

P2. NATIONAL



India’s higher education enrolment hits 4.5 crore; women, marginalised groups lead way: AISHE report - Assessing how India's higher education system is expanding access, promoting gender equity and strengthening social inclusion through increased enrolment.

P3. NATIONAL



Why India’s engineering education needs a reset in the AI era - Examining the structural challenges facing engineering education and the reforms needed to build a globally competitive, innovation-driven workforce.

P4. ECOLOGY



What a dolphin’s death in Kerala reveals about India’s marine plastic pollution- Understanding how plastic pollution, ghost nets and human activities are threatening India's marine mammals, with a focus on the endangered Indian Ocean humpback dolphin.

P7. INTERNATIONAL



How India withstood the crisis in West Asia - How strategic diplomacy, energy diversification and institutional preparedness enabled India to withstand a major global oil shock with minimal domestic disruption.

Editor’s Note

The latest edition of Pala Civil Times brings together a carefully curated set of issues that go beyond the headlines to explain the ideas and policy choices shaping contemporary India and the world. This edition explores India's achievements in expanding higher education and the reforms needed to build a globally competitive engineering ecosystem, while also examining the growing threats to marine biodiversity through the tragic deaths of endangered marine mammals on the Kerala coast. It analyses how strategic energy planning, diplomacy and institutional preparedness enabled India to successfully navigate the West Asian oil crisis, and decodes the ongoing debate on caste enumeration in Census 2027 by unpacking its constitutional, governance and social justice dimensions. Together, these articles encourage readers to understand not just what is happening, but why it matters, making this edition an engaging companion for anyone seeking a deeper grasp of public policy, governance, international relations, environmental conservation and social issues. We hope you enjoy the journey of learning. happy reading!

Editorials Decoded

 **The Indian EXPRESS**

Look back at the dark, shine a light on it



Examines how OTT content in India is regulated under the IT Act and the shift from CBFC pre-certification to post-publication executive oversight.

THE HINDU

Checkbox caste



Analysing the rationale, challenges and policy significance of caste enumeration in balancing social justice with reliable governance data.

India's higher education enrolment hits 4.5 crore; women, marginalised groups lead way: AISHE report

The All India Survey on Higher Education (AISHE) 2023–24 highlights the transformation of India's higher education sector over the past decade. Beyond the expansion in enrolment, the survey reflects significant progress in gender equity, social inclusion and participation in STEM education, making higher education an important instrument for achieving equitable and inclusive development. The findings are particularly relevant for women's empowerment, social justice, demographic dividend, human capital and inclusive growth.

Expansion of India's Higher Education Sector

- **Total enrolment** increased from **3.42 crore (2014–15) to 4.5 crore (2023–24)**, registering a growth of **31.5%** over the last decade.
- The survey covers **59,533 Higher Education Institutions (HEIs)** with an institutional participation rate exceeding 90%, making AISHE the principal database for assessing higher education in India.
- **Gross Enrolment Ratio (GER)** reached **30 for the 18–23 years age group**, indicating steady improvement in access to higher education.

The data collectively reflects a higher education system that is becoming larger, more accessible and increasingly inclusive.

Expansion of India's Higher Education Sector

- **The Gender Parity Index (GPI)** stood at 1.08 in 2023–24, remaining above 1.0 for seven consecutive years, indicating that female participation now consistently exceeds male participation.
- **Female Gross Enrolment Ratio (GER)** increased to **31.2, surpassing the national GER of 30**, reflecting sustained improvements in women's access to higher education.
- **Women's participation** has expanded beyond traditional disciplines, with increasing representation across professional and technical education.

The findings demonstrate that higher education is becoming a powerful enabler of women's empowerment by improving access to knowledge, skills and employment opportunities.

Higher Education as an Instrument of Social Inclusion

- **Scheduled Caste (SC) enrolment** increased by **51.4%**, reaching 69.72 lakh, while SC GER improved from 18.9 to 27.8.
- **Scheduled Tribe (ST) enrolment** grew by 75.7%, rising to 28.83 lakh, with GER increasing from 13.5 to 22.8.
- **Other Backward Class (OBC) enrolment** expanded by **60.2%**, increasing from 1.13 crore to 1.80 crore over the decade.

These trends indicate that higher education is becoming increasingly accessible to historically underrepresented communities, strengthening social mobility and inclusive development.



