Causes: 1 line only

Oil mostly floats first;

only heavy parts sink

Labelled diagram helps

Gulf of Mexico apt

Correct, relevant intro

Impacts too generic: add food chain, seabirds, mammals

Question No. प्रश्न संख्या

U.P.S.C.

(GS III)

for practice use only सिर्फ अभ्यास के लिए

Q. What is oil pollution? What are its impacts on the marine ecosystem? In what way is oil pollution particularly harmful for a country like India? (10 m / 150 w)

Oil pollution refers to contamination of marine, coastal and freshwater ecosystem by the release of petroleum or it's by-products. It is a toxic and persistent type of pollution.

Causes of oil spill

1) Accidents along coasts. - of ships.
2) Offshore drilling operations leakage.
3) Industrial sewage run-off.



Fig: Oil pollution.

Eg: 2025 sinking of Fisa-3 along Kerala coast led to huge oil spill along the coast.

Impacts on marine Ecosystem

1. Oil spills sink into the water and affect the mobility and breathing of marine organisms

2. This causes decline in fisheries and marine biodiversity.

Eg: 2010 spill along Gulf of mexico caused mass marine mortality.

✓ Q1 - 4/10

Over 150 words - trim

Add Indian spills:

Ennore 2017, MSC Chitra

Name the UAE 2026 incident

Add MARPOL, NOS-DCP

Dead zones are mainly nutrient-driven, not oil

Question No. प्रश्न संख्या

U.P.S.C.

सिर्फ अभ्यास के लिए

3. Oil blocks coral pores and disrupt their photosynthesis leading to coral bleaching.

4. Oil shrinks the sea-photic zone and reduces oxygen levels due to blockage on sea surface
- This leads to formation of Dead zones

Oil Pollution - Particularly Harmful to India ✓

1. Long coastline (~11,098 km)
- supports shipping and critical infrastructure which might be directly affected.

2. Coastal communities
- high density of coastal settlements may be endangered due to toxic water, reduced catch for fishermen (~4 million) and reduced tourism.

3. Ecologically sensitive zones
- like sunderbans, and pristine beaches will be at risk with absence of apt response measures.
- Eg: Recent (2026) spill along UAE forced closure of local beaches.

4. Threaten India's Long term Aspirations in the Indian Ocean Region like Sagarmala.

It is necessary to invest in oil spill cleaning technologies while maintaining adequate quick response mechanisms along risky areas to preserve our marine ecosystem in line with SDG14.

Clear 3-part structure

Sagarmala link is apt

SDG14 forward ending

OVERALL REMARK

4 / 10

Q1 - 4 / 10

WHY THIS SCORE

- Impacts generic: no food chain, biomagnification or seabirds
- India part lacks Indian precedents and legal framework
- Causes added; word limit exceeded

STRENGTHS

1. All three parts of the question were addressed in order
2. Labelled diagram shows how oil blocks light and affects fish, corals and sea plants
3. Relevant examples: MSC Elsa-3 (Kerala 2025) and Gulf of Mexico 2010
4. India section is organised by coastline, communities, sensitive zones and aspirations
5. Keywords are underlined and the conclusion links to SDG14

AREAS TO IMPROVE

1. Skip content the question did not ask for (causes) and keep to 150 words
2. Add food-chain effects, bioaccumulation, and harm to seabirds and mammals
3. Be precise on physics: oil spreads as a surface slick; only heavy fractions sink
4. Add Indian incidents such as Ennore 2017 and MSC Chitra 2010
5. Mention that India depends heavily on imported crude and has busy sea lanes
6. Add the response framework: MARPOL, OPRC, NOS-DCP, Coast Guard

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Super Simplified · Dr

7. Name the incident and source behind the 2026 UAE example; write 11,098 with a comma

ACTION FOR NEXT TEST

- Plan each answer as one line per demand part, then write only what those lines need
- Attach one Indian example and one legal or institutional hook to every environment answer
- Practise 150-word answers with a timer and count words before moving on

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MODEL ANSWER

(how a topper would write it)

Oil pollution is the release of crude oil or refined products into marine and coastal waters through ship accidents, drilling leaks and run-off. It is persistent and toxic, as the Deepwater Horizon (2010) and MSC Elsa-3 (Kerala, 2025) spills showed.

Impact on marine ecosystem

- Surface slick blocks light and oxygen exchange, hitting phytoplankton and the base of the food chain
- Smothers corals and mangroves; coats seabird feathers and mammal fur, causing hypothermia and death
- Hydrocarbons bioaccumulate and biomagnify, harming fish stocks and human consumers

Why harmful for India

- 11,098 km coastline, busy sea lanes and crude imports raise spill risk (Ennore 2017, MSC Chitra 2010)
- About 4 million fisherfolk and coastal tourism lose livelihoods
- Sundarbans mangroves, Gulf of Mannar corals and Lakshadweep are highly sensitive

Response gaps

- NOS-DCP and Coast Guard exist, but regional capacity and clean-up technology are limited
- Compensation under the Civil Liability and Fund Conventions reaches fishers slowly

From oil spill to coastal livelihood loss:



[Diagram] Draw a left-to-right flowchart with arrows between the five nodes, and mark the Indian coast as the endpoint.

Way forward / Conclusion

India must strengthen early-warning, regional spill-response hubs and bioremediation technology, and enforce MARPOL norms. This protects its blue economy and delivers on SDG14.

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HOW TO PRESENT IT BETTER

1. Open with a one-line definition and a spill example, then go straight to impacts. Skip causes unless the question asks for them.
2. Use headings that mirror the three demands: Meaning, Impacts, Harm to India. Your headings did this well.
3. End with policy action (MARPOL, NOS-DCP, SDG14) rather than only technology and response, so the conclusion resolves the question.
4. Keywords are underlined well. Also underline the examples and numbers, such as 11,098 km and 4 million.
5. Gaps between points make the answer easy to scan, but the total length overshoots 150 words, so tighten each point to one line.
6. Write 11,098 with a comma, not a full stop. Check that 'Oill' is spelt 'Oil' and keep the handwriting uniform.
7. Diagram: Your sea cross-section is good; add a small map or flowchart of India's west-coast tanker route and spill-prone sites such as Ennore and Mumbai to anchor the India section.

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