

26th Sept, 2024

1. China's warning shots with minerals that run the world GS 2 (International Relations)

- **Why in News:** China recently announced restrictions on the export of antimony, a critical mineral used in defence applications, citing national security concerns. This move is part of a broader strategy, highlighting **China's dominance in the global critical minerals supply chain** and its increasing willingness to leverage these resources for political and strategic ends.

- **Moves and Countermoves**

- **China's Dominance in Critical Minerals:** China controls approximately **60% of global rare earth production** and **80% of processing capabilities**, giving it a significant influence over the supply chain. This **monopoly** status renders countries like the **U.S., India, and Japan** strategically vulnerable due to their dependence on these minerals for advanced technologies and defense systems.
- **Historical Precedents:** China's history of using export controls as a political tool became evident during the 2010 **rare earth embargo** against Japan, which raised global awareness of dependence on Chinese resources. The recent antimony restrictions echo this strategy, reinforcing the perception that China is willing to weaponize its mineral resources against Western nations in response to trade tensions.
- **Reciprocal Actions Against the West:** In 2023, China reciprocated U.S. export control measures by imposing restrictions on **minerals critical for advanced technologies**, such as **gallium and germanium**. This shift from intimidation to the weaponization of critical minerals reflects a more aggressive foreign policy posture, aimed at undermining Western efforts to build alternative supply chains.
- **India's Vulnerability**
 - **Strategic Dependence on China:** India is heavily reliant on imports of critical minerals like **lithium, nickel, and cobalt**, resulting in significant import costs. This dependence poses a substantial risk to India's technological and defense sectors, given the ongoing geopolitical tensions.
 - **Need for Alternative Supply Chains:** India's escalating demand for minerals necessitates urgent measures to **diversify supply sources** and establish **partnerships with like-minded countries**.
 - **Call for Strategic Realignment:** The recent developments in critical mineral exports from China serve as a **wake-up call for Indian policymakers**. Emphasizing collaboration with allies and investing in domestic mineral exploration will be critical for bolstering national security and economic resilience in the face of external pressures.

China's warning shots with minerals that run the world

On August 15 this year, China announced a decision to restrict the export of antimony, a critical mineral used in strategic sectors such as defense, for military equipment such as missiles, infrared sensors, lasers, ammunition, and even nuclear weapons. China's Commerce Ministry justified this move on the basis of "national security", adding that the measure would take effect from September 15. The declaration, however, was part of a series of countermoves that began in August 2023.

Moves and countermoves
When it comes to critical minerals, China is not only a stakeholder but also a leader. It dominates every supply chain segment – upstream, midstream, and downstream, covering mining, extraction, refining and processing. It enjoys a near-monopoly status, controlling 60% of rare earth production, 60% of critical minerals production and 80% of the processing worldwide. Therefore, any decision China makes has profound national security implications globally. The European Union and countries such as India, Japan and the United States are strategically vulnerable due to their dependence on critical minerals.

China's intimidating behaviour first gained international attention in the aftermath of the incident in 2010 when a Chinese trawler collided with Japanese Coast Guard boats, after which it halted the exports of rare earth elements to Japan. The event also led to serious global discussions about the world's dependence on China for strategic minerals. This recent antimony episode has only reaffirmed the western belief that China is willing to use critical minerals to coerce. All of this became evident in mid-2023 when China announced a set of restrictions on the exports of critical minerals with U.S. export control measures. In 2023, following the decision by the Netherlands to restrict the supply of semiconductor equipment, under pressure from



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the U.S., China announced curbs on the export of gallium and germanium, two critical minerals used in solar cells and computer chips. Similarly, again in 2023, after the U.S. announced export control on "advanced computing, semiconductors, and semiconductor manufacturing equipment", China reciprocated by cutting the export of "high purity, high hardness and high intensity synthetic graphite material and natural flake graphite and its products", widely used in electric vehicle (EV) batteries, fuel cells, and nuclear reactors. These steps were primarily aimed at responding to U.S. actions and sending a strong signal that if pushed to the wall, China would not hesitate to weaponize the critical mineral supply chain. Apart from these two steps, China has reminded the U.S. of its monopoly and monopoly as a mineral power and begun, exhibiting the importance of its critical minerals in developing the U.S.'s high technology and power energy sectors. China has also restricted the export of rare earth processing technologies in making rare earth magnets used in EVs. In addition to technologies used to extract and separate critical minerals, hampering the U.S.-led attempt to build an alternative supply chain.

