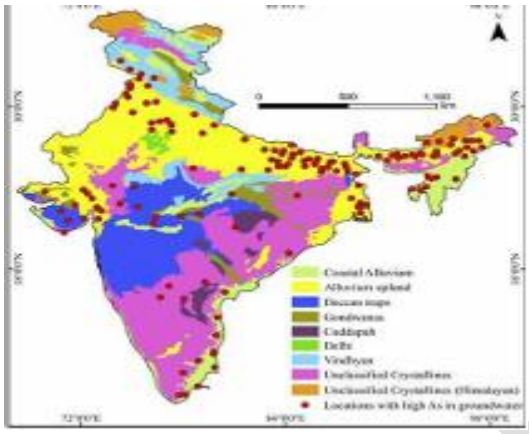
Current Affairs 8th August 2025 by Right IAS

Groundwater Pollution in India

Importance of Groundwater in India Primary source: Provides 85% of rural drinking water and 65% of irrigation water. Acts as a lifeline despite the presence of rivers and monsoons



Scale of Contamination (CGWB 2024 Annual Groundwater Quality Report) Nitrate contamination: Found in 20% of samples from 440 districts. Main causes: Overuse of chemical fertilizers, septic tank leakage. Health impact: Blue baby syndrome (methemoglobinemia). Fluoride: Found in 9% of samples, affecting 230 districts in 20 states. Causes dental and skeletal fluorosis (66 million affected). Worst affected: Rajasthan, Andhra Pradesh, Telangana.

Arsenic: Concentrated in Gangetic belt (West Bengal, Bihar, UP, Jharkhand, Assam). Levels up to 200 µg/L in Ballia, UP (20× WHO limit). Causes cancers, gangrene, neurological disorders. Uranium: Rising detection in Punjab, Andhra Pradesh, Rajasthan. Causes chronic kidney damage; linked to phosphate fertilizer use and over extraction.

Iron: 13% samples above safe limits; linked to GI and developmental disorders. Heavy metals (Lead, Cadmium, Chromium, Mercury): From industrial discharge; causes neurological, developmental, and immune system damage. Pathogens: From sewage seepage, leaking septic systems; cause cholera, dysentery, hepatitis.

Public Health Impact Skeletal fluorosis: 66 million affected, especially children. Arsenicosis: High cancer risk (skin, kidney, liver, bladder, lungs). Nitrate poisoning: 56% districts exceed safe limits; affects infants. Chronic exposure to heavy metals: Neurological and developmental delays. Recurring waterborne disease outbreaks due to microbial contamination.

Causes of Persistent Crisis Institutional fragmentation: CGWB, CPCB, SPCBs, Ministry of Jal Shakti work in silos. Weak legal framework: Water (Prevention and Control of Pollution) Act, 1974 ignores groundwater pollution adequately. CGWB lacks statutory powers; SPCBs under-resourced.

Poor monitoring: Infrequent, outdated methods; no real-time public data. Over-extraction: Lowers water table, increases pollutant concentration. Industrial & sanitation gaps: Weak effluent regulation; poor sewage treatment in rural/peri-urban areas.

Recommended Solutions National Groundwater Pollution Control Framework with statutory powers. Modern monitoring network real-time, publicly accessible, linked to health surveillance. Targeted remediation defluoridation units, arsenic filters, bioremediation for nitrates. Public health interventions nutrition programs, safe water access. Waste management reforms stricter industrial discharge norms, septic system regulation. Community participation citizen water-testing kits, awareness programs. Integrated water governance coordination among all agencies

Haemophilia is a genetic bleeding disorder where the blood doesn't clot properly because it lacks certain clotting factors (proteins that help stop bleeding). Key Facts Cause: Usually inherited (passed from parents to children) through the X chromosome. Caused by deficiency of clotting factor VIII (Haemophilia A) or factor IX (Haemophilia B).

Inheritance pattern: X-linked recessive mostly affects males; females are usually carriers. Types: Haemophilia A – Factor VIII deficiency (most common). Haemophilia B Factor IX deficiency (also called Christmas disease). Haemophilia C – Factor XI deficiency (rare, can affect both sexes).

Treatment Replacement therapy: injecting the missing clotting factor. Desmopressin

(DDAVP) for mild haemophilia A to boost factor VIII levels.

Avoidance of trauma and certain medicines (like aspirin, which increases bleeding risk). Gene therapy emerging option for long-term management.

