



# **TARGET: PRELIMS 2026**

**NOV., 2025**  
**30 pager notes**

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## **Polity**

### **Acts/Bills in News**

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| Name of Act / Bill / Code  | Easy Explanation   | Relevance / Example  | Status / Issue in News  |
|--|--|--|---|
| <b>Code on Wages, 2019</b>   | Sets a uniform definition of wages, minimum wages, overtime rules and payment timelines across sectors | Affects workers' income security; introduces National Floor Wage; impacts Centre-State powers on wage fixation | Implementation delayed due to States not notifying Rules      |
| <b>Code on Social Security, 2020</b>                                       | Merges 9 social security laws; extends coverage to gig and platform workers                            | First legal recognition of gig workers; affects EPFO, ESIC, gratuity norms                                     | Some States (e.g. TN) yet to notify Rules                     |
| <b>Industrial Relations Code, 2020</b>                                     | Regulates trade unions, strikes, layoffs and retrenchment  | Raises threshold for govt approval for layoffs (100 → 300 workers); impacts right to strike                    | Trade union opposition; part of labour code rollout           |
| <b>Occupational Safety, Health and Working Conditions Code, 2020</b>       | Consolidates 13 laws on workplace safety and working conditions  | Allows women night work with safeguards; mandates appointment letters  | Awaiting full operationalisation                              |
| <b>Four Labour Codes (collectively)</b>                                    | Simplifies 29 old labour laws into 4 modern codes  | Major labour reform; balance between ease of business and workers' rights                                      | Rules notified by most States; Centre re-opening consultation |
| <b>Draft Seeds Bill (2025)</b>   | Updates India's seed regulation laws of 1966 & 1983  | Impacts farmers' rights, seed quality, corporatisation fears   | Draft stage; farmers' groups opposing provisions              |
| <b>Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001</b> | Protects farmers' rights over seeds and plant varieties  | Used as benchmark to assess Draft Seeds Bill   | Concerns about dilution via new Bill                          |
| <b>Biological Diversity Act, 2002</b>                                      | Conserves biodiversity and regulates use of biological resources                                       | Seed sovereignty & access-benefit sharing debates  | Cited in criticism of Draft Seeds Bill                        |
| <b>Article 200 (Indian Constitution)</b>                                   | Governor's power to assent, return or reserve State Bills  | Central to Centre-State friction and federalism  | SC advisory opinion widened Governor's discretion             |
| <b>Article 143 (Indian Constitution)</b>                                   | Allows President to seek advisory opinion from Supreme Court   | Clarifies constitutional ambiguities without adversarial litigation  | Used to seek clarity on Governor's assent powers              |
| <b>Article 142 (Indian Constitution)</b>                                   | SC's power to do "complete justice"  | Debate on judicial overreach vs constitutional limits  | SC ruled it cannot create "deemed assent"                     |
| <b>Article 240 (Indian Constitution)</b>                                   | President's power to make regulations for certain UTs  | Raises concerns of democratic deficit in UT governance   | In news regarding Chandigarh                                  |
| <b>US Senate Filibuster Rule</b>   | Procedure allowing minority to block legislation unless 60 votes obtained                              | Shows tension between majority rule and checks   | Trump calling for its removal amid shutdown                   |

## Government Schemes in News

| Scheme / Programme     | Easy Explanation (What it is)   | Relevance / Example (Why it matters)                                    |
|------------------------|---|---|
| <b>Poshan Tracker</b>  | A digital system to track nutrition delivery through Anganwadi centres  | Prevents fake beneficiaries, leakage; uses e-KYC and facial recognition |
| <b>POSHAN Abhiyaan</b> | National nutrition mission to reduce malnutrition among children, women | Poshan Tracker is its tech backbone                                     |





|   |  |  |
|---|--|--|
| <b>e-KYC in Welfare Schemes</b>                                       | Aadhaar-based identity verification of beneficiaries         | Stops duplication but raises exclusion risks |
| <b>Facial Recognition System (FRS)</b>                                | Biometric verification for welfare delivery                  | Improves targeting, reduces fraud            |
| <b>MGNREGA</b>  | Employment guarantee scheme providing 100 days of rural work | Issues raised about e-KYC excluding workers  |
| <b>ICDS (Anganwadi Services)</b>                                      | Early childhood care, nutrition, health & education          | Poshan Tracker implemented through ICDS      |
| <b>EPFO &amp; ESIC (under Social Security Code)</b>                   | Social security institutions for workers                     | Coverage expanded to new categories          |
| <b>Gig &amp; Platform Worker Welfare (under Social Security Code)</b> | Social security for app-based workers                        | Aggregators to contribute to welfare fund    |
| <b>National Floor Wage</b>  | Minimum wage benchmark set by Centre                         | Ensures wage uniformity across States        |

