

Daily Current Affairs

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India's First Drone-AI Powered Artificial Rain

- For the first time in India, **cloud seeding technology enhanced with drones and artificial intelligence (AI)** is being used to trigger artificial rain. The pilot project is taking place in the **Ramgarh Dam area of Jaipur, Rajasthan**, with hopes of reviving the **129-year-old reservoir that has** been dry for the past two decades and has not filled to capacity since 1981. The initiative is a joint effort between GenX AI, an India-US-based technology company, and the Rajasthan Government.

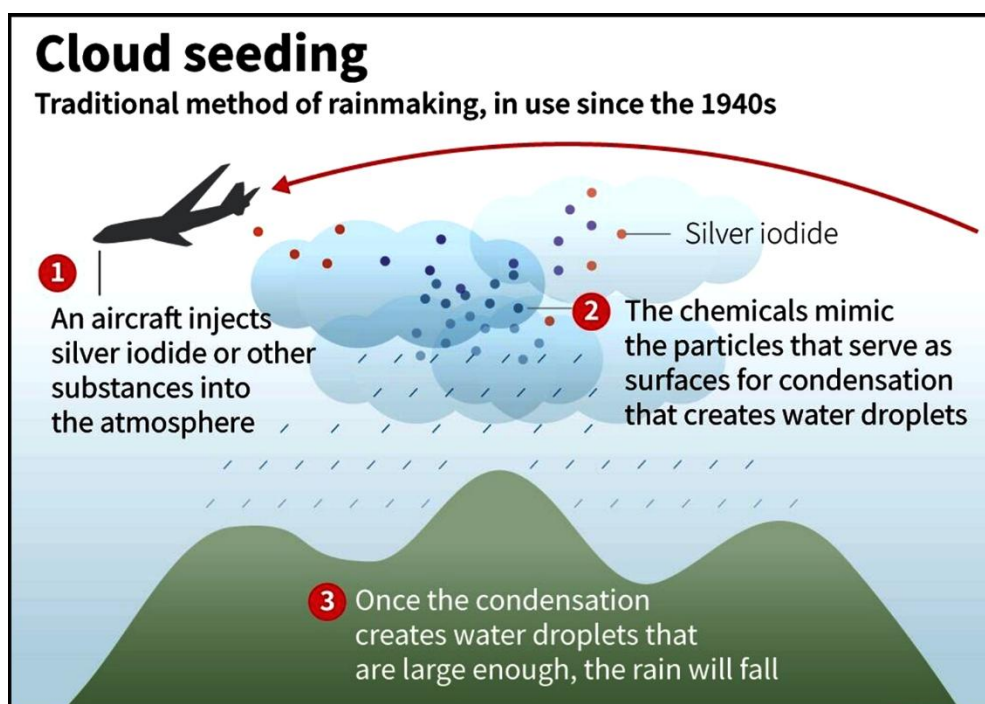


- The project aims to **revive surface water sources, provide relief in drinking water** supply to Jaipur, and preserve the environment and biodiversity of the dam area.
- Initially, **Mansagar Dam near Jal Mahal** was considered, but due to its smaller size and proximity to civilian areas, the site was shifted to Ramgarh Dam. The dam is larger, currently dry, and historically significant.
- Historical Background:
- Foundation laid: 30 December 1897** by Maharaja Madho Singh II.
- Construction completed: 1903.

- 1931: **Viceroy Lord Irwin inaugurated the first drinking water supply scheme of Rajputana from here.**
- 1982: Hosted Asian Games sailing competition.
- Situated on the Banganga River, it was once the main water source for **Jamwaramgarh Wildlife Sanctuary.**




- **Cloud seeding involves spraying chemicals** such as sodium chloride into clouds, which act as condensation nuclei, causing water vapour to condense into raindrops.




- In this experiment:
- **Taiwan-made drones will fly thousands** of feet high.
- They will spray sodium chloride into targeted clouds.
- The process aims to induce precipitation and fill the dam.
- This weather modification technique is already in use in countries like the US, Russia, and several European nations to mitigate droughts.
- Multi-Department Coordination
- **Previous Cloud Seeding Attempts in Rajasthan** : A similar attempt was made at Ghosunda Dam in Chittorgarh, but it was unsuccessful. This time, improved AI and drone technology are expected to increase the chances of success.
- History of Cloud Seeding in India
- According to the **Indian Institute of Tropical Meteorology (IITM)**:
- 1951: First attempt over the Western Ghats using ground-based silver iodide generators.
- 1952: Salt and silver iodide used via hydrogen-filled balloons.
- 1957–1966: Rain and Cloud Physics Research (RCPR) Unit conducted ground-based cloud seeding in north India, increasing rainfall by 20%.
- 1973–1977: Experiments over Tiruvallur (Tamil Nadu) and Mumbai.
- 1973–1986: Cloud seeding over Baramati (Maharashtra) led to a 24% increase in rainfall.

