

APRIL, 2026

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30 PAGER NOTES

APRIL 2026 DECODED FOR
PRELIMS — WHERE
GOVERNANCE, ECONOMY,
SCIENCE, ENVIRONMENT, AND
MAPS CONVERGE INTO EXAM-
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POLITY

Acts & Bills

Bill / Act Name	Easy Explanation	Similar Examples / Related Laws
FCRA Amendment Bill	Proposed changes to rules governing foreign funding to NGOs and organisations in India	Foreign Contribution Regulation Act (FCRA), 2010; NGOs scrutiny debates
Amaravati Bill	Bill linked to Andhra Pradesh's capital city development and governance structure	AP Reorganisation Act, 2014; Chandigarh/Puducherry governance debates
Trans Rights Amendment Act, 2026	Amendments concerning rights and protections of transgender persons	Transgender Persons (Protection of Rights) Act, 2019
Jan Vishwas Bill / Jan Vishwas Act	Decriminalises many minor offences to improve ease of doing business and reduce unnecessary criminalisation	Decriminalisation reforms in Companies Act; labour law rationalisation
Women's Reservation Bills	Bills related to reserving seats for women in legislatures	106th Constitutional Amendment Act (Nari Shakti Vandan Adhiniyam)
Punjab Sacrilege Bill	Proposed stricter punishments for acts considered sacrilegious against religious texts	Anti-conversion laws; hate speech regulations; public order laws
Gig Workers Law (Telangana)	State legislation providing welfare and protections to app-based gig workers	Rajasthan Gig Workers Welfare Act; Code on Social Security, 2020
RTE Act (Right to Education Act), 2009	Guarantees free and compulsory education for children aged 6-14 years	Article 21A; Sarva Shiksha Abhiyan





Minimum Wage Revision (U.P.)	Revision of minimum wage rates for workers in Uttar Pradesh	Code on Wages, 2019; Minimum Wages Act, 1948
Electoral Roll / SIR-related electoral revision measures	Discussions around electoral roll purification and voter verification	NRC debates; Election Commission revision exercises
Anti-Defection Law (Tenth Schedule)	Law preventing elected representatives from switching parties after elections	52nd Amendment Act, 1985; 91st Amendment Act, 2003

Constitutional Provisions & Federalism

Constitutional Amendment	Easy Explanation	Similar Examples / Why it Matters
106th Constitutional Amendment Act, 2023 (Women's Reservation / Nari Shakti Vandan Adhiniyam)	Reserves 33% seats for women in Lok Sabha and State Legislative Assemblies	Similar to reservation in Panchayats under 73rd & 74th Amendments
52nd Constitutional Amendment Act, 1985	Introduced Anti-Defection Law through Tenth Schedule	Meant to stop political defections and instability
91st Constitutional Amendment Act, 2003	Strengthened Anti-Defection provisions and capped size of Council of Ministers	Reduced misuse of ministerial posts for political loyalty
73rd Constitutional Amendment Act, 1992 (implicitly linked)	Constitutional status to Panchayats with reservation for women	Foundation for local body women reservation debates
74th Constitutional Amendment Act, 1992 (implicitly linked)	Constitutional status to Urban Local Bodies	Urban representation and women's participation
86th Constitutional Amendment Act, 2002	Made education a Fundamental Right through Article 21A	Basis of RTE Act, 2009
42nd Constitutional Amendment Act, 1976 (implicitly through constitutional morality/fundamental duties discussions)	Added Fundamental Duties and strengthened centralisation during Emergency era	Called "Mini Constitution" due to sweeping changes
44th Constitutional Amendment Act, 1978 (implicitly linked to democratic safeguards)	Rolled back many Emergency-era excesses of 42nd Amendment	Strengthened civil liberties and democratic protections



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Governance & Judicial Reforms

Reform / Judicial Issue	Easy Explanation	Similar Examples / Related Concepts
Institutionalised Sluggishness of Legal System	India's courts face massive delays due to backlog, adjournments, procedural complexity and low digital integration	Pendency crisis; e-Courts Mission; Justice Malimath Committee
Judicial Pendency (5+ crore cases)	Huge number of pending cases slows justice delivery	"Justice delayed is justice denied"
Digital Integration of Courts	Need for digitisation, e-filing, online hearings and digital records	e-Courts Project; virtual courts
Undertrial Detention Concerns	People remain jailed for years without trial completion, especially under stringent laws	Article 21; UAPA debates; bail jurisprudence
Middle Sentencing Reform Debate	Current system often offers only "14 years/remission" or death penalty in grave crimes	Bachan Singh case; "rarest of rare doctrine"
Need for Alternative Sentencing Models	Demand for fixed long-term imprisonment (20, 30 years, whole life)	Whole-life imprisonment doctrine
Right to be Considered for Promotion	Courts reaffirmed that eligible public servants must be fairly considered for promotion	Articles 14 & 16; service jurisprudence
Administrative Arbitrariness in Promotions	Government misinterpretation of rules can violate equality in public employment	Natural justice; DPC reforms
Jan Vishwas Act & Criminal Justice Reform	Decriminalisation of minor offences to reduce burden on courts and businesses	Ease of doing business reforms
Constitutional Morality Discussions	Calls for institutions to act within constitutional spirit, not merely legality	Navtej Johar case; Sabarimala case