## Economy

### **Sustainable Development**

| <b>Scheme / Initiative Name</b>                           | <b>Easy Explanation</b>   | <b>Relevance / Example</b>  |
|---|---|---|
| <b>National Green Hydrogen Mission</b>                    | A government mission to promote production and use of green hydrogen made using renewable energy instead of fossil fuels. | Helps India reduce carbon emissions, cut import dependence on fossil fuels, and emerge as a global green energy hub. Frequently linked with net-zero targets. |
| <b>Sovereign Green Bonds (SGRBs)</b>                      | Government-issued bonds where the money raised is used only for environmentally sustainable projects.                     | Used to finance renewable energy, clean transport, and climate-resilient infrastructure. Tests India's credibility in green finance markets.                  |
| <b>PM Surya Ghar: Muft Bijli Yojana</b>                   | A rooftop solar scheme providing subsidies to households so they can generate their own electricity.                      | Promotes decentralised renewable energy, reduces electricity bills, and supports climate mitigation at the household level.                                   |
| <b>PLI Scheme – Solar PV Modules</b>                      | Incentive scheme to boost domestic manufacturing of solar photovoltaic modules.   | Reduces import dependence on China, supports Make in India, and strengthens India's renewable energy supply chain.  |
| <b>National Carbon Market (India Carbon Market – ICM)</b> | A framework to allow trading of carbon credits generated by emission reductions.  | Creates market-based incentives for industries to cut emissions; aligns India with global carbon trading mechanisms.  |
| <b>Ethanol Blended Petrol (EBP) Programme</b>             | Policy to mix ethanol with petrol to reduce crude oil imports and emissions.  | Supports farmers (sugarcane, maize), reduces carbon footprint, and enhances energy security.  |
| <b>Climate Finance Taxonomy (proposed)</b>                | A classification system to define what counts as "green" or "sustainable" investments in India.                           | Prevents greenwashing and channels private finance into genuinely sustainable projects. Important for future green bonds and ESG investments.                 |
| <b>National Bio-Energy Mission</b>                        | Promotes energy generation from biomass, biogas, and agricultural waste.  | Converts waste into energy, supplements rural income, and reduces pollution from stubble burning.   |





|   |  |   |
|---|--|---|
| <b>LiFE (Lifestyle for Environment) Movement</b>            | A behavioural initiative encouraging sustainable consumption patterns.                       | Shifts focus from only government action to citizen participation in sustainable development. Often cited in climate diplomacy. |
| <b>Coastal Regulation &amp; Climate Resilience Projects</b> | Projects aimed at protecting coastal areas from erosion, sea-level rise, and climate shocks. | Links economic development with climate adaptation, especially for fishing communities and coastal infrastructure.              |

## Economic Trends

| Trend / Scheme Name   | Easy Explanation  | Key Sectors Affected                                  | Timeframe / Impact   |
|---|---|---|--|
| <b>Widening Merchandise Trade Deficit</b>                       | India's imports grew faster than exports, mainly due to higher gold and silver imports during the festive season, while goods exports slowed. | Trade, manufacturing, external sector, forex          | Short-term spike (Oct); manageable as services exports remain strong |
| <b>Services-led Export Growth</b>                               | While merchandise exports fell, services exports (IT, consultancy, finance) continued to grow strongly.                                       | IT services, business services, employment            | Medium-term stabiliser for current account                           |
| <b>Impact of US Tariffs on Indian Exports</b>                   | Higher US tariffs reduced India's goods exports, especially in labour-intensive sectors, forcing exporters to offer discounts.                | Textiles, engineering goods, MSMEs                    | Short to medium term; depends on US trade policy                     |
| <b>Flexible Inflation Targeting (FIT) Review Phase</b>          | RBI's inflation framework (4% ±2%) is under review ahead of 2026, focusing on headline vs core inflation.                                     | Monetary policy, banking, consumers                   | Structural, long-term policy impact                                  |
| <b>Food Inflation Spillover Effect</b>                          | Food price increases are no longer purely supply-driven; they now influence wages and core inflation.   | Agriculture, FMCG, labour markets                     | Persistent trend affecting policy decisions                          |
| <b>Shift Towards Green &amp; Climate-linked Public Spending</b> | Greater emphasis on forests, clean energy, and resilience as economic assets rather than costs.   | Infrastructure, energy, environment-linked industries | Long-term growth strategy  |
| <b>Green Finance Expansion</b>                                  | Increased use of green bonds and climate-linked funding instruments to finance sustainable projects.  | Financial markets, infrastructure, renewables         | Medium to long term  |
| <b>Agricultural Export Diversification</b>                      | Growth driven by non-basmati rice, marine products, coffee, fruits, and vegetables after easing restrictions.                                 | Agriculture, logistics, agri-processing               | Medium-term positive trend   |
| <b>Climate Stress on Traditional Crops</b>                      | Rising temperatures and rainfall variability affecting crops like tea, impacting yield and quality.   | Plantation economy, rural employment                  | Long-term structural risk  |
| <b>Industrial Sustainability Reorientation</b>                  | Movement away from token green compliance toward landscape-level ecological restoration.  | Manufacturing, mining, industrial corridors           | Long-term competitiveness factor                                     |
| <b>BRICS-led De-dollarisation Push (Payments)</b>               | Efforts to reduce reliance on dollar-dominated systems through local-currency settlements and payment integration.                            | Banking, international trade, geopolitics             | Medium to long term; gradual impact                                  |
| <b>Fiscal Discipline as Inflation Anchor</b>                    | Recognition that loose fiscal policy can undermine inflation control despite RBI actions.   | Public finance, debt markets                          | Structural, ongoing  |





