

Daily Current Affairs

 Date : 01 December, 2025



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RAJASTHAN



Mukhyamantri Shikshait Rajasthan Abhiyan



Why in News?

- The Mukhyamantri Shikshait Rajasthan Abhiyan (MSRA) is Rajasthan's statewide school improvement program to implement the National Education Policy 2020, launched on March 29, 2025, and being implemented in a phased manner from the 2025-26 session. This campaign focuses on strengthening the quality, enrollment, learning levels, and moral values of government schools through 41 concrete actions across four components: students, schools, teachers, and educational outcomes.
- **Objectives:** All-round development of students, increasing enrollment and attendance in government schools, employment-oriented and skill-based education, timely provision of textbooks/uniforms/incentives, tracking progress through digital monitoring, and improving educational outcomes.
- **Highlights:** Rajasthan is reported to be the first state in the country to implement the National Education Policy 2020, as an integrated school-level action at this scale.



Key Points:

Community Participation and Mega PTM

- School principals, teachers, SMC/SDMC members, and the local community have been made active participants.
- Parent-teacher interactions will be regularly conducted through Mega PTMs; children will be categorized according to their reading skill level through AI-based ORF and “Prakash 2.0” to provide reading remediation.

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Four Key Components

1. Student-Centric Action

- App-based attendance, book and uniform incentives as soon as the session begins, reading campaigns, and regular mega PTMs.
- Moral education through inspiring stories from great men, “School on Wheels” for nomadic and semi-nomadic children, and paperless digital health surveys.

2. School-Centric Action

- Integration of schools with zero enrollment, conversion of well-equipped schools into “mentor schools,” alternative teaching through ICT labs, and recognition of schools with good results.
- Ensuring availability of positions/staff and separate toilets for boys and girls before opening new schools.

3. Teacher-Centric Action

- Staffing patterns and alignment, transfer of teachers with better results to their desired locations.
- AI chatbot-based data analysis, online attendance, timely promotions, and a new technology-enabled training system.

4. Academic Outcome-Centric Action

- New academic structure, teaching in the mother tongue in primary classes, and Anganwadi school coordination.
- Competency based assessment, workbooks, vocational education and skill development courses, continuous learning through digital medium and expansion of science computer faculty.

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"Karmabhoomi to Matribhoomi" campaign



Why in News?

- Under the "Karmabhoomi to Matribhoomi" campaign, more than 14,500 water structures have been built in Rajasthan by engaging migrant Rajasthanis, philanthropists, and CSR, and the target is to build a total of 45,000 structures. This campaign is inspired by the Prime Minister's "Catch the Rain" program and is an important initiative towards making the state water self-sufficient through groundwater recharge and rainwater harvesting.



Key Points:

Key Features of the Campaign

- **Objective:** To mobilize economic and social contributions from the "Karmabhoomi" (where migrant Rajasthanis live/work) to the "Matribhoomi" (motherland) in building water structures; rainwater harvesting, groundwater recharge through dried hand pump wells, and sustainability and restoration of water sources.
- **Target:** To build approximately 45,000 recharge/water conservation structures in four years; In the first year itself, 42,081 potential recharge sites were identified through the e-Panchayat app, out of which 14,500+ structures have actually been constructed.

Implementation Framework

- **Launch:** January 2025, Sanganer (Jaipur), in 11,195 Gram Panchayats across 41 districts of the state.
- **Ministry** – Ministry of Jal Shakti, Government of India
- **Nodal Department** – Ground Water Department, Government of Rajasthan

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■ Institutional Arrangements:

- o A 31-member state-level “Karmabhoomi Se Matribhoomi” Campaign Committee chaired by the Chief Minister.
- o A 20-member State-level Guidance Committee (Coordination and Monitoring) chaired by the Chief Secretary.
- o A 17-member District-level Committee chaired by the Collector in each district.

