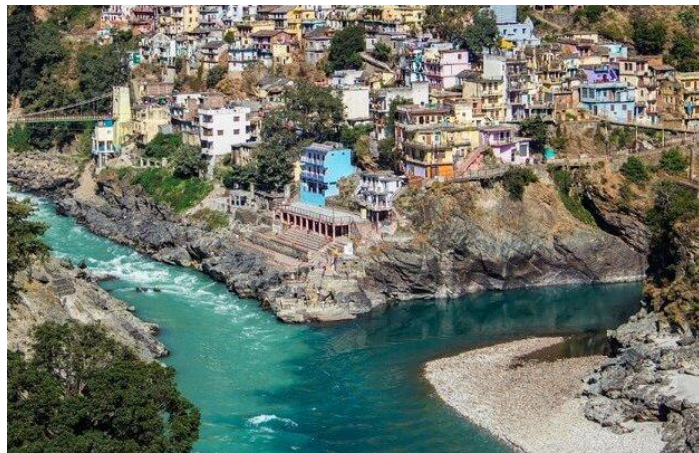


# Riverine System of India

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# **Inland Capture Fisheries**

- **Riverine Fisheries**
- **Lacustrine & Reservoir Fisheries**
- **Estuarine Fisheries**

# River

- A natural stream of water of fairly large size flowing in a definite course or channel or series of diverging and converging channels.

# Type of Stream/River on the basis of Origin

- **Runoff canalised to small gullies with joins to make larger channels and rivulets. Rivulets finally converge to form brooks which leads to large stream.**
- **Origin**
  - 1. Antecedent type (eg: Ganga, Brahmaputra)**
  - 2. Consequent type (eg. Satluj, Kosi, Gandak)**

# Type of Stream/River on the basis of Continuity of Flow

- Permanent Stream
- Intermittent Stream
- Interrupted Stream

# Type of Stream/River on the basis of Age

- **Youthful river:** A river with a steep gradient that has very few tributaries and flows quickly. Its channels erode deeper rather than wider. Examples are the Brazos, Trinity and Ebro rivers.
- **Mature river:** A river with a gradient that is less steep than those of youthful rivers and flows more slowly. A mature river is fed by many tributaries and has more discharge than a youthful river. Its channels erode wider rather than deeper. Examples are the Mississippi, Saint Lawrence, Danube, Ohio, Thames and Paraná rivers.
- **Old river:** A river with a low gradient and low erosive energy. Old rivers are characterized by flood plains. Examples are the Yellow, lower Ganges, Tigris, Euphrates, Indus and lower Nile rivers.
- **Rejuvenated river:** A river with a gradient that is raised by tectonic uplift. Examples are the Rio Grande and Colorado River.

# Zonations in River

- **The *crenon***

The uppermost zone at the source of the river. It is further divided into the **eucrenon** (spring or boil zone) and the **hypocrenon** (brook or headstream zone). These areas have low temperatures, reduced oxygen content and slow moving water.

- **The Rhithron**

Upstream zone, the low temperature and turbulence and high oxygen level are main characteristics of rhithron

- **The Potamon**

Downstream stretch, It combines both lentic and lotic waters and is more complex than rhithron. There is usually a well-defined river channel flanked by a flood plain. Low oxygen, slow flow, sandier bottom

# **River System of India**

- **The Ganga River System**
- **The Brahmaputra River System**
- **The East Cost River System**
- **The West Coast River System**
- **The Indus River System**



# The Ganga River System

- Constitute the largest river system in India
- The total Length of about 8047 Km.
- Flows in the state of Uttarakhand, Haryana, U.P. Bihar, West Bengal, Madhya Pradesh & Parts of Rajasthan
- Two main river: Ganga & Yamuna
- Tributaries of Ganga: Ramganga, Gomati, Ghaghara, Gandak & Kosi
- Tributaries of Yamuna: Chambal, Betwa, Ken, Tons, Son

# The Mighty Ganga

- Perennial River
- Origin: Gangotri  
(3129 Km above msl)
- Length: about 2,290 Km
- Largest river of India



# The Yamuna

- Perennial
- Origin: 8 Km north of Yamunotri Hot spring
- Length: 1000 Km
- Joins Ganga at Allahabad (U. P.)



# The Brahmaputra River System

- **Length:** 4,696 km
- **Origin:** Manasarovar Lake region near the Mount Kailash
- This river is known as **Yarlung Tsangpo River** in Burang County of Tibet
- It flows southwest through the Assam Valley as Brahmaputra and south through Bangladesh as the Jamuna
- In the vast Ganges Delta, it merges with the Padma, the popular name of the river Ganges in Bangladesh, and finally, after merging with Padma, it becomes the Meghna and empty into Bay of Bengal
- **Major tributaries:** Lohit River, Dhansiri River, Kameng River, Manas River, Teesta River and Subansiri River



# The Indus River System

- Rivers: Jhelem, Satluj, Beas, Ravi

Major Rivers of Indus River System	Source	Length
Indus	Glaciers of Kailas Range (Close to Manasarovar Lake)	2880 km total. 710 km in India
Jhelum	Verinag	720 km
Chenab	Bara Lacha Pass	1180 km
Ravi	Near Rohtang Pass	725 km
Beas	Near Rohtang Pass	460 km
Satluj	Manasarovar-Rakas Lakes	1450 km total



# **The East Cost River System**

- Length: **6437 Km**
- Rivers: **Mahanadi, Godavari, Krishna, Cauvery**

# **The West Cost River System**

- Length: **3380 Km**
- Rivers: **Narmada & Tapi**