A hardening of foreign policy posture
Restricting access to strategic resources is a classic statecraft strategy, hitting the enemy's weak points, an example being the U.S. oil embargo against Japan in 1940. Therefore, this is expected from an aspiring great power such as China, which seeks to leverage its status as a mineral power. The difference in China's case is that this initially started as an act to intimidate countries. However, with recent countermoves, critical minerals export controls have now become a part of China's foreign policy objectives. It has moved from the publicisation to the weaponisation stage. For two reasons, China has grown more comfortable using its mineral

resources as a political tool. First, Beijing is reminding the West of its strategic dependency on China by demonstrating its status as a mineral power and exerting control over the supply chain. Second, China is responding in kind and believes that it is acceptable to take advantage of the situation to subvert the West's critical mineral supply chain, which will hinder the development of its high-tech sectors and undermine their efforts to decouple and de-risk. These critical minerals utilized in dual-use applications are major targets in particular as they are needed in the building of the Virginia class submarine and the F-35 fighter aircraft, which require several hundred pounds of rare earth elements. This shows that the aggressive, reciprocal and coercive approach has taken over the cooperative and collaborative approach, one of China's two schools of thought. It signals that Chinese curbs via export control will only grow as one with the West deteriorate. According to Chinese Natural Resource Minister Wang Guanghui, "China will push forward exploration, increase critical minerals capacity, and enhance mineral resource reserves over the next few years", thus displaying China's ambitions to leave no stone unturned.

India's vulnerability
Like its Quad partners, Australia, Japan and the U.S., India remains vulnerable due to its strategic dependence on China. New Delhi is heavily dependent on the imports of critical minerals such as lithium, nickel, cobalt and copper, which resulted in an import cost of around \$24,000 crore in FY23. It is estimated that India's hunger for minerals will only grow, and so will the import cost, further increasing India's vulnerability. Hence, this episode must act as a wake-up call for India and the policymakers who have been slow in taking precautionary measures such as having partnerships with like-minded countries and investing in developing alternative supply chains.

2. Taking stock of global nuclear disarmament GS 2 (Governance)

- **Why in News:** September 26 marks the **International Day for the Total Elimination of Nuclear Weapons**. This year, the **UN General Assembly** will discuss the **Treaty on the Prohibition of Nuclear Weapons (TPNW)**, a significant topic amidst global divisions over various conflicts and crises. The discussions are particularly relevant for countries like India that have opted out of the TPNW, as their responses may influence the future of nuclear disarmament efforts.
- **Understanding the TPNW**
 - **Objectives and Provisions:** The TPNW, effective since 2021, prohibits signatories from developing, testing, or using nuclear weapons, extending beyond the **Treaty on the Non-Proliferation of Nuclear Weapons (NPT)**. While the NPT focuses on preventing proliferation and promises disarmament, it lacks explicit prohibitions on the use of nuclear weapons.

- **Origins and Support:** The TPNW emerged from a humanitarian initiative highlighting the severe impacts of nuclear weapons on health and the environment. Although it has gained support from 70 states, its effectiveness is challenged by the absence of nuclear weapon states and their allies, who remain "persistent objectors" to the treaty.

- **Reactions to Nuclear Threats:** Recent global tensions including Russia's nuclear posturing and Iran's uranium enrichment, have reignited discussions about nuclear risks. Influential voices from former NATO leaders are advocating for their countries to join the TPNW, seeking to establish a legal framework that treats nuclear weapons similarly to chemical and biological weapons.

• India's Position and Implications

- **India's Non-Signature of the NPT:** India has not signed the NPT, viewing it as discriminatory and contrary to its national interests. Despite not being a signatory, India has benefited from the NPT's role in limiting nuclear proliferation, maintaining a policy of abstention without actively undermining the treaty.
- **Navigating the TPNW:** India and other nuclear possessors face the challenge of remaining outside the TPNW while not opposing it. The TPNW's lack of robust enforcement mechanisms presents challenges, but its potential to delegitimize nuclear deterrence and possession could reshape international norms.
- **Long-Term Prospects for Disarmament:** The TPNW's success in stigmatizing nuclear weapons akin to chemical and biological weapons would enhance global safety. Although this change won't occur immediately, the treaty could catalyze a necessary dialogue about the roles and effectiveness of nuclear weapons in contemporary security contexts.