Growing Participation in STEM Education

- **STEM enrolment** crossed **1.02 crore** students in 2023–24, reflecting increasing emphasis on science and technology education.
- **Women's share in STEM** increased from **38.4% in 2014–15 to 44% in 2023–24**, signalling gradual reduction of gender barriers in technical and scientific disciplines.

The growing participation of women in STEM is significant for innovation, research capacity, technological advancement and future workforce development. The trend also reflects a gradual shift away from traditional gender stereotypes in career choices.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Women's social capital complements in advancing empowerment and gender equity. Explain. (GS II – Social Justice – 2025)

RELEVANCE

GS II : Social Services - Education; Social Justice

Why India's engineering education needs a reset in the AI era

India's ambition to become a global leader in Artificial Intelligence (AI), semiconductors, and advanced manufacturing depends on the availability of a highly skilled engineering workforce. While premier institutions such as the IITs and leading NITs continue to produce globally competitive graduates, a large segment of the engineering education ecosystem faces declining admissions, poor employability and institutional closures. The challenge today is not a declining demand for engineers, but the widening gap between the skills required by a technology-driven economy and those imparted by many engineering institutions.

From Expansion to Excellence

- **Rapid Expansion:** The IT boom led to the rapid expansion of engineering colleges, significantly improving access to technical education but also creating wide disparities in institutional quality and academic outcomes.
- **Shift Towards Quality:** Since the 2000s, engineering education policy has gradually shifted from expanding access to prioritising quality, employability and global competitiveness.
- **Outcome-Based Accreditation:** Greater emphasis has been placed on outcome-based accreditation and global benchmarking, shifting the focus from infrastructure and inputs to educational excellence and graduate outcomes.
- **Progressive Closure:** AICTE has adopted the policy of progressive closure to facilitate the orderly exit of persistently underperforming institutions while safeguarding the interests of students.

Key Structural Challenges

- **Growing mismatch between industry and education :** many institutions fail to equip graduates with skills for emerging technologies.
- **Limited employability :** Outdated curricula, inadequate faculty strength, weak research ecosystems and limited industry collaboration have adversely affected employability.
- **Change in demand :** Student demand has increasingly shifted towards AI, data science and computer science, while several traditional engineering branches continue to witness declining enrolment.
- **Concentration of admissions in IITs:** has weakened the financial and academic sustainability of many lower-tier colleges, resulting in increasing institutional closures.



Policy Priorities for Engineering Education 2.0

- Engineering curricula must be continuously aligned with emerging technologies such as AI, semiconductor design, robotics, cybersecurity, data science and sustainability, while preserving strong foundations in core engineering disciplines.
- Teaching should transition from rote learning towards competency-based education through project-based learning, interdisciplinary problem-solving, research, entrepreneurship and experiential learning.
- Stronger industry-academia partnerships should be promoted to improve internships, collaborative research, curriculum design and graduate employability, ensuring that education remains responsive to evolving technological needs.
- Regulatory frameworks should increasingly evaluate institutions based on measurable outcomes such as employability, innovation, patents, research output, start-ups and industry engagement, rather than relying predominantly on input-based compliance norms.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Scientific research in Indian universities is declining, because a career in science is not as attractive as are business professions, engineering or administration, and the universities are becoming consumer-oriented. Critically comment (GS III – Science and Technology – 2014)

RELEVANCE

GS II : Social Services - Education; Social Justice

What a dolphin's death in Kerala reveals about India's marine plastic pollution

India is simultaneously witnessing rising female labour force participation and a growing burden of non-communicable diseases (NCDs) such as diabetes, hypertension, cardiovascular diseases, obesity and mental health disorders. While these trends are often viewed separately, emerging research suggests they are closely linked. Greater economic participation by women may improve household health outcomes by influencing spending decisions. This shifts the focus from healthcare alone to the broader role of women's financial empowerment in promoting healthier families and reducing long-term disease risks.

Indian Ocean Humpback Dolphin (*Sousa plumbea*)

- **Conservation Status:** Classified as Endangered on the IUCN Red List.
- **Distribution:** Found in shallow coastal waters of the Indian Ocean, ranging from South Africa through East Africa and the Middle East to the west coast of India.
- **Habitat Preference:** Occupies nearshore, intertidal and estuarine waters, generally at depths below 20 metres, making it highly exposed to human activities.
- **Feeding Behaviour:** An opportunistic feeder, feeding mainly on fishes such as mackerel, mullet and sardines.
- **Population Trend:** Populations have declined significantly, with only small, localised populations believed to remain.

