Topics - MINDS MAPS included (Daily current affairs 26th March 2025

Samagra Shiksha

Pamban

- Vertically-Launched Short-Range Surface-to-Air Missile (VLSRSAM)
- General Electric Aerospace and Tejas Light Combat Aircraft
- Majorana 1

By saurabh Pandey

THE HINDU

- Bedmap3
- The Impact of Trump's Second Term on U.S. Soft Power
- CRINK NATIONS
- MAINS

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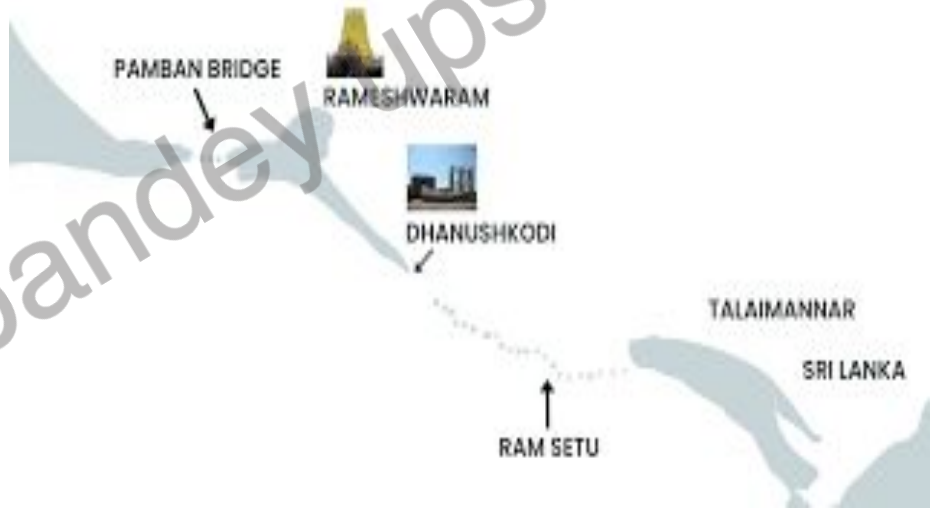
By saurabh pandey sir

Past and present

A Coast Guard vessel passes through Pamban channel as Railway authorities lifted the vertical span of the New Pamban Rail Bridge during a



Pay Samagra Shiksha dues to States, committee tells Education Ministry

Maitri Porecha
NEW DELHI

A parliamentary Standing Committee has recommended that the Education Ministry amicably resolve the differences with West Bengal, Kerala and Tamil Nadu and settle their dues of over ₹4,000 crore under the Samagra Shiksha Abhiyan (SSA) on a priority basis.

The committee tabled its report in the Rajya Sabha on Wednesday.

The observations come at a time when the Centre and the Tamil Nadu government are at loggerheads over the stoppage of SSA funds after the State refused to implement the three-language formula under the National Education Policy (NEP) and sign a memorandum of understanding on PM-SHRI schools.

The Committee says it is not acceptable to stop Samagra Shiksha Abhiyan grants to States that did not sign PM SHRI MoU. FILE PHOTO

"The committee has taken serious note of the non-release of SSA funds to certain States that have not signed MoUs for implementation of the PM Shri scheme. The total funds pending under this scheme to the States are considerable, with over ₹1,000 crore to West Bengal, ₹859.63 crore to Kerala, and ₹2,152 crore to Tamil Nadu," said the report by the Standing Committee on Education, Women, Children, Youth and Sports.

Not justified: report

The Education Department informed the committee that PM SHRI is a model school scheme developed under the NEP, and that the SSA is the programme to achieve the NEP goals.

"This appears to be the reasoning behind the decision to halt SSA grants to States not signing the PM SHRI MoU. However, this reasoning is not justified," the committee noted.

'Salaries hit'

The committee said the SSA predates PM SHRI and is intended to help States achieve the targets of the Right to Education (RTE) Act. "The RTE is a law duly passed by Parliament and confers education as a fundamental right on every child. The SSA, as a scheme that enforces the fundamental right-based RTE, cannot be bypassed by the NEP, which was an executive policy statement," the report noted.

"The withholding of funds is severely impacting teachers' salaries, RTE reimbursements, and transportation for students in remote areas," the report noted.

Samagra Shiksha

- The Union Budget, 2018-19, has proposed to treat school education holistically without segmentation from pre-nursery to Class 12.
- Samagra Shiksha - an overarching programme for the school education sector extending from pre-school to class 12 has been, therefore, prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes.
- It subsumes the three erstwhile Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

- This sector-wide development programme/scheme would also help harmonise the implementation mechanisms and transaction costs at all levels, particularly in using state, district and sub-district
- level systems and resources, besides envisaging one comprehensive strategic plan for development of school education at the district level.

