

Map Class 08

20th May, 2024 at 1:00 PM

RIVERS OF INDIA (1:22 PM)

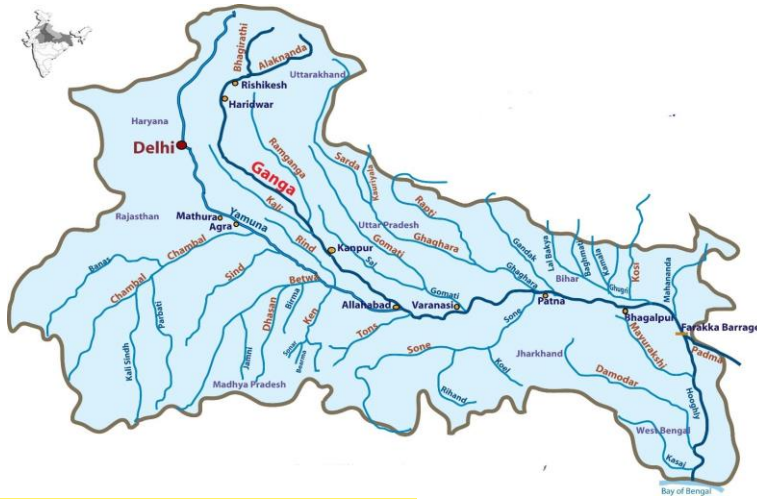
- **Himalayan Rivers:**
- **1. Indus:**
- Originates near **Mansarovar**.
- It drains into the **Arabian Sea**.
- Indus enters India near Demchok.
- It passes through the region between **Ladakh** and **Zaskar**.
- **Tso Moriri** is a Ramsar Site.
- **Tso Kar** is also a Ramsar Site.
- Black-Necked Crane is found in the Tso Kar region.
- **Hemis National Park** is located here.
- **Zaskar River** is one of the earliest **left-bank** tributaries of the **Indus**.
- **Shyok River** originated from **the Rimo glacier** near Siachin.
- **Gilgit River** joins the Indus in POK.
- The Kabul River comes from Afghanistan and joins the Indus in Pakistan.
- **Five major tributaries of the Indus:**



- **i. Jhelum:**
- It originates from **Verinag** in Jammu and Kashmir.
- **Wular Lake** is located on Jhelum.
- Wular is a Ramsar site.
- **ii. Chenab:**
- It originates from Himachal Pradesh.
- It merges with Jhelum in Pakistan.
- **Chenab** is made of two rivers named **Chandra and Bhaga**.
- **Chandra** originates from the **Chandratal** and Chandratal takes its water from **Barashigri**.
- Chandratal is a Ramsar site.
- **Bhaga** originates from **Surajtal**.
- **Cold Desert Biosphere Reserve** is located in Himachal Pradesh.

According to Indus water treaty we cannot use upper three rivers (Indus, Jhelum and Chenab) except run on water projects and we can use lower three rivers completely.