Important Judicial Cases Mentioned

Case	Why Important
Ajit Singh v State of Punjab	Established right to be considered for promotion



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Bachan Singh v State of Punjab	"Rarest of rare" doctrine for death penalty
Sabarimala Case	Constitutional morality vs religious freedom
Navtej Johar Case (implied through constitutional morality discussions)	Transformative constitutionalism

Government Schemes

Name of Scheme / Programme	What it does	Ministry / Department
RTE (Right to Education) Framework / Sarva Shiksha-linked implementation	Ensures free and compulsory education for children aged 6-14 years	Ministry of Education
Patient Assistance Programmes for Cancer Drugs	Helps poor patients access expensive cancer treatments like Keytruda at subsidised rates	Mainly linked to Ministry of Health and Family Welfare and hospital networks
Gig Worker Welfare Framework (Telangana model)	Provides welfare protections, insurance and social security support to platform workers	State Labour Department; linked nationally to Ministry of Labour and Employment
Women Reservation in PRIs & ULBs (ongoing constitutional implementation)	Ensures reservation of seats for women in Panchayats and Urban Local Bodies	Ministry of Panchayati Raj and Ministry of Housing and Urban Affairs
e-Courts Mission Mode Project (implied through legal system digitisation discussion)	Digitisation of courts through e-filing, virtual hearings and digital case management	Department of Justice
National Legal Services Authority (NALSA) Legal Aid Programmes (implied through access-to-justice discussions)	Provides free legal aid to weaker sections	Department of Justice / NALSA
Minimum Wage Revision Mechanism	Revises minimum wages to protect workers against inflation	Ministry of Labour and Employment





Social Security for Gig and Platform Workers (linked discussion)	Extends welfare and social protection to app-based workers	Ministry of Labour and Employment
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ECONOMY

Economic Terms and Concepts

Term / Concept	Easy Meaning	Simple Example
Cost-push Inflation	Inflation caused by rising production/input costs	Diesel becomes expensive → transport costs rise → vegetables become expensive
Imported Inflation	Inflation entering India through global price rise	Crude oil prices rise globally → petrol prices rise in India
Food Inflation	Rise in food prices	Onion and tomato becoming costly
Buffer Stocks	Government-held food reserves	FCI storing wheat and rice for emergencies
Food Security Cushion	Ability to absorb shocks because of surplus stocks	India avoided food panic during Iran war due to large grain reserves
Rabi Harvest	Winter crop season harvest	Wheat harvested around March–April
Input-intensive Agriculture	Farming dependent on external inputs	Modern farming using fertilisers, tractors, pesticides
Fossilisation of Agriculture	Agriculture becoming dependent on fossil fuels	Tractors running on diesel instead of bullocks
De-bullockisation	Replacement of animal power by machines	Farmers using tractors instead of oxen
Agrochemical Dependency	Farming relying heavily on chemical inputs	Crops depending on pesticides and chemical fertilisers
Fertiliser Supply Shock	Sudden disruption in fertiliser availability/prices	Iran conflict increasing DAP prices
DAP (Di-Ammonium Phosphate)	Major phosphatic fertiliser	Farmers using DAP during sowing season





Ammonia-based Fertilisers	Fertilisers dependent on natural gas	Urea production requiring imported gas
Petrochemical Linkage	Products dependent on petroleum derivatives	Pesticides becoming costly when oil prices rise
Energy-Food Nexus	Energy prices influencing food prices	Expensive diesel increasing farming and transport costs
Oil-Food Price Link	Oil prices affecting food inflation	Crude oil rise increasing vegetable prices later
Temporary Decoupling	Two normally linked variables moving separately	Oil prices rising but food prices remaining stable temporarily
Cost Absorption Capacity	Ability to absorb shocks due to surplus supply	Record wheat production preventing inflation despite higher fuel costs
Managed Deregulation	Market technically free but indirectly controlled by state	Petrol prices not falling fully despite lower crude oil prices
Fuel Price Transparency Framework (FPTF)	Proposed transparent fuel pricing system	Showing how much of petrol price comes from tax
Retail Fuel Pricing	Final pricing of petrol/diesel for consumers	Petrol at pump including taxes and dealer commission
Energy Diversification	Using multiple energy sources	Using solar, nuclear, hydro, and gas together
Energy Security	Reliable and affordable energy access	India importing oil from many countries instead of one
Strategic Chokepoint	Narrow route critical for trade	Strait of Hormuz carrying oil shipments
Import Dependence	Reliance on foreign supplies	India importing most of its crude oil
Baseload Power	Continuous stable electricity supply	Coal plants supplying electricity at night
Grid Balancing	Maintaining stable electricity supply-demand	Coal plants compensating when solar power stops at night
Peak Electricity Demand	Time of highest power consumption	Evening AC usage increasing electricity demand
Renewable Intermittency	Renewable energy not available continuously	Solar panels not producing power at night
Energy Storage Systems	Systems storing electricity for later use	Batteries storing solar energy during daytime





