



## Plastic Free Ganga | Uttarakhand | 18 May 2024

### Why in News?

The [Wildlife Institute of India \(WII\)](#) and **Social Development for Communities (SDC)** Foundation have launched a collaborative initiative titled “**Flowing Towards a Plastic-Free Future**” to free the [Ganga river](#) and its 15 tributaries from plastic pollution and conserve the aquatic and terrestrial ecosystem.

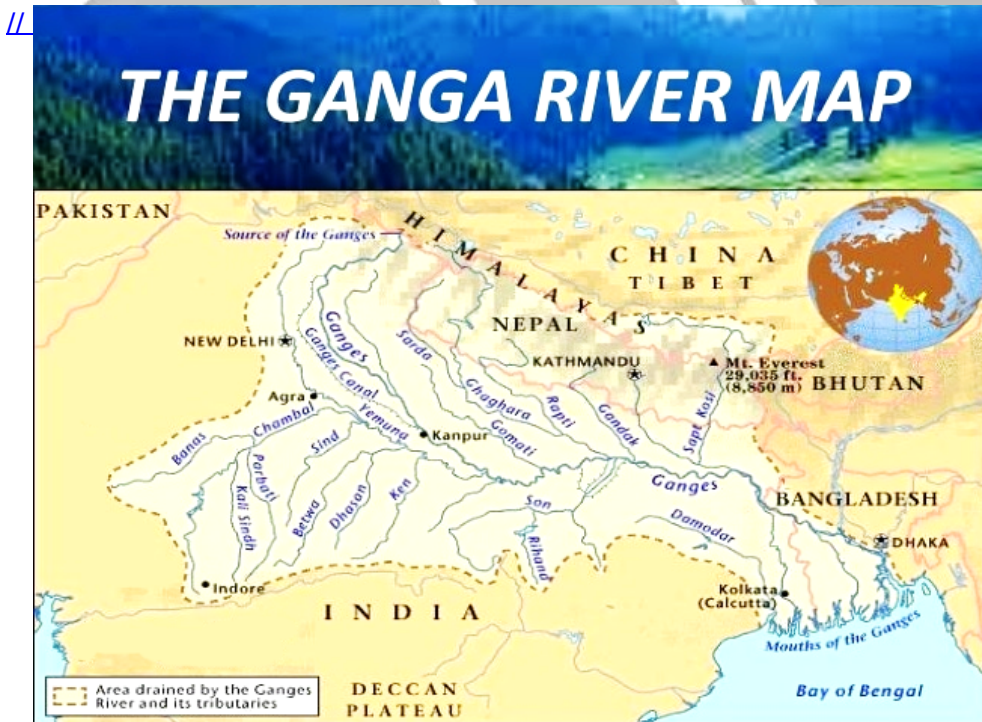
### Key Points

- The drive will take place over five days in **seven states**, namely **Uttarakhand, UP, Bihar, West Bengal, Himachal Pradesh, Madhya Pradesh, and Jharkhand**.
- The initiative focuses on **raising awareness about detrimental effects of plastic on freshwater biodiversity**.

### Wildlife Institute of India

- It is an autonomous institution under the **Ministry of Environment, Forest and Climate Change**.
- It was established in **1982**.
- It is based in **Dehradun, Uttarakhand**.
- It offers training programs, academic courses, and advisory in wildlife research and management.

### Ganga River



- It is the longest river of India flowing over 2,510 km of mountains, valleys and plains and is revered by Hindus as the most sacred river on earth.
- The Ganga basin outspreads in **India, Tibet (China), Nepal and Bangladesh** over an area of 10,86,000 Sq.km.
- In India, it covers states of **Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, West Bengal, Uttarakhand, Jharkhand, Haryana, Chhattisgarh, Himachal Pradesh and Union Territory of Delhi** draining nearly 26% of the total geographical area of the country.
- It originates in the snowfields of the **Gangotri Glacier in the Himalayas**.
- At its source, the river is called the Bhagirathi. It descends down the valley upto **Devprayag** where after joining another hill stream Alaknanda, it is called **Ganga**.
- The **principal tributaries** joining the river from **right** are the **Yamuna and the Son**.
- The **Ramganga, the Ghaghra, the Gandak, the Kosi and the Mahananda** join the **river from left**. The Chambal and the Betwa are the two other important sub-tributaries.
- The **Ganges River Dolphin is an endangered animal that specifically inhabits this river**.
- The Ganga joins the Brahmaputra (Jamuna) in Bangladesh and continues its run under the name Padma.
- **The Ganga widens out into the Ganges Delta in the Sundarbans** swamp of Bangladesh, before it ends its journey by emptying into the Bay of Bengal.

