Geography · GS - I

What are the environmental implications of the reclamation of the water bodies into urban land use? Explain with examples.

EXAM YEAR	PAPER	SUBJECT
2021	GS - I	Geography

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Wetland encroachment, urban flooding, groundwater recharge, biodiversity loss, water pollution, urban heat island effect, Chennai floods, livelihood disruption, wetland restoration, sustainable urban planning.

Model Answer

Introduction

Reclamation of water bodies involves converting lakes, wetlands and ponds into built-up land for housing, infrastructure and commercial activities. Unplanned reclamation creates serious ecological consequences.

Environmental Implications

- **Urban flooding:** Reduced water storage and obstructed drainage increase flood risk. Chennai's 2015 floods highlighted the consequences of wetland loss and encroachment.
- **Biodiversity loss:** Aquatic species, migratory birds and wetland vegetation lose their natural habitats.
- **Groundwater depletion:** Reduced infiltration lowers groundwater recharge and affects water availability.
- **Water pollution:** Sewage, construction debris and industrial waste contaminate remaining water bodies.
- **Urban heat island effect:** Loss of open water and vegetation reduces evaporative cooling and raises local temperatures.
- **Livelihood losses:** Fishing communities and others dependent on wetlands face declining incomes.

Way Forward

Strictly enforce wetland regulations, map urban water bodies, restore drainage channels, treat sewage and integrate blue-green infrastructure into city planning.

Conclusion

Water bodies are essential urban ecological infrastructure, not vacant land. Their conservation strengthens climate resilience, biodiversity and urban liveability.

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