Biofuel Diversion	Crops diverted from food to fuel	Sugarcane used for ethanol instead of sugar
Food vs Fuel Debate	Conflict between food and energy priorities	Corn used for ethanol causing food shortages
Ethanol Blending	Mixing ethanol with petrol	E20 petrol containing 20% ethanol
Edible Oil Inflation	Rise in cooking oil prices	Palm oil prices rising due to biofuel demand
Global Commodity Surplus	Excess production globally	Large global wheat supply reducing price rise
Supply-side Cushion	High production protecting against inflation	Good harvest preventing food shortages
Supply Shock	Sudden disruption in supply	War interrupting fertiliser shipments
Macroeconomic Stability	Stable inflation, growth, and fiscal conditions	Moderate inflation with steady GDP growth
Goldilocks Economy	Economy with good growth and low inflation	India's post-pandemic recovery phase
Fiscal Burden	Pressure on government finances	Government spending more on fertiliser subsidies
Subsidy Burden	Government expenditure on subsidies	Government paying part of fertiliser cost for farmers
Trade Chokepoint Vulnerability	Economic risk from narrow maritime routes	Oil prices rising when Hormuz faces tensions
Climate Adaptation	Adjusting systems to climate change	Heat-resistant wheat varieties
Resilient Food System	Food system able to absorb shocks	India using buffer stocks during crises
Export Restriction Risk	Countries limiting exports during crises	Russia restricting fertiliser exports
Self-sufficient Agriculture (historical)	Farming dependent mainly on local resources	Bullock-driven farming using organic manure
Mechanised Agriculture	Machine-driven farming	Combine harvesters used in Punjab
Green Revolution Dependency Trap	Productivity rise creating long-term input dependence	HYV crops needing large fertiliser and irrigation support





Sustainable Development & Energy

Topic	Easy Explanation	Relevance / Example
Fossilisation of Agriculture	Farming becoming dependent on fossil fuels like diesel, fertilisers, and petrochemicals.	Iran war showed how oil & gas disruptions can increase fertiliser and pesticide costs in India.
Food vs Fuel Debate	Crops being diverted toward biofuel production instead of food supply.	Sugarcane and corn used for ethanol blending may reduce food availability and increase inflation.
Renewable Intermittency	Renewable energy sources like solar and wind are not continuously available.	Solar power generation falls at night, creating pressure on coal-based electricity supply.
Grid Balancing	Maintaining stable electricity supply when renewable output fluctuates.	India's power grid faced night-time stress because solar output dropped after sunset.
Energy Diversification	Using multiple energy sources instead of depending on a single source.	India discussing solar + nuclear + gas + hydro mix to reduce oil dependence.
Climate-resilient Agriculture	Farming methods adapted to climate stress like heatwaves and erratic rainfall.	Heat-resistant wheat varieties becoming important due to rising temperatures.
Resilient Food System	Food system capable of absorbing external shocks without shortages.	India's large wheat and rice buffer stocks prevented immediate inflation during the Iran crisis.
Strategic Chokepoint Vulnerability	Economic dependence on narrow global trade routes.	Strait of Hormuz tensions threatened oil and fertiliser supply chains.
Sustainable Infrastructure	Infrastructure designed to function under climate and energy stress.	Need for energy storage systems to support renewable expansion.
Energy-Food Nexus	Energy prices directly affecting food prices and farming costs.	Rising diesel prices increase irrigation and transport costs for farmers.
Cost-push Inflation	Inflation caused by rising production/input costs.	Expensive fertilisers and fuel may increase food prices later.
Managed Deregulation	Market technically free but indirectly influenced by government.	Petrol prices in India do not fully fall even when crude prices decline globally.





Economic Trends & Fiscal Policy

Topic	Easy Explanation	Relevance / Example
Fiscal Deficit	The gap between government expenditure and government income.	Higher fertiliser subsidies due to oil shocks may increase fiscal pressure on the government.
Subsidy Burden	Government spending to keep essential goods/services affordable.	Rising DAP and fertiliser prices may force the government to spend more on subsidies.
Fuel Taxation	Government earning revenue through taxes on petrol and diesel.	Even when crude oil prices fall globally, retail prices may stay high because taxes remain elevated.
Managed Fuel Pricing	Fuel prices are not fully market-driven despite deregulation claims.	Government and oil companies indirectly smoothen petrol/diesel prices during global shocks.
Public Capital Expenditure (Capex)	Government spending on infrastructure and asset creation.	Railway modernisation and infrastructure expansion continue despite global uncertainty.
Fiscal Cushion	Government's ability to absorb economic shocks through reserves or revenue strength.	Strong tax collections and food stocks helped India manage Iran war-related pressures.
Fertiliser Subsidy Pressure	Rising global fertiliser costs increasing government expenditure obligations.	Ammonia and sulphur price spikes may increase subsidy allocation in upcoming budgets.
Counter-cyclical Fiscal Support	Government spending used to stabilise the economy during crises.	Foodgrain distribution and subsidies can reduce inflation stress during external shocks.
Revenue Dependence on Indirect Taxes	Government relying heavily on taxes like GST and fuel taxes.	Fuel taxation remains a major source of government revenue.
Welfare vs Fiscal Prudence Debate	Balancing social spending with deficit control.	Government must manage subsidies without worsening fiscal deficit excessively.





