

February 25, 2026 – Dinamani Newspaper – Tit bits

1. Tamil Nadu Chief Minister M.K. Stalin has urged that Indian citizenship be granted to Sri Lankan Tamils residing in camps in India.
 - (i) The Chief Minister M.K. Stalin inaugurated 90 newly constructed houses at the Sri Lankan Tamil Rehabilitation Camp in Perumalpuram, Kanyakumari district.
2. The Prime Minister Narendra Modi is scheduled to visit Israel on a two-day visit on Wednesday (Feb. 25).
 - (i) The Middle East is in a state of war due to the US-Iran conflict. In this context, the Prime Minister's visit to Israel has assumed significance.
 - (ii) During this visit, Prime Minister Modi will meet Israeli President Isaac Herzog and Prime Minister Benjamin Netanyahu and will also address the country's Parliament. He will also participate in security and trade talks between the two countries. The Prime Minister will discuss the issues prevailing in the Middle East, including Gaza, with Israeli leaders.
 - (iii) He had previously visited Israel in July 2017.
 - (iv) The two countries have signed agreements in various fields including science and technology, innovation, military, national security, trade, investment, agriculture, and water management. It is noteworthy that some of the techniques of Israel's Iron Dome air defense system are to be used in India's advanced air defense system, the Sudarshan Chakram project.
3. The Chennai-based aviation startup, The E-Plane has entered into a major agreement with world-leading technology company Nvidia to develop India's first electric air taxi.
 - (i) The alliance is said to greatly accelerate the design, testing and automation capabilities of this state-of-the-art air taxi, named 'E200X'.
 - (ii) An accurate virtual model of this air taxi will be created using NVIDIA's cutting-edge 'Omniverse' software.
 - (iii) This will allow the air taxi to be accurately tested and evaluated by computer, including its aerodynamics, sensor functionality, and emergency safety features, before it even takes to the skies, thus avoiding time wastage and ensuring complete safety.
 - (iv) Furthermore, this air taxi will be equipped with NVIDIA's high-speed computer systems. This will enable the vehicle to analyze data from cameras and radars in real time and make autonomous and safe decisions. It will also include technology to predict and warn of mechanical failures before they occur.
4. China has imposed strict export restrictions on 40 leading Japanese companies. Of these, 20 companies have been blacklisted and 20 others have been added to the watchlist.
 - (i) Japan's Prime Minister Sane Takaichi's pro-Taiwan stance has strained China-Japan relations. In this context, China has banned its companies from selling military and civilian goods to 20 Japanese companies, including Mitsubishi and Kawasaki. It has also ordered the immediate termination of pending

business transactions with these companies.

(ii) Chinese companies will now have to apply for separate permits to export goods to the other 20 companies. This move is said to be aimed at curbing Japan's military expansion.

5. Ukrainian President Volodymyr Zelensky has urged allies to continue to support him in the war with Russia.

(i) European Commission President Ursula von der Leyen, Finnish President Alexander Stubbs, and Danish Prime Minister Mette Frederiksen, among others, attended a special prayer in Kyiv to mark the 4th anniversary of the war. However, unlike in previous years, major Western leaders did not attend this year.

(ii) While the European Union was planning new sanctions on Russia and a €90 billion loan for Ukraine, Hungary, which is close to Russia, has blocked this through its veto power. Furthermore, there are differences of opinion among European countries as Hungary and Slovakia accuse Ukraine of blocking Russian crude oil supplies.

(iii) In this context, Zelensky, who addressed the European Union Parliament via video, said, 'Ukraine will be ready to join the European Union by 2027. That will be a guarantee of Ukraine's future security.'

(iv) Zelensky has continued to urge allies to tighten economic sanctions on Russia and provide additional air defense weapons. At the same time, he strongly criticized countries that continue to buy Russian crude oil for indirectly financing the war.

6. Amid heightened tensions with the US, Iran has entered the final stages of negotiations to purchase supersonic missiles from China.

(i) Although negotiations to purchase the Chinese-made CM 302 missiles have been ongoing for the past two years, they gained momentum after the 12-day war with Israel in June last year. Iran's Deputy Defense Minister Masoud Oreyev and other top officials visited China in person for talks.