Key Features and Conservation Concerns

Indian Ocean Humpback Dolphin (*Sousa plumbea*) is characterised by a small triangular dorsal fin positioned on a noticeable hump, with a predominantly grey ('plumbea' meaning lead-coloured) body.

- **Highly Intelligent Marine Mammal:** Like other cetaceans, humpback dolphins possess complex social structures, advanced cognition and strong site fidelity, often returning to the same coastal habitats.
- **Highly Vulnerable Habitat:** Their dependence on shallow coastal waters places them in constant interaction with fishing operations, vessel traffic and coastal pollution.
- **Understudied Species:** Despite occurring along much of India's coastline, the species remains poorly studied, and populations on India's east and west coasts show distinct distribution patterns.
- **Increasing Strandings:** The species recorded 129 strandings during 2024–25, making it the most frequently stranded marine mammal in India during the period.

Why It Matters

- The deaths reflect the increasing impact of anthropogenic pressures like plastic pollution, ghost nets and fishing gear entanglement.
- Marine mammal strandings remain consistently high in India, with 171 strandings involving 11 species in 2024 and 161 strandings involving 14 species in 2025.
- Coastal species are particularly vulnerable because they inhabit shallow waters close to human settlements, fishing activities and areas with high plastic waste accumulation.
- The incident also shows that several coastal States still lack comprehensive databases and long-term monitoring of marine mammal strandings.

Major Threats

- Plastic pollution causes accidental ingestion, digestive blockages, starvation and chemical toxicity.
- Ghost nets (abandoned, lost or discarded fishing gear) continue trapping marine mammals long after being discarded, causing injury, suffocation, drowning and starvation.
- Fishing gear entanglement remains one of the leading causes of mortality for dolphins, porpoises, turtles and dugongs.
- Unethical tourism practices and increasing coastal human activities add further stress to already declining populations.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins? (2014)

1. Construction of dams and barrages on rivers
 2. Increase in the population of crocodiles in rivers.
 3. Getting trapped in fishing nets accidentally
 4. Use of synthetic fertilizers and other agricultural chemicals in crop fields in the vicinity of rivers
- Select the correct answer using the code given below:
- a) 1 and 2 only
 - b) 2 and 3 only
 - c) 1, 3 and 4 only
 - d) 1, 2, 3 and 4

RELEVANCE

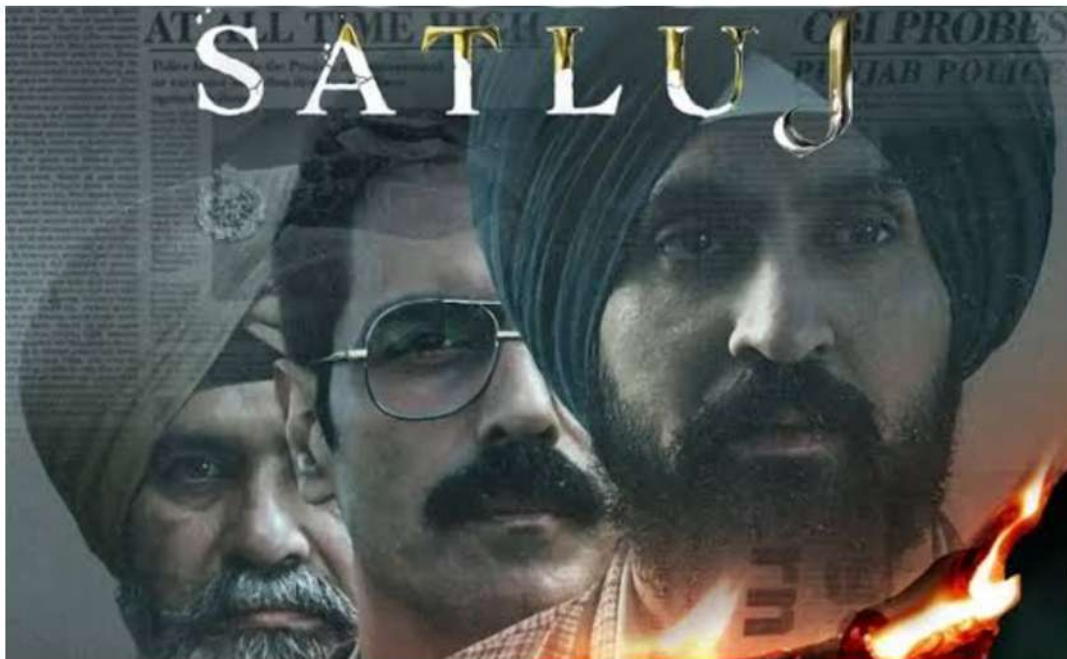
GS II : Social Justice

Look back at the dark, shine a light on it (Indian Express : 09-07-2026)

