GENERAL STUDIES III

Olive Ridley Turtle Conservation: WII Report 2026 UPSC

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A nationwide marine turtle assessment by the Wildlife Institute of India has identified Olive Ridley turtles as the most widespread marine turtle species along India's mainland coastline, recording 18,713 solitary nests during 2024–25. However, monitoring gaps, marine pollution, fishing bycatch, coastal development and habitat degradation remain major conservation challenges. Civil Service Gurukul examines the WII report, arribada, major nesting sites, IUCN conservation status, Operation Olivia, legal safeguards and sustainable coastal management, along with UPSC Prelims MCQs and Mains model answers.



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Excerpt / Brief Summary

A nationwide marine turtle assessment conducted by the Wildlife Institute of India has identified Olive Ridley turtles as the most widely distributed marine turtle species along India's mainland coastline.

The assessment recorded 18,713 solitary Olive Ridley nests during the 2024–25 nesting season. However, incomplete monitoring, fisheries-related mortality, coastal disturbances and habitat degradation remain important conservation concerns.

Protecting marine turtles requires an integrated approach that connects nesting beaches, migratory corridors, feeding grounds, sustainable fisheries and coastal development planning.

For UPSC aspirants, the issue connects biodiversity conservation, environmental legislation, coastal geography, climate change and community-based natural resource management.

18,713

Recorded Solitary Nests in 2024–25

360

Beach Stretches Surveyed

1,[illegible]00 km

Approximate Survey Coverage

UPSC Syllabus Relevance

Examination Stage	Relevant Topics
Prelim	Marine turtles, threatened species, protected areas, biodiversity, environmental conventions and conservation programmes.
GS Paper I	Coastal geography, marine ecosystems, river mouths, climate change and geographical distribution of species.
GS Paper II	Environmental governance, institutional coordination and international environmental cooperation.
GS Paper III	Biodiversity conservation, environmental degradation, pollution, sustainable development and environmental impact assessment.
GS Paper IV	Environmental ethics, intergenerational equity and responsibility towards biodiversity.
Essay	Ecological sustainability, development versus conservation and human-nature relationships.

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1. Why in the News?

On 23 November 2026, the Union Environment Ministry released a nationwide assessment of marine turtles during the 92nd meeting of the Standing Committee of the National Board for Wildlife.

The assessment, undertaken by the Wildlife Institute of India under the Development of Wildlife Habitats scheme, examined three nesting seasons between 2022 and 2025.

Subsequent reporting on 26 November highlighted the widespread distribution of Olive Ridley turtles across India's mainland coast, alongside deficiencies in long-term monitoring.

Major Issues Highlighted

- Widespread solitary nesting of Olive Ridley turtles.
- Incomplete monitoring in remote island territories.

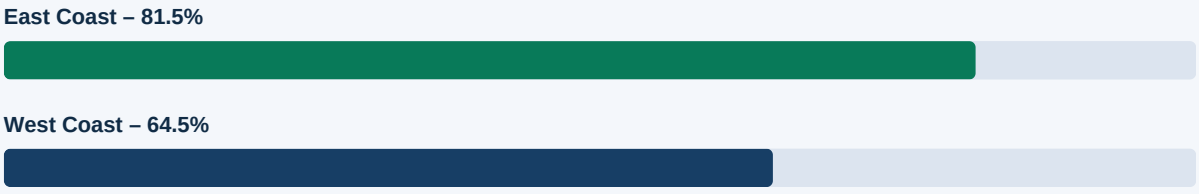
- Insufficient assessment of nest predation.
- Need for improved tagging and movement tracking.
- Importance of protecting natural nesting habitats.
- Need for coordinated coastal and marine conservation.

> **UPSC Current Affairs Insight:** A species may remain globally threatened even when it is widely distributed or locally abundant. Geographical distribution and conservation status measure different ecological characteristics.

