# Yamuna

The Yamuna is the second-largest tributary river of the Ganga and the longest tributary in India. Originating from the Yamunotri Glacier at a height of 6,387 metres (20,955 ft) on the southwestern slopes of Banderpooch peaks of the Lower Himalaya in Uttarakhand, it travels a total length of 1,376 kilometres (855 mi) and has a drainage system of 366,223 square kilometres (141,399 sq mi), 40.2% of the entire Ganga Basin. It merges with the Ganga at Triveni Sangam, Prayagraj, which is a site of the Kumbh Mela, a Hindu festival held every 12 years.

It crosses several states: Haryana and Uttar Pradesh, passing by Uttarakhand and later Delhi, and meeting its tributaries on the way, including Tons, Chambal, its longest tributary which has its own large basin, followed by Sindh, the Betwa, and Ken. From Uttarakhand, the river flows into the state of Himachal Pradesh. After passing Paonta Sahib, Yamuna flows along the boundary of Haryana and Uttar Pradesh and after exiting Haryana it continues to flow till it merges with the river Ganga at Sangam or Prayag in Allahbad (Uttar Pradesh).

It helps create the highly fertile alluvial Yamuna-Ganga Doab region between itself and the Ganga in the Indo-Gangetic plain. Nearly 57 million people depend on the Yamuna's waters. With an annual flow of about 10,000 cubic billion metres (cbm; 8.1 billion acre·ft) and usage of 4,400 cbm (of which irrigation constitutes 96 percent), the river accounts for more than 70 percent of Delhi's water supply. Like the Ganga, the Yamuna is highly venerated in Hinduism and worshipped as the goddess Yamuna. In Hindu mythology she is the daughter of the Sun Deva, Surya, and the sister of Yama, the Deva of Death, hence also known as Yami. According to popular legends, bathing in its sacred waters frees one from the torments of death.

At the Hathni Kund Barrage, its waters are diverted into two large canals: the Western Yamuna Canal flowing towards Haryana and the Eastern Yamuna Canal towards Uttar Pradesh. Beyond that point the Yamuna is joined only by the Somb, a seasonal rivulet from Haryana, and by the highly polluted Hindon River near Noida, so that it continues only as a trickling sewage-bearing drain before joining the Chambal at Pachnada in the Etawah District of Uttar Pradesh.

The water of Yamuna is of "reasonably good quality" through its length from Yamunotri in the Himalayas to Wazirabad barrage in Delhi, about 375 kilometres (233 mi); below this, the discharge of wastewater through 15 drains between Wazirabad barrage and Okhla barrage renders the river severely polluted. One official described the river as a "sewage drain" with biochemical oxygen

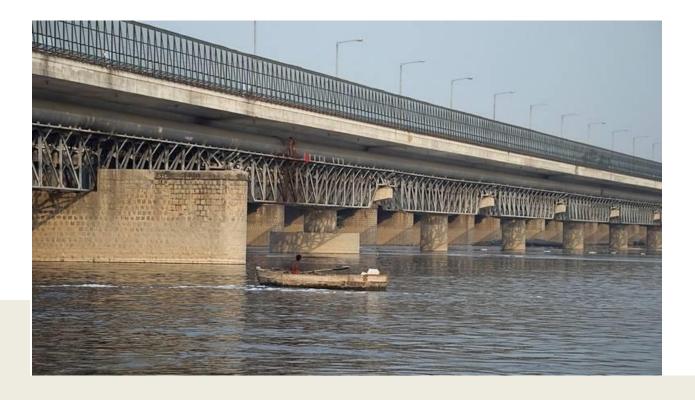
demand (BOD) values ranging from 14 to 28 mg/l and high coliform content. There are three main sources of pollution in the river: household and municipal disposal sites, soil erosion resulting from deforestation occurring to make way for agriculture, and resulting chemical wash-off from fertilizers, herbicides, and pesticides and runoff from commercial activity and industrial sites. The Yamuna from its origin at Yamunotri to Okhla barrage is called the Upper Yamuna.



Taj Mahal is situated on the banks of river Yamuna.



Banderpoonch peak, the source of Yamuna, as seen from Mussoorie



# **History**



Vasudev carrying baby Lord Krishna across the Yamuna, an important legend of Bhagavata Purana.

