# Physico chemical pollutants in Arkavathi River

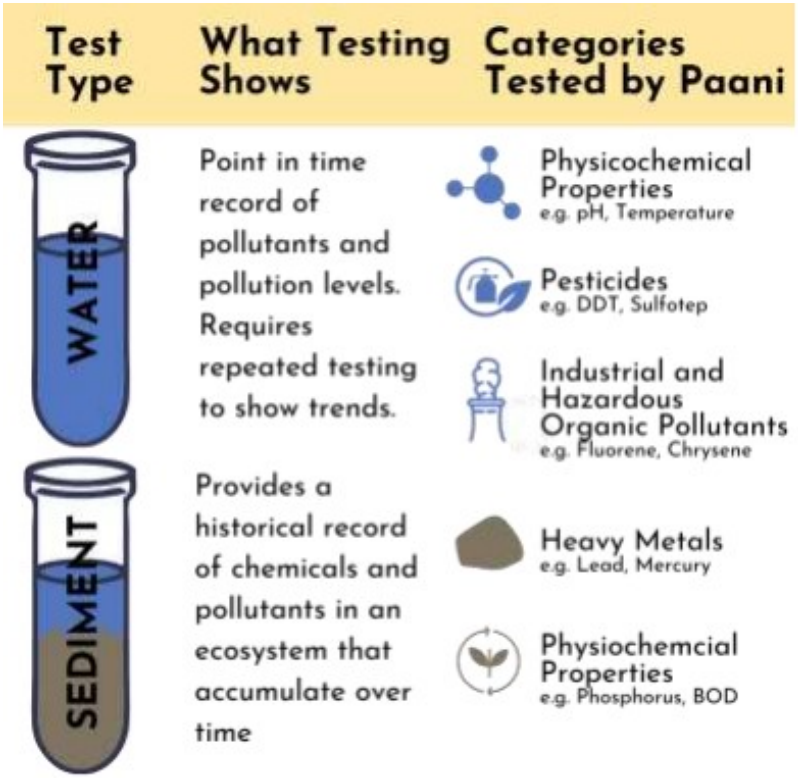
### Why in News?

*A report conducted by Paani.Earth in collaboration with the International Centre for Clean Water on pollution levels in the Arkavati has revealed alarming levels of physicochemical pollutants.*

- **Report Findings –** The study quantifies the risks of emerging pollutants from seven sites along the Arkavathi and its tributary, the Vrishabhavathi River.
- Pollution levels in the Arkavati has revealed alarming levels of physicochemical pollutants, pesticides, heavy metals, and hazardous organic compounds.

  *The Central Pollution Control Board's Water Quality Criteria focus only on physicochemical properties of water rather than hazardous pollutants.*

- The analysis focused on
  - 3 categories for water (Physicochemical Properties, Pesticides, and Industrial and Hazardous Organic Pollutants) and
  - 2 categories for sediment (Heavy Metals, and Physicochemical Properties).




- It exceeds both Indian and international standards and guidelines.
- **Notable High pollutants** - **Pesticides** - Harmful substances with health impacts such as ***Heptachlor and DDT*** found at levels as high as 25022 times US guidelines.
- **Heavy Metals** - Toxins such as ***Mercury*** found in sediment at levels up to 26 times above

Canada's Sediment Quality Guidelines.

- **Industrial Pollutants** - ***Polycyclic aromatic hydrocarbons (PAHs)*** from industrial burning such as Dibenz[a,h]anthracene found at 3076 times US guidelines.
- **Nutrients** - Excessive ***phosphorus*** levels causing eutrophic conditions at all sites.
- **Health concerns** – It can cause severe risks to human and aquatic health, including cancer and hormone disruptions.
- Heavy metals also contribute to the development of antimicrobial resistance (AMR), posing an additional threat to public health and the environment.

**References**


1. The Hindu | Physicochemical pollutants in Arkavati
2. Paani.earth | Hidden Pollution in the Arkavathi