The removal of Satluj from ZEE5 shortly after its release has evolved into a significant governance and constitutional issue. While reports indicate that the film is being examined under **Section 69A of the Information Technology Act, 2000**, no official blocking order has been made public. The controversy has therefore shifted the debate from the content of a film to broader questions concerning **digital regulation, executive authority, freedom of expression and national security**.

State Intervention to Protect National Security

Section 69A empowers the Central Government to block online content on limited grounds such as sovereignty and integrity of India, security of the State, defence of India, public order, friendly relations with foreign States, and prevention of cognisable offences. These restrictions derive constitutional legitimacy from Article 19(2), recognising that freedom of speech is not absolute. As digital platforms increasingly shape public discourse, the State views regulation of online content as an important instrument for addressing potential threats to national security, public order and information warfare.



Constitutional Safeguards Against Arbitrary Executive Action

The exercise of these powers is subject to important procedural safeguards. In *Shreya Singhal v. Union of India* (2015), the Supreme Court upheld Section 69A because it requires a reasoned written order, an opportunity to be heard, committee-based scrutiny and judicial review. However, the reported absence of a publicly available blocking order in the Satluj case has revived concerns regarding transparency, accountability and procedural fairness. **Judicial decisions such as Tanul Thakur (2022), K.S. Puttaswamy (2017) and Anuradha Bhasin (2020)** reinforce that restrictions on fundamental rights must satisfy the tests of legality, necessity and proportionality.

RELEVANCE

GS III ; Infrastructure : Energy

Governance and Internal Security Implications

The controversy reflects a broader shift in India's regulatory framework from pre-publication certification of theatrical films by the CBFC to post-publication executive regulation of OTT content under the IT Act and the IT Rules, 2021. It also illustrates the expanding scope of internal security, where information and digital platforms have become strategic domains alongside conventional security concerns. At the same time, the case raises enduring questions about maintaining the rule of law, protecting civil liberties, ensuring accountability of executive action and balancing security imperatives with democratic freedoms.

A Contemporary Governance Challenge

The Satluj episode demonstrates that governing digital content requires balancing two equally important constitutional objectives: **protecting national security and preserving fundamental freedoms**. The challenge for a constitutional democracy is not whether the State may regulate online content, but whether such regulation remains transparent, proportionate, legally justified and subject to effective judicial oversight.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. In India, which one of the following Constitutional Amendments was widely believed to be enacted to overcome the judicial interpretations of Fundamental Rights? (2023)

- (a) 1st Amendment
- (b) 42nd Amendment
- (c) 44th Amendment
- (d) 86th Amendment

Checkbox caste (The Hindu : 09-07-2026)

Census 2027 will be India's first digital Census and the first post-Independence Census to enumerate caste comprehensively. Furthermore, it will be the first Census in independent India to enumerate the caste of all citizens, going beyond the traditional enumeration of only Scheduled Castes (SCs) and Scheduled Tribes (STs). As part of the ongoing pre-test exercise in 16 States and Union Territories, respondents are being provided an open column to state their caste, which will be recorded by enumerators. Since **caste enumeration** is being conducted as part of the Census itself, it **carries statutory backing** and is expected to generate a comprehensive database for policymaking and social justice interventions.

Why is Caste Enumeration Being Undertaken?

- Accurate caste data is essential for evidence-based policymaking, particularly in areas relating to reservations, welfare delivery and social justice.
- Contemporary caste-wise population figures are unavailable, as the last Census that fully tabulated caste data was conducted in 1931.
- Empirical caste data can improve targeting of welfare programmes and help assess whether benefits are reaching intended communities.
- Reliable caste statistics can inform debates on creamy layer exclusion, sub-categorisation of backward classes and equitable distribution of reservation benefits.
- The exercise reflects a broader attempt to align affirmative action policies with current social realities rather than outdated demographic estimates.