The name *Yamuna* seems to be derived from the Sanskrit word "yama", meaning 'twin', and it may have been applied to the river because it runs parallel to the Ganges. The Yamuna is mentioned at many places in the Rig Veda, which was composed during the Vedic period c. 1700–1100 BCE, and also in the later Atharvaveda, and the Brahmanas including Aitareya Brahmana and Shatapatha Brahmana.<sup>[15]</sup> In the Rigveda, the story of the Yamuna describes her "excessive love" for her twin, Yama, who in turn asks her to find a suitable match for herself, which she does in Krishna.<sup>[16]</sup>

The tale is further detailed in the 16th century Sanskrit hymn, *Yamunashtakam*, an ode by the philosopher Vallabhacharya. Here the story of her descent to meet her beloved Krishna and to purify the world has been put into verse. The hymn also praises her for being the source of all spiritual abilities. And while the Ganges is considered an epitome of asceticism and higher knowledge and can grant *Moksha* or liberation, it is Yamuna, who, being a holder of infinite love and compassion, can grant freedom, even from death, the realm of her elder brother.

Vallabhacharya writes that she rushes down the Kalinda Mountain, and describes her as the daughter of Kalinda, giving her the name *Kalindi*, the backdrop of Krishna Leela. The text also talks about her water being of the colour of Lord Krishna, which is dark (Shyam). The river is referred to as Asita in some historical texts.

It is mentioned as Iomanes (Ioames) in the surveys of Seleucus I Nicator, an officer of Alexander the Great and one of the Diadochi, who visited India in 305 BCE. Greek traveller and geographer Megasthenes visited India sometime before 288 BCE (the date of Chandragupta's death) and mentioned the river in his *Indica*, where he described the region around it as the land of Surasena. In *Mahabharata*, the Pandava capital of Indraprastha was situated on the banks of Yamuna, considered to be the site of modern Delhi.

Geological evidence indicates that in the distant past the Yamuna was a tributary of the Ghaggar River (identified by some as the Vedic Sarasvati River). It later changed its course eastward, becoming a tributary of the Ganges. While some have argued that this was due to a tectonic event, and may have led to the Sarasvati River drying up, the end of many Harappan civilisation settlements, and creation of the Thar desert, recent geological research suggests that the diversion of the Yamuna to the Ganges may have occurred during the Pleistocene, and thus could not be connected to the decline of the Harappan civilisation in the region.

Most of the great empires which ruled over a majority of India were based in the highly fertile Ganges-Yamuna basin, including the Magadha (c. 600 BCE), Maurya Empire (321–185 BCE), Shunga Empire (185–73 BCE), Kushan Empire (1st–3rd centuries CE), and Gupta Empire (280–550 CE), and many had their capitals here, in cities like Pataliputra or Mathura.

These rivers were revered throughout these kingdoms that flourished on their banks; since the period of Chandragupta II (r. 375-415 CE), statues both the Ganges and Yamuna became common throughout the Gupta Empire. Further to the South, images of the and Yamuna found amidst shrines Ganges are Chalukyas, Rashtrakutas (753–982), and on their royal seals; prior to them, the Chola Empire also added the river into their architectural motifs. The Three River Goddess shrine, next to the Kailash rock-cut Temple at Ellora, shows the Ganges flanked by the Yamuna and Saraswati.

## Important tributaries

- > Tons River, Yamuna's largest tributary, [14] which rises in the 6,315-metre-high (20,719 ft) Bandarpoonch mountain, and has a large basin in Himachal Pradesh. It meets Yamuna below Kalsi near Dehradun, Uttarakhand.
- Hindon River, which originates in the Saharanpur District, from Upper Shivalik in the Lower Himalayan Range. It is entirely rainfed and has a catchment area of 7,083 square kilometres (2,735 sq mi), traverses 400 kilometres (250 mi) through Muzaffarnagar District, Meerut District, Baghpat District, Ghaziabad, Noida and Greater Noida, before joining Yamuna just outside Delhi.
- Ken River, which flows through the Bundelkhand region of Madhya Pradesh and Uttar Pradesh. It originates near Ahirgawan village in Jabalpur district and travels a distance of 427 kilometres (265 mi) before merging with the Yamuna at Chilla village, near Fatehpur in Uttar Pradesh. It has an overall drainage basin of 28,058 square kilometres (10,833 sq mi).
- Chambal River, known as Charmanvati in ancient texts, which is Yamuna's longest tributary. It flows through Rajasthan and Madhya Pradesh and traverses a total distance of 960 kilometres (600 mi) from its source in Vindhya Range, near Mhow. With a drainage basin of 143,219 square kilometres (55,297 sq mi), it supports hydro-power generation at Gandhi Sagar dam, Rana Pratap Sagar dam and Jawahar Sagar dam, before merging into the Yamuna south east of Sohan Goan, in Etawah district.
- > Sindh River, which joins the Yamuna shortly after the Chambal.
- > Sasur Khaderi River, a.k.a. Sasur Khaderi, which is a tributary in Fatehpur district.
- Betwa River, or Betravati rises from Vindhya range and flows to North-East via Madhya Pradesh and Uttar Pradesh. The confluence of both rivers (Yamuna and Betwa) is Hamirpur district, Uttar Pradesh. One of the Indian Navy frigates INS BETWA is named in honour of the river Betwa.