Other Key Points:

- Improvement of groundwater levels in rural areas, long-term water availability for drinking and irrigation, and revival of water streams through repair and cleaning of reservoirs and drains.
- Public participation and awareness: Along with the campaign, 'Vande Ganga Jal Sanrakshan Jan Abhiyan' was also launched, which included voluntary labour, tree plantation, removal of encroachments, cleaning of dam areas and reconstruction of water storage structures.

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Pink City Half Marathon 2025 – Run for Zero Hunger

Why in News?

- The 10th edition of the Vedanta Pink City Half Marathon took place in Jaipur. It showcased community solidarity and determination. Nearly 15,000 runners participated in Vedanta's #RunForZeroHunger campaign.

Key Points:

- The flag-off was done by Priya Agarwal Hebbar, Non-Executive Director of Vedanta Limited and Chairperson of Hindustan Zinc Limited, and Harmanpreet Kaur, captain of the World Cup-winning Indian women's cricket team.
 - o **Theme:** Run with a social purpose as part of the #RunForZeroHunger campaign.
 - o **Goal:** Develop 25,000 "Nand Ghar" across states, where children can access nutrition, education, and healthcare.
- The funds raised through this campaign provided 100,000 nutritious food packets for the children of Nand Ghars, which will be distributed to children in 16 states.

Other key points:

- "Nand Ghar" is a social initiative of the Vedanta Group, a model for transforming traditional Anganwadi centers into modern, well-equipped Integrated Child Development Centers. These centers provide nutrition, pre-primary education, health services, and skill development for women under one roof. By 2025, more than 10,000 Nand Ghar facilities will be operational in 16 states; directly benefiting more than 3.6 lakh children and 2.7 lakh women.

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- Under an MoU with the Government of Rajasthan, the target is to develop 25,000 Nand Ghar centers across the state; hundreds of Anganwadi centers have already been upgraded to Nand Ghar centers.



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Sivana Ring Complex



Why in News?

- Recent geological studies have identified the Sivana Ring Complex (Barmer, western Rajasthan) as one of the richest deposits of rare earth elements (REEs) and high field strength metals (such as neodymium, zirconium, niobium, yttrium, etc.) not only in India but also in the world. These minerals are crucial for electric car motor magnets, mobile chips, wind turbines, nuclear power, and high-tech electronics.



Key Points:

Special Features of the Sivana Ring Complex

- **Geological Age:** A Neoproterozoic volcanic system dating back approximately 700–800 million years; part of the Malani Igneous Suite, a ring-shaped caldera complex covering an area of approximately 800 square kilometers. It contains peralkaline granite and rhyolitic rocks formed by the solidification of alkaline magma from the Earth's deep mantle.
- In the Siwana region, alkaline magma from the deep mantle was deposited below the surface through volcanic eruptions to form large granitic plutons and ring dikes.
- **Discovery:** Scientists from the Central Directorate of Atomic Minerals Exploration and the Geological Survey of India, based in Hyderabad and Jaipur, have been studying the Siwana region for years; recent high-resolution spectroscopy, drill sample analysis, and geochemical modeling have now confirmed the existence of a world-class REE (Nb, Zr) potential resource.

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Minerals	Quantity	Uses
Gitinsite	Present as small grains in microgranite.	The zirconium obtained from it is useful in tubes wrapping fuel rods in nuclear reactors, jet engine parts, surgical knives, and implants.
Pyrochlore	It contains niobium, up to 1681 ppm in some samples.	It is used in strengthening steel, jet engines, rocket parts, superconducting magnets used in MRIs, and capacitors for mobile phones and laptops.
Parsite	Neodymium and praseodymium are present in smaller quantities.	It is used in everything from electric cars to windmills and refineries to electronic gadgets.
Allanite	Significant quantities, ranging from 0.65 to 1 percent of the sample.	It also produces lanthanum-cerium and thorium. These are useful for coloring glass ceramics and in thorium-based nuclear reactors.
Titanite	Niobium is also present in titanite, a small grain in the rock.	Titanium is useful in airplane bodies and even knee and hip replacements. Niobium is used in steel, rockets, jets, and mobile phones.
Silicate	This mineral contains large amounts of the rare earth oxide dysprosium.	Super magnets containing dysprosium are used in electric cars and windmills, laser-based treatments, and control rods in nuclear reactors.