## Economic Developments

| Development / Initiative Name                                  | Easy Explanation (What it is)   | Relevance / Example (Why it matters)   |
|--|---|--|
| <b>Review of Flexible Inflation Targeting (FIT) Framework</b>  | RBI has initiated a review of India's inflation targeting framework (4% ±2%) ahead of its 2026 renewal.             | Impacts future monetary policy stance, interest rates, and coordination with fiscal policy. UPSC favourite for economy-polity overlap. |
| <b>Emphasis on Headline Inflation over Core Inflation</b>      | RBI and economists argue that food inflation cannot be ignored because it spills over into wages and other prices.  | Strengthens case for tighter monetary response during food inflation episodes; relevant for India-specific inflation dynamics.         |
| <b>Softening of Supreme Court stance on Telecom AGR dues</b>   | The Supreme Court allowed reconsideration of interest and penalties on telecom AGR dues.                            | Provides relief to stressed telecom sector; example of judiciary recognising economic consequences of past rulings.                    |
| <b>Expansion of Green Finance Instruments</b>                  | Continued use and discussion of sovereign green bonds and climate-linked financing.                                 | Signals India's shift toward market-based funding for sustainable infrastructure and climate commitments.                              |
| <b>Growth in Agricultural Exports despite Global Slowdown</b>  | India's farm exports grew faster than overall exports due to rice, marine products, coffee, fruits, and vegetables. | Shows agriculture as a stabilising sector; relevant for trade diversification and rural income questions.                              |
| <b>Festive-season Surge in Gold and Silver Imports</b>         | Imports rose sharply during festivals, widening the trade deficit temporarily.                                      | Helps distinguish cyclical vs structural trade deficit—important for prelims elimination techniques.                                   |
| <b>Services Exports as a Cushion to External Shocks</b>        | Strong growth in IT and services offset weakness in merchandise exports.  | Reinforces India's services-led growth model; relevant for CAD and forex stability.  |
| <b>Integration of Ecology with Economic Planning</b>           | Policy discussions increasingly treat forests, biodiversity, and resilience as economic assets, not costs.          | Supports the narrative of sustainable development and green growth; useful for GS-3 answers.   |
| <b>Climate Adaptation entering Economic Policy Discourse</b>   | Greater focus on resilience spending (floods, droughts, cyclones) alongside mitigation.                             | Indicates shift from emission-only focus to adaptation financing—important for developing countries like India.                        |
| <b>Strengthening of Domestic Manufacturing in Clean Energy</b> | Continued push for domestic solar, bio-energy, and green technologies.  | Reduces import dependence, creates jobs, and supports energy transition goals.   |

## Crops in News

| Crop                          | When it is Grown (India)                                      | Major Producing Regions (India)                          | World's Leading Producer                  | Why in News (Nov context)   | Economic / Exam Relevance  |
|-------------------------------|---|--|---|---|--|
| <b>Non-Basmati Rice</b>       | Kharif (sown Jun–Jul, harvested Oct–Nov); some Rabi varieties | West Bengal, UP, Punjab, Andhra Pradesh, Chhattisgarh    | India (largest exporter of rice globally) | Export restrictions were eased, leading to a rise in agricultural exports | Affects food inflation, trade balance, farmer incomes; UPSC often links rice exports with domestic price stability |
| <b>Paddy (Rice – overall)</b> | Mainly Kharif; limited Rabi (boro rice)                       | Punjab, Haryana, West Bengal, Tamil Nadu, Andhra Pradesh | China (largest producer), India (2nd)     | Record paddy output in Tamil Nadu led to storage and procurement stress   | Highlights post-harvest infrastructure gaps, FCI storage issues, and inefficiencies in food management             |



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|               |   |   |                                 |  |  |
|---------------|---|---|---------------------------------|--|--|
| <b>Tea</b>    | Perennial crop; plucking mostly Mar–Nov | Assam, West Bengal (Darjeeling), Tamil Nadu, Kerala | China (largest), India (2nd)    | Climate stress reducing suitability of traditional tea regions | Shows long-term climate risk to plantation economy, export competitiveness, and rural employment |
| <b>Coffee</b> | Grown year-round; harvested Oct–Jan     | Karnataka (largest), Kerala, Tamil Nadu             | Brazil (largest), Vietnam (2nd) | Export growth driven by high global coffee prices              | Illustrates how global commodity cycles affect Indian farm exports and farmers' income           |

## Agricultural Practices in News

| Practice / Input                      | Easy Explanation (What it is)  | Crops / Regions Linked                                  | Why Relevant Now   | UPSC Angle   |
|---------------------------------------|--|---|--|--|
| <b>Climate-Resilient Farming</b>      | Farming methods adapted to heat stress, erratic rainfall, and extreme weather. | Tea (Assam, Darjeeling), plantation crops               | Climate stress on tea highlighted shift from yield to resilience | Adaptation vs mitigation; climate change & agriculture     |
| <b>Shade-Based Plantation Farming</b> | Use of shade trees to reduce heat stress and moisture loss.                    | Tea, coffee   | Discussed as response to rising temperatures                     | Sustainable plantation practices; biodiversity co-benefits |
| <b>Crop Diversification</b>           | Moving away from single-crop dependence to multiple income sources.            | Tea regions diversifying into fruits, spices, fisheries | Climate risk + income stability                                  | Reduces farm distress; common GS-3 theme                   |
| <b>Water-Efficient Practices</b>      | Micro-irrigation, mulching, soil moisture retention.                           | Plantation & diversified farms                          | Erratic rainfall patterns  | Water-use efficiency                                       |
| <b>Livelihood-Linked Farming</b>      | Farming combined with tourism, fisheries, allied activities.                   | Plantation belts  | Income diversification due to climate stress                     | Allied activities in agriculture                           |