Four New Semiconductor Projects


- The government has approved **four new semiconductor projects** in Odisha, Punjab and Andhra Pradesh with an estimated cost of four thousand 594 crore rupees. Briefing media in New Delhi today about the Cabinet decision taken under the chairmanship of **Prime Minister Narendra Modi**, Information and Broadcasting Minister Ashwini Vaishnaw said, the government is building a robust ecosystem for semiconductor and electronics sector.
- He said, **electronics manufacturing** has witnessed rapid strides in the last 11 years with six times growth and export has increased by eight times. He said, numbers of mobile manufacturing units have reached to over 300 from 2 in the last 11 years.



भारत सरकार
GOVERNMENT OF INDIA
प्रौद्योगिकी और सूचना प्रौद्योगिकी विभाग
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY



भारिया सेमीकंडक्टर मिशन
India Semiconductor Mission
Creating India's Semiconductor Ecosystem




Digital India
Power To Empower

Boosting India's chip power

Government of India (GoI)
has approved four (04) new semiconductor projects under the
Semicon India Programme,
further strengthening India's semiconductor manufacturing
and advanced packaging ecosystem

<p><u>ADVANCED SYSTEM IN PACKAGE TECH.</u> (OSAT) Investment: ₹469 Cr. Location: Andhra Pradesh</p>	<p><u>SICSEM PVT. LTD</u> (COMPOUND FAB AND ATMP) Investment: ₹2,067 Cr. Location: Odisha</p>
<p><u>CONTINENTAL DEVICE INDIA</u> (OSAT) Investment: ₹118 Cr. Location: Punjab</p>	<p><u>3D GLASS INC.</u> (ADVANCED PACKAGING) Investment: ₹1,944 Cr. Location: Odisha</p>



- He said, **mobile phone exports have increased by 127 times** by reaching two lakh crore rupees. He said the government is supporting domestic companies, startups and MSMEs for chip design. The **Minister announced that Semicon India 2025** will be organized in New Delhi from 2nd of next month.
- **Malaysia, Japan, Singapore, and South Korea** will participate in the Semicon India as partners. Mr. Vaishnaw said, the government has approved the Lucknow Metro Phase 1B between Charbagh to Vasant Kunj with an estimated cost of over five thousand 801 crore rupees. He said a total of 12 stations will be constructed and it will be completed in five years. The Information and

Broadcasting Minister said the government has given its nod for the Tato-II hydroelectric project with the capacity of 700 megawatt.

- He said, this **project will be built in Shi Yomi district of Arunachal Pradesh** and this will be constructed within six years. He said, this project will provide the **stable source of electricity in the region, and boost regional development**. He said, India's fossil fuel capacity has reached over 50 percent which is a great achievement.

India Bans Imports Of Jute Products

- **India has banned imports of certain jute products and ropes** from Bangladesh through all land routes with immediate effect. A notification issued by the Directorate General of Foreign Trade (DGFT) stated that items such as jute fabrics, twine, ropes, and bags can now enter India only through the Nhava Sheva Seaport in Maharashtra.



- The **move is aimed at quality control or protection of domestic industry**. The banned products include bleached and unbleached woven fabrics of Jute or of other textile bast fibre; twine, cordage, rope of jute; and sacks and bags of jute. Imports of these products from Bangladesh will not be allowed from any land port on the India-Bangladesh Border.

- Earlier on June 27, India prohibited imports of jute products and woven fabrics from Bangladesh through all land routes. Those imports are, however, allowed only through Nhava Sheva seaport in Maharashtra.



Mega Tinkering Day'

- NITI Aayog hosted '**Mega Tinkering Day**', bringing together students from over 10 thousand Atal Tinkering Labs (ATLs) across all 35 states and union territories. Held **virtually and simultaneously in schools nationwide**, the event saw participation of over 4.5 lakh students from more than 9 thousand Atal Tinkering Labs equipped schools.