2. Key Findings of the Wildlife Institute of India Report 2026

Indicator	Reported Findings
Research Organisation	Wildlife Institute of India
Assessment Period	December 2022 to May 2025
Number of Nesting Seasons	Three
Beach Stretches Surveyed	360
Approximate Coastline Surveyed	1,300 kilometres
Olive Ridley Distribution	At least 300 surveyed beach stretches
Solitary Nests in 2024–25	18,713
Estimated Solitary-Nesting Females	Approximately 8,000
Marine Turtle Species with Nesting Information	Four species
Major Data Gaps	Remote island monitoring and underestimation of nest predation

Reported Hatchling Emergence Success



Reported averages from the assessment. Local nesting outcomes may vary according to habitat conditions, survey coverage and conservation measures.

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Important Prelims Trap: The 18,713 figure represents recorded solitary nests, not the total number of Olive Ridley turtles in India. A female turtle may nest more than once during a breeding season. Mass nesting events must also be considered separately.

3. About Olive Ridley Sea Turtles

Olive Ridley turtles are relatively small marine turtles named after the olive-green colour of their shells. They inhabit tropical and subtropical waters and undertake extensive migrations between feeding and breeding habitats.

Particulars	Important Facts
Common Name	Olive Ridley Sea Turtle
Scientific Name	*Lepidochelys olivacea*
Animal Class	Reptilia
Family	Cheloniidae
Habitat	Tropical and subtropical marine waters
Feeding Behaviour	Omnivorous; consumes marine invertebrates and other suitable food
Special Behaviour	Arribada or synchronised mass nesting
IUCN Global Conservation Status	Vulnerable
CITES Classification	Appendix I
Indian Legal Protection	Schedule I of the Wild Life (Protection) Act, 1972
Major Indian Nesting Region	Odisha coast

Prelims Fact: Olive Ridley turtles are reptiles, not mammals or amphibians. Although they spend most of their lives in marine environments, females come ashore to lay eggs.

4. What Is Arribada?

Arribada is a Spanish term meaning arrival. In marine turtle ecology, it describes a synchronised mass-nesting event during which large numbers of female turtles come ashore within a relatively short period.

Olive Ridley turtles are particularly well known for this reproductive behaviour.

Arribada vs Solitary Nesting

Parameter	Arribada	Solitary Nesting

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Nesting Pattern	Synchronised mass nesting	Individual nesting events
Timing	Large aggregations during concentrated periods	Dispersed throughout the nesting season
Monitoring	Requires specialised estimation methods for dense nesting events	Individual nests can often be documented through beach surveys
Conservation Focus	Protection of mass-nesting beaches	Protection of dispersed coastal nesting habitats

Conceptual Clarity: Arribada is not the only nesting behaviour exhibited by Olive Ridley turtles. Solitary nesting occurs across numerous coastal areas and must be included in comprehensive conservation programmes.

5. Major Olive Ridley Turtle Nesting Sites in India

Odisha's coastline contains internationally important Olive Ridley mass-nesting habitats.

Nesting Location	State	Significance
Gahirmatha Marine Sanctuary	Odisha	Globally significant Olive Ridley mass-nesting habitat.
Rushikulya River Mouth	Odisha	Major arribada site and important marine turtle conservation area.
Devi River Mouth	Odisha	Historically important Olive Ridley nesting region.
Other Mainland Coastal Beaches	Multiple Coastal States	Important dispersed and solitary nesting habitats.
Andaman and Nicobar Islands	Union Territory	Important marine turtle nesting habitats supporting several species.

Why Are River Mouths Important for Turtle Nesting?

River mouths influence sediment movement, sand deposition, beach formation and nearshore ecological conditions.

Suitable sandy beaches near river mouths may provide favourable nesting environments, although habitat quality depends on local geomorphology, flooding, erosion and human disturbance.

Important Geography Linkages

- Bay of Bengal coastal ecosystems.
- River mouths and estuarine processes.
- Coastal erosion and sediment deposition.
- Mangroves and marine protected areas.
- Climate-related changes in coastal habitats.

6. Five Marine Turtle Species Found in Indian Waters

Five of the world's seven recognised sea turtle species occur in Indian waters.