The Hindu

India–Philippines Strategic Partnership

Background & Context Philippines President Ferdinand Marcos Jr. made his first state visit to India since assuming office in 2022. Visit concluded on Friday, marked by the signing of a Strategic Partnership Agreement. This is only the fifth Strategic Partnership for the Philippines (after Japan, Vietnam, Australia, South Korea).

Geopolitical & Security Dimensions Marcos took a strong stance against Chinese incursions in the West Philippine Sea. Keen to deepen defence cooperation with India. First India–Philippines joint naval drills held in the South China Sea during the visit criticised by China. India reiterated support for 2016 UNCLOS arbitration ruling in favour of the Philippines. The Philippines is the first export destination for the BrahMos missile; Marcos expressed interest in buying more Indian military hardware. Agreements signed for strategic cooperation: Terms of Reference for Army, Navy, Air Force, and Coast Guard exchanges. Defence and maritime cooperation deepened.

Trade, Economy & Connectivity Current bilateral trade low: $3.3 billion (2024–25). Growing investments in technology and pharma sectors. Agreements to liberalise visa regime and start direct flights. Discussion on launching Preferential Trade Agreement (PTA).

ASEAN & Multilateral Links: The Philippines will: Chair ASEAN in 2026. Act as ASEAN–India Comprehensive Strategic Partnership Coordinator. Visit helped ease tensions after Commerce Minister Piyush Goyal's remarks in June calling ASEAN countries "B-team of China" and criticising AITIGA (2009). India has fast-tracked

AITIGA revision talks Delhi hosting discussions next week

Broader Diplomatic Significance Shows India's Indo-Pacific policy extends beyond Quad aims to engage all regional players. Demonstrates India's willingness to counterbalance China's influence through defence, trade, and cultural links.

Highlights India's dual strategy: Strengthen regional partnerships. Keep negotiating liberalised trade regimes globally, even amid U.S. tariffs.

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India's "Goldilocks" Economy

Concept and Recent Claims Goldilocks economy = Balanced economic condition with: Strong growth Low and stable inflation Stable and favourable interest rates Ministry of Finance's claim: FY2024 GDP growth at 7.6% Stable interest rates Corporate profits rising GDP at $3.6 trillion Critics' view: The balance is superficial, with deep structural weaknesses.

Uneven Impact of Inflation May 2024: CPI inflation 4.8% → May 2025: 2.82% Consumer Food Price Index (CFPI) inflation consistently higher than CPI: Oct 2024: CPI 6.21%, CFPI 10.87% Aug 2024: CPI 3.65%, CFPI 5.66% For poor and lower-middle class households, 50%+ of consumption basket is food higher vulnerability to food price volatility.

Wage Growth vs. Real Income Real wage growth has lagged: 2023: Nominal 9.2%, Real 2.5% 2020: Nominal 4.4%, Real 0.4% 2025 (forecast): Nominal 8.8%, Real 4% Inflation has eroded the actual purchasing power gains from nominal wage increases.

Income Inequality Gini Coefficient (taxable income): 2013: 0.489 → 2023: 0.402 (decline in formal sector) Excludes informal sector and overall wealth distribution. Post-pandemic K-shaped recovery: Upper-income groups and certain sectors recovered rapidly Lower-income groups stagnated or declined Billionaires' wealth increased while lower segments saw stagnant income.

Key Challenges Food price volatility – CPI decline doesn't fully translate to relief for common consumers. Low real income growth – Limits consumption and savings. Income inequality – Unequal distribution

of growth benefits. Fiscal constraints – High debt and deficits limit policy space.

Policy Recommendations Strengthen agricultural supply chains to stabilise food prices. Improve labour productivity and skill development to boost real wages. Progressive taxation and targeted welfare schemes to reduce inequality. Strengthen revenue base and manage public debt for fiscal stability.

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Great Barrier Reef's unprecedented coral loss in 2024

Overview & Significance: The Australian Institute of Marine Science (AIMS) reports that in 2024, the Great Barrier Reef (GBR) experienced its largest annual decline in live coral cover in nearly 40 years of monitoring This followed an exceptionally severe mass bleaching event, the fifth since 2016, driven mainly by climate-change induced ocean heat stress.

What Caused the Decline?

Heat stress from marine heatwaves induced widespread bleaching. Compounding stress factors include cyclones, flooding, and crown-of-thorns starfish outbreaks. The repeated bleaching events have increased the volatility and vulnerability of the reef ecosystem

Does Some Coral Still Remain?

Despite losses, overall coral cover remains near its long-term average, thanks to past years of coral growth particularly during cooler La Niña phases However, this is not a reassurance; rather, it reflects interannual fluctuations with increasingly dramatic swings.

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