The major objectives of the Scheme are provision of quality education and enhancing learning outcomes of students; Bridging Social and Gender Gaps in School Education; Ensuring equity and inclusion at all levels of school education; Ensuring minimum standards in schooling provisions; Promoting Vocationalisation of education; Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009; and Strengthening and up-gradation of SCERTs/State Institutes of Education and DIET as a nodal agencies for teacher training.

The main outcomes of the Scheme are envisaged as Universal Access, Equity and Quality, promoting Vocationalisation of Education and strengthening of Teacher Education Institutions (TEIs

DRDO test-fires vertically launched SAM for Navy

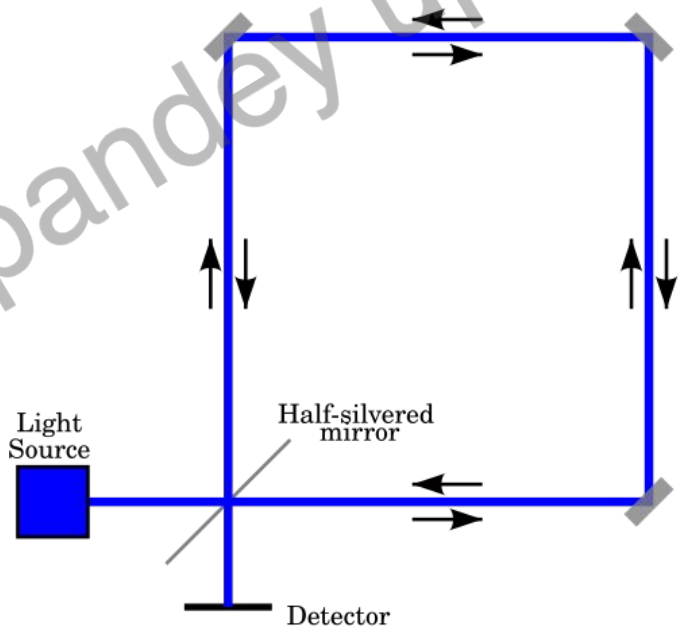
The Defence Research and Development Organisation (DRDO) announced on Wednesday that the under-development vertically launched short-range surface-to-air missile (VLSRSAM) for the Navy successfully demonstrated its near-boundary, low-altitude capability during a test fire. The trial, conducted in conjunction with the Indian Navy at the Integrated Test Range in Chandipur off the coast of Odisha, took place at about noon from a land-based vertical launcher. During the test, the missile engaged a high-speed aerial target at very close range and low altitude. Defence Minister Rajnath Singh described the missile as an excellent force multiplier for the Indian Navy.

Vertically-Launched Short-Range Surface-to-Air Missile (VLSRSAM)

- **Defence Research & Development Organisation (DRDO) and the Indian Navy conducted the successful flight-test of indigenously-developed Vertically-Launched Short-Range Surface-to-Air Missile (VLSRSAM) from the Integrated Test Range (ITR), Chandipur off the coast of Odisha at about 1200 hrs on March 26, 2025.**
-

- The Vertical Launch – Short Range Surface to Air Missile, or VL-SRSAM is a quick reaction surface-to-air missile developed by the Indian Defence Research and Development Organisation (DRDO).
- During mid-course flight, the missile uses fibre-optic gyroscope based inertial guidance mechanism while in terminal phase uses active radar homing.
- A fibre-optic gyroscope (FOG) senses changes in orientation using the Sagnac effect, thus performing the function of a mechanical gyroscope.
-

- **The Sagnac effect manifests itself in a setup called a ring interferometer or Sagnac interferometer. A beam of light is split and the two beams are made to follow the same path but in opposite directions.**
-



- With lock on before launch (LOBL) and lock on after launch (LOAL) capability, the missile receives mid-course update via datalink.
- VL-SRSAM intended to replace older Barak 1 surface to air missile system onboard Indian Navy warships.It will also be used as short range air defence system for Indian Air Force

GE Aerospace to deliver jet engines for Tejas LCA-Mk1A

IAF Chief Air Chief Marshal A. P. Singh had said that the force needs to add 35-40 fighter jets every year and that HAL has promised to produce 24 Tejas Mark-1A jets next year

Dinakar Peri
NEW DELHI

Engine manufacturer General Electric (GE) Aerospace on Wednesday announced the delivery of the first of 99 F404-IN20 engines to Hindustan Aeronautics Ltd. (HAL) for the Tejas Light Combat Aircraft Mark-IA fighter jet, marking the commencement of deliveries for the delayed programme. Defence sources said that 12 engines are expected to be delivered this year.

The first engine to power the LCA-Mk1A moved out of the GE facility on Tuesday and is expected to arrive in India in April, official sources in the know said. At Aero India in February, HAL Chairman and Managing Director D.K. Sunil said that 12 jets would be ready this year.