## Science Tech

## SPACE MISSIONS IN NEWS

| Mission Name       | Space Agency                            | Year Launched | Objectives  | Special Feature  |
|--------------------|---|---------------|---|--|
| <b>Sentinel-6B</b> | NASA, NOAA, European Space Agency (ESA) | 2025          | To precisely measure <b>global sea-level rise</b> , ocean surface height, and ocean temperature for climate and weather prediction. | Works in tandem with <b>Sentinel-6 Michael Freilich (2020)</b> ; provides sea-level measurements accurate to about <b>1 inch for over 90% of Earth's oceans</b> ; completes a continuous sea-level data record started in the 1990s. |





|  |                                       |   |   |   |
|--|---------------------------------------|---|---|---|
| <b>Sentinel-6</b><br><b>Michael Freilich</b><br>(contextual reference)     | NASA, NOAA, ESA                       | 2020  | Long-term monitoring of sea-level rise and ocean dynamics.  | Acts as the <b>twin satellite</b> to Sentinel-6B, allowing cross-calibration and uninterrupted climate data continuity.   |
| <b>International Space Station – Exposed Plant Experiment (Moss Study)</b> | JAXA (Japan) with ISS partners        | Experiment conducted in 2024–25; results reported in Nov 2025 | To test survival of <b>plant tissues in open space conditions</b> (UV radiation, vacuum, temperature extremes, microgravity). | <b>Moss spores (<i>Physcomitrium patens</i>)</b> survived <b>9 months outside the ISS</b> with up to <b>86–95% germination</b> , showing extreme biological resilience and relevance for <b>future space habitats</b> . |
| <b>LOFAR Stellar Observation (Exoplanet Space Weather Study)</b>           | International LOFAR Telescope Network | Observation reported in 2025                                  | To study stellar activity beyond the Sun by detecting energetic events on other stars.  | First-ever <b>coronal mass ejection (CME)</b> detected on a star outside the solar system; eruption was <b>10,000× stronger than solar CMEs</b> , reshaping understanding of exoplanet habitability.                    |

## Diseases in News

| Name  | Symptoms  | Causing Organism  | Mode of Infection                      | Areas Spread                  | Genetic Material                | Treatment   | Vaccine   |
|---|---|---|--|-------------------------------|---------------------------------|---|---|
| <b>Tuberculosis (TB)</b>                              | Chronic cough, fever, night sweats, weight loss, fatigue                  | <i>Mycobacterium tuberculosis</i>                             | Airborne droplets (coughing, sneezing) | Global; high burden in India  | Bacterium (DNA)                 | Long-term antibiotic regimen (6–9 months or more) | <b>BCG</b> (limited protection, especially in adults) |
| <b>Snakebite Envenomation</b>                         | Pain, swelling, bleeding, paralysis, organ failure (depending on species) | Snake venom (toxins from snakes, esp. vipers, cobras, kraits) | Bite from venomous snake               | Rural India, tropical regions | Not applicable (toxin-mediated) | Anti-snake venom (ASV), supportive care           | No  |
| <b>COVID-19 (in children – risk assessment study)</b> | Fever, cough, breathlessness; MIS-C in severe cases                       | SARS-CoV-2  | Respiratory droplets, aerosols         | Global                        | RNA virus                       | Supportive care; antivirals in severe cases       | Yes (COVID-19 vaccines)                               |



|  |   |   |                                |                                 |                |   |    |
|--|---|---|--------------------------------|---------------------------------|----------------|---|----|
| <b>Cancer (diet-linked risk reduction study)</b>     | Varies by cancer type   | Multifactorial (genetic + environmental ) | Not infectious                 | Global                          | Not applicable | Surgery, chemotherapy, radiotherapy, targeted therapy | No |
| <b>Diabetes (Type 2 – lifestyle-related)</b>         | Increased thirst, frequent urination, fatigue                 | Metabolic disorder (insulin resistance)   | Non-infectious                 | Global                          | Not applicable | Lifestyle changes, oral drugs, insulin                | No |
| <b>Heavy Metal Toxicity (from fish consumption )</b> | Neurological issues, kidney damage, gastrointestinal symptoms | Heavy metals (e.g., mercury)              | Food chain (contaminated fish) | Cauvery basin (study-specific ) | Not applicable | Reducing exposure, chelation in severe cases          | No |

## Vaccines in News

| Name   | Type of Vaccine                   | Used in India?  | Effective Till   |
|--|-----------------------------------|---|--|
| <b>COVID-19 Vaccine (mRNA – Pfizer-BioNTech)</b> | mRNA vaccine                      | Yes (approved and used, especially in children/adolescents in limited settings) | Protection against severe disease lasts <b>several months</b> ; booster effectiveness depends on variant circulation and immune status |
| <b>BCG Vaccine (contextual reference)</b>        | Live attenuated bacterial vaccine | Yes (part of India's Universal Immunisation Programme)                          | Partial protection in childhood; <b>limited effectiveness in adults</b> against pulmonary TB   |