Fiscal Transparency	Clear disclosure of government pricing and taxation mechanisms.	Fuel Price Transparency Framework (FPTF) proposed to show tax and pricing structure openly.
Inflationary Fiscal Risk	Government spending potentially increasing inflationary pressures.	Excessive subsidy expansion during oil shocks can worsen long-term inflation.
State Capacity in Crisis Management	Government's ability to use fiscal tools during emergencies.	India used buffer stocks and subsidy mechanisms to reduce immediate food inflation risks.

Sectoral Development & Infrastructure

Topic	Easy Explanation	Relevance / Example
PM Gati Shakti	Government initiative integrating roads, railways, ports, and logistics through digital planning.	Helps reduce logistics costs and improve infrastructure coordination across sectors.
Railway Modernisation	Upgrading tracks, signalling, and train systems for faster and safer movement.	Indian Railways modernization highlighted as improving freight efficiency and connectivity.
Freight Corridor Expansion	Dedicated rail routes for cargo movement.	Reduces transport delays and improves industrial supply chains.
Energy Diversification Infrastructure	Building infrastructure for multiple energy sources instead of relying only on oil.	India discussing nuclear, solar, hydro, and gas together for long-term energy security.
Energy Storage Systems	Infrastructure that stores electricity for later use.	Needed because solar power generation falls sharply at night.
Power Grid Balancing Infrastructure	Systems managing fluctuations in electricity supply and demand.	India's grid faced night-time stress due to renewable intermittency.
Nuclear Energy Expansion	Increasing nuclear power capacity for stable low-carbon electricity.	Seen as important baseload support alongside renewable energy.
Strategic Petroleum Reserves (SPR)	Underground storage of crude oil for emergencies.	Helps India manage oil supply disruptions during geopolitical crises.





Port-led Development	Expanding ports and maritime logistics for trade growth.	Strait of Hormuz tensions highlighted India's dependence on maritime trade routes.
Logistics Efficiency Push	Reducing transport and supply-chain costs across the economy.	Infrastructure upgrades aimed at improving manufacturing competitiveness.
Industrial Corridor Development	Planned industrial zones connected through transport infrastructure.	Supports manufacturing growth and export competitiveness.
Rural Infrastructure Support	Infrastructure supporting agriculture and rural economy.	Better storage and logistics reduce food wastage and inflation risks.
Renewable Energy Infrastructure	Infrastructure supporting solar and wind energy generation.	Solar expansion increasing but storage and grid integration remain challenges.
Urban Energy Demand Stress	Rapid urban electricity demand creating infrastructure pressure.	Rising AC usage causing peak night-time electricity demand.
Heat-resilient Infrastructure	Infrastructure designed to function during extreme heat events.	Increasing heatwaves creating pressure on electricity grids and transport systems.
Digital Infrastructure Expansion	Expansion of internet and digital systems supporting economic activity.	Digital systems increasingly important for energy management and logistics coordination.

Crops/ Agriculture Commodities in News

Crop / Commodity	Why in News	Key Insight	UPSC Relevance
Wheat	Strong rabi harvest expectations	India's foodgrain buffer helped prevent inflation despite Iran crisis	Food security + inflation management
Pulses	Good yields expected	Strong domestic supply cushioning prices	Protein security + MSP debates
Mustard / Oilseeds	Good rabi output	Important amid edible oil dependence	Oilseed self-reliance
Sugarcane	Mentioned in biofuel discussions	Ethanol diversion can reduce food availability	Food vs fuel debate





Corn (Maize)	Linked with biofuel diversion globally	High oil prices can push corn toward ethanol	Energy-agriculture linkage
Rice	India maintaining strong stocks	Buffer against external shocks	Strategic grain reserves

Important Agricultural Themes

Concept	Easy Meaning	Examples
Fossilisation of Agriculture	Farming becoming dependent on fossil fuels	Diesel tractors, chemical fertilisers, pesticides
De-bullockisation	Replacement of animal power with machines	Bullocks replaced by tractors
Input Dependency	Farming relying on imported inputs	Natural gas, ammonia, sulphur
Energy-Food Link	Oil prices affecting food prices	Diesel, fertilisers, transport costs

Environment

Protected Areas

Protected Areas / Region	Location	Key Details	Famous for
Sijimali Hills	Rayagada & Kalahandi districts, Odisha	Conflict emerged over approach road to proposed bauxite mine. Raises issues of tribal rights, mining-driven ecological disruption, and forest-land diversion.	Bauxite-rich hill ecosystem; Dongria Kondh tribal region nearby.

