

# THE HINDU

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pollute

## Breathing life into Vembanad lake

Rejuvenating the lake is critical for Kerala, but it is easier said than done



# 1. Eutrophication

Part of Speech: Noun

**Meaning:** Excessive nutrient buildup causing algae growth





## 2. Proliferation

**Part of Speech: Noun**

**Meaning: Rapid increase or spread**

X  
X  
X

**• Synonyms:**

1. Expansion, ✓
2. multiplication, ✓
3. escalation ✓

**• Antonyms:**

1. Decline, ✓
2. reduction, ✓
3. stagnation ✓

**• Sentence (verb):** Mobile devices have proliferated over the past decade.

accentuate  
augment Enlarge  
Boost Exaggerate  
Increase simplify  
Escalate build-up  
heighten skyrocket

### 3. Encroachment

Part of Speech: Noun

**Meaning:** Gradual intrusion on territory or rights



• **Synonyms:**

1. Invasion, ✓
2. intrusion, ✓
3. trespass ✓

Impinge  
Violate  
(Illegal)

Ind { 40 Pak  
C

• **Antonyms:**

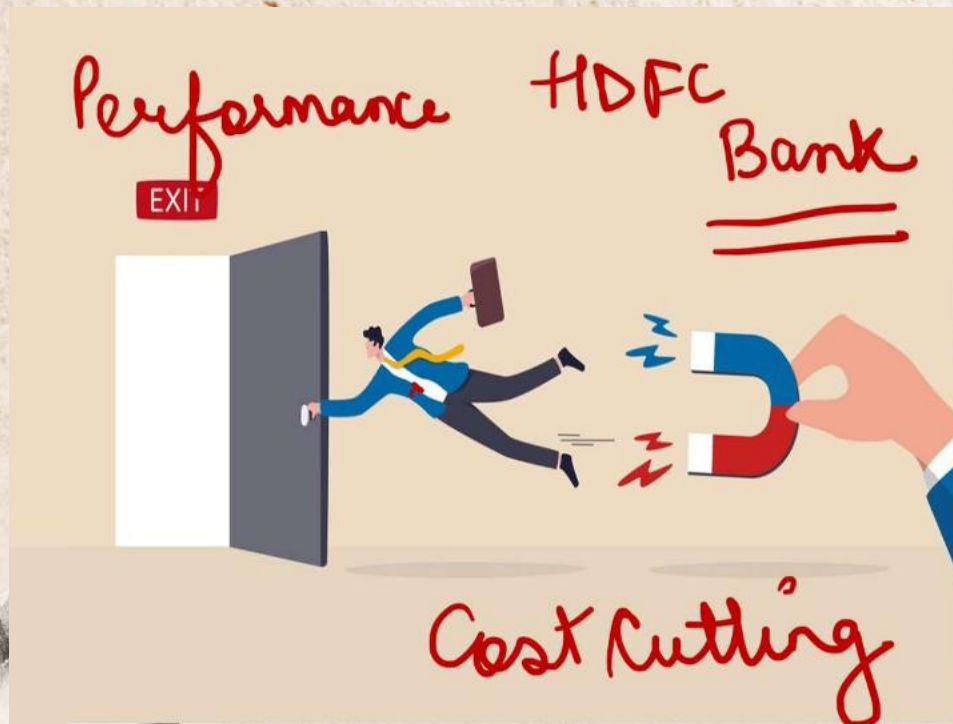
1. Retreat, ←
2. ~~withdrawal~~, ←
3. respect ←

uphold

Infingment

• **Sentence (verb):** Urban areas are encroaching on wildlife habitats





## 4. Retention

Part of Speech: Noun

Meaning: The ability to hold or retain something

X  
X  
X

• **Synonyms:**

1. Preservation,
2. withholding,
3. maintenance

• **Antonyms:**

1. Loss,
2. release, ✓
3. leakage ✓

*relinquish*  
*released*

• **Sentence (verb):** The sponge **retains** water even after squeezing.