Once the engine arrives, more tests will be done at the HAL facility, sources said adding that a firm date of delivery to the IAF cannot be given yet. "We are on track to deliver to the latest schedule we have agreed with HAL," GE Aerospace said in response to a query from *The Hindu*.

Speaking at an event in February, IAF chief Air Chief Marshal A.P. Singh said the IAF needed to add 35-40 fighter jets every year to fill the shortage in numbers and that HAL had promised to produce 24 Tejas Mark-1A jets next year.

The first engine to power the LCA-Mk1A is expected to arrive in India in April, official sources say. REUTERS

Shawn Warren, general manager, combat & trainer engines, GE Aerospace, in a statement, attributed the delays to restarting the production line that was dormant for five years.

Challenging process

By 2016, GE Aerospace delivered 65 F404-IN20 engines for the 40 Tejas jets ordered earlier and with no additional engine orders on the horizon, the production line for F404-IN20 was shut down, the statement said. However, when HAL ordered an additional 99 engines in 2021 for the Tejas Mk1A LCA, the team began the complex task of restarting the F404-IN20 production line, which had been dormant for five years, and re-engaging the engine's global supply chain, Mr. Warren said. "Restarting a jet engine production line is a challenging process. Restarting the F404-IN20 engine line during the COVID pandemic was even more challenging," he said adding that they are working closely with their suppliers to ramp up production on parts and materials for the F404-IN20.

At Aero India, Mr. Sunil had said GE's supply chain issues had been resolved and the IAF would receive 12 F-404 engines for the LCA-Mk1A this year. "The GE has stabilised its manufacturing process for the F404 engines. We have already made three aircraft, and by the end of this year, 11 will be manufactured. As the engines start coming in, our delivery to the IAF will start," he had stated.

He said three Tejas Mk1A are flying and by the end of this year, one jet from Nasik and 11 from Bengaluru will be ready while stressing that the existing order for 87 LCA-Mk1A would be completed in three-and-a-half years and the additional order for 97 jets by FY 2031-32 with production rate going to 24 jets per year.

Early this month, a high-level empowered committee headed by Defence Secretary Rajesh Kumar Singh constituted to recommend ways for Capability Enhancement of the IAF identified key thrust areas and made recommendations for implementation in the short, medium and long-term in the report presented to Defence Minister Rajnath Singh.

General Electric Aerospace and Tejas Light Combat Aircraft

Engine Delivery and Production Overview

🚀 First Engine Delivery: General Electric Aerospace has successfully delivered the first of 99 F404-IN20 engines to Hindustan Aeronautics Ltd. (HAL) for the Tejas Light Combat Aircraft Mark-1A.

📅 Delivery Timeline: A total of 12 engines are scheduled for delivery this year, with the inaugural engine having arrived in India in April.

✈️ Production Challenges: The production line for the F404-IN20 engine was inactive for five years. Restarting it during the COVID pandemic presented significant challenges.

🔄 Manufacturing Stabilization: GE Aerospace has stabilized the manufacturing process for the F404 engines, with a target to produce 24 Tejas jets annually.

📈 IAF Needs: The Indian Air Force (IAF) requires 35-40 new fighter jets each year to address shortages. HAL has committed to producing 24 Tejas Mark-1A jets next year.

🛠️ Committee Recommendations: A high-level committee has been established to enhance IAF capabilities, offering recommendations for short, medium, and long-term implementation.

Summary: GE Aerospace has begun delivering F404-IN20 engines for the Tejas Mk1A, overcoming production challenges and aligning with the IAF's demand for new fighter jets

New data keeps the search for rare subatomic mystery going

A major open question in physics is whether neutrinos are their own anti-particles. The best way to confirm this is by observing a very rare form of radioactive decay called neutrinoless double beta decay. The AMoRE experiment in South Korea is looking for it in molybdenum-100 atoms

Vasudevan Mukunth

Last month, Microsoft announced a new quantum computing chip called Majorana 1 that it expected would "realise quantum computers capable of solving meaningful, industrial-scale problems in years, not decades." Independent scientists soon raised doubts about this claim – grandiose as it is – but also acknowledged Microsoft had taken on a great challenge to build such a chip and that its efforts in this direction could not or should not be written off altogether.

Microsoft named the chip "Majorana 1" because it consists of Majorana particles, which is a particular type of subatomic particle with unusual properties. One is that a Majorana particle is its own anti-particle. The particles that make up matter, called fermions, have anti-particles with distinct identities. For example, the electron's anti-particle is a positron, not another electron. The proton's anti-particle is the anti-proton, not another proton. But uniquely among fermions, a Majorana particle's anti-particle is yet another Majorana particle. If two of them meet, they will annihilate each other in a flash of energy.

One of the major open questions in contemporary physics is whether neutrinos are Majorana particles.