(ii) These modern supersonic missiles are capable of accurately hitting targets up to 290 kilometers away.

(iii) Since they fly very low and at lightning speed, they are very difficult to intercept by ship-borne radars. In addition, Iran is also seeking to acquire air defense missiles and anti-satellite weapons from China.

(iv) The United States has imposed a series of sanctions to curb Iran's nuclear programs and missile tests. In this context, Iran's acquisition of weapons from China has set back US efforts.

7. After years of research by American scientist Robert Goddard, the first rocket he designed and manufactured went into space on March 16, 1926, setting a record. Following that, the German-designed V2 rocket went into space with a research object on June 20, 1944, to a distance of 174 km. On October 4, 1957, the Soviet Union launched the Sputnik 1 spacecraft using the Sputnik PS rocket..

(i) On November 3, 1957, a dog named 'Laika' was sent into space by the Soviet Union for the first time by the Sputnik 2 spacecraft. Following this success, on April 12, 1961, the Soviet cosmonaut Yuri Gagarin went into space and returned safely to Earth.

(ii) Following these, on 21 November 1963, India created a record by launching a research spacecraft for the first time.

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(iii) On 16 July 1969, the American Apollo 11 spacecraft, which went to the moon, made the first manned mission to set foot on the moon and brought him back to Earth. On 20 July 1969, American astronauts Neil Armstrong and Edwin Aldrin landed on the moon and conducted research, creating a record.

(iv) Kalam's dream:

- As the invention of the spacecraft approaches 100 years, India has made serious efforts to succeed in the attempt to take man to space and bring him back to Earth.
- The then President Abdul Kalam, speaking at the Physical Research Laboratory in Ahmedabad, Gujarat, in 2006. He had said, 'I dreamed that in 2014, two Indian astronauts would go into space, complete their research, and return to Earth via the Bay of Bengal. Similarly, on 15th August 2025, Indian astronauts would set foot on the moon and engage in various research for 15 days. After that, when they return to Earth, the Prime Minister of that day would personally welcome our astronauts. I dreamed that in the large crowd that would gather to welcome them, I would be the person who would approach the astronauts as a strong man approaching the age of 95.' India is making continuous efforts to make his dream come true.

(v) Indian Effort:

- Indian astronaut Rakesh Sharma went into space for the first time on 3rd April 1984 in the Soyuz T11 spacecraft of Soviet Russia and returned to Earth. Following that, Indian astronaut Subhanshu Shukla went to the International Space Station on June 25, 2025, on the American Axim 4 spacecraft, and returned to Earth after 20 days.
- Following this, ISRO has designed the 'Gaganyaan' program to send a man to space and bring him back to Earth. The then ISRO Chairman Madhavan Nair had announced on August 9, 2007 that he had proposed a program to send an Indian to space. The Indian Government also approved this Rs.12,400 crore project in 2009.
- However, it took 10 years to officially announce that the project would be implemented. Finally, on August 15, 2018, Prime Minister Modi officially announced the 'Gaganyaan' program to send a man to space during the Independence Day ceremony. The 'Gaganyaan' spacecraft was planned to be launched into space with Indian astronauts in 2021.

(vi) Gaganyaan Mission:

- If the much-anticipated 'Gaganyaan' is successful, India is expected to become the 4th country in the world to launch a human into space, joining the US, Russia and China in the list of countries that have achieved success in this regard.
- ISRO is currently planning to launch Gaganyaan with astronauts in 2027. It is planned to send the spacecraft to a distance of 400 km from Earth and conduct research in space for 3 days before bringing the astronauts back to Earth.
- After several rounds of studies, 4 Indian Air Force personnel, Group Captains Prashant Nair, Ajit Krishnan, Angad Pratap and Subhanshu Shukla, have been selected for the mission and trained in Russia.
- ISRO has planned to conduct 3 unmanned spacecraft tests before launching the spacecraft carrying humans.
- The first unmanned test spacecraft is set to be launched next month. ISRO is set to send a humanoid robot named 'Vyomitra' on the first unmanned test spacecraft.
- The robot, which is powered by cutting-edge Artificial Intelligence technology, is designed to be

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able to read and respond to commands given to astronauts.