Open-Ended Enumeration Approach

Under the current pre-test methodology, respondents state their caste in an open column and enumerators record the response as given. This helps preserve self-identification and allows individuals to describe their caste without administrative restrictions. It also avoids exclusion of communities that may not appear in pre-prepared caste lists.

RELEVANCE

GS I : Indian Society

Major Concerns

- The 2011 Socio-Economic and Caste Census (SECC) used a similar approach and generated more than 46 lakh caste names, compared to only 4,147 castes recorded in the 1931 Census.
- Respondents often reported surnames, sub-castes, clans and local identities interchangeably, creating inconsistencies and duplication.
- The Union Government informed the Supreme Court in 2021 that the SECC caste data contained significant errors and could not be relied upon for policy purposes.

Major Concerns

- Unlike religion, language or gender, caste is a socially constructed and hierarchical identity assigned by birth rather than individual choice.
- The Constitution seeks to reduce the influence of caste through provisions abolishing untouchability, prohibiting caste discrimination and promoting equality.
- Caste-based inequalities continue to shape access to education, employment and opportunities, making accurate data necessary for addressing structural disadvantages.
- Efficient caste enumeration brings in better data that can strengthen social justice policies aimed at reducing caste-based inequalities rather than reinforcing them.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Why is caste identity in India both fluid and static? (GS I – Indian Society – 2023)

How India withstood the crisis in West Asia

The West Asia crisis revived fears of another oil shock for India, given that the country imports nearly 90% of its crude oil and depends heavily on the Gulf for oil, LPG and fertilisers. However, unlike previous crises, India prevented a global energy disruption from turning into a domestic economic crisis. The episode demonstrates how energy security today is shaped not only by oil supplies, but also by diplomacy, institutional preparedness and coordinated governance.

How India's Resilience Was Visible

- **Stronger price stability** : Petrol prices increased by only 7.5% in India, compared to 14% in Germany, 19% in the United Kingdom, 45% in the United States, over 50% in Pakistan and the Philippines, and nearly 90% in Myanmar.
- **Overall crude oil supply stability** : Diesel prices rose by only 8% in India, whereas countries such as the UAE witnessed an increase of around 85%.
- **LPG affordability** : Despite India's heavy import dependence, domestic cylinders priced at ₹942 and ₹642 were available for Ujjwala beneficiaries, remaining cheaper than in Pakistan, Nepal, Sri Lanka and several developed countries.



Consumer Protection Through Public Sector Intervention

The stability in domestic fuel prices was achieved because public sector Oil Marketing Companies (OMCs) absorbed a substantial share of the global price shock instead of passing it on to consumers. During the crisis, state-run OMCs incurred losses of ₹74,781 crore on petrol, diesel and LPG sales. This policy cushioned households against imported inflation, maintained affordability of essential fuels and prevented a broader macroeconomic shock despite soaring international crude prices.

Factors Behind India's Energy Resilience

- **Energy diplomacy** : stable communication with Iran and key Gulf countries ensured uninterrupted communication, facilitated the movement of Indian vessels and helped maintain stable energy supplies despite heightened regional tensions.
- **Diversification of energy imports** : Maintaining suppliers across Russia, the United States, Africa and Latin America reduced dependence on any single supplier and strengthened India's ability to withstand geopolitical disruptions.
- **Energy Planning** : Long-term investments in ethanol blending, renewable energy, strategic petroleum reserves and refining capacity enhanced India's capacity to absorb external energy shocks without major domestic disruption.
- **Whole-of-government response** : involving the Ministries of External Affairs, Petroleum, Shipping, the Indian Navy and the National Security Council Secretariat enabled coordinated monitoring of risks, efficient logistics management and uninterrupted energy supplies.

Lesson Learned

The crisis highlights that energy security is no longer limited to securing oil supplies. Rather, it is increasingly driven by foreign policy, strategic diversification, domestic energy transition and institutional coordination. India's experience demonstrates that resilience is built through sustained preparation rather than crisis management.

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. "Energy security constitutes the dominant kingpin of India's foreign policy, and is linked with India's overarching influence in Middle Eastern countries." How would you integrate energy security with India's foreign policy trajectories in the coming years? (GS II – International Relations – 2025)

RELEVANCE

GS II : International Relations

PYQ Compass

UPSC questions previously asked from the themes discussed on this page.