## Discoveries and Inventions

| Name   | What It Does  | Sector                       | Applications   | Shortcomings  |
|--|---|------------------------------|--|---|
| <b>Moss Survival in Outer Space (ISS Experiment)</b> | Demonstrated that moss spores can survive prolonged exposure to vacuum, radiation, microgravity, and extreme temperature outside the ISS. | Astrobiology / Space Biology | Supports feasibility of <b>space farming</b> , closed-loop life-support systems, and long-duration human space missions. | Survival observed in controlled experimental setup; scaling to complex crops still uncertain. |



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|  |   |                                       |   |  |
|--|---|---------------------------------------|---|--|
| <b>Extra-Solar Coronal Mass Ejection Detection</b>           | First-ever detection of a coronal mass ejection from a star outside the solar system using low-frequency radio waves. | Astrophysics / Space Weather          | Helps assess <b>habitability of exoplanets</b> and understand stellar radiation threats to planetary atmospheres. | Based on indirect radio signatures; direct imaging not yet possible. |
| <b>Plant-Based Dietary Shift &amp; Health Outcomes Study</b> | Showed that shifting to minimally processed plant foods reduces risk of lifestyle-related diseases.                   | Nutrition Science / Public Health     | Informs dietary guidelines and preventive healthcare policy.  | Observational correlations; long-term controlled trials needed.      |
| <b>Heavy-Metal Bioaccumulation Mapping in River Fish</b>     | Identified accumulation of mercury and other heavy metals in fish species due to industrial pollution.                | Environmental Science / Ecotoxicology | Aids food safety regulation, river pollution control, and public  |  |

## Green Technology

| Name   | What It Is   | Sector                                     | Purpose / Use   |
|--|--|--|---|
| <b>Sentinel-6 Sea-Level Monitoring System</b>            | Satellite-based high-precision altimetry system to track global sea-level rise and ocean dynamics. | Climate Science / Earth Observation        | Improves climate change assessment, coastal planning, disaster preparedness, and long-term climate modelling. |
| <b>Plant-Based Food Systems Transition</b>               | Shift from animal-based to minimally processed plant foods backed by scientific evidence.          | Sustainable Nutrition / Climate Mitigation | Reduces greenhouse gas emissions, land use pressure, and water footprint while improving public health.       |
| <b>Heavy-Metal Pollution Mapping in River Ecosystems</b> | Scientific assessment of mercury and metal accumulation in fish due to industrial effluents.       | Environmental Monitoring / Ecotechnology   | Supports pollution control, safer food systems, river rejuvenation, and regulatory action.                    |
| <b>Community-Centric Tribal Health Models (Melghat)</b>  | Low-cost, decentralised health and nutrition interventions with sustainability focus.              | Social Sustainability / Public Health      | Builds resilient, low-carbon health systems through preventive care rather than resource-intensive treatment. |
| <b>Biodiversity-Resilient Space Biology Research</b>     | Use of hardy plant species (moss) to study ecological survival under extreme conditions.           | Green Space Biology / Astrobiology         | Supports sustainable life-support systems for space missions and future off-Earth habitats.                   |



# Environment

## Protected Areas in News

| Protected Areas                                       | Location  | Key Details  | Famous for  |
|---|---|--|---|
| <b>Galathea Bay (former Wildlife Sanctuary)</b>       | Great Nicobar Island, Andaman & Nicobar Islands | Earlier notified as a Wildlife Sanctuary; <b>denotified in 2021</b> by the National Board for Wildlife. November 2025 news revealed the Environment Ministry admitted before NGT that the area still has rich ecological features, contradicting earlier claims. Falls under <b>CRZ-IA</b> . | Nesting site of <b>Giant Leatherback Turtle, Nicobar Megapode</b> nesting mounds, rich <b>coral colonies</b> (20,000+). |
| <b>Aravalli Hills (ecologically sensitive region)</b> | Rajasthan–Haryana–Delhi belt                    | Highlighted in articles stressing the need for <b>Supreme Court protection</b> against mining, urbanisation, and forest fragmentation. Though not a notified national park, repeatedly treated as a critical ecological region.  | Oldest mountain range in India; acts as <b>green lung</b> for NCR, groundwater recharge, biodiversity corridor.         |

## Animal/Plant Species in News

| Name   | Why in News?   | Important Information   | IUCN Status          |
|--|--|---|----------------------|
| <b>Rhesus Macaque (Macaca mulatta)</b>           | Debate on need for legal protection despite high visibility near humans. | Removed from <b>Schedule II</b> of the Wildlife (Protection) Act in 2022; high human–animal conflict but declining habitat quality; visibility ≠ population security. | <i>Least Concern</i> |
| <b>Humboldt Penguin (Spheniscus humboldti)</b>   | Chile raised alarm over shrinking populations.                           | Depends on cold Humboldt Current; threatened by <b>overfishing, climate change</b> , and <b>El Niño</b> events reducing fish availability.                            | <i>Vulnerable</i>    |
| <b>Indian Elephant (Elephas maximus indicus)</b> | Findings referenced alongside habitat fragmentation concerns.            | India hosts the largest Asian elephant population; key threats include <b>linear infrastructure, human–elephant conflict</b> , and corridor loss.                     | <i>Endangered</i>    |
| <b>Indian Dugong (Dugong dugon)</b>              | Explained as India's threatened "seacow".                                | Dependent on <b>seagrass meadows</b> ; affected by trawling, coastal pollution, and boat strikes; indicator of healthy coastal ecosystems.                            | <i>Vulnerable</i>    |