- It can read, understand and respond to English and Hindi. The robot, which will be sent as a replacement for humans, will perform tasks such as analyzing spacecraft procedures, monitoring environmental parameters such as air pressure and temperature, and carrying special sensors to monitor flight data.
- Furthermore, this robot can operate environmental control systems, issue warnings about changes in air pressure and assist with switch panel operations. Basically, the robot will perform many of the tasks that a human astronaut would perform.
- In addition, it will be used to communicate with the command and control center on Earth, conduct microgravity experiments, and observe how physiological parameters are affected during space travel.

(vii) Will the experiment be successful?:

- Only if 3 test spacecraft are successfully launched by this year, the Gaganyaan spacecraft can be launched carrying astronauts in 2027. ISRO, which is rapidly implementing all the preparations for the Gaganyaan spacecraft, has been struggling to achieve complete success, which has surprised space scientists.
- Following the success of the Gaganyaan human space mission, ISRO plans to set up an Indian Space Station (Bharatiya Antariksh Station (BAS)) 400 km from Earth and accelerate research from there. It has been reported that it will be built within 7 years of the success of the Gaganyaan space mission. ISRO is planning to set up an Indian Space Station by 2035. Having achieved many milestones in space exploration, ISRO is confident that it will achieve many more.

8. The Union Cabinet has approved the change of the name of the state of 'Kerala' to 'Keralam'.

(i) This was approved in the first Cabinet meeting chaired by Prime Minister Narendra Modi at the new Prime Minister's Office (Seva Teerth) in Delhi. The Union Minister for Information and Broadcasting Ashwini Vaishnav told reporters about the various decisions taken in the Cabinet meeting:

- The Kerala Assembly unanimously passed a resolution in June 2024 recommending to the Central Government to amend the First Schedule to change the name of Kerala to Keralam under Article 3 of the Constitution.
- The Union Cabinet has now approved this. Following this, the President will recommend a bill titled Kerala (Change of Name) Bill, 2026 to the Kerala Assembly. Kerala will express its views on the bill under Article 3 of the Constitution.
- Thereafter, the Central Government will introduce the bill in Parliament on the recommendation of the President.

9. Cancer Gene Map

(i) Breakthrough Innovation by IIT Madras

- Researchers at IIT Madras have developed two critical digital resources: the Bharat Cancer Genome Atlas (BCGA) and the Bharat Cancer Genome Grid (BCGG). These platforms are the result of five years of intensive labor and research. The databases have been uploaded to the internet to be used by doctors, researchers, and pharmaceutical companies worldwide.

(ii) Research Methodology and Objectives

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- The project involved collecting tissue samples from breast cancer patients across India to study genetic mutations.
- Previously, India lacked its own comprehensive genetic data, forcing researchers to rely on Western patient data which does not always align with the Indian genetic makeup.
- This map allows for better identification, monitoring, and the development of targeted drugs specifically suited for Indian patients.

(iii) Alarming Cancer Statistics in India

- According to the National Cancer Registry, one in nine Indians is likely to be affected by cancer in their lifetime.
- Approximately 25 lakh (2.5 million) people in India are currently living with cancer.
- Since 2022, the number of cancer patients in India has been increasing at an annual rate of 12.8%.
- Globally, 1.25 crore people aged 20–40 are diagnosed with cancer annually. In India, there is a significant rise in breast, thyroid, oral, tongue, and intestinal cancers among the 19–39 age group.
- Data indicates that women are more frequently affected by cancer than men in India.

(iv) Challenges in Diagnosis and Treatment

- While the cost of genetic testing has dropped by 30% to 40% recently, it remains unaffordable for many.
- There is a critical lack of trained genetic counselors, molecular pathologists, and bioinformaticians to analyze test results and recommend treatments.
- Current insurance policies provide minimal coverage for expensive genetic testing, hindering access for low-income patients.
- Advanced cancer treatments are mostly concentrated in large cities, leaving rural populations underserved.

(v) Recommendations

- Early Detection: Need for diagnostic facilities to be made available at the hospitals at Taluk level to catch the disease in its early stages.
- Policy Support: Increasing Government and insurance support for genetic testing is essential to make modern oncology accessible to all.
- Future Outlook: IIT Madras's initiative is a "giant leap" that will fundamentally change how India fights cancer.