Taking stock of global nuclear disarmament

In the United Nations calendar, September 26 is the International Day for the Total Elimination of Nuclear Weapons. This year's General Assembly agenda includes a session on the Treaty on the Prohibition of Nuclear Weapons (TPNW), or the Ban Treaty, as distinguished from the Treaty on the Non-Proliferation of Nuclear Weapons, NPT. It will be a chance to take stock at a time when the UN is bitterly divided – over the war in Ukraine; over the Israel Palestine conflict, and in responding to accelerating climate change and other related inequalities. Nuclear possession – threats or their use – threads through all these divisions. How the countries, including India, that have stayed out of the TPNW respond to the discussions will therefore matter greatly. If they follow the treaty's supporters to continue their efforts in expanding the Ban Treaty's footprint, the goal of the treaty – total nuclear disarmament – will be boosted. But if the treaty is undermined, nuclear weapons will become more entrenched, and the shadow of nuclear use will lengthen.

What the Ban Treaty says
The TPNW, which came into force in 2021, has once again divided the nuclear haves and their allies, and the nuclear abstinents. It is extensive in its prohibitions: signatures are barred from developing, testing, producing, stockpiling, transferring, using, deploying, keeping, or threatening to use any nuclear explosive devices. Thus, it goes beyond the NPT, which bans proliferation, but only promises to consider disarmament, and is silent on nuclear use, including deterrence.

The TPNW arose from a collection of UN agencies and NGOs coming together under the Humanitarian Initiative to highlight the lasting and pernicious consequences of nuclear weapons, covering development, deployment, and use on people, their health, and the environment. Discussions



Prashant Malik
Author of India's Nuclear Debate: Exceptionalism and the Bomb

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Despite China and Russia's "friendship without limits", Chinese President Xi Jinping made public his opposition to Russian President Vladimir Putin's nuclear saber-rattling. The U.S. signalled that nuclear adventurism would be met with a commensurate response; it did not specify that such a response would necessarily be nuclear. Washington also did not change its nuclear preparation level as a result. In other words, nuclear threats were countered without an overt nuclear response, thereby contradicting one of the justifications for continued nuclear possession.

Trading a fine line
Sitting out a treaty is not the same as undermining it. India has not signed the NPT. New Delhi perceives the NPT to be discriminatory, believes that it does not promote disarmament, and is contrary to India's interests. However, India has arguably benefited from the NPT's curbing of the spread of nuclear weapons. It has never actively undermined the treaty – rhetoric and abstention notwithstanding.

Other nuclear possessors could similarly tread a fine line of staying away from the TPNW while not challenging it. The TPNW has weaknesses, chiefly, the lack of a robust enforcement mechanism, but its normative potential in delegitimizing nuclear possession and deterrence should not be underestimated. If the treaty eventually succeeds in relegating nuclear weapons to the same pariah status as chemical and biological weapons, that will make us all much safer. This will certainly not happen during the General Assembly session or any time soon. The norm against nuclear use has solidified over decades; nuclear testing is gradually being delegitimised by the Comprehensive Test Ban Treaty, even if it has not come into force. The Ban Treaty could similarly start an honest discussion about the utility and effectiveness of nuclear weapons.

3. Global Warming and Climate Forecasting GS 3 (Environment)

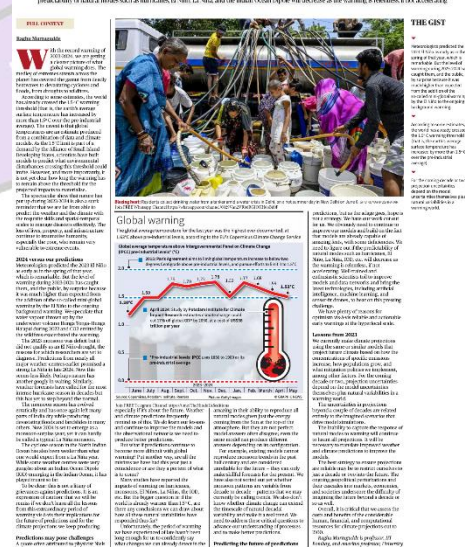
- **Why in News:** The record warming of 2023-2024 has highlighted the profound effects of global warming, as extreme weather events such as heatwaves, cyclones, floods, droughts, and wildfires become more frequent and severe. Given these experiences, there is the urgent need to improve climate predictions and adapt to an increasingly volatile climate.