Animal Species

Species	Type	Key Details	IUCN Status
Rice's whale	Marine Mammal	One of the rarest whale species in the world. Found only in the Gulf of Mexico. Population estimated at fewer than 100 individuals.	Critically Endangered



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		Threatened by offshore oil drilling, ship strikes, underwater noise, and oil spills.	
Sea turtle	Marine Reptile	Mentioned as one of the species likely to be affected by expanded offshore oil drilling and marine pollution in the Gulf of Mexico.	Varies by species: Mostly Vulnerable / Endangered / Critically Endangered
Manatee	Marine Mammal	Coastal herbivorous marine mammal affected by habitat degradation and oil drilling activities in the Gulf region.	Vulnerable
Mountain Birds	Birds	Global study showed that seasonal migration in mountain birds is driven more by “energy efficiency” than temperature alone. Birds migrate to optimise food availability and reduce survival energy costs.	Not a single species – varies across species
Aedes mosquito	Insect Vector	Mentioned indirectly through dengue vaccine discussion (Qdenga). Mosquito control still necessary despite vaccination.	Not Evaluated

Laws and Policies

Law / Policy	Key Points	Main Objective
Endangered Species Act (USA)	U.S. government considered exemptions for offshore oil drilling despite threats to Rice’s whale and marine biodiversity; debate over energy security vs conservation.	Protect endangered species and their habitats from extinction caused by human activity.
Paris Agreement / India’s NDCs	India reiterated commitments on renewable energy, emission intensity reduction, and creation of additional carbon sinks through forests and tree cover.	Limit climate change through nationally determined emission reduction and adaptation targets.
Carbon Sink Expansion Strategy	India aims to create an additional carbon sink of 3.5–4 billion tonnes CO ₂ equivalent via afforestation and forest expansion.	Enhance carbon sequestration and support long-term climate mitigation.





Strategic Petroleum Reserve (SPR) Policy	China's large oil reserves highlighted as a buffer during global energy disruptions and geopolitical crises.	Ensure energy security and reduce vulnerability to supply shocks.
Energy Transition Policies (EVs + Renewables)	China's diversification into solar, wind, EVs, and alternative supply routes reduced dependence on oil imports.	Promote cleaner energy systems and reduce fossil-fuel dependence.
Environmental Clearance / Forest Diversion Framework	Mining-linked conflict in Sijimali Hills raised concerns over ecological impact, tribal rights, and forest-land diversion for infrastructure.	Balance developmental projects with ecological sustainability and community rights.
Climate Adaptation & Biodiversity Governance	Mountain bird migration study highlighted importance of ecosystem understanding in climate adaptation planning.	Improve biodiversity conservation under changing climatic conditions.

Terms

Term	Meaning	Context / Where Used	Key Points
Strategic Petroleum Reserve (SPR)	Large stockpile of crude oil maintained for emergencies.	China's energy security strategy during Iran conflict.	Helps countries withstand supply disruptions and geopolitical shocks.
Energy Diversification	Reducing dependence on a single energy source or supplier.	China's long-term energy planning.	Includes renewables, pipelines, EVs, multiple suppliers.
Carbon Sink	Natural or artificial system that absorbs more carbon than it releases.	India's NDC climate targets.	Forests, oceans, soils act as major carbon sinks.
Afforestation	Planting trees in areas where forests did not previously exist.	India's carbon sink expansion plans.	Used for climate mitigation and land restoration.
Emission Intensity	Amount of greenhouse gas emitted per unit of GDP.	India's climate commitments.	Reduction does not necessarily mean total emissions fall.





Energy Efficiency	Achieving same output using less energy.	Mountain bird migration study (biological analogy) and energy policy discussions.	Reduces energy demand and improves sustainability.
Behavioral Ecology	Study of how animal behaviour is shaped by environmental pressures.	Mountain bird migration study.	Migration depends on food availability and energy optimisation.
Altitudinal Migration	Seasonal movement of species up and down mountain slopes.	Mountain bird study.	Driven by food, breeding, and climatic conditions.
Habitat Specialisation	Species adapted to very narrow ecological conditions.	Rice's whale case.	Makes species highly vulnerable to environmental disturbances.
Anthropogenic Noise Pollution	Human-generated sound affecting ecosystems and wildlife.	Offshore oil drilling impacts on whales.	Includes shipping, sonar, drilling activity.
Oil Spill Contamination	Release of petroleum into marine or terrestrial ecosystems.	Gulf of Mexico drilling debate.	Harms marine biodiversity, food chains, and coastal ecology.
Development vs Conservation Conflict	Tension between economic projects and ecological protection.	Oil drilling and mining debates.	Common theme in infrastructure and mining projects.
Forest Diversion	Conversion of forest land for non-forest purposes.	Sijimali mining issue.	Requires environmental and forest clearances.
Climate Resilience	Ability of systems to adapt and recover from climate stress.	Climate governance and ecological adaptation discussions.	Includes ecosystems, infrastructure, and communities.
Renewable Energy Transition	Shift from fossil fuels to cleaner energy sources.	China's long-term energy strategy.	Includes solar, wind, EVs, hydrogen systems.