This photo shows the access tunnel at the Yemilab underground research facility in South Korea, where the AMoRE collaboration is taking shape. ARXIV:2402.13708V1

Neutrinos, neutrinos everywhere

Neutrinos are the second-most abundant subatomic particle in the universe, after photons, the particles of light. They were produced in copious amounts during the Big Bang event. They are produced in radioactive decay, when massive stars explode, and when cosmic rays strike the earth's atmosphere.

They are also made during nuclear fusion: the sun alone is responsible for flooding every square centimetre on the earth with 60 billion neutrinos each second. These particles are also extraordinarily hard to catch because they interact very weakly and very rarely with matter.

Yet it is crucial physicists study them: neutrinos may just be the key to answering many of the open questions about our universe. Their tremendous numbers are a sign that they're involved in many, many subatomic processes. Thus a clear view of their properties will also afford physicists a clear view of these processes, and the as-yet unresolved questions they can answer.

We do not know many things about neutrinos. Perhaps the biggest unknown is how much a neutrino weighs. We know neutrinos come in three flavours, or varieties, and we know the differences between the squares of their masses, but not the individual masses themselves. If neutrinos are found to be Majorana particles, the process that reveals them to be can be easily used to reveal their masses as well. This process is called neutrinoless double beta decay, or 0νββ for short.

Chilling with beta decay

Every atom has some energy, which it bears in its particles and the forces acting between them. Sometimes an atom's nucleus may have too much energy, rendering it unstable and looking for opportunities to shed the excess. This notion of stability comes from the fact that for every set of protons and neutrons in the nucleus, there is a number that allows the particles to arrange themselves in a way that leaves the nucleus with the bare minimum of energy.

For example, the nucleus of the actinium-227 atom contains 89 protons and 138 neutrons, forcing the nucleus to exist in a highly unstable configuration. To shed the 'excess energy', it undergoes a process called beta decay: it emits an electron and an anti-neutrino and changes to the thorium-227 nucleus. Th-227 also isn't stable and decays further, but since the beta decay process releases energy, the nucleus is better off than it was before.

In nature, beta decay is a common way for an unstable nucleus to decay. It can happen in one of two forms depending on whether a nucleus has too many neutrons or too many protons. In the first case, a neutron is converted to a proton and releases an electron and an anti-neutrino. In the second, a proton is converted to a neutron and releases a positron and a neutrino.

A third form exists where two beta decays happen simultaneously, i.e. two neutrons are simultaneously converted to two protons, emitting two electrons and two anti-neutrinos.

The conversion ability stems from the weak interaction, which is one of the four ways in which subatomic particles can interact with each other. (The others are the strong, electromagnetic, and gravitational interactions.) The weak interaction is characterised by the appearance of particles called W or Z bosons. For example, during the Ac-227 beta decay, a neutron emits a W- boson and turns into a proton, and the W- boson decays to an electron and an anti-neutrino.

Researchers estimate the mass of a neutrino would have to be lower than 0.22-0.65 billionths of a proton. This is low, but it's not zero mass. The distinction is crucial. The current theory of all subatomic particles, called the Standard Model, says neutrinos should be massless. The presence of even a small amount of mass thus vexes the theory

A sign of the difference

As common as beta decay is, scientists are currently on the hunt for an extremely rare variant: 0νββ. It may not even exist, but just in case it does, it would prove neutrinos are Majorana particles.

In 0νββ, a nucleus emits two electrons instead of an electron and an anti-neutrino. This can happen only when the neutrino emitted by one neutron is absorbed as an anti-neutrino by the other neutron, which in turn can only happen if neutrinos and anti-neutrinos are the same thing. Each of the emitted electrons also has more energy because it 'includes' the energy of the missing anti-neutrino. Experiments looking for evidence of 0νββ can thus use this energy difference to tell whether a nucleus has undergone beta decay or 0νββ.

This is precisely what the AMoRE experiment in South Korea has been doing, with sensitive particle detectors pointed at a crystal containing 3 kg of molybdenum-100 nuclei, cooled to fractions above absolute zero. Mo-100 nuclei are known to undergo double beta decay.

The search continues

In a paper published in *Physical Review Letters* on February 27, the AMoRE team reported it hadn't observed evidence of 0νββ. Because the process is already hypothesised to be rare, not observing it could just as easily mean we did not look long enough. This is why the team reported in the paper that a population of Mo-100 nuclei would decay to half their number through 0νββ in no less than 10^{24} years. It could also mean 0νββ might show itself in a larger sample. In a future iteration of AMoRE, the physicists plan to look for it in 100 kg of Mo-100.