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## Additional Virtual Classrooms in Uttarakhand | Uttarakhand | 18 May 2024

### Why in News?

The Uttarakhand government plans to introduce **840 additional virtual classrooms** with the assistance of **Telecommunications Consultants India (TCIL)**.

- These virtual classrooms will **enable teachers in Dehradun to conduct live online classes** for students.

### Key Points

- In the first phase, the scheme is already **extended to 1.9 lakh students between classes 6 to 12**.
  - Authorities are currently working to ensure that underprivileged students receive education without any technical issues.
  - Coaching will also be provided to students preparing for **medical and engineering entrance exams** to bring socio-economic change.
- The program is **currently being implemented in 500 government schools** spread across the **13 districts of the state**.
  - It utilizes **Remote Operated Terminals (ROTs)** and **Satellite Interactive Technology** to enable interactive communication in virtual classrooms, enabling students to engage in both online and offline learning.
  - Additionally, **parents and teachers have the ability to monitor their progress** through dedicated applications.

# Illegal Mining on Yamuna Banks | Uttar Pradesh | 18 May 2024

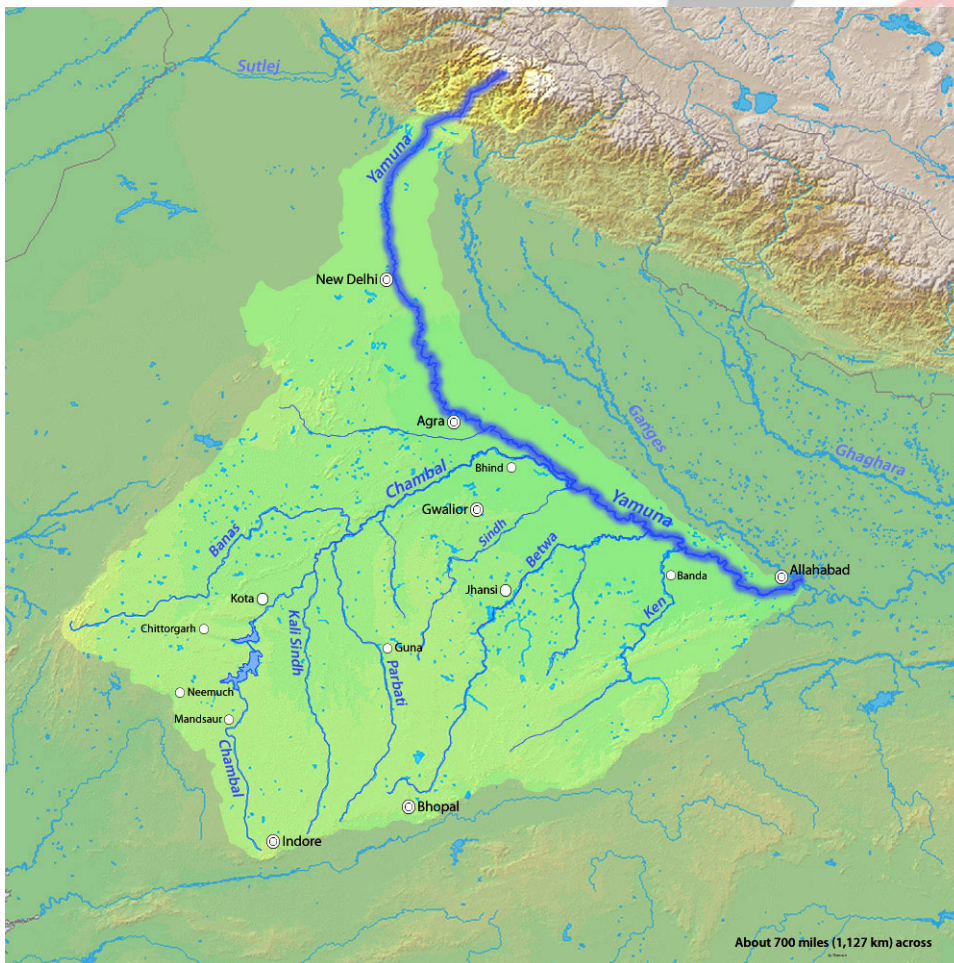
## Why in News?

In a joint raid against **sand mining mafia** the mining department and Loni administration seized earthmovers, trucks, and trolleys from the **Yamuna banks** in Loni's Pachera.