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Species	Scientific Name	Important Characteristics
Olive Ridley Turtle	*Lepidochelys olivacea*	Known for mass nesting and widespread coastal distribution.
Green Turtle	*Chelonia mydas*	Adults predominantly feed on seagrass and algae.
Hawksbill Turtle	*Eretmochelys imbricata*	Associated with coral reef ecosystems.
Leatherback Turtle	*Dermochelys coriacea*	Largest living sea turtle species, with a flexible leathery shell.
Loggerhead Turtle	*Caretta caretta*	Recognised by its relatively large head and powerful jaws.

UPSC Prelims Fact: Five marine turtle species occur in Indian waters. However, four species are recognised as regularly nesting along India's mainland or island coastlines. Loggerhead turtles are not among the four regularly nesting species.

7. Life Cycle and Ecological Significance of Marine Turtles

Marine turtles have complex life cycles that connect terrestrial nesting habitats with coastal and offshore marine ecosystems.



Ecological Importance

- Contribute to marine food-web dynamics.
- Support nutrient cycling between marine and coastal ecosystems.
- Help regulate populations of certain marine organisms.

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- Provide ecological and conservation research opportunities.
- Connect geographically separated marine habitats through migration.

Different marine turtle species perform different ecological functions depending on their feeding behaviour and habitat preferences.

8. Major Threats to Olive Ridley Turtle Conservation

Threat	Environmental Impact
Fishing Bycatch	Accidental capture in trawls, gillnets and other fishing gear may cause injury or drowning.
Marine Plastic Pollution	Plastic ingestion, entanglement and obstruction of nesting habitats.
Artificial Lighting	May disorient nesting females and hatchlings.
Coastal Infrastructure	May alter beach habitats, sediment movement and nearshore conditions.
Beach Erosion	Can reduce available nesting space or destroy nests.
Climate Change	May alter incubation temperatures, sea levels and habitat suitability.
Predation	Eggs and hatchlings may be lost to natural or human-influenced predators.
Illegal Collection	Unlawful harvesting of turtles or eggs can undermine conservation.
Ghost Fishing Gear	Abandoned nets and ropes may continue trapping marine animals.
Monitoring Deficiencies	Incomplete information may weaken conservation planning and evaluation.

Environmental Concern: Protecting eggs on beaches will not ensure population recovery if adult turtles continue to experience high mortality in marine environments.

9. Scientific Monitoring Gaps and Population Assessment

Counting marine turtles is scientifically challenging because they spend most of their lives underwater and may migrate over considerable distances.

Nesting records therefore provide useful but incomplete evidence about population trends.

What Is Detection Probability?

Detection probability refers to the likelihood that a species, nest or ecological event will be observed during a survey when it is actually present.

Changes in observer effort, weather, beach accessibility and survey frequency can influence the number of recorded nests.

Major Monitoring Challenges

- Unequal survey coverage between States and Union Territories.

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- Limited monitoring of remote island beaches.
- Difficulty distinguishing repeat nesting by the same female.
- Incomplete documentation of nest predation.
- Differences in observation and recording methods.
- Insufficient long-term information on migration and survival.

Recommended Scientific Monitoring Framework

Monitoring Method	Purpose
Standardised Beach Surveys	Improve consistency in recording nesting activity.
Georeferenced Nest Records	Support authorised scientific analysis of habitat distribution.
Flipper Tagging	Assist identification of individual turtles during subsequent observations.
Satellite Tracking	Provide information on migration and marine habitat use.
Hatching Success Monitoring	Measure the proportion of eggs producing hatchlings.
Emergence Success Monitoring	Evaluate the proportion of eggs resulting in hatchlings emerging from the nest.
Bycatch and Stranding Records	Improve understanding of marine mortality and injury.

Mains Value Addition: An increase in recorded nests may reflect improved survey coverage rather than an equivalent increase in turtle populations. Long-term monitoring must account for differences in detection probability.

10. Operation Olivia: Indian Coast Guard Initiative

Operation Olivia is an annual marine conservation initiative conducted by the Indian Coast Guard to protect Olive Ridley turtles and their breeding habitats, particularly along Odisha's coastline.

The operation generally runs from November to May and supports safe breeding and nesting conditions through coordinated maritime protection.

Major Objectives of Operation Olivia

- Protect marine turtles during breeding and nesting periods.
- Support enforcement of applicable fishing restrictions.
- Reduce accidental capture in prohibited fishing activities.
- Coordinate with State forest and fisheries authorities.
- Promote awareness among fishing communities.
- Support rescue of distressed or entangled marine turtles.