- **Pin Valley National Park** is also located in this Biosphere Reserve. (Snow Leopard found in this region)
- **Kibber Wildlife Sanctuary** is also located here.
- **Dachigaham National Park** is known for **Hangul** and is located in **Srinagar** region.
- Kishanganga Project is a run-on river project and is on the ~~Niam~~ River (one of the tributaries of Jhelum).
Nelam is known as Kishanganga. Nelam
- **River water projects:** (on Chenab)
 - a. **Pakkal Dul** on a tributary of Chenab
 - b. Kwar on Chenab Pakkal Dul in RKB
 - c. Ratle on Chenab India highest Railway Bridge (359m) is built on Chenab to connect Jammu and Srinagar.
 - d. Baglihar on Chenab Amarawati comes from Amarnath is also a tributary of Chenab.
- **iii. Ravi:**
 - It originates from **Kullu hills** in **Himachal**.
 - it flows between the **Pir Panjal** and **Dhauladhar** ranges.
- **iv. Beas:**
 - It originates from the **Rohtang Pass**.
 - **Pong Dam** is constructed on the Beas River.
 - **Pong Reservoir** is a Ramsar site.
 - The entire stretch of the Beas River in the Punjab plains is a **conservation site** and is a Ramsar site.
- **v. Satluj:**
 - It originates in Tibet from the **Rakshas Tal**.
 - **Nangal Reservoir** is a Ramsar site.
 - Satluj flows at first west-northwest for about 260 km to the **Shipki La** pass, entering India in Himachal Pradesh state.
 - The Satluj River sand is said to have **Tantalum** mineral in it.
 - Tantalum mineral is used in the electronics industry.
 - **Harrike Barrage** is a Ramsar site.
 - **Renuka Wetland** is in Himachal Pradesh and it is the **smallest** Ramsar Site in India.
- **2. Ganga:**
 - ~~It originates from the Gangotri glacier~~
 - **Dhauli Ganga** comes from the Niti pass.
 - Alaknanda originates from the Sartopanth glacier.
 - **Rishi Ganga** comes from the **Nanda Devi glacier** and the region around it is the Nanda Devi Biosphere Reserve.
 - **Valley of Flowers National Park** is in this Biosphere Reserve.
 - **Dhauli Ganga** confluence with **Alaknanda** at **Vishnu Prayag**.
 - **Josh Math** is located around **Vishnu Prayag**.
 - **Nandakini** merges with **Alknanda** at **Nanda Prayag**.
 - **Pindar Ganga** originates from the Pindari glacier and merges with **Alaknanda** at **Karna Prayag**.
 - **Mandikini** merges with Alaknanda at **Rudra Prayag**.
 - **Bhagirathi** merges with the Alaknanda at **Deva Prayag**.
 - Ganga's name is given to this river from **Deva Prayag**.
 - **Gangotri National Park** is around the Gangotri region.
 - **Rajaji National Park** is around the region of **Rishikesh** and **Haridwar**.
 - Ganga flows majorly from 5 states namely Uttarakhand, UP, Bihar, Jharkhand, and West Bengal.
 - The upper stretch of the Ganga River is a Ramsar site.
 - Sunderban is the largest Ramsar Site in India.
- **Important tributaries:**
 - > Upper Ganga of UP is Ramsar site.
 - > Water discharge of both Ganga and Brahmaputra combine is 3rd largest in the world after Congo and Amazon river.
 - > Farakka barrage is formed at the boundary between India and Bangladesh.
 - > Hooghly is a distributary of Ganga from Farakka barrage which flows through WB and also known as Bhagirathi.
 - > At Hooghly we have Kolkata and East Kolkata wetland is also here and finally it forms part of Sunderbans delta which is a Ramsar site.
 - > Sunderbans is a Biosphere reserve also.



- **Left-bank tributaries of Ganga:**
- **a. Ram Ganga:**
 - It comes from Uttarakhand from Pauri Garhwal.
 - It passes from India's first national park **Jim Corbett**.
 - It joins Ganga near **Kannauj**.
- **b. Gomti:**
 - It comes from **Pilibhit**.
 - **Pilibhit Tiger Reserve** is located here in this region.
- **c. Ghaghara:**
 - It is an antecedent river that comes from Tibet.
 - It merges with Ganga just after entering Bihar.
 - **Yankti Kuti** is the tributary of the **Kali** River.
 - Sarda as well as Rapti merges with Ganga in UP only.
 - Ayodhya is located on the banks of Ghagra (known as Saryu in Ayodhya as Ghagra has a tributary named Saryu).
- **d. Gandak:**
 - It merges with the Ganga in Bihar.
 - it is also known as the **Narayani** River in **Nepal**, from where it originates.
 - Between Gandak and **Budhi Gandak** is a **Kanwar Lake**.
- **e. Kosi:**
 - It is also an antecedent river coming from Tibet.
 - it is also known as Sapta Kosi.
 - It has 7 tributaries: **Indrawati**, **Sun Koshi**, **Tama Koshi**, **Likhu**, **Dudh Koshi**, **Arun Koshi**, and **Tamor Koshi**.
Indra Sun mein Arun aur Tamor ko Dudh aur Tamatar ko hisab Likhu.
 - It is also known as the **sorrow of Bihar**.
 - **Bagmati** River is a transboundary river between India and Nepal which originates in Nepal.
- **f. Mahananda:**
 - It originates in **Darjeeling** Hills, passes through the Siliguri corridor, and merges with Ganga in Bangladesh.
- **Right-bank tributaries of Ganga:**
- **a. Yamuna:**
 - **Asan barrage** is a Ramsar site.
 - Tributaries of Yamuna: **Tons**, **Chambal**, **Ken**, **Betwa**, **Rihand**, etc.
 - **Chambal** originates in **Mhow**.
 - **Shipra** River originates in **Ujjain** and is a tributary of Chambal.
 - Other important tributaries of Chambal are **Banas**, **Kali Sindh**, and **Parbati**.
 - **Gandhi Sagar Wildlife Sanctuary** is located at the border of MP and UP, and the second batch of cheetahs is to be brought into this region.
 - **Ajay** and **Damodar** are the tributaries of **Hooghly**.
 - **Damodar** is known as the **sorrow of Bengal**. (but now we constructed a series of dam)
 - Four **dams** on **Damodar**: **Tilaiya**, **Maithon**, **Konar**, and **Panchet Hill**. (TuM PK)
Panchat and Konar.