## Key Points

- A section of land spanning 15 kilometers in Loni along the Yamuna river, encompassing Pachaira, Badarpur, and Nauraspur villages, has been rented out for sand mining.
- The [illegal sand mining](#) was happening 1.5km away from the leased 48-acre land in Pachera, which has been rented for a 5-year term.
- To ensure sustainable river sand mining, it is vital to **refill the mine pits created during sand extraction through the natural process of replenishment** within an appropriate time frame.
  - Illegal deep excavations often occur in sensitive locations along the riverbank, resulting in the formation of deep pits.
- In 2023, flooding in the Loni area caused significant damage, partly due to the deep pits left by illegal sand mining activities along the [Yamuna river](#).

## Yamuna River



- **About:** The Yamuna River is one of the major tributaries of the Ganges in Northern India.
  - It forms an integral part of the **Yamuna-Ganga Plain**, one of the world's most extensive alluvial plains.



- **Source:** It has its source in the **Yamunotri Glacier at an elevation of 6,387 meters** on the southwestern sides of **Banderpooch crests** in the **lower Himalayan ranges**.
- **Basin:** It meets the **Ganges at the Sangam (where Kumbh mela is held)** in Prayagraj, Uttar Pradesh after flowing through **Uttarakhand, Himachal Pradesh, Haryana and Delhi**.
- **Important Dam:** Lakhwar-Vyasi Dam (Uttarakhand), Tajewala Barrage Dam (Haryana) etc.
- **Important Tributaries:** Chambal, Sindh, Betwa and Ken.
- **Government Initiatives Related to Yamuna River:**
  - Yamuna Action Plan
  - Delhi Government's Six-Point Action Plan to Clean Yamuna by February 2025

## Sand Mining

- Sand mining is defined as the **removal of primary natural sand and sand resources** (mineral sands and aggregates) from the natural environment (terrestrial, riverine, coastal, or marine) for extracting valuable minerals, metals, crushed stone, sand and gravel for subsequent processing.
- This activity, driven by various factors, poses serious **threats to ecosystems and communities**.

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## Ozone Levels Breached Safe Limit | Haryana | 18 May 2024

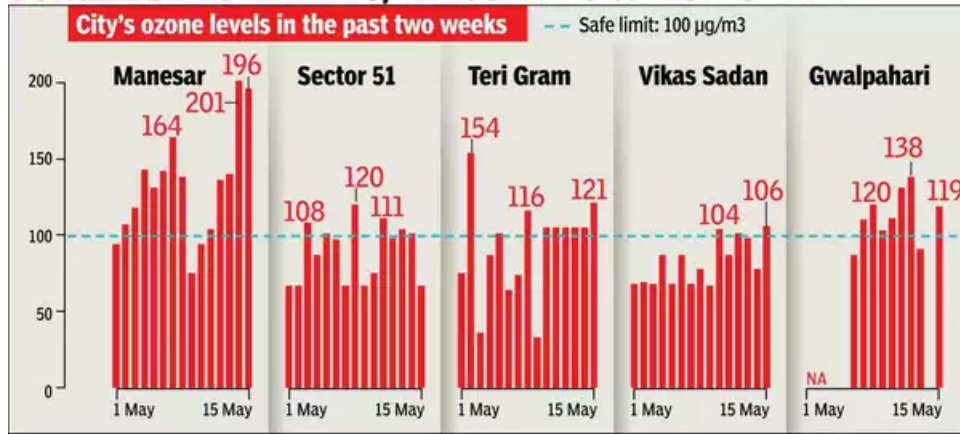
### Why in News?

According to the **Haryana State Pollution Control Board (HSPCB)**, the ground-level [ozone level](#) has exceeded safe limits in certain areas of the city over the past 15 days.

### Key Points

- Data from **air monitoring stations in Manesar, Sector 51, and Gwalpahari** indicate multiple instances of surpassing the 100 micrograms per cubic meter (ug/m<sup>3</sup>) eight-hour ozone limit.
- Experts have characterized the situation as concerning, noting that the existence of ground-level ozone indicates increased levels of other pollutants such as [nitrogen oxide \(NOx\)](#) and **sulphur oxide (Sox)**.
- These pollutants interact with sunlight to produce ozone, with this phenomenon predominantly happening during the day in locations experiencing traffic congestion or where multiple industries are active.
- **Tropospheric ozone** exposure poses health risks and can worsen conditions like **asthma and chronic obstructive pulmonary disease**.
- Officials from HSPCB stated that they have instructed local authorities to take steps to **reduce road dust and burning of garbage**.

## SURGE DUE TO TRAFFIC, INDUSTRIES & RISING TEMP



### Ozone

- **Ozone (composed of three atoms of oxygen)** is a gas that occurs both in the Earth's upper atmosphere and at ground level.
- Ozone can be **"good" or "bad" for people's health and the environment**, depending on its location in the atmosphere.