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UDISE Report 2025-26

Why in News?

- To create Automated Permanent Academic Account Registry (APAAR) IDs, students' unique identities are being established by combining data from Aadhaar/JanAadhaar, land records, and school registers. Approximately 83% of students have already received Apaar IDs, but data for approximately 17% of students is not matching with Aadhaar; minor errors (spelling, sequence, abbreviations) in names, surnames, father's names, and dates of birth, etc., are causing the system to report "duplicate/mismatch." These errors have halted student Aadhaar seeding, causing difficulties with scholarships/DBT, exam forms, and other benefits.

Key Points:

Context of UDISE+ 2025-26 Report

- **Issued by:** Ministry of Education, Government of India
- Out of a total of 1.49 crore students in the state, 1.25 crore Aadhaar-based identities have been updated, while approximately 23.47 lakh students' Aadhaar IDs remain unlinked.
- Biometric identification of 16.96 lakh (13.49%) children in the age group of 5–15 years and 16.46 lakh (13.09%) children above 15 years of age is still incomplete – this is the group with the highest number of lags in Apaar ID.
- This will be used as Aadhaar data in future for accurate calculation of school-wise enrolment, dropout tracking, scholarship/DBT distribution and education policy planning.



NEWS IN SHORTS



S. No.	News
1.	<p>The World's First Emotional Speech-to-Speech AI Model</p> <p>Why in the News:</p> <ul style="list-style-type: none"> Jaipur-based Sparsh Agarwal has launched the world's first emotional speech-to-speech AI model, which can recognize not only voices but also the emotions embedded within them and respond in real time. This model, developed under his startup Pixa AI, takes audio input directly and produces audio output, thus differing from traditional text-to-speech AI. <p>Key Points:</p> <ul style="list-style-type: none"> This AI captures the human-like voice, tone, rhythm, and emotions (happiness, sadness, excitement, etc.) of a speaker and produces output in a different language or the same language with the same emotion. The model captures "paralinguistic features" such as pitch, timbre, pauses, energy, etc. and maps them onto the generated speech in the other language, creating a similar emotional experience. Due to its real-time processing, it is being seen as a useful solution in areas such as gaming, music, healthcare, and automobile voice assistants.
2.	<p>Dr. Yogesh Gupta</p> <p>Why in the News:</p> <ul style="list-style-type: none"> Dr. Yogesh Gupta, a senior neurosurgeon from Jaipur, was honored to present a lecture on the UBE (Uniportal/Biportal Endoscopy) technique at the Radical Academy of Spine Endoscopy's workshop, BSECON 3, held in Raipur. <p>Key Points:</p> <ul style="list-style-type: none"> Features of the Technique: <ul style="list-style-type: none"> UBE/Biportal Spine Endoscopy is a state-of-the-art, minimally invasive technique. There is minimal/no muscle injury or bone cutting, so patients can often be discharged the same or the next day.



3.

Inauguration of Nomadic Caste Fair

Why in the News:

- An employment fair was organized by the Nomadic Caste Upliftment Trust in Jaisinghpura Khor, Jaipur, which was inaugurated by Prem Bhandari, President of the Rajasthan Association of North America (RANA). Self-employment opportunities such as auto-rickshaws, sewing machines, handcarts, carts, and rickshaws were provided to unemployed men and women of the nomadic community at the fair.

4.

National IIMM Award

Why in the News:

- The Indian Institute of Materials Management, Mumbai, honored Dr. Virendra Singh Rathore, RTO and Deputy Transport Commissioner (Road Safety) working in the Transport and Road Safety Department, with the National IIMM Award. Rathore was given the national-level President's Appreciation Award on the recommendation of IIMM's National Awards Committee for his suggestions on improving road safety and cost reduction in the logistics sector.

5.