Meanwhile, they have also estimated the mass of each neutrino would have to be lower than 0.22-0.65 billionths of a proton. This is an extremely low mass ceiling, but it's not the same as saying the neutrinos have zero mass. The distinction is crucial. The current theory of all subatomic particles, called the Standard Model of particle physics, says neutrinos should be massless. The presence of even a small amount of mass thus vexes the theory and indicates it has a gap somewhere. The trouble is physicists do not yet know where. So AMoRE looks forward to its upgraded form and the search continues.

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Majorana 1

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- Microsoft named the chip “Majorana 1” because it consists of Majorana particles, which is a particular type of subatomic particle with unusual properties.
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beta decay

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A Bedmap3 grid showing the bed topography of the Antarctic continent. CREDIT: SCIENTIFIC DATA VOL. 12, 414 (2025)

New Bedmap of Antarctica peels back ice to reveal bedrock in stunning detail

Priyali Prakash

In a new attempt to understand the geography of icy Antarctica, scientists have prepared the most comprehensive map yet of the landscape below the continent's ice sheet. Called Bedmap3, the dataset is an extension of the previous Bedmap2, and includes data from 84 new aero-geophysical surveys from 15 data sources, 52 million more data points, and 1.9 million line-km of measurement.

Bedmap3 covers major gaps in how scientists previously understood the Antarctic ground, including information on major mountain ranges and the deep interior of East Antarctica, along West Antarctic coastlines and the Antarctic Peninsula.

It gives us a picture of what the icy continent is like without the 27 million cubic km of ice that covers it.

"Combined with updated maps of surface topography, ice shelf thickness, rock outcrops and bathymetry, Bedmap3 reveals in much greater detail the subglacial landscape and distribution of Antarctica's ice, providing new opportunities to interpret continental-scale landscape evolution and to model the past and future evolution of the Antarctic ice sheets," according to a statement accompanying the data release.

Among some of the more important discoveries made using Bedmap3 is the thickest ice on the continent.

Scientists previously believed that this was at a location in the Astrolabe Basin, in Adélie Land. But according to Bedmap3, the ice in an unnamed canyon at 76.052° S and 118.378° E in Wilkes Land is the thickest, at 4.7 km.

This is more than half the height of

Bedmap3 gives us a picture of what the icy continent is like without the 27 million cubic km of ice that covers it

Mount Everest, the tallest mountain on the surface of the earth. The average thickness of Antarctic ice, including ice shelves, is 1.9 km.

"In general, it's become clear the Antarctic Ice Sheet is thicker than we originally realised and has a larger volume of ice that is grounded on a rock bed sitting below sea-level. This puts the ice at greater risk of melting due to the incursion of warm ocean water that's occurring at the fringes of the continent. What Bedmap3 is showing us is that we have got a slightly more vulnerable Antarctica than we previously thought," Peter Fretwell, mapping specialist and co-author at the British Antarctic Survey, was quoted as saying in a press release.

According to researchers, the Antarctic ice sheet has a considerable effect on the world's sea levels, and that its melting due to climate change is crucial to understand how much sea levels will rise as a result. Bedmap3 is also expected to help scientists study the interactions between the ice sheet and the bed, providing new information about how the continent may behave as global warming worsens.

"The response of the Antarctic ice sheet to climate change remains the greatest source of uncertainty in the rate of sea-level rise over the next few decades and beyond," the paper describing Bedmap3 published in *Scientific Data* on March 10 read.

"It is these parameters ... that lie at the

Bedmap3

- In a new attempt to understand the geography of icy Antarctica, scientists have prepared the most comprehensive map yet of the landscape below the continent's ice sheet.
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Whittling down sources of U.S. soft power

Soft power is defined as 'the use of positive attraction and persuasion to achieve foreign policy objectives'. The U.S., which had increased its soft power through alliances, trade, education, immigration and foreign aid, is now looking at a decline of its global influence

WORLD INSIGHT

Suhasini Haidar

Since assuming office for the second time in January 2025, U.S. President Donald Trump's directives, especially on foreign policy, have been projected as power moves as part of the plan to put "America First" and to "Make America Great Again". However, these actions are also cutting at the roots of U.S.'s influence in the world that make up its 'soft power'.

Soft power is defined as "the use of positive attraction and persuasion to achieve foreign policy objectives" – an economic, cultural and values-based measure as opposed to the military or coercive nature of 'hard power'.

A look at five major sources of the U.S's influence on the world or its 'soft power', and how they are impacted by the Trump administration's recent moves:

Alliances: Since the Second World War, the formation of the "Five Eyes Alliance" for intelligence sharing in 1946, and the formation of the North Atlantic Treaty Organization (NATO) in 1949, the U.S.'s hard power but also its soft power has multiplied. Yet, a number of Mr. Trump's statements appear to be weakening the U.S.'s image amongst its allies. From his territorial claims on Greenland, a semi-autonomous region that is part of Denmark, or his case for annexing Canada, to his unilateral actions in the Russia-Ukraine war – all have been at odds with the policies of the U.S.'s European allies, where U.S. soft power is the highest.

