

CLASS 9 GEOGRAPHY

DRAINAGE





# **One Shot Live Revision Series**

Date	Class 10 <sup>th</sup> Live @ 6:00 PM Daily	Class 9 <sup>th</sup> <mark>Live</mark> @ 8:45 PM Daily
17 Sep 23	The rise of nationalism in Europe	The French Revolution
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19 Sep 23	Power Sharing	What is democracy? Why democracy?
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26 Sep 23	Water Resources	Drainage



Introduction



**Drainage system in India** 

**Himalayan rivers** 

**Peninsular rivers** 

Lakes

**Issues associated** 



- Role in economy
- River Pollution



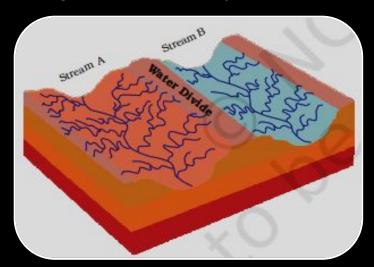
### **Key concepts**

**Drainage basin** 

It is called catchment area where all the precipitation gets collected and drains off into a common outlet forming a drainage basin.

Water divide

Any elevated area, such as a mountain or an upland, separates two drainage basins. Such an upland is known as a water divide.





# The Indian rivers are divided into two major groups.

# **Himalayan rivers**

- These rivers originate from the lofty ranges of the Himalayas.
- They have large basin and catchment area.
- They form deep I-shape valleys known as Gorge.
- These rivers are known as Perennial and water flows throughout the year.
- They are considered to be in a youthful age.
- These rivers form meanders and often shift their courses.
- They also create big deltas at their mouth.

### **Peninsular rivers**

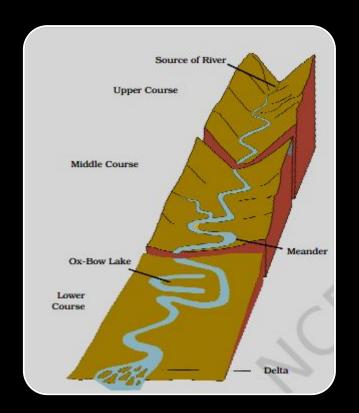
- These rivers originates in the peninsular plateau, They consist of small basin and catchment area
- They mainly flow in shallow valleys.
- These rivers mostly flow in the rainy season, as they are rain-fed.
- Some of them originate in the central highlands and flow towards the west
- They do not form meanders and flow more or less in a straight course.
- They create smaller deltas and estuaries.



# **Life of a Himalayan Rivers**



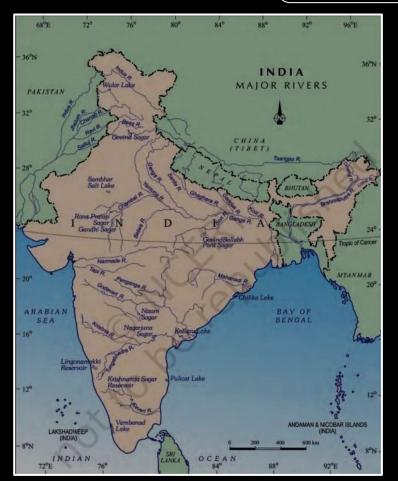
- They perform intensive erosional activity in their upper courses and carry huge loads of silt and sand.
- In the middle and the lower courses, these rivers form meanders, oxbow lakes, and many other depositional features in their floodplains.
- They also have well developed deltas.





### The Himalayan rivers - The Indus River system

- It rises near lake Mansarovar in Tibet and enters India in Ladakh.
- Several tributaries, the Zaskar, the Nubra, the Shyok and the Hunza, join it in the Kashmir region.
- Indus is joined by rivers Beas, Satluj, Ravi, Chenab and Jhelum near Mithankot (Pakistan).
- Its total length is 2,900 km, which makes it one of the longest rivers of the world.
- Indus Water Treaty (1960): India can use only 20 per cent of the total water carried by the Indus river system. This water is used for in Punjab, Haryana and the southern and the western parts of Rajasthan.







