



Daily PIB Summary

16th April 2026

Welcome to PadhAI

Your Partner in Smart UPSC Preparation

You're holding a resource designed to cut through the noise and bring you *only what truly matters* for the exam. At PadhAI, we believe preparation should be clear, focused, and time-efficient — never overwhelming.

At PadhAI, we build everything around one philosophy:

“Learn only what matters.

Learn it the right way.

Learn it at the right time.”

With a rapidly growing community of **2lakh+ aspirants**, PadhAI has become a trusted space for disciplined learning and daily practice.

We bring you:

- Concise Monthly Magazines
- Daily PIB Summaries @ 9 PM
- Daily MCQs + Mains Practice
- High-yield, exam-ready content
- APP features - duel competition, fast mains answer review, daily news article summary, PYQs, MCQs PRACTICE, AI tutor (based on highly yield content From UPSC topper insight, and various trusted websites). Many more feature which will improve your preparation and save your time automatically.

Join our Telegram community and download the PadhAI App to experience structured guidance, supportive peers, and consistent motivation — everything a serious aspirant needs

Welcome to a smarter way of preparing.

Welcome to PadhAI.



[Click here](#) to join to telegram channel

Scan the QR code or just click on it
to download the app

1. RAJYA SABHA CHAIRMAN HIGHLIGHTS INDIA'S SCIENTIFIC MILESTONE: PUSH FOR TECHNOLOGICAL SELF-RELIANCE



- The Chairman underscored India's achievements in **science, technology, and innovation**.
- Highlighted progress towards **self-reliance in critical technologies**.
- Recognized contributions of scientists, institutions, and policymakers.
- Emphasized the importance of **research, innovation, and indigenous capabilities**.
- Linked scientific advancement with **national development and strategic autonomy**.
- Reinforced commitment to **strengthening India's R&D ecosystem**.
- Overall, reflects India's trajectory toward becoming a **global leader in science and technology**.

BACKGROUND / CONTEXT

Scientific Progress in India

- I. India has achieved milestones in:
 - A. Space technology
 - B. Nuclear energy
 - C. Digital technologies

Aatmanirbhar Bharat in Technology

- I. Focus on:
 - A. Indigenous development
 - B. Reduced import dependence
- II. Key sectors:
 - A. Defence
 - B. Electronics
 - C. Pharmaceuticals

Institutional Ecosystem

- I. Key institutions:
 - A. Indian Space Research Organisation (ISRO)
 - B. Defence Research and Development Organisation (DRDO)
- II. Promote:
 - A. Innovation and research

Policy Framework

- I. Initiatives:
 - A. National Education Policy 2020
 - B. Digital India
 - C. Startup India

KEY HIGHLIGHTS

- **Scientific Milestone:** Recognition of India's technological achievements.
- **Self-Reliance:** Emphasis on indigenous innovation.
- **Institutional Strength:** Role of research organizations.
- **Strategic Importance:** Links science with national security and growth.
- **Innovation Ecosystem:** Encourages R&D and startups.
- **Challenges:** Funding gaps and technology dependence.
- **Way Forward:** Invest in R&D and strengthen innovation infrastructure.

PRELIMS BOOSTER BOX

- **Rajya Sabha Chairman:** Presiding officer of Upper House
- **Aatmanirbhar Bharat:** Self-reliance initiative
- **ISRO:** Space research organization
- **DRDO:** Defence research body
- **Focus:** Indigenous technology
- **Goal:** Strategic autonomy
- **Area:** Science and innovation

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Aatmanirbhar Bharat emphasizes self-reliance in technology and production.
2. ISRO is responsible for India's space research activities.

3. DRDO functions under the Ministry of Agriculture.

Which of the statements given above is/are correct?

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

Answer: (a)

2.INDIA EMERGES AS GLOBAL CLEAN ENERGY PLAYER: INTEGRATED PUSH ON HYDROGEN, NUCLEAR & INNOVATION



- India is positioning itself as a **key global player in clean energy transition**.
- Strategic focus on **green hydrogen as a future fuel** for decarbonization.
- Expansion of **nuclear energy for reliable, low-carbon baseload power**.
- Strong emphasis on **innovation, R&D, and indigenous technology development**.