Additionally, Mr. Trump has criticised the U.S.'s alliance treaty with Japan as "unequal", and his praise for North Korean leader Kim Jong Un, with whom he shares a "great relationship", has led to misgivings in Tokyo and Seoul. Adverse comments by a Trump nominee on the AUKUS agreement (a trilateral security pact between Australia, the U.K. and the U.S.) have also raised questions in Australia. While all of these are just statements at present and not hard action, they are still straining ties between the U.S. and its closest friends, while empowering those U.S. had declared its "strategic rivals". These moves bring into question just how committed the U.S. will be to groupings which aren't even alliances, like the Quad, which India will host this year. Meanwhile, the Trump administration's full-fledged backing to the Israeli bombardment of Gaza, as well as plans to redevelop it, is causing the U.S. to lose support in countries of the Global South.

USAID: The attack by the Trump-appointed Department of Government Efficiency (DOGE), led by Tesla and SpaceX CEO Elon Musk, on America's assistance programme – the United States Agency for International Development or USAID – has axed another source of U.S. influence in the world. In a matter of weeks, decade-old programmes of the USAID have been slashed down, with only about 17% of programmes being spared. With $35 billion in appropriations, of which about a third was allocated to sub-Saharan Africa, USAID distributed more than $24 billion to humanitarian, health, agriculture and education programmes, with the rest being used for governance and administration. While many dependent on USAID funds have decried the loss, others, including in countries like India, have hailed the curtailment of USAID programmes, as they were seen as political instruments to further U.S. interests.

Open defiance: Protesters rally outside the Rhode Island State House in support of deported Brown University professor Dr. Rasha Alawieh, on March 17. AP

Both would be in agreement, however, that USAID furthered American influence, and the Trump administration's actions against it won't just reduce that influence – it also means that all such U.S. programmes in the future would be eyed with suspicion in recipient countries.

In addition, moves to gut iconic U.S. agencies, including think tanks like the U.S. Institute of Peace, and the Wilson Center, as well as federally funded media like Voice of America, Radio Free Europe/Radio Liberty (RFE/RL) and Radio Free Asia (RFA) will constrain Washington's global messaging as well.

Trade: Mr. Trump's "reciprocal tariffs" planned for April 2 as part of his "war on tariffs" are a blow to the U.S.'s reputation as a champion of free trade and globalisation ever since 1945. At the time, the U.S. had come through a severe regime of protectionism and high taxes known as the Smoot-Hawley tariffs of 1930, which had hit the U.S. economy in the Great Depression years. Post-1945, U.S. grew its economic power by spreading U.S. goods around the world.

While it continued to push for lower tariffs worldwide, Washington supported the creation of the World Trade Organization (WTO) which incorporated the concerns of the developing world, through the Uruguay Rounds, by building a level-playing field through tariffs. In 2005, in the Doha round, the U.S. proposed a "tariff free world by 2015". However, it has been growing more protectionist in the past decade. Mr. Trump's plan for reciprocal tariffs now would not only cause untold damage to trade levels with many countries, say experts, it will also test U.S.'s credibility as a trade partner.

As the U.S. pushes for a bilateral trade agreement with India, negotiators must watch closely how it treats pre-existing Free Trade Agreement partners like Canada, Mexico, and Australia.

Immigration: Given that native Americans make up less than 3% of the U.S's total population, the US is a nation of immigrants. It has served as a beacon for those from other countries seeking a better life for the last few centuries, symbolised by the inscription on the Statue of Liberty: "Give me your tired, your poor, your huddled masses yearning to breathe free".

U.S. immigrants are in every part of its corporate and government echelons, adding to America's reputation as a "melting pot" that welcomes diversity. The Trump administration's rejection of Diversity Equity Inclusion (DEI) policies in recent weeks will have repercussions on that image abroad, as will visuals of soldiers deporting thousands of illegal migrants, shackled and aboard military planes; new curbs on legal migration; heightened scrutiny at airports for H-1B and Green Card holders; as well as Mr. Trump's executive order on banning citizenship by birth, which is currently being heard by the Supreme Court.

Education: Finally, there is the most potent source of U.S. soft power – the American university, a place for a comprehensive education and a bastion of free thinking and speech that has attracted youth from around the world for decades. Admission into U.S. universities is an aspirational goal for most societies, including their influential and powerful elites. The U.S. ranks at the top of the Higher Education Policy Institute's "Soft Power Index", that looks at how many current leaders (defined as Monarchs, Presidents, Prime Ministers) have been educated in countries other than their own.

The Trump administration's crackdown on student protestors, arrests and forced deportations of foreign students believed to be involved in protests, and withdrawal of funding to universities unless they comply to a government-approved SOP for student activism, will impact foreign student footfalls. In Mr. Trump's first tenure, the U.S. had dropped in its rankings year-on-year in the Soft Power 30 ranking report and saw fewer foreign students arrive.

