

A case study on: The Ganga river pollution

The pollution of environment is the '*gift*' of the industrial revolution. In the following case study, we would study how the sacred river of *Ganga* has been polluted along the years and what is its present situation.

- Introduction

The Ganga rises on the southern slopes of the Himalaya ranges from the Gangotri glacier at 4,000 m above mean sea level. It flows swiftly for 250 km in the mountains, descending steeply to an elevation of 288 m above mean sea level. In the Himalayan region the Bhagirathi is joined by the tributaries Alaknanda and Mandakini to form the Ganga. After entering the plains in Haridwar, it winds its way to the Bay of Bengal, covering 2,500 km through the provinces of Uttar Pradesh, Bihar and West Bengal. In the plains it joined by Ramganga, Yamuna, Sai, Gomti, Ghaghara Sone, Gandak, Kosi and Damodar along with many other smaller rivers.

The Ganga River carries the highest silt load of any river in the world and the deposition of this material in the delta region results in the largest river delta in the world (400 km from north to south and 320 km from east to west). The rich mangrove forests of the Gangetic delta contain very rare and valuable species of plants and animals and are unparalleled among many forest ecosystems.

- Pollution of The Ganga

The Ganga is the most sacred river for the Indians but it has become highly polluted due to the industrial and household wastes being dropped into the river.

The extreme pollution of the Ganga affects 400 million people who live close to the rivers. The main sources of pollution are agriculture, urban run-off, Automobiles industrial waste etc.

- *different causes of*

Pollution of Ganga River

1. Dumping of garbage and untreated sewage on the banks of the river:

The river flows through 100 cities with populations over 100,000; 97 cities with population 50,000 to 100,000 and about 48 towns. A large proportion of the sewage water with higher organic load in the Gang is from this population through domestic water usage. 70% towns along Ganga let out garbage directly into the river.

In the below pictures we can clearly see how people are dumping garbage and many more organic materials on the bank of the river.



2. Cremation of dead body on the bank of river:

cremating dead bodies on the bank of the river is one of the main causes of the Ganga River pollution. Dead bodies are cremated on the river banks. Partially burnt bodies are also flung into the river. All this is done as a matter of religious faith and in keeping with ancient rituals. These practices pollute the river water and adversely affect the water quality.

In the below picture we can clearly see that how people are cremating a dead body on the bank of the river.



3. Religious Traditions:

Religious traditions are also the cause of Ganga River pollution. Being a river that is worshipped by people belonging to a larger religious group, every year countless people dispose of the ashes of their dead ones into the river.

It is not limited to this only; people do Mass bathing in the river during religious festivals. All this happens because of, people think that this tradition will wash their sins. And they will attain salvation.

In the below images we can see this-





4. Industrial waste:

Because of the establishment of a large number of industrial cities on the bank of the Ganga like ***Kanpur, Allahabad, Varanasi*** and ***Patna***, countless tanneries, chemical plants, textile mills distilleries, and hospitals contribute to the pollution of the Ganga by dumping untreated waste into it. Plastic and industrial waste, such as wastewater from the Factories that sit on, the banks of the Ganga, is another cause of pollution.

- Today's situation of The Ganga

Ganga's water quality has significantly improved since 2014 with the entire length of the river having more dissolved oxygen than the prescribed minimum level.

In an interview to PTI, National Mission for ***Clean Ganga*** Director General Rajiv Ranjan Mishra said 32 out of 53 locations monitoring biochemical oxygen demand (BOD) were compliant with the primary water quality criteria for bathing in 2014, whereas in 2021 the total

monitoring stations increased to 97, out of which 68 monitoring locations were found compliant with BOD criteria for bathing.

- **Clean-up Efforts for The Ganga River**

- **Ganga Mahasabha:** founded by *Madan Mohan Malviya* in 1905.
- **Ganges Action Plan:** The Ganges Action Plan (GAP) was launched by *Rajiv Gandhi* on June 1986.
- **National Ganga River Basin Authority (NGRBA):** NGRBA was established by the central Government of India, on 20 February 2009 under Section 3 of the Environment Protection Act, 1986.
- **2010 Government clean-up campaign**
- **Namami Gange Programme:** In the budget tabled in *Parliament* on 10 July 2014 the Union Finance Minister *Arun Jaitley* announced this project and allocated *2037 crore* for this purpose.
- **Ganga Manthan:** Ganga Manthan was a national conference held to discuss issue and possible solutions for cleaning the river.
The event was organized by *National Mission for Clean Ganga* on 7 July 2014 at *Vigyan Bhavan* in new Delhi.