- Supports goals of **energy security, climate commitments, and economic growth.**
- Encourages collaboration between **government, industry, and startups.**
- Overall, reflects India's integrated approach toward **sustainable development and global leadership in clean energy.**

BACKGROUND / CONTEXT

Clean Energy Transition

- I. Shift from:
 - A. Fossil fuels → Renewable and low-carbon energy
- II. Drivers:
 - A. Climate change commitments
 - B. Energy security

Green Hydrogen

- I. Produced using:
 - A. Renewable energy
- II. Key initiative:
 - A. National Green Hydrogen Mission
- III. Uses:
 - A. Industry, transport, energy storage

Nuclear Energy in India

- I. Provides:
 - A. Reliable baseload power
- II. Managed by:
 - A. Department of Atomic Energy
- III. Role:
 - A. Low-carbon electricity generation

Innovation Ecosystem

- I. Includes:
 - A. Startups
 - B. Research institutions
- II. Supported by:
 - A. Government policies and funding

KEY HIGHLIGHTS

- **Global Positioning:** India emerging as clean energy leader.
- **Hydrogen Focus:** Development of the green hydrogen ecosystem.
- **Nuclear Energy:** Expansion for stable low-carbon power.
- **Innovation Push:** Strengthening R&D and startups.
- **Energy Security:** Reducing fossil fuel dependence.
- **Challenges:** High costs, technology gaps, and infrastructure needs.
- **Way Forward:** Scale up investments, foster innovation, and enhance global partnerships.

PRELIMS BOOSTER BOX

- **Green Hydrogen:** Renewable-based hydrogen fuel
- **Nuclear Energy:** Low-carbon baseload power
- **DAE:** Department of Atomic Energy
- **Mission:** National Green Hydrogen Mission
- **Goal:** Net-zero emissions
- **Concept:** Energy security
- **Focus:** Innovation and R&D

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Green hydrogen is produced using renewable energy sources.
2. Nuclear energy provides baseload power with low carbon emissions.
3. Clean energy transition increases dependence on fossil fuels.

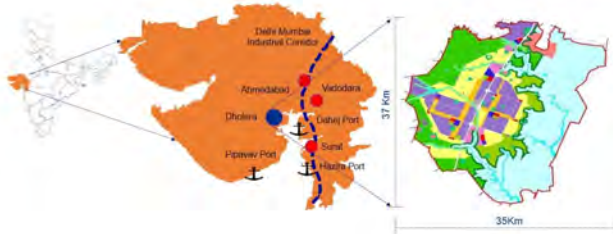
Which of the statements given above is/are correct?

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

Answer: (a)

3.INDIA NOTIFIES FIRST CHIP FABRICATION PLANT AT DHOLERA: MAJOR BOOST TO SEMICONDUCTOR SELF-RELIANCE

Key Facts: Dholera SIR



- The project marks India’s entry into **advanced semiconductor manufacturing (chip fabrication)**.
- Reduces dependence on **imports of semiconductors**, critical for electronics and strategic sectors.
- Strengthens India’s position in **global electronics supply chains**.
- Expected to attract **investment, technology transfer, and job creation**.
- Supports sectors like **telecom, defence, automotive, and digital economy**.
- Aligns with initiatives like **Make in India and Digital India**.
- Overall, it reflects a strategic push toward **technological sovereignty and industrial growth**.

BACKGROUND / CONTEXT

Semiconductor Fabrication (Fab)

- I. Process of manufacturing:
 - A. Integrated circuits (chips)
- II. Requires:
 - A. Advanced technology
 - B. High capital investment

India Semiconductor Mission (ISM)

- I. Launched to:
 - A. Promote semiconductor ecosystem
- II. Provides:
 - A. Financial incentives and policy support

Dholera SIR

- I. Dholera Special Investment Region is a planned smart industrial city.
- II. Part of:
 - A. Delhi-Mumbai Industrial Corridor (DMIC)

Strategic Importance

- I. Chips are essential for:
 - A. Electronics
 - B. Defence systems
 - C. Emerging technologies like AI and IoT

KEY HIGHLIGHTS

- **First Fab:** India's entry into semiconductor manufacturing.
- **Strategic Location:** Dholera SIR as industrial hub.
- **Self-Reliance:** Reduces import dependence.
- **Economic Impact:** Investment, jobs, and industrial growth.
- **Supply Chain Role:** Integration into the global chip ecosystem.
- **Challenges:** High cost, technology complexity, and skilled workforce needs.
- **Way Forward:** Strengthen R&D, skill development, and global partnerships.

PRELIMS BOOSTER BOX

- **Fab:** Semiconductor manufacturing unit
- **Location:** Dholera SIR, Gujarat
- **Mission:** India Semiconductor Mission

- **Corridor:** Delhi-Mumbai Industrial Corridor
- **Use:** Electronics, defence, AI
- **Challenge:** Capital-intensive industry
- **Goal:** Technological self-reliance

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Semiconductor fabrication plants manufacture integrated circuits (chips).
2. Dholera Special Investment Region is part of the Delhi-Mumbai Industrial Corridor.
3. Semiconductors are not used in defence applications.

Which of the statements given above is/are correct?

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

Answer: (a)

4.INS SUDARSHINI ARRIVES AT CASABLANCA: INDIA EXPANDS MARITIME DIPLOMACY IN AFRICA



- The visit enhances India's **maritime diplomacy and global naval presence**.
- Promotes **bilateral cooperation in training, cultural exchange, and goodwill**.
- Strengthens engagement with **African nations under India's outreach policy**.
- Reflects India's commitment to a **free, open, and inclusive maritime order**.
- Facilitates **people-to-people ties and defence cooperation**.
- Supports India's strategic interests in the **Atlantic and African maritime region**.
- Overall, highlights India's expanding role in **global maritime partnerships and soft power projection**.