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|   |  |  |                      |
|---|--|--|----------------------|
| <b>Physcomitrium patens (Moss spores)</b> | Study showed survival after <b>space exposure</b> outside the ISS. | Spores survived extreme UV, vacuum, heat, and freezing; insights for <b>astrobiology</b> and resilience of early land plants.  | Not Evaluated        |
| <b>Snakes of India (multiple species)</b> | High snakebite mortality highlighted.                              | India records ~58,000 snakebite deaths annually; issues include poor access to antivenom and lack of trained medical response. | Mixed (species-wise) |

## Some EVS terms

| Theme  | What it means  |
|--|--|
| <b>Environment–Public Health Convergence</b>           | Rising snakebite deaths are now being indirectly linked to climate variability, altered habitats, flooding, and extreme heat pushing snakes closer to human settlements. |
| <b>Island Ecology vs Development</b>                   | Galathea Bay shows how EIAs often underestimate ecological value in islands; once denotified, damage becomes legally “permissible.”                                      |
| <b>Judicialisation of Environmental Governance</b>     | Aravallis, Galathea Bay, CRZ violations — courts stepping in due to absence or weak enforcement of laws.   |
| <b>Legal Vacuum for Ecologically Sensitive Regions</b> | Landscapes like Aravallis lack a single umbrella law despite ecological importance; protection is piecemeal.   |
| <b>Climate Change as a Threat Multiplier</b>           | Penguins, dugongs, birds, snakes — climate change amplifies existing threats rather than acting alone.   |
| <b>Visibility ≠ Conservation Security</b>              | Rhesus macaque example shows that abundance near humans can mask long-term ecological stress.  |
| <b>Coastal &amp; Marine Neglect Bias</b>               | CRZ violations, dugong decline, penguin stress — marine ecosystems remain weaker in enforcement than forests.  |

## Organizations

### 1. International Monetary Fund (IMF)

**Formed:** 1944 (Bretton Woods Conference)

**Why formed:** To ensure global monetary stability, facilitate international trade, and provide financial assistance during balance-of-payments crises.

**Intro:** A global financial institution that monitors macroeconomic stability and lends to countries facing external payment stress.

**Members:** 190 countries — USA, India, China, Japan, Germany, UK, France, etc.

**Observers:** World Bank, WTO, OECD, regional development banks.



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### Why in News:

IMF gave India a 'C' grade for national accounts statistics, citing outdated base years (2011–12) and weak coverage of the informal sector.

### India's Role:

India is a founding member and advocates IMF quota reforms to reflect emerging economies' real economic weight; government plans to update GDP, CPI, and IIP base years by 2026.

## 2. UN Convention on the Law of the Sea (UNCLOS)

**Formed:** 1982 (entered into force in 1994)

**Why formed:** To establish a legal framework governing oceans, seas, maritime zones, and marine resources.

**Intro:** Known as the "Constitution of the Oceans," it defines rights and responsibilities of states over maritime spaces.

**Members:** 169 parties — India, China, Russia, EU, Japan, Australia, etc.

**Observers:** USA (has not ratified), Cook Islands, Niue.

### Why in News:

Cited for **gaps in governing biodiversity beyond national jurisdiction**, which led to the creation of the High Seas Treaty (BBNJ).

### India's Role:

India is a party to UNCLOS and uses it as the legal basis for deep-sea exploration, EEZ rights, and participation in global ocean governance.

## 3. High Seas Treaty / BBNJ Agreement

**Formed:** Adopted in June 2023; enters into force January 2026

**Why formed:** To protect marine biodiversity in areas beyond national jurisdiction (high seas).

**Intro:** A landmark treaty filling gaps left by UNCLOS regarding conservation and equitable use of high-seas resources.

**Members:** Ratified by 60+ countries (as of Sept 2025); includes India, EU members, several developing countries.

**Observers:** NGOs, research institutions, international marine bodies.

### Why in News:

Treaty ratified by required countries; detailed discussion on **challenges like biopiracy, benefit-sharing, and enforcement**.

### India's Role:

India supports equity-based benefit sharing of marine genetic resources and capacity building for developing countries.

## 4. International Seabed Authority (ISA)

**Formed:** 1994 (under UNCLOS)

**Why formed:** To regulate mineral exploration and exploitation in the international seabed ("Area").

**Intro:** Manages deep-sea resources beyond national jurisdiction for the benefit of mankind.

**Members:** 168 countries — India, China, Russia, Japan, Germany, France, etc.

**Observers:** Holy See, Palestine, IMO, IOC-UNESCO.

### Why in News:

Referenced indirectly through seabed governance and deep-sea resource debates under UNCLOS and BBNJ.