The decline in influence

In his book *Bound to Lead*, which came out in the early 90s, Joseph Nye, the political scientist credited with the term "soft power", wrote that the events of preceding years, including the fall of the Soviet Union, the reunification of Germany, and the first Gulf war proved that the "United States remained the only country with significant hard power and soft power resources," theorising that these would ensure the U.S.'s place as the world's most influential power. In a more recent article in the *Financial Times* last week, however, Mr. Nye is pessimistic about the future of U.S. influence as a consequence of Mr. Trump's "truncated view of power, limited to coercion and transactions", concluding that U.S. soft power will suffer in the next few years. Some have drawn parallels to China's deployment of "wolf warrior" diplomacy in the 2010s, coupled with aggressions against neighbours, and the unilateral implementation of its Belt and Road Initiative, that eventually lost it more friends than it gained.

Mr. Nye concedes that Mr. Trump is not solely responsible for this turn in U.S. policies, which are widely popular at present, and warns that the administration will face "checks and balances" in the form of the judiciary, public opinion turning, and the Senate races of 2026.

New Delhi may be better advised to pace its negotiations with the U.S., rather than to give Washington concessions and make compromises now that may not be required if the Trump administration is tempered by those checks, and the fall in U.S. soft power.

THE GIST

- Since the Second World War, the formation of the "Five Eyes Alliance" for intelligence sharing in 1946, and the formation of the North Atlantic Treaty Organization (NATO) in 1949, the U.S.'s hard power but also its soft power has multiplied.
- In his book *Bound to Lead*, Joseph Nye, the political scientist credited with the term "soft power", wrote that the events of preceding years, including the fall of the Soviet Union, the reunification of Germany, and the first Gulf war proved that the "United States remained the only country with significant hard power and soft power resources," theorising that these would ensure the U.S.'s place as the world's most influential power.
- USAID furthered American influence, and the Trump administration's actions against it won't just reduce that influence – it also means that all such U.S. programmes in the future would be eyed with suspicion in recipient countries.

The Impact of Trump's Second Term on U.S. Soft Power

Introduction to Soft Power

Soft power is the ability to influence others through attraction and persuasion, not coercion.

It contrasts with hard power, which relies on military and economic force.

The Five Major Sources of U.S. Soft Power

1. Alliances

Historical Context: Post-WWII alliances like NATO enhance U.S. soft power.
Recent Strains: Trump's actions have strained relationships, especially in Europe.

2. USAID and Foreign Assistance

Role of USAID: Promotes U.S. values globally with a $35 billion budget.
Recent Cuts: Significant reductions under Trump, affecting U.S. influence.

3. Trade Policies

Evolution: Historically, the U.S. supported free trade.
Trump's Strategy: Tariff wars threaten trade relationships and credibility.

4. Immigration Policies

Nation of Immigrants: The U.S. has a history of welcoming immigrants.
Recent Changes: Policies rejecting DEI initiatives tarnish this image.

5. Education and American Universities

Global Appeal: U.S. universities symbolize opportunity.
Impact of Policies: Crackdowns on protests and funding cuts deter foreign students.

The Decline of U.S. Influence

Joseph Nye's Perspective on Soft Power

Concern: Trump's transactional view may lead to a decline in soft power.

The Future of U.S. Soft Power

Crossroads: Current policies may not last; future changes could reshape U.S. influence.

Conclusion

Trump's "America First" approach may undermine U.S. soft power foundations. Long-term implications could affect global perceptions of America.

China, its Russia ties main threat to the U.S.: intel report

Agence France-Presse
WASHINGTON

Common interests: The report said China, Russia, Iran and North Korea could pose new challenges to U.S. power on a global scale. AP

China remains the main threat to the United States globally but of increasing concern is its closer cooperation with Russia, Iran and North Korea, said an annual U.S. intelligence report released on Tuesday.

China's rise in all areas of power has been identified for years by the U.S. as its main threat, and was behind Barack Obama's strategic Asia-Pacific pivot.

But Beijing's "coercive pressure" against Taiwan and "wide-ranging cyber operations against U.S. targets" were indicators of its growing threat to U.S. national security, said the Annual Threat Assessment by the intelligence community.

Beijing called the report "biased" and accused it of "exaggerating the China threat."

CRINK nations

In addition to China, the assessment analysed threats to the U.S. posed by Russia, North Korea, Iran and "non-state transnational criminals," including Mexican drug cartels and Muslim extremist groups.

It warned countries grouped together under the acronym CRINK – China, Russia, Iran and North Korea – were stepping up cooperation and could pose new challenges to U.S. power on a global scale.