UPSC Exam Trigger:

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Operation Olivia — Indian Coast Guard — Olive Ridley Turtle Conservation.

11. What Is a Turtle Excluder Device?

A Turtle Excluder Device, commonly known as TED, is a modification installed in suitable trawl fishing nets that allows accidentally captured sea turtles to escape while retaining the intended catch.

Benefits of Turtle Excluder Devices

- Reduce accidental capture and drowning of marine turtles.
- Support more sustainable fishing practices.
- Improve compatibility between fisheries and biodiversity conservation.
- Potentially reduce ecological damage associated with fishing activities.

Effective adoption depends on appropriate equipment design, correct installation, fisher training, enforcement and consideration of livelihood impacts.

Governance Perspective: Conservation policies should combine suitable fishing regulations with technical support, community participation and measures addressing the economic concerns of affected fishers.

12. Legal and International Protection of Olive Ridley Turtles

Legal Framework	Conservation Significance
Wild Life (Protection) Act, 1972	Olive Ridley turtles receive Schedule I protection in India.
Environment (Protection) Act, 1986	Provides an overarching statutory framework for environmental protection.
Coastal Regulation Zone Notification	Regulates activities in notified coastal areas, including ecologically sensitive habitats.
State Marine Fisheries Regulation Laws	Provide mechanisms for regulating fishing activities and protecting relevant marine habitats.
CITES Appendix I	Provides stringent restrictions on international commercial trade in listed species and their specimens.
Convention on Migratory Species (CMS)	Promotes international cooperation for the conservation of migratory wildlife.
IOSEA Marine Turtle Memorandum of Understanding	Supports regional cooperation for marine turtle conservation across the Indian Ocean and South-East Asia.

IUCN vs CITES vs Indian Wildlife Law

Framework	Olive Ridley Classification	Primary Purpose

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IUCN Red List	Vulnerable	Scientific assessment of extinction risk.
CITES	Appendix I	Regulation of international trade.
Wild Life (Protection) Act	Schedule I	Domestic statutory protection.

Important Prelims Distinction: IUCN categories assess extinction risk. CITES regulates international trade. The Wild Life (Protection) Act provides statutory protection within India.

13. National Marine Turtle Action Plan

The Ministry of Environment, Forest and Climate Change launched the National Marine Turtle Action Plan in January 2021 to strengthen conservation of marine turtles and their habitats.

The 2021–2026 action plan provides a coordinated framework for research, monitoring, habitat conservation and management of human-induced threats.

Major Conservation Priorities

- Protection and management of marine turtle habitats.
- Reduction of fishing-related mortality.
- Scientific monitoring and population assessment.
- Strengthening of conservation-related institutional capacity.
- Community participation and public awareness.
- Regional and international conservation cooperation.

The November 2026 release of technical publications on marine turtle marking, tracking and species identification supports more consistent research and monitoring.

14. Great Nicobar Island, Galathea Bay and Marine Conservation

The nationwide WII assessment also highlighted the ecological importance of Galathea Bay on Great Nicobar Island as a Leatherback turtle nesting habitat.

The location is associated with a proposed transshipment port under the Great Nicobar Island development project, raising questions about the relationship between coastal infrastructure and marine biodiversity conservation.

Reported Leatherback Nesting Records at Galathea Bay

Nesting Season	Reported Leatherback Nests
2023–24	643
2024–25	478

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Nesting Season	Reported Leatherback Nests
November 2025 – March 2026	889, according to subsequently reported Forest Department records

These records should be interpreted in light of differences in monitoring periods and survey effort.

Development and Conservation Considerations

- Environmental impact assessment.
- Protection of critical nesting habitats.
- Management of artificial lighting and coastal disturbances.
- Long-term ecological monitoring.
- Infrastructure design and environmental safeguards.
- Independent evaluation of mitigation measures.

> **Important:** The WII assessment documented nesting data and important habitats. It did not independently evaluate all potential environmental impacts of the proposed transshipment port.