Fourth All India Shotgun Championship

Why in the News:

- Jaipur's young shooter Surya Dev Singh Rathore brought glory to Rajasthan by winning the gold medal at the Fourth All India Shotgun Showdown Championship held at the Dr. Karni Singh Shooting Range in Delhi. He secured first place in the Trap/Shotgun event with a score of 109/125.

6.

State Wins Gold Medal at India International Trade Fair

Why in the News:

- In line with Prime Minister Narendra Modi's vision of "One India, Best India," the Rajasthan Pavilion was awarded a gold medal for its outstanding and innovative display at the closing ceremony of the 44th India International Trade Fair held at Pragati Maidan in New Delhi. The event was a joint collaboration between the Department of Industry and Tourism, RIICO, Rajasthan Emporium, BIP, Khadi, Rajivika, and RUDA. Products from all 41 districts of the state were showcased on the "One District, One Product" wall created by Rajasthan Emporium.

7.

"Swarnagri Express"

Why in the News:

- The "Swarnagri Express," a new superfast train service between Jaisalmer and Delhi (Shakur Basti), was launched on November 29, 2025, from Jaisalmer station, flagged off by Union Railway Minister Ashwini Vaishnav and Union Tourism Minister Gajendra Singh Shekhawat. This train will run regularly on a daily basis from December 1, 2025, and will provide a new impetus to connectivity between border cities Jaisalmer, Jodhpur, and Jaipur with the capital Delhi.



Madhvacharya



Why in News?

- Prime Minister Narendra Modi addressed the Lakh Kantha Gita Parayan program at the Sri Krishna Matha in Udupi. Udupi holds a central place in the Madhva tradition and Dvaita Vedanta.



Key Points:

- The Madhva tradition is one of the most influential schools of Indian philosophy and religious practice. Founded in the 13th century by Jagadguru Madhvacharya (also known as Purnaprajna or Ananda Tirtha), this tradition is based on the teachings of Dvaita Vedanta, or the doctrine of dualism.
- It is known for its emphasis on devotion to Vishnu/Krishna, its clear distinction between the individual soul and the Supreme Being, and its contribution to the Bhakti movement.
- A key feature of Dvaita Vedanta is the Pancha-Bheda theory, which outlines five real distinctions: God and soul, God and matter, soul and matter, one soul and another soul, and one kind of matter and another. These distinctions are inherent in the very structure of existence.

India's Updated Seismic Zoning Map (2025)