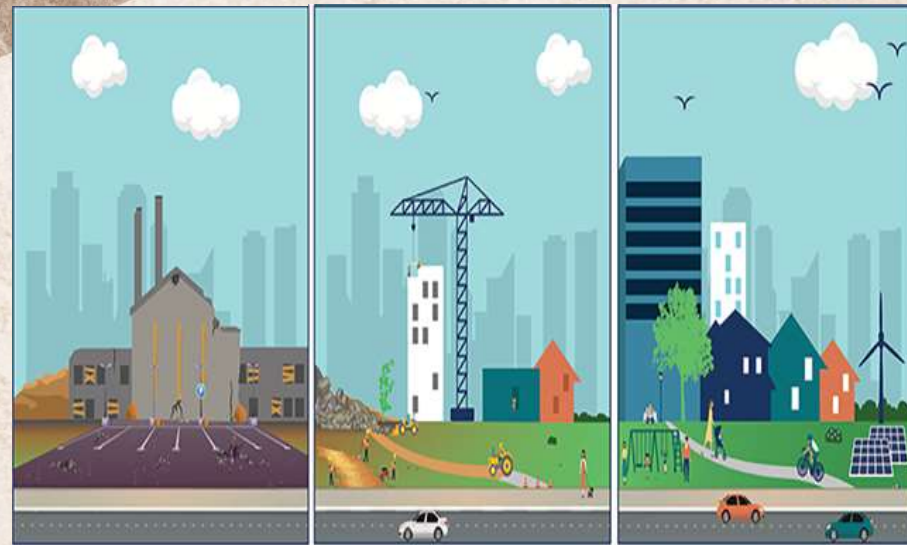


✓ fri ✓ sun [31st March] ✓ sat  
Revive

# 5. Rejuvenation

Part of Speech: Noun

**Meaning:** The act of making something new or strong again



• **Synonyms:**

1. Renewal, ✓
2. revitalization, ✓
3. restoration ✓

• **Antonyms:**

1. Degeneration, ✓
2. decline, ✓
3. decay ✓

• **Sentence (verb):** The city has been **rejuvenated** through green projects.





*Eutrop*

## 6. Dredging

**Part of Speech: Noun (also  
verb: dredge)**

**Meaning: Removing sediments  
from the bottom of water bodies**

X  
X  
X

• **Synonyms:**

1. Excavating, ←
2. scooping, ←
3. clearing ←

• **Antonyms:**

1. Depositing, ←
2. filling, ←
3. accumulating ←

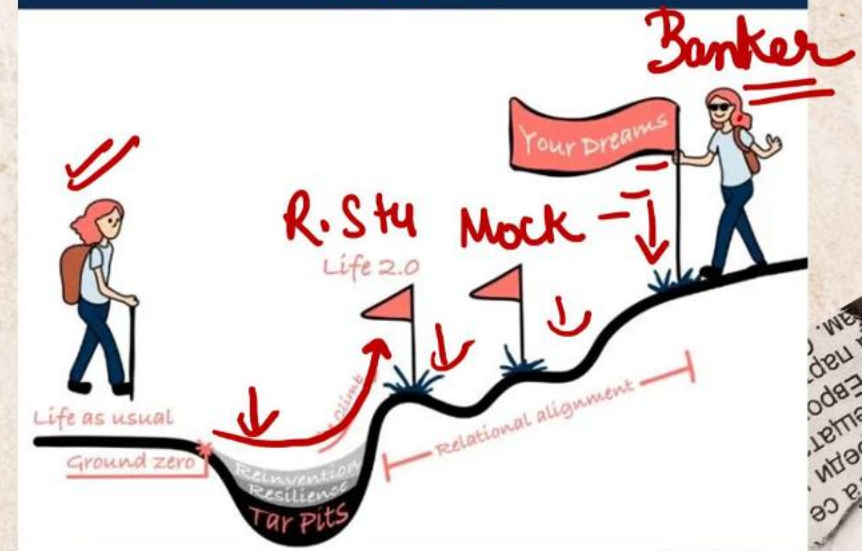
• **Sentence (verb):** They plan to dredge the canal to prevent flooding.