-> Panna Biosphere reserve is a tiger reserve near Ken river.

-> because of Ken-Betwa project or because of construction of **Dhaudhan dam** on Ken river some part of Panna biosphere reserve will get submerged so govt. of MP is making Durgawati tiger reserve.

-> Amarkantak is a biosphere reserve.

-> Son river originates from Amarkantak and flows between Vindhyas and Kaimur and merges near to Patna with Ganga.

-> Rihand is tributary of Son and region around Rihand we found white tiger in Rewa (MP).

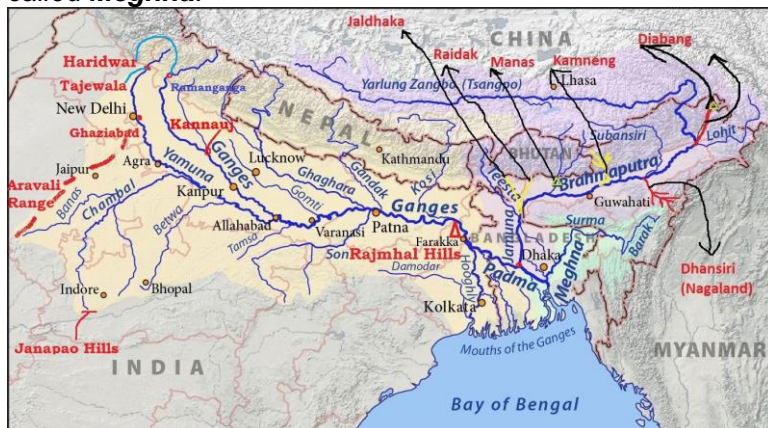
-> Sur Sarovar is also known as Keetham Lake on Yamuna near Agra is a Ramsar site.

- **Bhoj Wetland** is in MP. (in Bhopal)
- **Parbati Arga** is an old **oxbow lake** of Ghagra and it is a Ramsar site.
- **Kanwar Lake** is also known as Kabar Tal.
- **Sultanpur Wetland** and Dhanori Wetland.
- **Vikramshila Dolphin Sanctuary** is India's first dolphin sanctuary on the Ganga River in Bihar.
- Bihar's Tiger Reserve is the only Bihar's tiger reserve on the Gandak River.
- **Sariska Tiger Reserve** and **Ranthambore Tiger Reserve** are located in Rajasthan.

- **Ramgarh Vishdhari Tiger Reserve.** -> Dholpur Karauli tiger reserve.