Organisations

Organisation	Formed (Why)	Members	Observers	Why in News (April 2026)	India's Role
NATO (North Atlantic Treaty Organization)	1949; formed for collective defence against Soviet threat during Cold War	32 member countries	Partner nations under cooperation frameworks	Trump's statements on reducing US commitment to NATO revived debate on alliance unity and European security	India is not a member but closely watches NATO due to implications for Indo-Pacific and global power balance
WTO (World Trade Organization)	1995; created to regulate global trade and replace GATT	164 members	Observer governments and organisations	In news over concerns that WTO dispute settlement and multilateral trade system are weakening	India advocates reforms protecting developing countries, food security, and policy flexibility
OPEC	1960; created to coordinate oil production and stabilise petroleum markets	12 oil-exporting countries	Cooperates with non-members through OPEC+	UAE exit debate raised questions about future cohesion of oil cartel and global crude prices	India, a major oil importer, is heavily affected by OPEC production decisions
ISA (International Seabed Authority)	1994 under UNCLOS; regulates deep-sea mining in	160+ members including EU	Observer entities allowed	Discussions on deep-sea exploration and seabed mineral governance	India is a pioneer investor with exploration rights in the Indian Ocean





	international waters			remained important	
NASA	1958; US space agency formed for civilian space exploration	Not a membership body	–	Artemis II Moon mission discussed in relation to human spaceflight and lunar exploration	India cooperates with NASA through missions like NISAR and broader space collaboration
UN Agencies / UN System	1945; created to maintain peace and foster global cooperation	193 UN member states	Observer states/entities	UN-linked agencies warned about heatwaves, food security, and climate threats	India actively participates in climate negotiations, SDGs, and UN reforms
Norwegian Nobel Committee	Established to award Nobel Peace Prize as per Alfred Nobel's will	5 committee members appointed by Norwegian Parliament	–	Nobel Peace Prize process discussed amid debate around Donald Trump's nomination	India has no direct role but closely follows Nobel-linked diplomatic developments
Outer Space Treaty Framework	1967; created to ensure peaceful use of outer space	110+ state parties	–	In news because space debris and satellite congestion exposed gaps in global governance	India supports responsible and sustainable space governance as its space sector expands





I4C (Indian Cyber Crime Coordination Centre)	2020; formed under MHA to coordinate cybercrime response	Indian institutional body	–	Sahyog Portal and cyber content regulation debates brought I4C into focus	India uses I4C for cybercrime coordination and digital security management
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Bilateral Agreements

Body / Forum / Agreement	India's Involvement	Type	Key Objective	India's Interest	Partner's Interest
India-EU FTA	Negotiating comprehensive trade agreement with EU	Bilateral / Trade	Expand trade, investment, and technology cooperation	Better market access for exports, technology transfer, supply-chain diversification	Access to Indian market, strategic balancing against China, stronger Indo-Pacific presence
India-South Korea Strategic Cooperation	Strengthening strategic and economic ties	Bilateral / Strategic-Economic	Cooperation in semiconductors, electronics, trade, and Indo-Pacific security	Tech partnerships, manufacturing growth, supply-chain resilience	Larger market access, diversification away from China-dependent manufacturing
India-US Space Cooperation (NASA-ISRO)	Joint scientific and satellite missions	Bilateral / Space & Technology	Space exploration, Earth observation, scientific collaboration	Access to advanced technology, deeper strategic ties	Partnership with emerging space power and Indo-Pacific strategic alignment





India-Iran Strategic Engagement	Energy, maritime, and regional connectivity engagement	Bilateral / Strategic-Energy	Ensure regional stability and energy security	Oil supply security, access to Chabahar, stability in Strait of Hormuz	Economic engagement, strategic balancing amid sanctions pressure
India-UAE Energy Partnership	Strong energy and investment relationship	Bilateral / Energy-Economic	Crude oil supply, investments, logistics, trade	Energy security, sovereign investment inflows, West Asia connectivity	Stable energy customer, investment opportunities, strategic Asian partner
India-US Skilled Mobility Linkages	High migration and talent movement	Bilateral / Migration-Economic	Student mobility, H-1B visas, skilled workforce exchange	IT employment, remittances, educational opportunities	Access to skilled Indian workforce and tech talent
India's Neighbourhood Trade Outreach	Expanding regional trade integration	Regional / Economic-Strategic	Improve connectivity and economic integration in South Asia	Counter Chinese influence, improve regional stability	Access to Indian market, infrastructure, and economic support

Summits and Outcomes

Summit / Forum / Meeting	Type	Key Focus / Outcome	India's Interest	Partner / Global Interest
WTO MC14 (Upcoming Ministerial Conference)	Multilateral Trade Forum	Reform of dispute settlement system, SDT debate, subsidy rules, digital trade	Protect MSP/PDS, retain flexibility for developing countries, defend policy space	Developed countries want stricter subsidy disciplines and updated trade rules
Quad Engagements	Strategic Forum	Indo-Pacific security, maritime	Counterbalance China, secure Indo-	US/Japan/Australia seek stable Indo-Pacific