Development decisions should consider strategic and economic objectives alongside ecological sensitivity, legal obligations and the effectiveness of proposed conservation safeguards.

15. Climate Change and Olive Ridley Turtle Conservation

Marine turtles are sensitive to changing environmental conditions because their survival depends on both terrestrial nesting beaches and marine habitats.

Temperature-Dependent Sex Determination

In sea turtles, incubation temperature influences the sex of developing hatchlings. Warmer incubation conditions generally produce a greater proportion of females, while cooler conditions generally produce more males within viable temperature ranges.

Extreme temperatures may also reduce egg survival.

Major Climate-Related Challenges

- Sea-level rise and loss of nesting beaches.
- Increased coastal erosion and flooding.
- Changes in sand temperatures.
- Potential imbalance in hatchling sex ratios.
- Changes in marine food availability and migration conditions.
- Damage to coastal habitats from extreme weather events.

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Prelims Concept: Temperature-dependent sex determination links climatic conditions with reproductive outcomes in marine turtles.

16. Way Forward: An Integrated Marine Turtle Conservation Strategy

A. Standardised National Monitoring

Develop consistent survey methods and reporting protocols across mainland and island nesting habitats.

B. Protection of Dispersed Nesting Sites

Conservation programmes must cover solitary nesting beaches in addition to internationally recognised mass-nesting sites.

C. Sustainable Fisheries Management

Promote appropriate fishing gear, Turtle Excluder Devices and scientifically justified seasonal restrictions.

D. Community-Based Conservation

Involve fishers, coastal communities, local institutions and researchers in monitoring and conservation decisions.

E. Responsible Coastal Development

Evaluate potential effects of infrastructure on nesting beaches, sediment movement, lighting and marine habitats.

F. Marine Pollution Control

Reduce plastic pollution, abandoned fishing gear and other coastal waste through effective waste management.

G. Natural Nest Protection

Prioritise protection of nests in their original habitats where feasible. Relocation to appropriately managed hatcheries should be based on documented ecological need.

H. Climate-Resilient Conservation

Monitor beach temperatures, erosion patterns and changing habitat conditions to support adaptive conservation planning.

I. Outcome-Based Evaluation

Measure conservation performance through nesting trends, hatching success, emergence success, mortality indicators, habitat quality and fisher participation.

GS Paper III Value Addition: Marine turtle conservation should follow an ecosystem-based approach rather than focusing exclusively on individual species or isolated nesting beaches.

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17. UPSC Prelims 2027 – Quick Revision

- Olive Ridley scientific name: *Lepidochelys olivacea*.
- Animal class: Reptilia.
- Family: Cheloniidae.
- Global IUCN status: Vulnerable.
- CITES classification: Appendix I.
- Indian legal protection: Schedule I.
- Arribada means synchronised mass nesting.
- Major Odisha nesting sites: Gahirmatha, Rushikulya and Devi River Mouth.
- Operation Olivia is conducted by the Indian Coast Guard.
- TED stands for Turtle Excluder Device.
- TEDs help reduce turtle bycatch in suitable trawl nets.
- Five marine turtle species occur in Indian waters.
- Four species regularly nest along Indian mainland or island coastlines.
- The Leatherback is the largest living sea turtle species.
- Galathea Bay is an important Leatherback nesting habitat.
- National Marine Turtle Action Plan was launched in 2021.
- WII's 2025–26 assessment covered 350 beach stretches.
- The reported 18,713 figure refers to solitary nests, not the entire turtle population.
- Sea turtles exhibit temperature-dependent sex determination.
- Conservation must cover both terrestrial nesting habitats and marine ecosystems.

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18. UPSC Prelims Practice MCQs

Question 1

With reference to Olive Ridley turtles, consider the following statements:

1. They are classified as Vulnerable on the IUCN Red List.
2. They exhibit a synchronised mass-nesting phenomenon known as arribada.
3. They are marine mammals.

Which of the statements given above are correct?

A. 1 only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

Reveal Correct Answer and Explanation

Correct Answer: B – 1 and 2 only

Statements 1 and 2 are correct. Olive Ridley turtles are globally classified as Vulnerable and are known for arribada.

Statement 3 is incorrect because sea turtles are reptiles.