Within that group, cooperation between China and Russia posed the greatest and "most persistent" threat to the US.

CRINK NATIONS

- the term CRINK refers to an emerging alliance between China, Russia, Iran and North Korea.
- The alliance seeks to increase its global influence and reduce Western hegemony by controversially promoting authoritarian governments and illiberal policies while militarily and economically aiding Russian aggression against Ukraine.

The association of "CRINK" countries – in English, China, Russia, Iran, North Korea – represents the strengthening of military capabilities for all involved. This strengthening is especially important given the current context of wars, threats and diplomatic tensions.

Some of the specific objectives for each country are:

1. **Russia: Immersed in the war in Ukraine and seeking to challenge Western influence in the region, Russia has approached Iran and North Korea to obtain military support. It receives weapons and ammunition from North Korea and drones from Iran.**
2. **China: Although not directly involved in armed conflicts, China is seen as strategic due to its territorial ambitions, especially in Taiwan and the South China Sea, and its economic and political support for the other members of the axis.**

- **Iran: Known for its support of militant groups in the Middle East such as Hamas and Hezbollah, Iran supplies drones and other military support for Russia in the war against Ukraine.**
- **North Korea: With a long history of developing nuclear weapons and ballistic missiles, North Korea is supplying weapons and ammunition to Russia in exchange for oil and technological assistance.**

Divers inspecting corals impacted by a bleaching event on the Ningaloo Reef off Australia's west coast. AFP

Mass bleaching drains life from Australian reef

Agence France-Presse
SYDNEY

An "unprecedented" mass bleaching event has been recorded off Australia's western coast, scientists said Wednesday, turning huge chunks of a celebrated reef system a sickly dull white.

A months-long marine heatwave had "cooked" the sprawling Ningaloo Reef, ocean scientist Kate Quigley said, part of a world heritage-listed marine park renowned for vibrant corals and migrating whale sharks.

Although environment officials were still verifying the scale of damage, data collected by Quigley and a team of scientists found it was on track to be the reef's worst mass-bleaching event in years.

"Warm oceans have just cooked the corals this year," Quigley said. "It wouldn't be amiss to throw in the word 'unprecedented'. "It has gone deep, it's not just the top of the reef that is bleaching. Many different species of coral are bleaching."

Branching through shallow waters along Australia's western coast, the 300-km Ningaloo Reef is one of the largest "fringing reefs" in the world.

The unfolding mass bleaching looked to be the worst since 2011, Quigley said.

Ocean waters lapping Western Australia have been as much as three degrees warmer than average over recent summer months, the government weather bureau said.

Rising temperatures shot past the "bleaching threshold" sometime in mid-January, according to monitoring by the U.S. National Oceanic and Atmospheric Administration.

Bleaching occurs when warm waters trigger a biological response forcing coral to expel the colourful algae embedded in their tissues.

"Bleaching is a sickness, but it does not mean outright death," said Quigley, a research scientist with environment-focused charity Minderoo Foundation.

Ningaloo Reef Mass Bleaching Event

Overview of the Event

🌊 Unprecedented Mass Bleaching: A significant bleaching event has been recorded at Ningaloo Reef, impacting extensive areas.

🔥 Marine Heatwave: Prolonged heatwave conditions have led to ocean temperatures rising up to three degrees above average.

🐠 Severity: This event is anticipated to be the most severe since 2011, affecting multiple coral species beyond just surface layers.

Scientific Insights

📉 Data and Research: Ocean scientist Kate Quigley and others have documented the widespread impact on various coral species.

🌍 World Heritage Site: Ningaloo Reef, part of a world heritage-listed marine park, is renowned for its vibrant corals and whale shark migrations.

Timeline and Impact

📅 Bleaching Threshold: The bleaching began in mid-January when temperatures surpassed the critical "bleaching threshold," as monitored by the U.S. National Oceanic and Atmospheric Administration.

💔 Coral Stress: While bleaching indicates stress, it does not necessarily result in coral death, offering a glimmer of hope for recovery

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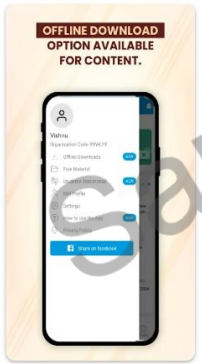

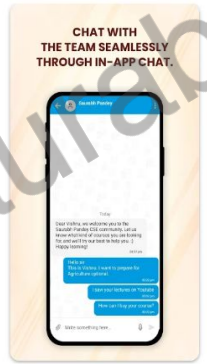

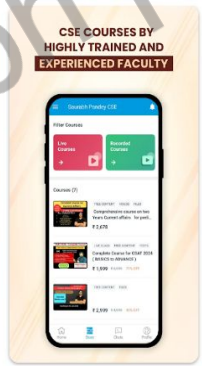

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