3. Brahmaputra:

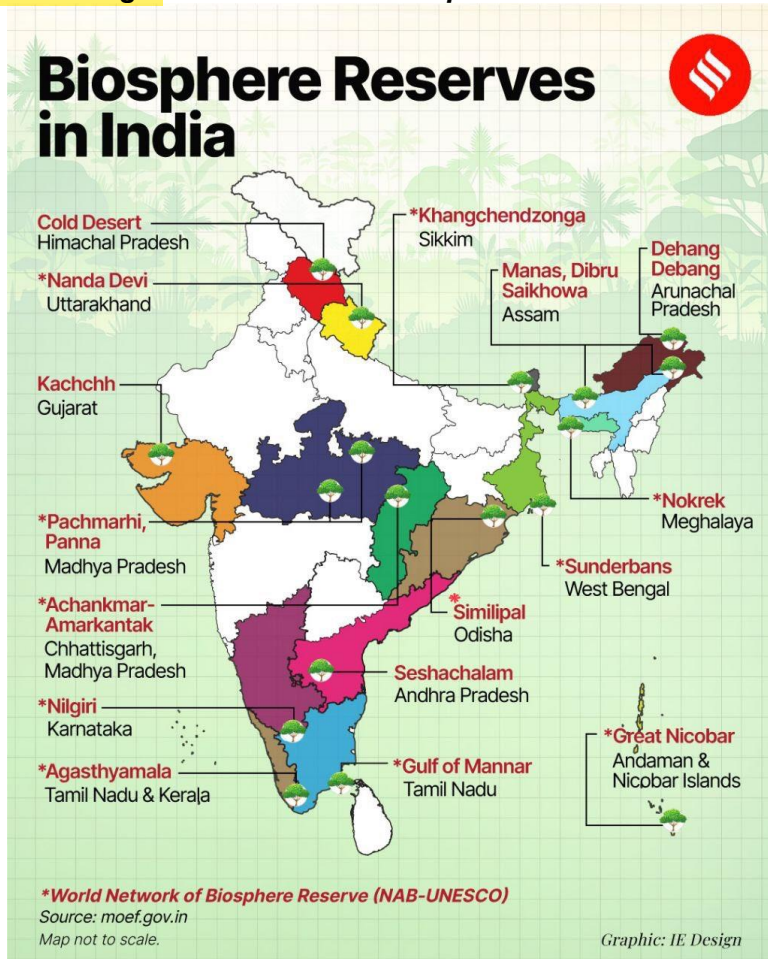
- It originates from **Chemyang dung and Angsi near Mt. Kailash**.
- This river takes a U-turn at **Namcha Barwa**.
- It is known as Tsangpo in China.
- It enters Assam at **Sadiya**, and it is called **the Brahmaputra**.
- From Sadiya to Dhubri it is national waterway 2.
- It is called as Jamuna in Bangladesh.
- Brhmaputra + Ganga = Padma.
- Padma merged with a few other rivers and is called as Meghna in the lower stretch of Bangladesh.
- One of the important rivers that merge with Padma is Surma (known as Barak in India) which is called **Meghna**.



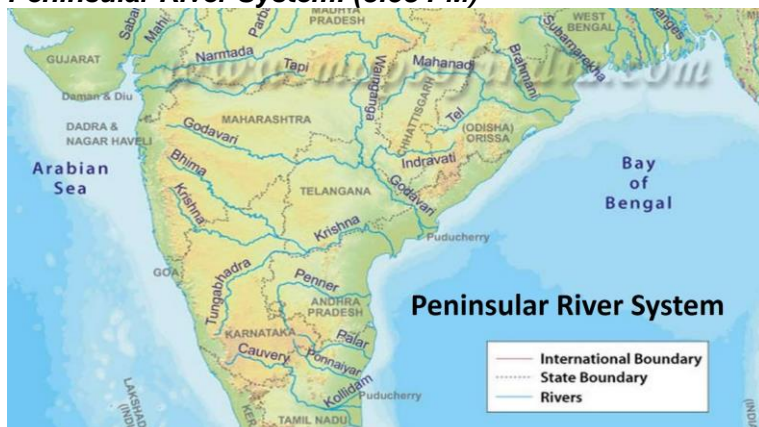
- **Right-bank tributaries of Brahmaputra:**
- Arunachal: Subarnasiri and Kaming.
- Subarnasiri has a small tributary is Ranganadi.
- At the confluence of **Brahmaputra, Subarnasiri and Ranganadi** is the world's largest riverine island **Majuli**.
- Kaming is known as **Jia Bareli** in Assam.
- Bhutan: **Manas** and Sankosh. -> joins Brahmaputra in Bangladesh.
- **Tista** comes from Zemu Glacier Tso Lhamo.
- **Left-bank tributaries of Brahmaputra:**
- **Burhi Dihing and Dhansari (South), Dibang or Sikang and Lohit.**
- **Lohit + Dibang = Brahmaputra.**
- The longest riverine bridge is located on the **Lohit River** named **Bhupen Hazarika Bridge**.
- **Barak** comes from **Manipur** and is called **Surma or Kushyara**.
- **The Brahmaputra is the 5th largest river of the World.**
- **National Parks/Wildlife Sanctuaries/Biosphere Reserves:**
- **Pakke National Park.**
- **Orang Tiger Reserve.**
- **Manas Biosphere Reserve.**
- **Dihang-Dibang Biosphere Reserve.**
- **Dibru-Saikhowa Biosphere Reserve.**
- **Keibul Lamjao National Park** (Imphal river in news).
- Gomati, Tripura's longest river joins Meghna.
- **Dhubri-Phulbari Bridge** is the longest riverine bridge in India still under construction.

