dry season. It joins the Sutlej near Harike after flowing for a distance of 615 km.
6. **The Sutlej:** It originates from Rakas Lake which is situated at an altitude of 4555 m in Tibet. This lake is connected with Maunsasowar Lake by a stream. It follows north-westward and enters Himachal Pradesh at the Shiphi Pass. Farther down it flows westwards. It cuts deep gorges where it pierces the Himalayas and other ranges of Himalayas. Before entering the Punjab plain it cuts a gorge in the Naina Devi Dhar (Hill range). A dam has been called Bhakara Dam. After entering the plain it turns to south. Below Rupar it turns to west. The Beas, its right bank tributary joins the Harike. A short distance below Harike the Sutlej runs almost along the Indo Pakistan near Sulemanki. This is of immense value for the Punjab Haryana plain for it provides electricity as well as irrigation to this plain.
7. **The Luni:** Its source lies near Ajmer in the Aravali range. It flows south westward and falls into the Rann of Kutch. Its water below Balotra is brackish very few streams join its right bank. The Bandi, the Sukri, the Jawai, are its important left bank tributaries. These tributaries drain the western flank of the Aravali range south of Ajmer. Though it has little water during the long dry season upper course of its left bank tributaries are intensively tapped for irrigation land mainly during summer some season.
8. **The Narmada:** It takes its rise in the Amarkantak plateau in Madhya Pradesh and flows towards the west. Near Jalalpur it makes a water fall about 10 meters high and flows in a narrow gorge about 3 km long. The gorge being composed generally of marble it is popularly known as Marble Rocks.