Question 2

Consider the following pairs:

Location	State or Union Territory
1. Gahirmatha	Odisha
2. Rushikulya River Mouth	Odisha
3. Galathea Bay	Andaman and Nicobar Islands

How many of the above pairs are correctly matched?

A. Only one

B. Only two

C. All three

D. None

Reveal Correct Answer and Explanation

Correct Answer: C – All three

Gahirmatha and Rushikulya are important Olive Ridley nesting habitats in Odisha. Galathea Bay is located on Great Nicobar Island and is important for Leatherback turtle nesting.

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Question 3

Operation Olivia is primarily associated with which of the following?

A. Conservation of Olive Ridley turtles by the Indian Coast Guard.

B. Protection of Asiatic lions by State forest departments.

C. Restoration of Himalayan glaciers.

D. Reintroduction of cheetahs in Indian grasslands.

Reveal Correct Answer and Explanation

Correct Answer: A

Operation Olivia is an annual Indian Coast Guard initiative supporting the protection of Olive Ridley turtles and their breeding habitats.

Question 4

Consider the following statements regarding marine turtle conservation:

1. Turtle Excluder Devices can reduce accidental capture of turtles in suitable trawl nets.
2. Artificial coastal lighting may disorient turtle hatchlings.
3. Protecting nesting beaches alone eliminates all major threats to marine turtles.

Which of the statements given above are correct?

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Reveal Correct Answer and Explanation

Correct Answer: A – 1 and 2 only

TEDs reduce fishing-related risks, while artificial lighting can interfere with natural hatchling orientation.

Statement 3 is incorrect because marine turtles also face threats in feeding, breeding and migratory habitats at sea.

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Question 5

With reference to marine turtle monitoring, consider the following statements:

1. An individual female turtle may nest more than once during a breeding season.
2. Survey coverage and detection probability can influence recorded nesting numbers.
3. The number of recorded nests always equals the total population of the species.

Which of the statements given above are correct?

A. 1 only

B. 2 only

C. 1 and 2 only

D. 1, 2 and 3

Reveal Correct Answer and Explanation

Correct Answer: C – 1 and 2 only

Nest counts are influenced by repeat nesting, survey effort and detection probability. They cannot automatically be equated with total species population.

19. IFSC Mains Answer Writing Practice

GS Paper III – Environment and Biodiversity

Question: Explain why protecting nesting beaches alone is insufficient for marine turtle conservation. Discuss in the context of the recent Wildlife Institute of India assessment.

Marks: 15 | **Word Limit:** 250 Words

Reveal Model Answer

Introduction

Marine turtles are migratory reptiles whose life cycles connect coastal nesting beaches with extensive marine feeding and breeding habitats. The recent Wildlife Institute of India assessment highlights the widespread nesting distribution of Olive Ridley turtles and significant monitoring deficiencies.

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Body

Beach protection is essential for safeguarding eggs and hatchlings. However, marine turtle conservation requires a wider approach because:

- Accidental capture in fishing gear threatens juveniles and breeding adults.
- Marine pollution and abandoned fishing nets cause ingestion and entanglement risks.
- Migratory turtles move across multiple administrative and national boundaries.
- Coastal development and artificial lighting affect nesting habitats and hatchling orientation.
- Climate change can alter nesting temperatures, sea levels and habitat suitability.
- Incomplete monitoring may conceal changes in population trends.

India should strengthen conservation through standardised beach surveys, satellite tracking, sustainable fishing practices, Turtle Excluder Devices, appropriate coastal regulation and community participation.

Operation Olivia and the National Marine Turtle Action Plan provide important foundations for institutional coordination.

Conservation should include both mass-nesting beaches and dispersed solitary nesting habitats while addressing livelihood concerns of fishing communities.

Conclusion

Effective marine turtle conservation requires an integrated land-to-sea approach. By combining scientific monitoring, responsible coastal development, sustainable fisheries and participatory governance, India can protect marine biodiversity while supporting coastal livelihoods and ecological resilience.

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GS Paper III – Environmental Governance

Question: Examine the role of scientific monitoring and community participation in strengthening marine biodiversity conservation in India.