-> Dhansiri comes from Naga Hills.
 -> Kopili River originates from the Barail range.
 -> Bhogdoi is a tributary of Dhansiri in Assam.
 -> Bhogdoi is considered as most polluted river of Assam because of Coal mining.
 -> Brahmaputra earlier has channel named Deepor Bheel (Oxbow lake) near Guwahati is a Ramsar site.
 -> So, Deepor Bheel is old channel of Brahmaputra.
 -> On Dibang river a new hydro power project is launched.
 -> Loktak lake is also a Ramsar site.

- **Rudrasagar** is a Ramsar site of Tripura.



- - **Pala wetland** is the largest natural wetland of Mizoram.
 - **Buxa National Park.**
 - **Raimona National Park.**
 - **Nameri National Park.**
 - **Talle Wildlife Sanctuary.**
 - **Mouling National Park.**
 - **Namdapha National Park.**
 - **Manas National Park.**
 - **Pobitora Wildlife Sanctuary.**
 - **Kanchenjunga National Park.**
 - **Nokrek National Park.**
 - **Dampa National Park.**
 - **Peninsular River System: (3:58 PM)**
- > Kaziranga National park is in Assam.
(In Arunachal Pradesh)



- **Subarnarekha, Mahanadi, Baitarni, Brahmani, Vamsadhara**
- Sukapaika is one of the distributaries of Mahanadi which was earlier blocked due to flood.
- **Vamsadhara:**
- It flows between Odisha and Andhra Pradesh.
- Vamshadhara **Nagavalli** interlinking project by the Andhra Pradesh.
- It passes through the northern Circar.
- **Satakosia** is a **gorge** through which the **Mahanadi** flows and is a Ramsar Site and also has Satkosia Tiger Reserve.
- The **Simplipal Biosphere Reserve** of Odisha is a UNESCO-recognised biosphere reserve.
- Chilika Lake.
- Bhitarkanika.
- Gahirmatha Wildlife Sanctuary is well known for the Olive Ridley turtle.
- **Rushikulya** Delta is also known for the Olive Ridley turtle.
- Hirakud Dam is declared as a Ramsar Site.
- **1. Godavari: Nasik.**
- It has only one important right-bank tributary named **Manjra**.
- It has 3 left-bank tributaries: **Pen Ganga, Wen Ganga, and Wardha**.
- All the three merge to form **Pranhita**. (Then Pranhita merge with Godavari.)
- **Nandur Madhukeshwar** is a Ramsar site on Godavari.
- **Kalleshwaram** is a lift-irrigation project. -> Indrawati and Sabari is also left bank tributary of Godavari.
- **Indravati** is known for **Chitrakoot Waterfall**.
- **2. Krishna: Mahabaleshwar.** -> Penneru and Palar comes from Nandi hills.
- **3. Tungabhadra:**
- **Right-bank tributaries:** The Ghatprabha, the Malprabha, and the **Tungabhadra**.
- **Left-bank tributaries:** The Bhima, the Musi, and the Munneru.
- The major Hydro Power stations in the basin are Koyna, Tungabhadara, SriSailam, Nagarjuna Sagar, Almatti, Naryanpur, and Bhadra.
- Srisailam Tiger Reserve is the largest tiger Reserve in India.
- **Mandovi River** has a **Dudhsagar** waterfall.
- **Mandovi** River has **Kadasa and Banduri** as its tributaries. (In Karnataka)
- Cardamom Hills: Vaigai.
- **4. Kaveri:**
- The Kaveri rises in the **Brahmagiri** hills of the **Kogadu** district in **Karnataka**.