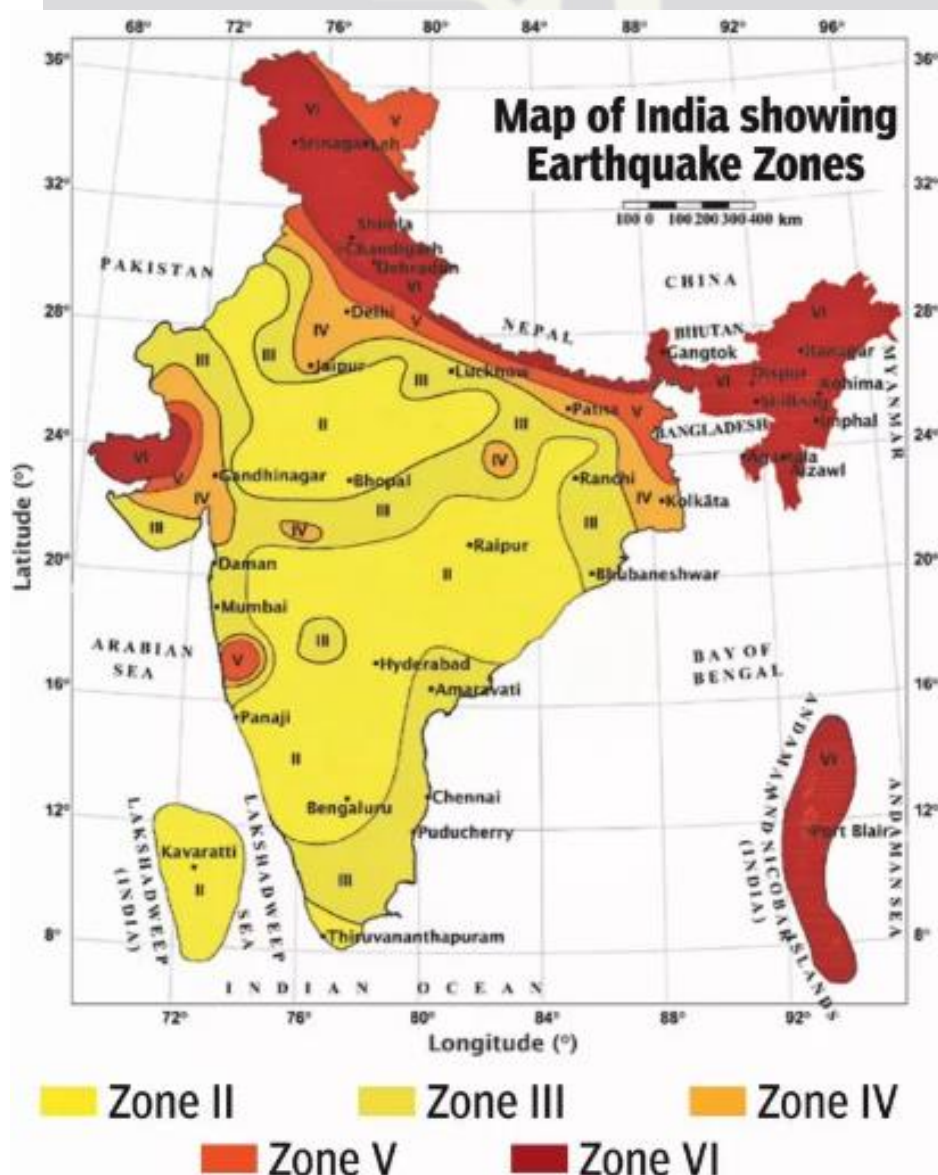
Why in News?

- India has released an updated seismic zoning map under the new Earthquake Design Code (2025).



Key Points:

- Objective:** To align India's seismic safety standards with modern scientific understanding, and replace the outdated 2016 map and historical-epicenter-based models.



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Upgrades needed

- **Earlier maps underestimated the risk of the Himalayas:** Previous zoning divided the Himalayas into Zones IV and V, even though this belt shares one of the world's most active tectonic systems.
- **Outdated models:** Older models relied heavily on previously known earthquake locations, magnitudes, broad geology, soil types, and historical damage patterns.
- Earlier maps did not adequately incorporate the southward propagation of the Himalayan Frontal Thrust Rupture.
 - o Densely populated hilly areas like Dehradun were shown to be at low risk despite being close to major thrust faults.
- **Differences with international best practices:** There is a need to adopt internationally accepted Probabilistic Seismic Hazard Assessment (PSHA) methods.

Features of the New Seismic Map (2025)

