



Biochemical Oxygen Demand Levels in Haryana

Why in News?

Recently, the **release of untreated waste** has significantly raised **the biochemical oxygen demand (BOD) levels** in the **Yamuna river** and **irrigation canals** in Faridabad and Palwal districts of Haryana.

Key Points

- **Alarming BOD Levels:**
 - According to the district administration **BOD levels are 400-500% higher than permissible limits** due to ineffective monitoring and insufficient preventive measures.
 - As per **the National Green Tribunal (NGT)** guidelines, the BOD standard for water is 10 milligrams per litre. Recent samples show levels between 35 and 40, with some locations in the Yamuna reaching 50 milligrams per litre.
- **Environmental Impact:**
 - Untreated waste not only raises BOD levels but also reduces **dissolved oxygen (DO)** levels to zero. This results in the **destruction of aquatic life** and a strong stench.
 - High BOD levels indicate a failure in **wastewater treatment and sewage management systems**.
- **Challenges in Implementation:**
 - **Poor enforcement of regulations and rising pollution levels** have worsened the situation.
 - Experts call for **stricter monitoring, improved sewage management, and robust implementation of pollution control measures** to mitigate the crisis.

Biochemical Oxygen Demand (BOD)

- BOD is the **amount of dissolved oxygen used by microorganisms** in the biological process of metabolizing organic matter in water.
- 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.
- The BOD is therefore a **reliable gauge of the organic pollution of a body of water**.

NATIONAL GREEN TRIBUNAL

The National Green Tribunal (NGT) is a specialised body for swift resolution of environmental and natural resource cases.

About

- ④ **Establishment:** By National Green Tribunal Act 2010
- ④ **Objective:** Quick resolution of environmental & natural resource cases
- ④ **Case Resolution:** Within 6 months
- ④ **Places of Sitting:** New Delhi (Principal), Bhopal, Pune, Kolkata, and Chennai

Structure

- ④ **Composition:** Chairperson, Judicial Members, and Expert Members
- ④ **Tenure:** Up to 5 years/until age 65 (no reappointment)
- ④ **Appointments:** Chairperson - Central Government (with the CJI's consultation)
 - 10-20 judicial members & 10-20 expert members - Selection Committee

India is the third country globally (after Australia and New Zealand) and the first developing nation to establish a specialised environmental tribunal like NGT.

Powers & Jurisdiction

- ④ **Jurisdiction:** Civil cases on environmental issues and rights
- ④ **Suo Motu Powers:** Granted since 2021
- ④ **Roles:** Adjudicatory, preventative, and remedial
- ④ **Procedures:** Follows Principles of natural justice
 - Not bound by the CPC, 1908 or Indian Evidence Act, 1872
- ④ **Principles:** Sustainable Development; Precautionary; Polluter pays
- ④ **Orders:** Executable as civil court decrees; offers relief and compensation (**decisions are binding**)
- ④ **Appeals:** Tribunal can review its decisions.
 - If decision fails - Appeal to the SC to be filed within 90 days

NGT deals with Civil Cases under

- ④ Water (Prevention and Control of Pollution) Act, 1974
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- ④ Forest (Conservation) Act, 1980
- ④ Air (Prevention and Control of Pollution) Act, 1981
- ④ Environment (Protection) Act, 1986
- ④ Public Liability Insurance Act, 1991
- ④ Biological Diversity Act, 2002



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