Q. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins? (2014)

1. Construction of dams and barrages on rivers
2. Increase in the population of crocodiles in rivers.
3. Getting trapped in fishing nets accidentally
4. Use of synthetic fertilizers and other agricultural chemicals in crop fields in the vicinity of rivers

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1, 3 and 4 only
- d) 1, 2, 3 and 4

Ans : C

Statement 1: Correct. Dams and barrages fragment river habitats, obstructing the movement of dolphins and affecting their prey availability.

Statement 2: Incorrect. Crocodile populations do not significantly impact Ganges River Dolphins. Both species coexist in river ecosystems.

Statement 3: Correct. Accidental entanglement in fishing nets is a major cause of mortality for dolphins.

Statement 4: Correct. Agricultural runoff containing synthetic fertilizers and pesticides leads to water pollution, reducing prey availability and affecting dolphin health.

Q. In India, which one of the following Constitutional Amendments was widely believed to be enacted to overcome the judicial interpretations of Fundamental Rights? (2023)

- (a) 1st Amendment
- (b) 42nd Amendment
- (c) 44th Amendment
- (d) 86th Amendment

Ans : a

The 1st Constitutional Amendment (1951) was enacted primarily to address and overcome judicial interpretations of Fundamental Rights, especially related to the right to property (Article 19(1)(f)) and freedom of speech and expression (Article 19(1)(a)). Key points include:

- It introduced reasonable restrictions on the right to freedom of speech and expression (Article 19(2)) to address issues related to public order, incitement to violence, etc.
- It added Articles 31A and 31B, which aimed to protect land reform laws from being challenged in courts under Fundamental Rights.
- It created the Ninth Schedule to shield certain laws from judicial review. This amendment was a response to judicial decisions like the Champakam Dorairajan case (1951) and others, which struck down laws on the grounds of violating Fundamental Rights.

Practice Questions and answers

Q. Which one of the following was NOT identified as a major factor behind India's resilience during the West Asia oil crisis?

- (a) Diversification of energy suppliers
- (b) Strategic energy diplomacy
- (c) Long-term investments in energy infrastructure
- (d) Discovery of large domestic crude oil reserves

Answer: (d)

India's resilience during the crisis rested on four key pillars:

- Energy diplomacy with Iran and Gulf countries to ensure uninterrupted supplies.
- Diversification of import sources across Russia, the U.S., Africa and Latin America.
- Long-term investments in ethanol blending, renewable energy, strategic petroleum reserves and refining capacity.
- Whole-of-government coordination involving the Ministries of External Affairs, Petroleum, Shipping, the Indian Navy and the National Security Council Secretariat.

India did not overcome the crisis through a significant expansion of domestic crude oil production. The country continues to import nearly 90% of its crude oil requirements, making strategic planning and diversified sourcing the primary drivers of resilience.

Q. With reference to the Indian Ocean humpback dolphin (*Sousa plumbea*), consider the following statements:

1. It is listed as Endangered on the IUCN Red List.
2. It primarily inhabits shallow coastal and estuarine waters.
3. It was recognised as a distinct species only in 2014.
4. It is commonly found in deep oceanic waters far away from the coast.

Which of the statements given above are correct?

- (a) 1, 2 and 3 only
- (b) 1 and 4 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Answer: (a)

Statement 1 is Correct. The Indian Ocean humpback dolphin (*Sousa plumbea*) is classified as Endangered on the IUCN Red List. The species faces declining populations due to habitat degradation, fishing gear entanglement, plastic pollution and other anthropogenic pressures.

Statement 2 is Correct. The species prefers shallow nearshore waters, generally less than 20 metres deep. It is commonly found in coastal, estuarine and intertidal habitats, often remaining only a few kilometres from the shoreline. This habitat preference makes it particularly vulnerable to fishing activities, marine pollution and coastal development.

Statement 3 is Correct. Although known to science for many years, the Indian Ocean humpback dolphin was formally recognised as a separate species in 2014 following taxonomic revision. Prior to this, it was grouped with other humpback dolphin populations under a broader classification.

Statement 4 is Incorrect. The Indian Ocean humpback dolphin is a coastal cetacean, inhabiting shallow waters close to shore, and is rarely found in deep offshore waters. Its close association with coastal habitats increases interactions with fishing gear, ghost nets, vessel traffic and marine plastic pollution.