NITI Aayog

- NITI Aayog, in a statement, said that during the event, students' engaged in a **hands-on project to design and build a DIY vacuum cleaner**, using everyday materials available in their labs. Schools from Remotest villages of aspirational Districts joined the event. The **event primarily focused on nurturing creative** thinkers, innovators, and entrepreneurs who are making India future ready, and proving that the future is being built here, now, by the next generation.

Tropical Bird Populations

- **Extreme heat driven by climate change has wiped out 25-38 percent** of tropical bird populations since 1950, a global study has found. According to an analysis released today on the **University of Queensland, Australia, website**, the study, conducted by Australian and European researchers, analysed over 3,000 bird populations and 90,000 observations from 1950 to 2020.



- Results showed extreme heat, more than habitat loss or rainfall changes, is the primary driver of **bird declines in the tropics**. Birds now face dangerously hot days up to ten times more often, leading to dehydration, nest abandonment, and reduced breeding success.

- **Even untouched tropical forests are impacted.** With nearly half of all bird species found in tropical regions, the findings pose a serious threat to global biodiversity.

SHRESTH Initiative

- Union Health Secretary **Punya Salila Srivastava** reiterated that the health of all citizens begins with the safety, quality, and efficacy of the medicines they consume. **Launching the State Health Regulatory Excellence Index (SHRESTH)** initiative in New Delhi, Ms Srivastava emphasized that ensuring the quality of medicines is the commitment of the government.



- In a strong call to action, **Ms Srivastava urged continued centre and state collaboration.** The Health Secretary also highlighted the crucial role played by States and Union territories in ensuring quality manufacturing and distribution in India and the need for recognising and supporting their best practices and growth.
- **SHRESTH initiative, proposed by the Central Drugs Standard Control Organisation (CDSCO),** aims to drive improvements in the performance of state drug regulatory authorities across India, ensuring that drug safety and quality standards are consistently met. It is a first-of-its-kind national initiative to benchmark and strengthen state drug regulatory systems through a transparent and data-driven framework.



CDSCO

Central Drugs Standard Control Organization

India's Namrata Batra

- India's Namrata Batra has scripted history by winning a silver medal in the women's 52 kg final at the 2025 World Games in Chengdu, China yesterday.
- The 24-year-old, who won silver at the Asian Championships last year and is a four-time national champion, went down 2-0 to local favourite Mengyue Chen in the final.



- It was India's first-ever medal in Wushu at the World Games and the country's second podium finish at the ongoing edition after Rishabh Yadav's bronze in men's compound archery.

- **Namrata's campaign began with a 2-0 win over Lebanon's Barbara El Rassi** in the quarter-finals, followed by another 2-0 victory over Krizan Faith Collado of the Philippines in the semis.

Asian U19 & U22 Boxing Championships 2025

- In Boxing, **India's campaign at the Asian Under-19 & Under-22 Boxing Championships 2025 ended on a high note with Ritika winning gold** in the women's 80-plus kg category . The event, held in Bangkok, saw India's teams win a total of 27 medals across both age groups.



- The **U19 team performed strongly, finishing second** overall with 14 medals including 3 gold, 7 silver, and 4 bronze. While the U22 team secured 13 medals, including 1 gold, 4 silver, and 8 bronze, **with Ritika being the only gold medalist** in this group.
- **Other notable performances included** silver medals for Yatri Patel in women's 57kg category, Priya in 60kg category, Neeraj in men's 75kg category, and Ishan Kataria 90+kg category.
- **The U19 team was just behind Uzbekistan in gold medals**, while the U22 team ranked fourth. Earlier this year, India's younger U15 and U17 teams won a combined 43 medals at the Asian Championships, with the U15 squad earning the most golds at 11.

Ramesh Budhial

- In the **Asian Surfing Championships**, **Ramesh Budhial** became the first Indian to win a medal **securing bronze in the Open Men's category in Mahabalipuram, Tamil Nadu.**
- **Budhial, also the first Indian to reach the medal round, scored 12.60 points** to finish third. Korea's Kanoa Heejae took gold with 15.17 points, while Indonesia's Pajar Ariyana claimed silver with 14.57.



Rishabh Yadav

- **World Games 2025, Rishabh Yadav** etched his name into the history books by clinching India's first individual medal, securing a bronze in the men's compound archery event, in Chengdu, China.
- **The 22-year-old, seeded 10th, outclassed senior teammate** and multiple World Cup gold medallist **Abhishek Verma 149–147 in a high-quality** bronze medal match. Yadav maintained a slender lead from the opening end, showing remarkable composure to finish with nine consecutive perfect 10s.