- **In Karnataka the river bifurcates twice**, forming the sacred islands of **Srirangapatnam** (last Anglo-Mysore war was fought here) and **Sivasamudram**.
- **Hogennekkal Falls** is found here. -> Near Srirangam and Trichy India has its oldest dam Kallanai (1000yr old), built during Cholas.
- **Srirangam Island** is also formed by this river.
- On the Kaveri branch lies the **Grand Anicut** said to have been constructed by a **Chola** King in 1st Century A.D.
- Silent Valley National Park is found here.
- **Tributaries:** Arkavathy, Shimsha, Hemavati, Kapila, Shimsha, Honnuhole, Amaravati, Lakshmana Kabini, Lokapavani, Bhavani, Noyyal, and Tirtha.
- Agasthyamalai Biosphere Reserve is located in this region.
- Gulf of Mannar Biosphere Reserve.
- **5. Luni:**
- It flows from **Sambhar Lake**, a Ramsar site.
- It drains into Kutch.
- The Great Rann of Kutch is the largest Biosphere Reserve in India.
- **6. Sabarmati:**
- **Thol Lake** is declared a Ramsar Site. -> Mahi river originates from Vindhayas and cuts ToCancer twice and drains into Gulf of Khambat.
- **7. Narmada:**
- It originates in Amarkantak.
- **Wadhavan Wetland** is a recently declared Ramsar site.
- India's largest reservoir **Indra Sagar** is on this river.
- **8. Tapi:**
- It originates in Beitul.

-> Vaigai river originates from Cardamom hills.

-> Where Sabari river confluence with Godavari we have Papikonda national park and AP govt. is implementing a project named Polavaram dam and Pattiseema lift irrigation project this project is a Krishna-Godavari linkage project.

-> Between Godavari and Krishna Kolleru lake is present which is a Ramsar site.

-> Penneru while crossing Eastern Ghats make a deep gorge named Gandikota canyon and also known as Grand Canyon of India.

-> Penneru passes through Rayalseema plateau.

-> Palar river flows through south of Chennai city and a canal connecting Chennai and Palar river provides water to Chennai.

-> On Palar river Kanchipuram is situated.

- The entire region is a biosphere reserve named **Panchmarhi Biosphere Reserve**.
- **Locations in News at World level: (4:45 PM)**
- **Netzarim Corridor:**
 - It is made by Israel to pass through the Gaza Strip.
 - It is also known as **Route 749**.
 - Rafah Crossing: It is a crossing from Gaza to Egypt.
 - **Erez:** It is also in Gaza. (in front side of Rafah crossing)
- Dagestan: Russia
- Karakalpakstan.
- North Macedonia. -> Darfur: Sudan
- Vale do Javari (Amazon Forest) -> Burkina Faso, Niger and Mali.
- Nicaragua -> Haiti.
- Paraguay -> Turkey
- **Poyang Lake** -> Zmiinyi island
- Bosnia -> Karakalpakstan is in Uzbekistan.
- Croatia -> North Macedonia.
- Oder River -> Vale do Javari.
- -> Nicaragua.
- -> Paraguay.
- **NOTE:** The Map syllabus concluded. -> Lake Garda the largest lake of Italy.

- > 12 major ports.
- > National Highways.
- > Expressways. (denoted by NE, remember 1st 4)
- > Tribes