### India's Role:

India is a pioneer investor with ISA contracts and links seabed exploration to its **Deep Ocean Mission**.



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## 5. Intergovernmental Panel on Climate Change (IPCC)

**Formed:** 1988 (by WMO & UNEP)

**Why formed:** To provide scientific assessments on climate change, its impacts, and mitigation pathways.

**Intro:** The world's most authoritative scientific body on climate change science.

**Members:** 195 countries — India, USA, China, EU members, etc.

**Observers:** UN bodies, NGOs, research organisations.

**Why in News:**

IPCC benchmarks cited to show **US climate action falling short of required emission cuts**.

**India's Role:**

Indian scientists contribute to IPCC reports; India uses IPCC science to argue for climate equity and adaptation finance.

## 6. UN Framework Convention on Climate Change (UNFCCC)

**Formed:** 1992 (Rio Earth Summit)

**Why formed:** To stabilize greenhouse gas concentrations and coordinate global climate action.

**Intro:** Parent treaty of the Kyoto Protocol and Paris Agreement.

**Members:** 198 parties — near-universal membership including India, USA, China, EU.

**Observers:** NGOs, IPCC, regional bodies, research institutions.

**Why in News:**

Referenced due to **COP30 preparations** and debates on global climate leadership.

**India's Role:**

India stresses **Common But Differentiated Responsibilities (CBDR)**, adaptation finance, and implementation over rhetoric.

## 7. Conference of Parties (COP30)

**Formed:** Annual meetings under UNFCCC (COP30 in 2025)

**Why formed:** To review climate commitments and negotiate collective action.

**Intro:** Highest decision-making body under UNFCCC.

**Members:** All UNFCCC parties.

**Observers:** NGOs, media, research institutions, business groups.

**Why in News:**

COP30 in **Belém, Brazil** highlighted due to **US absence** and Suriname's ambitious forest pledge.

**India's Role:**

India participates actively, focusing on climate finance, adaptation needs, and Global South concerns.

## 8. World Bank

**Formed:** 1944 (Bretton Woods)

**Why formed:** To support reconstruction and development through long-term financing.

**Intro:** A global development lender focused on poverty reduction and infrastructure.

**Members:** 189 countries — India, USA, China, Japan, Germany, etc.

**Observers:** IMF, UN agencies, regional development banks.





### Why in News:

Mentioned as part of **US-influenced global financial institutions** shaping climate finance and development priorities.

### India's Role:

India is a major borrower and increasingly a policy influencer on climate-resilient development.

## 9. BRICS

**Formed:** 2006 (formalised in 2009)

**Why formed:** To promote cooperation among major emerging economies and reduce Western dominance.

**Intro:** A political-economic grouping seeking multipolar global governance.

**Members:** Brazil, Russia, India, China, South Africa (+ new members like Iran, etc.).

**Observers:** Partner countries and invited states.

### Why in News:

BRICS efforts to **challenge SWIFT** and dollar dominance through alternative payment systems.

### India's Role:

India supports financial multipolarity while ensuring BRICS remains development-focused, not bloc-driven.

## 10. New Development Bank (NDB)

**Formed:** 2014 (Fortaleza Summit)

**Why formed:** To finance infrastructure and sustainable development in BRICS and developing countries.

**Intro:** A BRICS-led alternative to World Bank-style lending.

**Members:** BRICS countries and new entrants (e.g., UAE, Bangladesh).

**Observers:** Regional partners.

### Why in News:

Cited as part of BRICS' challenge to Western financial institutions.

### India's Role:

India is a founding member and borrower; supports green and infrastructure financing.

## 11. Contingent Reserve Arrangement (CRA)

**Formed:** 2014 (BRICS)

**Why formed:** To provide liquidity support during balance-of-payments crises.

**Intro:** A financial safety net for BRICS members.

**Members:** BRICS countries.

**Observers:** None (internal mechanism).

### Why in News:

Mentioned alongside NDB as a tool to reduce IMF dependence.

### India's Role:

India contributes to and can draw from CRA during external financial stress.

## 12. UN Office on Drugs and Crime (UNODC)

**Formed:** 1997

**Why formed:** To combat transnational crime, drug trafficking, and terrorism.

**Intro:** UN body tracking organised crime and illicit networks globally.



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**Members:** UN member states.

**Observers:** NGOs, INTERPOL, regional bodies.

**Why in News:**

UNODC estimates cited regarding **Southeast Asian scam hubs** generating billions via cybercrime.

**India's Role:**

India cooperates with UNODC on cybercrime, human trafficking, and financial fraud investigations.

## Maps

### ISRAEL

Location: Eastern Mediterranean, West Asia

Land Borders: Lebanon (N), Syria (NE), Jordan (E), Egypt (SW).