### The Himalayan rivers - The Ganga River system

- The headwaters of the Ganga are known as **Bhagirathi**.
- Bhagirathi is fed by the Gangotri Glacier and joined by the Alaknanda at Devaprayag.
- Tributaries of Himalayas Ghaghara, Gandak and Kosi meet Ganga.
- Ganga joins the river Yamuna at Allahabad. Yamuna arises from the Yamunotri Glacier in the Himalayas.
- Other tributaries Chambal, Betwa and Son come from peninsular uplands to join Ganga.
- Brahmaputra joins Ganga and flows into the Bay of Bengal.
- The delta formed when the Ganga and the Brahmaputra flow into the Bay of Bengal is known as the......









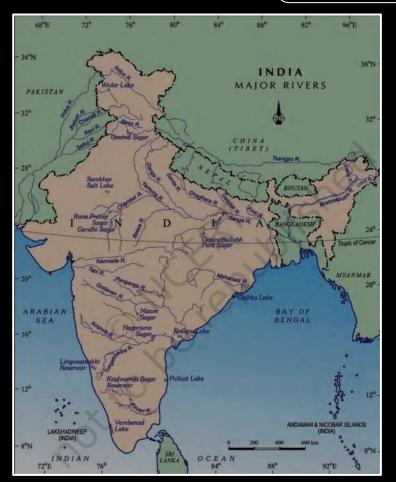






# The Himalayan rivers - The Brahmaputra

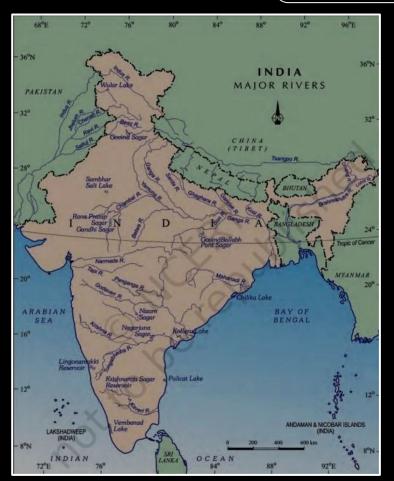
- The Brahmaputra rises in Tibet east of Mansarowar lake very close to the sources of the Indus and the Satluj.
- It flows eastwards parallel to the Himalayas. On reaching the Namcha Barwa (7757 m), it takes a 'U' turn and enters India in Arunachal Pradesh through a gorge.
- It is called the Dihang and it is joined by the Dibang, the Lohit, and many other tributaries to form the Brahmaputra in Assam.
- The Brahmaputra has a braided channel in its entire length in Assam and forms many riverine islands.
- The Brahmaputra is marked by huge deposits of silt on its bed causing the river bed to rise.





#### The Peninsular rivers: The Narmada basin

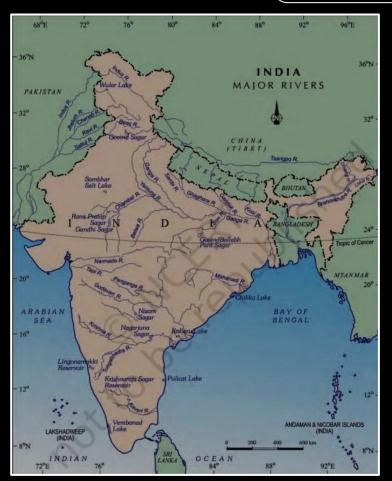
- It originates in the Amarkantak hills, and flows and creates a gorge in marble rocks of Madhya Pradesh.
- It mainly flows towards the west in a rift valley formed due to faulting.
- On its way to the sea, the Narmada creates many picturesque locations. (Marble rocks, Dhuadhar falls)





# The Peninsular rivers: The Tapi basin

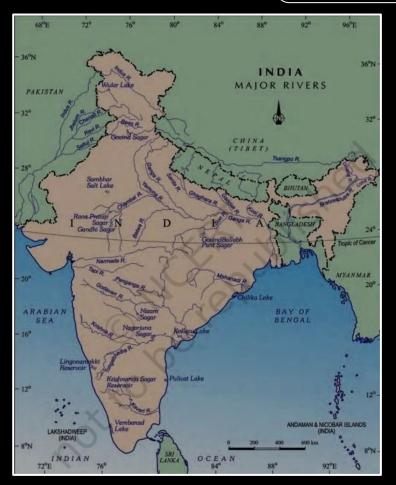
- Tapi rises in the Satpura range, in the Betul district of Madhya Pradesh, and flows through a basin that covers Gujarat, Maharashtra and Madhya Pradesh.
- The coastal plains between Western Ghats and the Arabian Sea are very narrow.
- The main west flowing rivers are Sabarmati, Mahi, Bharathpuzha and Periyar.