# 7. Resilience

Part of Speech: Noun

**Meaning:** Ability to recover from difficulties or change



• **Synonyms:**

- 1. Toughness, ✓
- 2. adaptability, ✓
- 3. endurance ✓

persistence

Prevail

Tenacity

fortitude

obstinate

adamant

potency

doggedness

perseverance

6PM

• **Antonyms:**

- 1. Vulnerability, ✓
- 2. fragility, ✓
- 3. brittleness ✓

• **Sentence (adjective):** Communities must be **resilient** to climate shocks.





## 8. Intensified

**Part of Speech: Verb**  
**(past tense of intensify)**

**Meaning:** Made more extreme or serious

X  
X  
X



• **Synonyms:**

- 1. Escalated, ✓
- 2. exacerbated,
- 3. aggravated

29 210  
=

• **Antonyms:**

- 1. Lessened,
- 2. weakened,
- 3. eased

Mitigate  
vulnerable

• **Sentence (noun):** The **intensification** of heat waves threatens crops.



# 9. Necessitates

Part of Speech: Verb

**Meaning:** Makes something necessary or unavoidable



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• **Synonyms:**

1. Demands, ✓
2. requires, ✓
3. compels ✓

*Inevitable*  
*Obligatory*

• **Antonyms:**

1. Avoids, ⇐
2. eliminates, ⇐
3. nullifies ⇐

• **Sentence (noun):** The situation called for urgent necessity of action.

# SHALL WE READ?



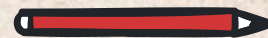
Vembanad, the longest lake in India and the largest in Kerala, is gasping for breath. The 96.5 km-long water body spans the districts of Alappuzha, Kottayam, and Ernakulam and forms part of the Vembanad-Kol wetland system, a Ramsar site. Six major rivers drain into the lake, which accounts for around 30% of the State's total surface water resource.

Over the past century, the lake has shrunk significantly due to human-induced interventions, land reclamation, and natural sedimentation, according to experts. Though vital to the region's ecology and agriculture, it faces severe threats from pollution, eutrophication, unsustainable agricultural practices, and invasive weed proliferation.

A few years ago, a study by the Kerala University of Fisheries and Ocean Studies revealed alarming levels of plastic waste, silt, and other sediments in the lake. According to a recent expert committee report prepared as part of the Vembanad Lake Rejuvenation Project, an ambitious joint effort of the Alappuzha district administration and the Local Self Government Department, the lake's surface area has shrunk mainly due to land encroachment.

Citing previous studies, the report notes that the surface area of the lake diminished by 27% between 1917 and 1990. The drastic reduction in not only area, but also depth, has significantly reduced the lake's floodwater retention capacity and impaired its critical ecosystem services, including water purification, biodiversity support, and sediment transport. The unchecked proliferation of water hyacinths has further worsened the situation, contributing to dangerously high levels of chemical oxygen demand and biological oxygen demand. As a result, the fish catch has declined by about 66% over the last three decades.

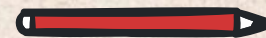
The efforts to rejuvenate the lake are being spearheaded by Alappuzha District Collector Alex Varghese. The initiative draws "inspiration from the Namami Gange Programme". It gained momentum on October 28, 2024 when a workshop was held focusing on addressing the challenges of restoring the water body. Eight subcommittees — agriculture, fisheries, water resources, tourism, biodiversity, environment and sanitation, disaster management and climate change, and revenue — were constituted.