• Current Climate Observations

- **Crossing the 1.5°C Threshold:** Some estimates suggest the world may have surpassed the critical 1.5°C warming threshold, although the exact duration of this warming's impact remains uncertain.
- **Unexpected Extremes:** The warming has produced a mix of weather extremes that defy predictions. For instance, while a strong El Niño was anticipated, the actual warming was much greater, likely influenced by factors like volcanic activity and wildfires.
- **Erratic Monsoon Patterns:** The 2023 monsoon was below normal but did not classify as an El Niño drought. Future predictions about monsoon patterns, including expectations for 2024, remain uncertain.

How global warming affects forecasting

Existing models cannot accurately forecast extreme events in the last century and are considered unreliable for the future. Meteorologists are forced to figure out the mechanisms of natural processes to harness the sun, the moon, and the Indian Ocean monsoon for forecasting.



- **Cyclone Activity:** The **North Indian Ocean cyclone season** has been weaker than expected for a La Niña year, indicating unpredictability in weather patterns.
- **Challenges in Prediction**
 - **Model Limitations:** Existing climate models struggle to accurately reproduce monsoon trends over the past 50 years, leading to questions about their reliability for future forecasts.
 - **Increasing Complexity:** As the climate continues to warm, predictions may become even more challenging due to the complex interactions among various climate systems (e.g., hurricanes, El Niño, Indian Ocean Dipole).
 - **Natural Variability:** There is still much to learn about how climate change affects natural variability and whether current observed patterns are short-term fluctuations or longer-term trends..
- **Prediction of weather in India**
 - India Meteorological Department is solely responsible for issuing operational long range forecast for India.
 - The forecasts are prepared at the National Climate Center of IMD located at Pune.
 - At present, empirical (statistical) methods are used for the preparation of operational long range forecasts.
 - India, at present, depends on satellite data and computer models for weather prediction.
 - The IMD uses the INSAT series of satellites and supercomputers.
 - Forecasters use satellite data around cloud motion, cloud top temperature, and water vapour content that help in rainfall estimation, weather forecasting, and tracking cyclones.
 - The weather agency is now using manned and automatic weather stations, aircraft, ships, weather balloons, ocean buoys and satellites to gather information on atmospheric temperature, pressure humidity, wind speed and direction and sea surface temperatures.
 - The data is then fed into a supercomputer at the Indian Institute of Tropical Meteorology in Pune.

4. India-Australia Comprehensive Economic Cooperation Agreement (CECA) GS 2 (International Relations)

- **Why in News:** Australia is actively negotiating a **Comprehensive Economic Cooperation Agreement (CECA)** with India.
- **What is CECA?**
 - A CECA is a **free-trade agreement** between two countries that strengthens their bilateral trade.
 - A **free trade agreement** is an arrangement between two or more countries where they agree either to end or reduce customs duties on the maximum number of goods traded between them, besides cutting down non-trade barriers on a significant value of imports from partner countries and easing norms to promote services exports and bilateral investments.
 - It promotes **bilateral trade and investment** between the two countries.
 - It eliminates tariffs on goods traded and liberalises services sectors to facilitate great business opportunities and cooperation between Singapore and India.
- **India-Australia Trade Relations**
 - Australia is an important trade and strategic partner of India.
 - India is one of Australia's largest trading partners, with two-way trade in goods valued at over USD 6.7 billion in 2023-24.
 - Bilateral trade between both sides, including goods and services, stood close to USD 50 billion at the end of calendar year 2023.
 - Both the countries are part of the **Indo Pacific Economic Forum for Prosperity (IPEF)** and **Trilateral Supply Chain Resilience Initiative (SCRI)**.
 - The **Australia-India Economic Cooperation and Trade Agreement (ECTA)**, which came into effect in December 2022, has led to about USD 30 billion worth of Australian exports entering India tariff-free, with Australians saving around USD 225 million on goods from India.

Australia, India push forward on CECA talks

The Hindu Bureau
NEW DELHI

Trade ministers of India and Australia held talks on Wednesday to assess the progress on negotiations towards a full-fledged free trade deal, about 20 months since an early harvest bilateral pact called the Economic Cooperation and Trade Agreement (ECTA) came into effect.