Marks: 10 | **Word Limit:** 150 Words

Reveal Suggested Answer

Marine biodiversity conservation requires reliable ecological information and effective cooperation among institutions and coastal communities.

Scientific monitoring helps identify nesting habitats, migration patterns, mortality risks and changes in species distribution. Standardised surveys, tagging and statistical quality controls improve the reliability of conservation decisions.

Community participation is equally important because fishing communities possess local ecological knowledge and directly interact with marine habitats. Appropriate fishing gear, awareness programmes and livelihood-sensitive

regulations can reduce conflict between conservation objectives and economic needs.

The Wildlife Institute of India, State forest departments, fisheries authorities and Indian Coast Guard can support coordinated implementation.

Therefore, evidence-based planning and participatory governance should form the foundation of India's marine conservation strategy, ensuring biodiversity protection alongside sustainable coastal livelihoods.

20. Important Essay Topics for UPSC

- Economic development and environmental conservation must progress together.
- Marine biodiversity is a foundation of ecological security.
- Scientific knowledge and community participation are essential for sustainable development.
- Intergenerational equity and the responsibility to protect nature.
- Healthy oceans are essential for a sustainable human future.

21. Frequently Asked Questions

What is the scientific name of the Olive Ridley turtle?

Lepidochelys olivacea

What is the IUCN status of Olive Ridley turtles?

The species is globally classified as Vulnerable on the IUCN Red List.

What is arribada?

Arribada is the synchronised mass-nesting behaviour exhibited by certain sea turtles, particularly Ridley turtles.

Which Indian State is famous for Olive Ridley mass nesting?

Odisha, particularly the Gahirmatha and Rushikulya coastal nesting regions.

What is Operation Olivia?

It is an Indian Coast Guard conservation initiative supporting the protection of Olive Ridley turtles and their breeding habitats.

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What is a Turtle Excluder Device?

A TED is a modification in suitable trawl fishing nets that allows accidentally captured sea turtles to escape.

How many marine turtle species occur in Indian waters?

Five species: Olive Ridley, Green, Hawksbill, Leatherback and Loggerhead turtles.

How many Olive Ridley solitary nests were recorded in 2024–25?

The reported WII assessment recorded 18,713 solitary nests. This is not the total Olive Ridley population.

When was the WII marine turtle assessment released?

It was released on 23 November 2026 during the 92nd meeting of the Standing Committee of the National Board for Wildlife.

Which is the largest living marine turtle species?

The Leatherback turtle, scientifically known as *Dermochelys coriacea*.

What is the importance of Galathea Bay?

Galathea Bay on Great Nicobar Island is an important Leatherback turtle nesting habitat.

When was the National Marine Turtle Action Plan launched?

It was launched in January 2021 by the Ministry of Environment, Forest and Climate Change.

How does climate change affect marine turtles?

Climate change can influence nesting temperatures, hatchling sex ratios, beach erosion, sea levels and marine habitat conditions.

Why is Olive Ridley conservation important for UPSC?

It connects biodiversity, environmental legislation, marine ecology, coastal geography, sustainable fisheries and conservation governance.

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22. Conclusion

The Wildlife Institute of India's 2026 marine turtle assessment provides an important foundation for understanding the geographical distribution and conservation requirements of India's marine turtles.

Although Olive Ridley turtles are widely distributed across the mainland coastline, persistent monitoring gaps, marine pollution, fisheries bycatch and habitat degradation require sustained conservation action.

India must move beyond isolated beach protection towards an integrated conservation strategy encompassing marine habitats, sustainable fisheries, responsible infrastructure development and community participation.

Civil Service Gurukul – Final Takeaway

The future of Olive Ridley turtle conservation depends not merely on protecting nesting beaches, but on safeguarding the complete ecological journey from egg to adult and from coastal habitats to the open ocean.

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Editorial Note: This article has been independently prepared for educational purposes and UPSC Civil Services Examination preparation. Current affairs figures reflect official announcements and reported scientific findings available as of 26 November 2026. Recorded nests and estimated nesting females should not be interpreted as the total marine turtle population. Policy recommendations constitute educational analysis. Practice MCQs and model answers are original exercises and are not official UPSC examination questions.

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