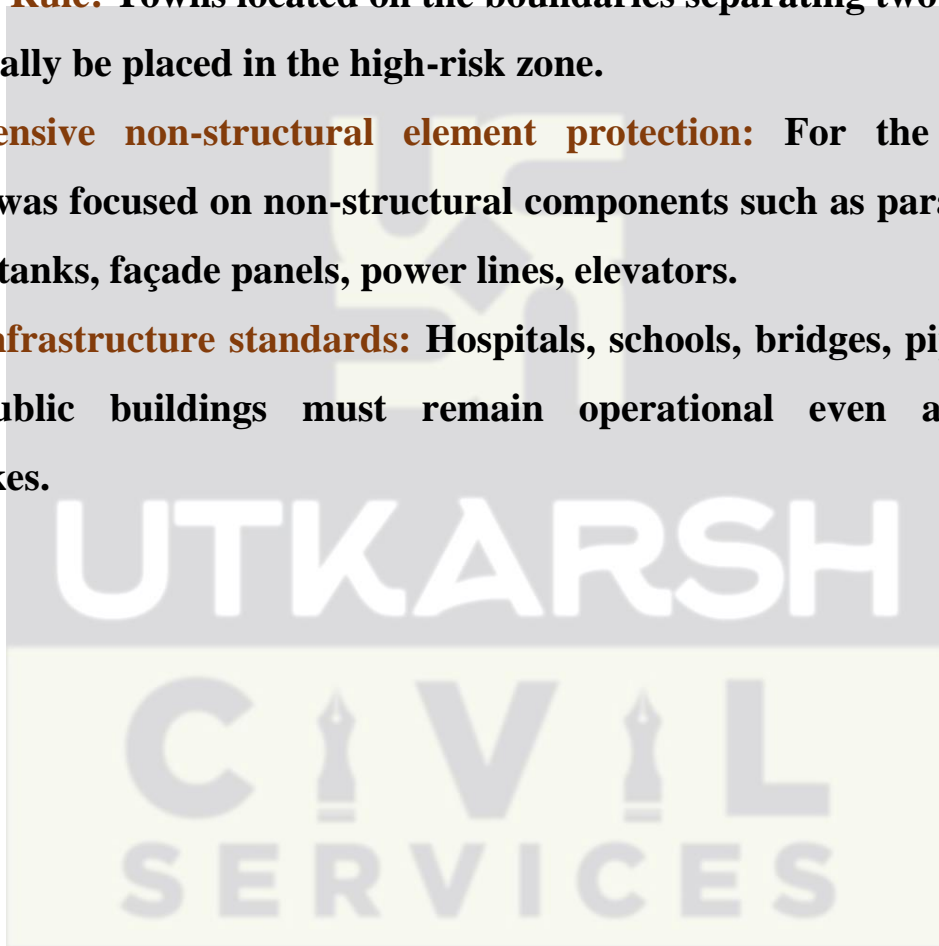
- **Introduction of Zone VI:** The entire Himalayan region (from Jammu and Kashmir-Ladakh to Arunachal Pradesh) is now classified under the newly created highest-risk Zone VI.
- **Scientific Methodology – PSHA:** Produced using internationally accepted Probabilistic Seismic Hazard Assessment (PSHA) methods.
 - o Considers the attenuation of ground vibrations with distance, tectonic regime, and underlying lithology.

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- **Improved Geographic Coverage:** 61% of India's landmass is now classified as moderate to high-risk zones (increased from 59%).
 - o The Southern Peninsula sees slight improvements, with a broadly stable hazard profile due to relatively stable tectonic behavior.
- **Boundary Rule:** Towns located on the boundaries separating two regions will automatically be placed in the high-risk zone.
- **Comprehensive non-structural element protection:** For the first time, attention was focused on non-structural components such as parapets, roofs, overhead tanks, façade panels, power lines, elevators.
- **Critical infrastructure standards:** Hospitals, schools, bridges, pipelines, and major public buildings must remain operational even after major earthquakes.





INTERNATIONAL



Operation Sagar Bandhu



Why in News?

- Recently, India launched Operation Sagar Bandhu to assist Sri Lanka affected by Cyclone Ditwah.



Key Points:

Cyclone Ditwah

- This is a tropical cyclone that affected Sri Lanka and South India.
- The name "Ditwah" was given by Yemen.

India-US Defense Deal



Why in News?

- India has finalized an agreement with the United States for a fleet of 24 MH-60R Seahawk helicopters, ensuring continuous maintenance and supply for five years.



Key Points:

MH-60R Seahawk Helicopter

- The MH-60R is an all-weather helicopter manufactured by Lockheed Martin Corporation.
- The MH-60R Seahawk is a maritime version of the Blackhawk helicopter.
- India signed an agreement with the United States in February 2020 for the purchase of 24 MH-60Rs.

International Maritime Organization Council



Why in News?

- India has been re-elected to the Council of the International Maritime Organization (IMO) for the year 2026-27.