BACKGROUND / CONTEXT

INS Sudarshini

- I. INS Sudarshini is a sail training vessel of the Indian Navy.
- II. Used for:
 - A. Training naval cadets
 - B. Promoting maritime heritage

India–Morocco Relations

- I. Cooperation areas:
 - A. Trade
 - B. Culture
 - C. Defence engagement
- II. Growing importance in:
 - A. Africa outreach

Maritime Diplomacy

- I. Use of naval visits to:
 - A. Build international relations
 - B. Enhance cooperation

Strategic Context

- I. India's engagement with Africa aligned with:
 - A. South–South cooperation
 - B. Blue economy initiatives

KEY HIGHLIGHTS

- **Naval Outreach:** Strengthens India–Morocco relations.
- **Training Role:** Ship used for cadet training and diplomacy.
- **Africa Engagement:** Expands India's presence in the African region.

- **Soft Power:** Cultural and goodwill exchange.
- **Strategic Importance:** Enhances maritime partnerships.
- **Challenges:** Geopolitical competition and maritime security concerns.
- **Way Forward:** Deepen naval cooperation and multilateral engagement.

PRELIMS BOOSTER BOX

- **INS Sudarshini:** Sail training ship
- **Location:** Casablanca, Morocco
- **Concept:** Maritime diplomacy
- **Region:** Africa outreach
- **Use:** Training and goodwill missions
- **Policy:** Blue economy, South-South cooperation
- **Objective:** Strengthen bilateral ties

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. INS Sudarshini is a sail training ship of the Indian Navy.
2. Maritime diplomacy involves using naval assets for international engagement.
3. Casablanca is located in Egypt.

Which of the statements given above is/are correct?

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

Answer: (a)

5.CAQM INVOKES GRAP STAGE-I IN DELHI-NCR AS AIR QUALITY DETERIORATES



- Stage-I of **Graded Response Action Plan (GRAP)** activated due to rising pollution levels.
- Focus on **preventive measures** like dust control, waste management, and traffic regulation.
- Indicates early-stage deterioration, allowing **timely intervention before severe pollution**.
- Reflects persistent challenges of **urban air pollution in Delhi-NCR**.
- Impacts public health, especially **vulnerable populations**.
- Highlights need for **coordinated multi-agency action**.
- Overall, underscores the urgency of **sustainable urban environmental management**.

BACKGROUND / CONTEXT

Graded Response Action Plan (GRAP)

- I. Framework for:
 - A. Air pollution control in Delhi-NCR

- II. Categorizes pollution into stages:
 - A. Moderate, Poor, Very Poor, Severe, Severe+
- III. Specifies:
 - A. Action measures for each stage

Commission for Air Quality Management (CAQM)

- I. Commission for Air Quality Management established for:
 - A. Coordinating air pollution control in NCR and adjoining areas

Air Quality Index (AQI)

- I. Scale:
 - A. 0–500
- II. Categories:
 - A. Good (0–50)
 - B. Satisfactory (51–100)
 - C. Moderate (101–200)
 - D. **Poor (201–300)**
 - E. Very Poor (301–400)
 - F. Severe (401–500)

Major Pollution Sources

- Vehicular emissions
- Construction dust
- Biomass burning
- Industrial emissions

KEY HIGHLIGHTS

- **Trigger Level:** AQI in 'Poor' category (201–300).
- **Stage-I Measures:** Dust control, waste management, traffic regulation.

- **Institutional Role:** CAQM coordinates actions.
- **Health Impact:** Respiratory risks increase.
- **Urban Challenge:** Persistent pollution in Delhi–NCR.
- **Challenges:** Enforcement gaps and multiple pollution sources.
- **Way Forward:** Strengthen monitoring, public awareness, and long-term emission reduction strategies.

PRELIMS BOOSTER BOX

- **CAQM:** Statutory body for NCR air quality
- **GRAP:** Graded Response Action Plan
- **AQI Range (Poor):** 201–300
- **Pollutants:** PM_{2.5}, PM₁₀, NO_x, SO₂
- **Sources:** Vehicles, dust, industries
- **Objective:** Pollution control
- **Approach:** Stage-wise action

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. GRAP is a framework to control air pollution in Delhi–NCR.
2. AQI range of 201–300 falls under the 'Poor' category.
3. CAQM is responsible for coordinating air quality management in NCR.

Which of the statements given above is/are correct?

- (a) 1, 2 and 3
- (b) 1 and 2 only

- (c) 2 and 3 only
- (d) 1 only

Answer: (a)

PadhAI.ai