



# Sutlej River Pollution

## Why in News

The pollution in river Sutlej has posed serious health threats to the people living around the **Indira Gandhi Canal**.

- The [National Green Tribunal \(NGT\)](#) has directed Punjab and Rajasthan governments to submit quarterly compliance reports to [Jal Shakti ministry](#) about remedial action being taken to curb the inflow of effluent discharge into the **Satluj** and **Beas**.

## Key Points

### ▪ Source of Sutlej's Pollution:

- **Three Major Sources Polluting the Buddha Nallah: Buddha Nallah (Tributary)** is a major source of pollution in the river Sutlej.
  - **Untreated sewage waste** from Ludhiana city sewage treatment plants (STP).
  - Untreated industrial effluents from **dyeing units and outlets** that directly release sewage and industrial waste into the stream.
  - **Small-scale industries** like units on **electroplating, hosiery, steel rolling mills**, etc mainly contribute to the wastewater in the nallah.
- **High Biological Oxygen Demand (BOD):** Buddha Nallah contributes about 16,672 kilogram a day of **BOD load** and **East Bein (a rivulet in Doaba in Punjab)** contributes about 20,900 kg/day of BOD load.
  - The more organic matter there is (e.g., in sewage and polluted bodies of water), the greater the BOD; and the greater the BOD, the lower the amount of dissolved oxygen available for higher animals such as fishes.
- **Leather Industry:** Another **seasonal rivulet, Chitti Bein** and its **sub-drain, Kala Sanghian drain**, in the Jalandhar district are equally responsible for high pollution in the Sutlej river.
  - The untreated discharge from Jalandhar's leather goods industry is one of the major reasons behind Chitti Bein's pollution.

### ▪ Component of Pollutants:

- Traces of **chromium** and **arsenic** can be found in the Sutlej after the confluence of Buddha Nallah.
- Prevalence of **mercury, lead, chromium, cadmium** and **selenium** in more than permissible limits (MPL) in the groundwater and surface water in and around drains like Buddha Nallah, Chitti Bein and Kala Sanghian.
- **Heavy metals** and **pesticides** were also detected in fodder, vegetable, milk, urine and blood samples.

### ▪ Impact on Indira Gandhi Canal:

- The **Indira Gandhi Canal** is the **longest canal** in the country.

- It starts from **Harike Barrage**, a few kilometres below the confluence of the Satluj and Beas rivers in Punjab, flows through Ludhiana and terminates in the **Thar Desert** in northwest Rajasthan.
- The canal is a **source of drinking and irrigation** in the north and western Rajasthan.
  - It provides water to 1.75 crore people living in 7,500 villages across eight districts in the state.
- The water in the Indira Gandhi canal has apparently turned black due to the presence of pollutants in it.
  - The pollution has caused several health complications among people such as skin diseases, gastroenteritis, indigestion and loss of eyesight.

## Sutlej River

- The ancient name of Sutlej River is **Zaradros** (Ancient Greek) **Shutudri or Shatadru** (Sanskrit).
- It is the longest of the five tributaries of the **Indus River** that give the Punjab (meaning “Five Rivers”) its name.
  - Jhelum, Chenab, Ravi, Beas and Satluj are main tributaries of Indus.
- It rises on the north slope of the Himalayas in **Lake La’nga** in **southwestern Tibet**.
  - Flowing northwestward and then west-southwestward through Himalayan gorges, it enters and crosses Himachal Pradesh before beginning its flow through the Punjab plain near Nangal.
  - Continuing southwestward in a broad channel, it receives the Beas River (and forms 65 miles (105 km) of the India-Pakistan border before entering Pakistan and flowing another 220 miles (350 km) to join the Chenab River west of Bahawalpur.
    - Sutlej River meets the Beas River in **Harike in the Ferozpur district before entering Pakistan**.
  - The combined rivers then form the Panjnad, the link between the Five Rivers and the Indus.
- **Luhri Stage-I Hydro Electric Project** is located on River Satluj in Shimla and Kullu districts of Himachal Pradesh.



**Source: DTE**

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