

Thermal Pollution in India - Student Summary & Quiz

Summary

Thermal pollution occurs when the temperature of natural water bodies is altered-usually increased-due to human activities such as industrial discharge or urban waste.

Main Causes:

- Thermal Power Plants
- Industrial Effluents
- Urban Sewage
- Nuclear Plants & Dams

Affected Areas:

- Koradi, Maharashtra
- Rihand Reservoir, UP/MP
- Yamuna River, Delhi
- Gujarat's Kolak & Damanganga Rivers

Effects:

- Lower dissolved oxygen
- Fish kills and breeding issues
- Harmful algae growth
- Impact on agriculture and fisheries

Solutions:

- Cooling system upgrades
- Heat recovery

- Wetland ecosystems
- Laws and community engagement

Quiz

Section A: Multiple Choice

1. What is the most common source of thermal pollution in India?
A) Deforestation B) Solar energy plants C) Thermal power plants D) Agriculture
2. The Rihand Reservoir is affected by thermal pollution due to:
A) Fishing boats B) Chemical spills C) Power plant discharges D) Cold water from dams
3. Which aquatic mammal is affected by thermal changes in the Ganges River?
A) River otter B) Indian manatee C) Gangetic dolphin D) Marsh crocodile
4. Why does thermal pollution lower oxygen levels in water?
A) Hot water traps oxygen B) Higher temperatures reduce oxygen solubility
C) Algae produce too much oxygen D) Fish absorb it all
5. What is a natural solution being used in Odisha to cool industrial water?
A) Glacier water rerouting B) Cooling towers C) Integrated wetlands D) Ice-based treatment

Section B: True or False

6. Thermal pollution affects only rivers, not coastal areas. (True/False)
7. Urban heat islands contribute to river warming. (True/False)
8. The Yamuna River receives mostly treated sewage. (True/False)
9. Thermal pollution can affect both fish and crop yields. (True/False)

10. There are no laws in India to control thermal pollution. (True/False)

Section C: Short Answer

11. Name two industries (besides power plants) that contribute to thermal pollution in India.

12. Describe one impact of thermal pollution on local communities.

13. Mention one innovative solution implemented to reduce thermal pollution.

14. Why is thermal pollution especially dangerous during Indian summers?

15. How can students help raise awareness about thermal pollution?