A ₹188.25 crore comprehensive five-year plan was formulated and recently submitted to Chief Minister Pinarayi Vijayan. The estimate may be revised based on the detailed study on water resources and irrigation projects being conducted by the Centre for Water Resources Development and Management.

The short-term goals include the removal of plastic waste, construction of bio-shields to protect farmlands, fish ranching, weed eradication, and the construction of 31 bio bunds, each 1 km long in 31 grama panchayats. The long-term targets include dredging the lake bed to increase its water-holding capacity, promoting organic farming to prevent pollution from pesticides and chemicals, conserving the flora and fauna, establishing sewage and faecal sludge treatment plants in flood-prone Kuttanad, manufacturing value-added products from water hyacinth, and boosting tourism and fish yield.

xxx



Q1. What best describes the overall tone of the article on Vembanad Lake?

- A) Celebratory and proud
- B) Sarcastic and mocking
- C) Alarmed and solution-driven ←
- D) Indifferent and neutral
- E) Humorous and light-hearted

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Q2. Which of the following is **not** one of the eight subcommittees formed for Vembanad Lake's rejuvenation?



- A) Disaster Management and Climate Change
- B) Agriculture
- C) Industry and Mining
- D) Environment and Sanitation
- E) Revenue

*False*

*direct*




Q3. What is the main reason for the reduction in Vembanad Lake's surface area according to the expert committee report?

- A) Decrease in rainfall
- B) Sediment from only two rivers
- C) Land encroachment  
- D) Global warming
- E) Earthquake activity

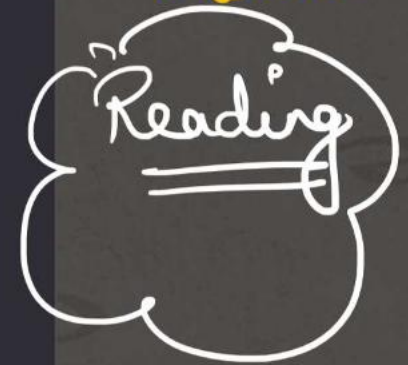
Q4. What can be inferred about the long-term sustainability of Vembanad Lake if current threats persist unaddressed?

- A) It will evolve naturally into a clean, urban water body.
- B) It may soon become suitable for increased commercial fishing.
- C) It could lose its ecological significance and economic benefits. ←
- D) It will become a top tourism destination by default.
- E) The lake will deepen and expand naturally. ↗

Q5. Which of the following statements is true according to the article?

- A) The Namami Gange Programme is replacing the Vembanad project.
- B) The surface area of Vembanad Lake increased by 27% since 1917.
- C) The fish catch in the lake has increased in the last three decades.
- D) A ₹188.25 crore rejuvenation plan has been submitted to the Chief Minister. 
- E) Plastic waste has been completely removed from the lake.

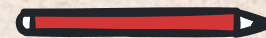
3 state  
5 state



While the report is under the State government's consideration, 28.72 tonnes of plastic waste and a greater quantity of water hyacinth were removed from the lake in recent mega cleaning drives conducted under the aegis of the Alappuzha district administration.

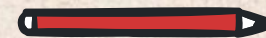
Rejuvenating the lake is critical for enhancing the region's resilience to climate change impacts such as erratic rainfall, sea-level rise, and intensified flooding events. However, it is easier said than done. For instance, houseboats are among the top sources of pollution in the lake. While the report calls for enacting strict laws against unauthorised vessels, previous efforts to rein in illegal houseboat operations have been largely ineffective. Another significant hurdle is land encroachment. The expert committee report notes that reclaiming encroached areas "necessitates strong political support and decisive action."

xxx



Since Kuttanad is part of the Vembanad wetland ecosystem, the lake's restoration should be linked to the revival of the entire Kuttanad region. Coordinated collaboration among various stakeholders, including local communities, district administrations, and different levels of governance, will be key to overcoming these complex challenges and will require support from the Union and State governments.

xxx





*Polk*



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**Telegram Channel**