- **The World Games, held every four years since 1981**, showcase sports not included in the Olympic program. India has been participating in these games since the inaugural edition in 1981, and has won a total of five medals to date, including one gold, one silver, and three bronze prior to this year's edition. The country's only gold medal came in 2013, when Aditya Mehta triumphed in billiards. **This time India is participating in five sports** – Archery, Billiards, Roller Skating, Wushu, and Racquetball.

REVIEW QUESTIONS

1. India's First Drone-AI Powered Artificial Rain Conducted In

- A. Jaipur
- B. Surat
- C. Kota
- D. Mumbai

ANSWER: A

2. Ramesh Budhial Seen In News Is Related To

- A. Archery
- B. Surfing
- C. Tennis
- D. Badminton

ANSWER: B

3. For The first time cloud seeding in India is done in

- A. 1950
- B. 1951
- C. 1952
- D. 1953

ANSWER: B

4. What Is The Primary Goal Of The Partnership Between Atal Innovation Mission And Bhashini

- A. Promote Rural Startups
- B. Boost Vernacular Innovation
- C. Strengthen Digital Infrastructure
- D. Expand International Trade

ANSWER: B

5. KWho Inaugurated The SheLeads II Programme In New Delhi To Promote Women's Leadership

- A. Smriti Irani
- B. Annpurna Devi
- C. Nirmala Sitharaman
- D. Meenakshi Lekhi

ANSWER: B

6. Central Industrial Security Force (CISF) functions under which Union Ministry

- A. Ministry of Defence
- B. Ministry of External Affairs
- C. Ministry of Finance
- D. Ministry of Home Affairs

ANSWER: D

7. Which Institute Has Launched India's First Artificial Intelligence (Ai)-powered Learning App Named Tutoz

- A. IIT Delhi
- B. IIT Palakkad
- C. IIT Mumbai
- D. IIT Kanpur

ANSWER: B

8. Which Port Has Become The First Indian Port To Produce Green Hydrogen'

- A. Jawaharlal Nehru Port
- B. Cochin Port
- C. Paradip Port
- D. V. O. Chidambaranar (VOC) Port

ANSWER: D

9. Annu Rani of India won gold medal in which event at the International Wiesław Maniak Memorial, Poland?

- A. Hammer throw
- B. Shot put
- C. Javelin throw
- D. High Jump

ANSWER: C

10. Where Was A New Plant Species Named Heptapleurum Assamicum Discovered Recently

- A. Arunachal Pradesh
- B. Assam
- C. Nagaland
- D. Tripura

ANSWER: B

11. National Narcotics Helpline 'MANAS' Was Launched By Which Ministry

- A. Ministry of Health and Family Welfare
- B. Ministry of Finance
- C. Ministry of Home Affairs
- D. Ministry of Women and Child Development

ANSWER: C

12. Sea Of Galilee, Is Located In Which Country

- A. Israel
- B. Russia
- C. France
- D. China

ANSWER: A

13. Which Country Was Certified By WHO As Having Eliminated Human African Trypanosomiasis

- A. Somalia
- B. Ethiopia
- C. Botswana
- D. Kenya

ANSWER: D

14. What is “Parthenium”

- A. Newly discovered species of Fish
- B. Invasive weed
- C. Traditional medicine
- D. Drought resistant crop

ANSWER: B

15. Which Institute Has Developed A New Drug Candidate, Compound 3b, To Fight Deadly Drug-resistant Bacteria

- A. IIT Kanpur
- B. IIT Bombay
- C. IIT Roorkee
- D. IIT Ahmedabad

ANSWER: C

16. Where Was India’s First ‘Animal Stem Cell Biobank’ Inaugurated

- A. Bengaluru
- B. Chennai
- C. Hyderabad
- D. New Delhi

ANSWER: C

17. Where Was The Khelo India ASMITA Football League 2025-26 Inaugurated

- A. Kerala
- B. Maharashtra
- C. Gujarat
- D. Andhra Pradesh

ANSWER: B

18. Colorado River, is a major river of which continent

- A. Africa
- B. South America
- C. North America
- D. Australia

ANSWER: C

19. Cabinet Declared Which Day As 'National Space Day' In India

- A. August 20
- B. August 23
- C. August 25
- D. August 27

ANSWER: B

20. Which Of The Following Was The Birth Place Of Guru Nanak

- A. Shakargarh
- B. Sultanpur
- C. Nankana Sahib
- D. Shahkot

ANSWER: C