Seas/Oceans: Mediterranean Sea (W), Red Sea via Gulf of Aqaba (S)

Enclosed Seas/Lakes: Dead Sea (Israel–Jordan)

Main River: Jordan River (Mount Hermon → Sea of Galilee → Dead Sea)

Map cues:

Mediterranean coast, Gulf of Aqaba, Dead Sea depression, Jordan Valley



### IRAN

Location: West Asia, bridge between Middle East & Central Asia

Land Borders: Iraq, Turkey, Armenia, Azerbaijan, Turkmenistan, Afghanistan, Pakistan

Seas/Oceans: Persian Gulf (SW), Gulf of Oman (S), Arabian Sea access

Enclosed Sea: Caspian Sea (N)

Main Rivers: Karun, Karkheh (SW Iran), seasonal interior rivers

Map cues:

Strait of Hormuz, Caspian Sea, Zagros

Mountains, Persian Gulf coast



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## CHINA

Location: East Asia

Land Borders (14): India, Pakistan, Nepal, Bhutan, Myanmar, Laos, Vietnam, Afghanistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, Russia, North Korea

Seas/Oceans: Pacific Ocean

Marginal Seas: Yellow Sea, East China Sea, South China Sea

Enclosed Sea: Bohai Sea

Main Rivers: Yangtze, Yellow River, Pearl River, Amur

Map cues:

Tibetan Plateau, South China Sea islands, Bohai Gulf, Himalayan border



## SAUDI ARABIA

Location: Arabian Peninsula

Land Borders: Jordan, Iraq, Kuwait, Qatar, UAE, Oman, Yemen

Seas/Oceans: Red Sea (W), Persian Gulf (E)

Gulfs: Gulf of Aqaba, Gulf of Suez

Rivers: None (wadis only)

Map cues:

Arabian Peninsula, Red Sea coast, Persian Gulf oil belt, Rub' al Khali



## QATAR

Location: Small peninsula in Persian Gulf

Land Borders: Saudi Arabia

Maritime Neighbours: Iran, Bahrain

Sea: Persian Gulf

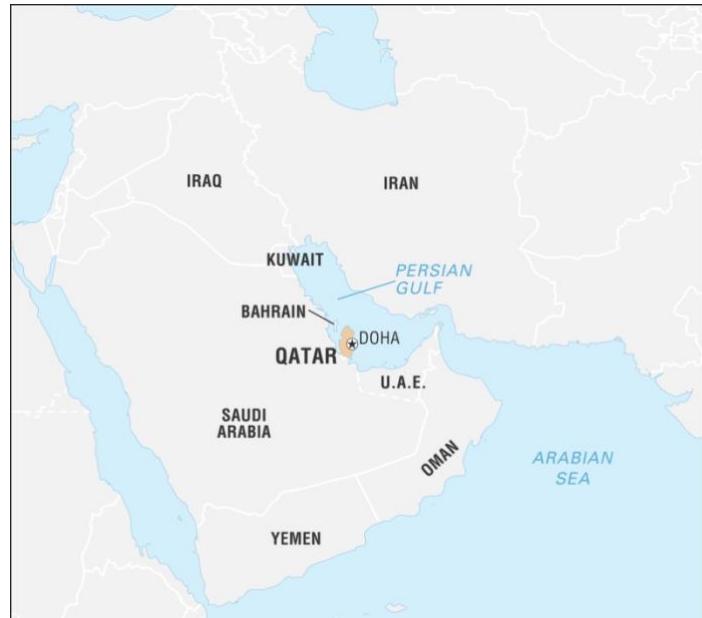
Rivers: None





### Map cues:

Qatar peninsula, Persian Gulf gas fields, proximity to Hormuz



### RWANDA

Location: East-Central Africa

Land Borders: Uganda, Tanzania, Burundi, DRC

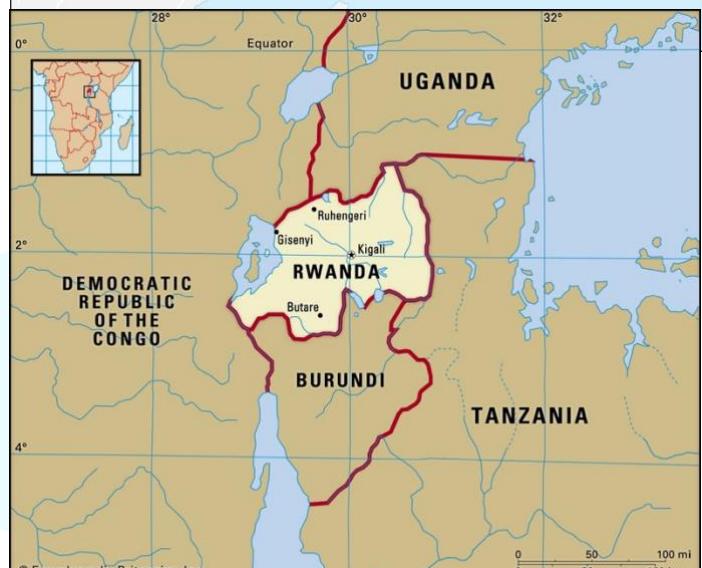
Sea Access: None (landlocked)

Lakes: Lake Kivu

River System: Nyabarongo → Kagera → Nile system

### Map cues:

African Great Lakes region, Nile basin source area



### DEMOCRATIC REPUBLIC OF CONGO

Location: Central Africa

Land Borders: Republic of Congo, CAR, South Sudan,

Uganda, Rwanda, Burundi, Zambia, Angola

Sea/Ocean: Atlantic Ocean (narrow coastline)

Lakes: Tanganyika, Kivu, Albert

Main River: Congo River

### Map cues:

Congo Basin rainforest, Congo River arc, Great Lakes eastern border



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