#### The Peninsular rivers: The Godavari basin

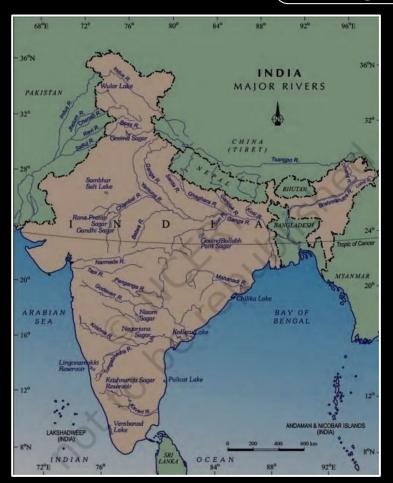
- The river originates from Nasik district of Maharashtra.
- It is the largest peninsular river.
- Godavari is joined by many tributaries such as Purua,
   Wardha, Pranhita, Manjra, Wanganga and Penganga.
- It is also known 'Dakshin Ganga' it drains into the Bay of Bengal Its length is about 1500 km.





### The Peninsular rivers: The Mahanadi basin

- It is 860 km long river, which rises in Chhattisgarh and flows through Odisha and drains into the Bay of Bengal.
- Its river basins are Maharashtra, Odisha,
   Jharkhand and Chhattisgarh.





#### The Peninsular rivers: The Krishna basin

- Rising from a spring near Mahabaleshwar, the Krishna flows for about 1400 km and reaches the Bay of Bengal.
- Bhima, Musi, Ghatprabha, Koyna and Tungabhadra are its tributaries.
- The Krishna basin is shared by Andhra Pradesh,
   Karnataka and Maharashtra.

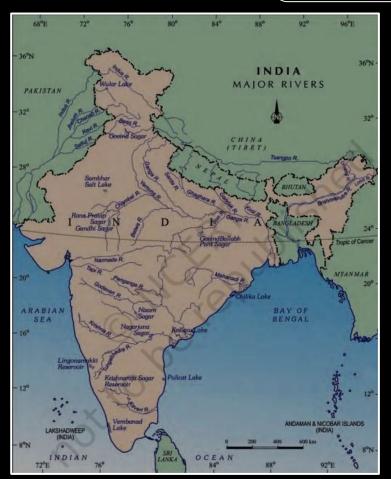






#### The Peninsular rivers: The Kaveri basin

- It originates in the Brahmagiri range of the Western Ghats, and drains into the Bay of Bengal sharing its basin with Karnataka, Tamil Nadu and Kerala.
- Its main tributaries are Amravati, Bhavani, Hemavati and Kabini.
- The total length of the river is about 760 km.





# Lakes

# Lakes plays a very Important role in our life -

- Tourist centres and enhances natural beauty.
- Habitat for aquatic life.
- Helps to regulate the flow of a river.
- Prevents flooding and supplies water during dry season.
- Used for developing hydel power.
- They moderate the climate of the surrounding.





India has many lakes 

 They differ from each other in variety of ways.

Some are Permanent

**Salt water Lakes** 

Some contain water only during rainy season

**Fresh water Laker** 

# Depending on the formation lakes are:

**Glacier Lakes** 



**Oxbow Lakes** 



Lagoons



**Inland drainage Lakes** 





# Role of rivers in the economy

- Rivers have been of fundamental importance throughout the human history.
- The river banks have attracted settlers from ancient times.
   These settlements have now become big cities.
- Using rivers for irrigation, navigation, hydro-power generation is of special significance.

River pollution



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# STAY CONNECTED

**KEEP LEARNING** 