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		cooperation, technology and supply chains	Pacific, tech partnerships	and collective balancing against China
G20 Cooperation Discussions	Multilateral Economic Forum	Economic coordination, supply chains, climate finance	Amplify Global South concerns and maintain leadership role post-G20 presidency	Stable global economy and coordinated responses to crises
India-EU Strategic Engagement (Pre-Summit Developments)	Bilateral Strategic Partnership	FTA push, technology cooperation, AI, semiconductors, maritime security	Diversify trade away from China, attract investment and technology	EU seeks reliable Asian partner amid China-US tensions
India-Japan Strategic Partnership Discussions	Bilateral Strategic Forum	Semiconductors, AI, supply chains, defence cooperation	Technology transfer, Indo-Pacific security, manufacturing growth	Japan wants resilient supply chains and trusted strategic partner
COP33 Hosting Debate	UN Climate Summit Process	India reconsidered hosting due to financial and geopolitical costs	Balance climate leadership with domestic priorities	Global climate negotiations require major host participation
US-Iran Ceasefire / Mediation Talks	Diplomatic Negotiation Framework	Conflict de-escalation, maritime stability, sanctions discussions	Energy security, Strait of Hormuz stability, fertiliser supply continuity	US seeks regional stability; Iran seeks strategic and economic relief
Delhi-Seoul Strategic Meeting	Bilateral Strategic Engagement	Manufacturing, electronics, semiconductors, strategic cooperation	Supply-chain diversification and advanced manufacturing	South Korea seeks stronger economic footprint in India





Artemis II / Lunar Cooperation Framework	International Space Cooperation	Human lunar missions and future lunar governance	Expand India's role in future space governance and cooperation	US-led coalition seeks broader support for lunar exploration norms
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Reports

Report / Index	Released by	What It Measures	Key Insight / Relevance	Anything About India
Global Trade Outlook	WTO	Global trade growth, tariff barriers, trade fragmentation	Shows weakening multilateral trade order and rising protectionism	India concerned about subsidy rules, SDT, and export access
Climate Adaptation Risk Assessments	UN Agencies (WMO, UNEP, FAO etc.)	Impact of climate change on food systems and livelihoods	Extreme heat increasingly threatening agriculture and food security	India highly vulnerable due to dependence on monsoon agriculture
Energy Transition Assessments	IEA	Energy demand, diversification, fossil fuel dependence	Countries moving toward diversified and resilient energy systems	India balancing renewables expansion with energy security
Nationally Determined Contributions (NDC) Assessments	UNFCCC Framework	Progress on countries' climate pledges	Gap remains between climate commitments and implementation	India updated climate pledges while stressing climate justice
Food Inflation & Commodity Stress Reports	FAO / Commodity Monitoring Bodies	Food prices, supply disruptions, fertiliser stress	Wars and oil shocks can trigger global food inflation	India vulnerable due to fertiliser import dependence





AI Risk & Governance Discussions	AI firms / Global governance forums	Risks posed by advanced AI systems	Growing concerns about regulation, misinformation, and job disruption	India trying to balance AI innovation with employment concerns
Migration & Visa Reform Frameworks	US Policy / Immigration Institutions	Skilled migration, labour mobility, visa systems	Immigration reforms may reshape global talent flows	Direct impact on Indian students and H-1B workers
Climate Adaptation Financing Discussions	UN Climate-linked Forums	Funding for adaptation and resilience building	Adaptation now becoming as important as mitigation	India requires major adaptation finance for heat and disaster resilience
International Waters Governance Framework	UNCLOS-led system	Maritime rights, EEZs, high seas governance	Maritime tensions increasing relevance of ocean governance rules	Important for India's Indo-Pacific and maritime interests
Oil Market Stability Assessments	OPEC / Energy Market Institutions	Oil production, supply trends, crude price stability	Gulf instability can disrupt global energy markets	India heavily dependent on imported crude oil

Science Tech

Space

Mission Name	Space Agency	Year Launched	Objectives	Special Feature
Artemis II	NASA	2026	Send four astronauts around the Moon and back without landing; test Orion spacecraft and life-support systems.	First human Moon-region mission since Apollo; 10-day mission; goes around 6,500 km beyond Moon's far side.



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Artemis Programme	NASA	Artemis I: 2022; Artemis II: 2026	Build long-term human presence on the Moon and prepare for future Mars missions.	Shift from short lunar visits to sustained Moon presence.
Orion Spacecraft	NASA	Artemis programme vehicle	Carry astronauts safely to lunar orbit/flyby and back.	Tested for deep-space crew safety, re-entry, life support, and return systems.
Space Launch System (SLS)	NASA	Artemis missions	Heavy-lift rocket to send Orion toward the Moon.	More powerful route than Chandrayaan-type fuel-saving trajectories; enables faster Moon travel in 3-4 days.
Gaganyaan Return System	ISRO	Upcoming	Safely bring Indian astronauts back to Earth.	Uses high-speed re-entry, aerobraking, multi-stage parachutes, sea splashdown, GPS/radio beacons, flotation bags, and Navy recovery.
Deep Space Distance Measurement using Pulsars	Indian scientists / astronomy research	Research development	Measure distances in deep space using pulsar signals.	Combines dispersion and scattering of radio signals; useful where parallax becomes difficult.
Earth Orbit Governance / Space Debris Concern	Global space governance issue	Ongoing	Manage congestion and debris in Earth orbit.	Treats orbital space like an environmental commons; calls for stronger rules beyond voluntary guidelines.