Key Points:

International Maritime Organization

- **Function:** It is a specialized agency of the United Nations responsible for the safety of navigation and the prevention of marine and atmospheric pollution by ships.
- **Origin:** The IMO was established in 1948, following a United Nations conference in Geneva and came into force in 1958.
- **Members:** The IMO has 175 member states and is headquartered in London, United Kingdom. India joined the IMO in 1959.

Asia Power Index 2025



Why in News?

- Recently, the Australia-based think tank Lowy Institute released its annual Asia Power Index.



Key Points:

Asia Power Index 2025

- The annual Asia Power Index measures the resources and influence of countries in Asia to assess their relative power.
 - o It evaluates the power of 27 countries and regions in Asia based on eight criteria, including military capability, economic strength, diplomatic and cultural influence.
- India has achieved 'major power' status, ranking third. However, it still lags far behind the United States and China.

Indian Institute of Technology (IIT) in Nigeria



Why in News?

- The first Indian Institute of Technology (IIT) campus in West Africa is being established in Nigeria.



Key Points:

- The first batch is expected to commence in 2026.
- This initiative is a major step in India's global education outreach and is part of the National Education Policy (NEP) 2020. This policy encourages Indian universities to expand internationally.
- The new campus will follow the IIT Madras-Zanzibar model.
 - o The IIT Madras-Zanzibar campus opened in 2023 for students from across Africa.
 - o The IIT Delhi-Abu Dhabi campus is scheduled to open in 2024. It offers courses tailored to the needs of local industries.

SCIENCE & TECHNOLOGY

Russia's S-500 Air Defense System



Why in News?

- The Prime Minister of India and the President of Russia will meet at the upcoming India-Russia annual summit, where both sides are expected to discuss the next-generation S-500 air defense system.



Key Points:

S-500 Air Defense System

- The S-500 Prometey is Russia's most advanced long-range, surface-to-air, and anti-space defense system.
- Developed by Almaz-Antey, Russia's leading air defense and missile interceptor manufacturer.
- The S-500 can intercept aircraft, missiles, and hypersonic threats at ranges up to 600 km.
- It operates at altitudes up to 200 km, allowing it to intercept ballistic missiles, hypersonic glide vehicles, and low-Earth-orbit satellites mid-flight.
- Its reaction time is 3-4 seconds, which is almost double that of the S-400.



INDEXES AND REPORTS



Annual Groundwater Quality Report, 2025



Why in News?

- The Central Groundwater Board released the Annual Groundwater Quality Report, 2025.



Key Points:

- 71.7% of India's groundwater meets Bureau of Indian Standards (BIS) standards, but 28.3% of samples exceeded one or more parameters.
- **Nitrate Contamination:** Nitrate is the most widespread contaminant nationally. Nearly 20% of samples exceeded the WHO and BIS-prescribed limit (45 mg/L) for nitrate. Fluoride and salinity followed.
- **Uranium Contamination:** Uranium levels exceeded the safe limit (30 ppb) in both pre-monsoon and post-monsoon samples.
 - o Punjab recorded the highest contamination, followed by Haryana and Delhi.
- **Salinity:** Salinity is a serious issue in arid and semi-arid regions like Rajasthan and Delhi.
- **Fluoride:** 8.05% of samples nationwide exceeded the prescribed limits. However, this was primarily geo-borne. The highest contamination was observed in Rajasthan.
- **Lead:** The highest lead contamination was recorded in Delhi.
- **Suitability for irrigation:** Groundwater quality is largely suitable for irrigation purposes. Most samples fall in the excellent category.

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- **Other minor metals and geo-borne contaminants:** Arsenic (especially in the Ganga and Brahmaputra basins), manganese (in areas like Assam, Karnataka, Odisha, Uttar Pradesh, and West Bengal), etc.

Central Ground Water Board

- **Headquarters:** Faridabad (Haryana).
- **Established:** 1970
- **Ministry:** Ministry of Jal Shakti
- It also functions as the Central Ground Water Authority, established under the Environment Protection Act, 1986.