# **Yamuna Ghat**

New Delhi, India

Ancient traditions and surreal bird watching come into sharp relief along one of the world's most polluted rivers.



GHATS—A SERIES OF STEPS LEADING down to water—are a common sight across India. For thousands of years, people have used them to enter various bodies of water in order to bathe or release the ashes of loved ones. Yamuna Ghat is one such place. Situated near a cremation ground in a historic part of Delhi along one of India's most sacred rivers, Yamuna Ghat continues to be in use today. At dawn, the ghat is the site of a majestic gathering of hundreds of seagulls flocking to feed. The reflection of the birds on the still water blended with the colors of the sunrise combine to create a breath-taking scene. Just across from the ghat is an island of untouched marshland that renders Delhi as it was hundreds of years ago, lush and misty. Though it is a sacred body of water on the Indian subcontinent, the Yamuna River is also among the dirtiest rivers in the world. Fortunately, the outer beauty of this refuge masks the unfathomable amount of sewage that lurks just beneath the water's surface.

**Nigambodh Ghat** is located on the banks of the Yamuna river coast in New Delhi, situated on the Ring Road, Delhi at the back of the historic Red Fort. It consists of a series of bathing and ceremonial stepped piers leading to the waters of the river. It is most known for being the oldest burning ghat in Delhi for performing Antyesti (Antim Sanskar), Hindu funeral rites and also one of its busiest with 50–60 pyres burning every day. It also has an electric crematorium built in the 1950s and a CNG-run crematorium was added by the Municipal corporation with manages the cremation facilities in 2006.

#### **Know Before You Go**

The ghat can be accessed by its Google Maps location. It's located in a residential neighbourhood, so if you get lost any local will be able to point you in the right direction. It is best to visit at dawn when the seagulls come to feed. There will normally be a few boat drivers waiting there that will charge a small amount (around 50 rupees) to ferry you across the water and back.

### **Transportation**

Yamuna is one of the National Waterways of India, designated as NW110 in Haryana, Delhi and Uttar Pradesh. Some of its sections are being developed for navigation:

- Delhi-Faridabad (Wazirabad barrage to Palla barrage, via ITO barrage), is being developed for passenger and cargo ferry service.
- Delhi-Agra (Okhla barrage to Agra Canal), is planned for steamer service by the end of June 2017 with the help of the Netherlands.

#### **Pollution**

In 1909, the waters of the Yamuna were distinguishable as clear blue, when compared to the silt-laden yellow of the Ganges. However, due to high-density population growth and rapid industrialisation, Yamuna has become one of the most polluted rivers in India, and indeed in the world. The Yamuna is particularly polluted downstream of New Delhi, the capital of India, which dumps about 58% of its waste into the river. A recent study shows that there is 100% urban metabolism of River Yamuna as it passes through the National Capital Territory (NCT) of Delhi. The most pollution comes from Wazirabad, from where Yamuna enters Delhi

#### Causes

The river receives 800 million liters of largely untreated sewage and additional 44 million liters of industrial effluents each day. Only 35 percent of the sewage released into the river are believed to be treated To address river pollution, measures have been taken by the Ministry of Environment and Forests (MoEF) in 12 towns of Haryana, 8 towns of Uttar Pradesh, and Delhi, under the Yamuna Action Plan (YAP) which has been implemented since 1993 by the MoEF's National River Conservation Directorate (NRCD). The Japan Bank for International Cooperation is participating in the YAP in 15 of the towns (excluding 6 towns of Haryana included later on the direction of the Supreme Court of India) with soft loan assistance of 17.773 billion Japanese yen (equivalent to about ₹700 crore [7 billion rupees]) while the government of India is providing the funds for the remaining 6 towns. In 2007, the Indian government's plans to repair sewage lines were predicted to improve the water quality of the river 90% by the year 2010.

#### Reference:-

Google map link-

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Source- <a href="https://en.wikipedia.org/wiki/Yamuna">https://en.wikipedia.org/wiki/Yamuna</a>