Diseases in News



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Name	Symptoms	Causing Organism	Mode of Infection	Areas Spread	Genetic Material	Treatment	Vaccine
Bird Flu (H5N1 Avian Influenza)	Fever, cough, breathing difficulty; severe pneumonia in advanced cases	Influenza A (H5N1 virus)	Contact with infected birds/animals	Global concern; outbreaks in birds and mammals	RNA virus	Antivirals (oseltamivir), supportive care	Limited poultry vaccines; no universal human vaccine widely used
Tuberculosis (TB)	Persistent cough, fever, weight loss, fatigue	<i>Mycobacterium tuberculosis</i>	Airborne droplets	India and global South	DNA bacteria	Long-term antibiotic regimen	BCG vaccine (partial protection)
Drug-Resistant Tuberculosis	TB symptoms resistant to standard drugs	Drug-resistant <i>M. tuberculosis</i> strains	Airborne	India highlighted	DNA bacteria	Bedaquiline-based combination therapies	No dedicated vaccine
HPV-related Cervical Cancer	Abnormal bleeding, pelvic pain, late-stage	Human Papillomavirus (HPV)	Sexual transmission	Global; India focus	DNA virus	Surgery, chemo, radiotherapy	Yes (HPV vaccine)





	cancer spread						
Lifestyle Diseases linked to Ultra-Processed Foods	Obesity, diabetes, heart disease	Non-infectious	Dietary/lifestyle factors	Urban/global	Not applicable	Lifestyle management + medicines	No
Antimicrobial Resistance (AMR)	Persistent infection, treatment failure	Drug-resistant microbes	Secondary spread via healthcare/community	Global	Varies	Advanced antibiotics, stewardship	Limited vaccines indirectly help reduce burden

Vaccines in news

Name	Type of Vaccine	Used in India?	Effective Till
BCG Vaccine	Live attenuated bacterial vaccine	Yes	Partial childhood protection against severe TB; limited adult pulmonary TB protection
HPV Vaccine	Recombinant / Virus-like Particle (VLP) vaccine	Yes	Long-term protection against major cancer-causing HPV strains; booster policy evolving
Bird Flu (H5N1) Poultry Vaccines	Inactivated viral vaccines	Not used widely in India for humans	Protection varies with viral mutations and strains
mRNA Cancer Vaccines (Research Context)	mRNA therapeutic vaccine	No (experimental stage)	Trial-stage; duration of effectiveness still uncertain

Discoveries and Inventions



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Name	What It Does	Sector	Applications	Shortcomings
Pulsar-based Deep Space Distance Measurement	Uses pulsar radio signals to calculate cosmic distances where traditional parallax becomes ineffective.	Astronomy / Astrophysics	Deep-space navigation, galactic mapping, future autonomous spacecraft navigation.	Complex signal interpretation; affected by interstellar scattering.
Aerobraking-based Spacecraft Re-entry Systems	Uses atmospheric friction to slow spacecraft during Earth re-entry.	Space Engineering	Safer astronaut return missions like Gaganyaan.	Requires extremely precise angle and heat-shield calculations.
Advanced Heat Shield Materials for Human Spaceflight	Protect astronauts and spacecraft during high-temperature atmospheric re-entry.	Material Science / Aerospace	Human spaceflight safety, reusable spacecraft development.	Expensive and technologically demanding.
Flotation Recovery Systems for Crew Modules	Keeps spacecraft afloat after ocean splashdown using inflatable systems.	Aerospace Recovery Technology	Astronaut rescue and rapid naval recovery operations.	Marine conditions can complicate recovery.
AI-driven Disease Surveillance Systems	Uses AI/data analytics to track disease spread and outbreaks.	AI / Public Health	Early epidemic warning and healthcare planning.	Data privacy concerns and false predictions possible.
Ultra-Processed Food Impact Research	Scientific evidence linking processed foods with chronic diseases.	Nutrition Science / Public Health	Health policy, dietary guidelines, preventive healthcare.	Mostly long-term epidemiological evidence; causality debates continue.

Defence Tech

Name / Project	Developed By	What It Is	Special Feature / Relevance



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NavIC Strategic Navigation System	ISRO / India	India's regional satellite navigation system providing positioning and timing services.	Strategic alternative to GPS; critical for military navigation, missile guidance, and strategic autonomy.
Dual-Use Space Infrastructure (Artemis & Lunar Systems Context)	NASA + private sector	Space infrastructure with both civilian and strategic implications.	Lunar infrastructure may shape future geopolitical and strategic competition in space.
Gaganyaan Crew Recovery Coordination	ISRO + Indian Navy	Integrated astronaut rescue and recovery system after splashdown.	Demonstrates civil-military coordination and India's expanding human-space operational capability.
Space Debris Monitoring & Orbital Governance Systems	Global space agencies	Tracking and managing debris in Earth orbit.	Important for protection of military satellites and communication infrastructure.
Heavy-Lift Launch Ecosystem (SLS Context)	NASA	Super heavy-lift launch capability for deep-space missions.	Relevant to strategic launch capability and future defence-space logistics.