Commerce and Industry Minister Piyush Goyal, who co-chaired a meeting of the India-Australia Joint Ministerial Commission with Australia's Trade and Tourism Minister Don Farrell, said talks focused on strengthening trade ties to achieve the countries' shared goal of \$100 billion in bilateral trade by 2030.

Since the early harvest deal, almost \$30 billion worth Australian exports have entered India either with zero or lower tariffs than "any of our competitors", with agriculture exports to India rising 60% to \$1.6 billion, Mr. Farrell said. For Australian consumers, the deal has translated into "savings at checkouts worth around \$225 million, thanks to lower tariffs on products coming from India", he added.

"We reviewed ECTA implementation, discussed progress on the Comprehensive Economic Cooperation Agreement," Mr. Goyal said.

Mr. Farrell said Australia has much to offer, particularly in agriculture, and mooted tariff cuts by India for produce like chickpeas, pistachios and wine. However, noting India's concerns, he added "where issues are difficult, we understand, and are not going to make life difficult."

5. Project Cheetah GS 3 (Environment)

- **Why in News:** Project Cheetah completed 2 years
- **About Project Cheetah:**
 - Project Cheetah, launched to reintroduce the African sub-species of cheetahs in India, completed two years on September 17.
 - The project has two primary objectives:
 - To establish a stable, breeding population of cheetahs in central India and
 - To use cheetahs as an **umbrella species** to restore open ecosystems such as scrubs, savannahs, grasslands, and degraded forests.
 - This was the **world's first inter-continental large wild carnivore translocation project**.
 - The cheetah was declared extinct in India in 1952, making it the only large wild mammalian species to go extinct since India's independence.
 - **Funding:** Funded by **Project Tiger** and the **Compensatory Afforestation Fund Management & Planning Authority (CAMPA)**
 - While the project has seen marginal successes, significant challenges remain, raising questions about its long-term outlook.
- **Status of Cheetah Reintroduction:**
 - The project began with the translocation of African cheetahs from **Namibia** and **South Africa** to **Kuno National Park in Madhya Pradesh**, in two batches of eight and twelve cheetahs.
 - Initially, the cheetahs were kept in soft-release enclosures called bomas, where they adapted to the local environment and hunted live prey. Mating within this cohort led to the birth of 17 cubs.
 - However, the **survival rate has been a concern**.
 - Of the 20 translocated cheetahs, eight (40%) have died due to various reasons, including injuries during mating and infections caused by tick infestations under their radio collars.
 - Of the 17 cubs born, five (29%) have also perished.
 - **Currently, 24 cheetahs (12 adults and 12 cubs) survive**, with the next batch of 6-8 cheetahs expected to be translocated to **Gandhi Sagar Wildlife Sanctuary** in Madhya Pradesh.
- **Challenges in Releasing Cheetahs into the Wild:**
 - Despite initial successes in breeding and adapting to a new environment, the project faces significant hurdles in fully releasing the cheetahs into the wild.
 - Although two cheetahs, Pawan and Veera, were released into the wild, **Pawan's recent death, ostensibly due to drowning, has raised concerns about their ability to establish habitats independently**.
 - Following Pawan's death, all surviving cheetahs have been confined to enclosures, sparking criticism from conservation scientists about the delay in releasing them into the wild and a lack of transparency.
 - Wildlife biologists have pointed out that Namibia's policy advises against keeping large wild carnivores in captivity for more than three months.
 - If not released within this timeframe, the animals should either be euthanized or held in permanent captivity.
 - The **prolonged enclosure of cheetahs, contrary to the Cheetah Action Plan, which stipulated a 4–5-week quarantine followed by a brief acclimatization period, has drawn scrutiny**.
- **Prey Scarcity:**
 - One of the major challenges for Project Cheetah is the inadequate prey base.
 - The latest report indicates that the **density of chital, the primary prey for both cheetahs and leopards, has declined from 23.43 animals per square kilometer in 2021 to 17.5 in 2024**, resulting in a significant prey deficit.

Two years of Project Cheetah: Status report and the road ahead



- **Clause 6 of the Assam Accord**
- Clause 6 of the Assam Accord promises to provide Constitutional, legislative, and administrative safeguards to protect, preserve, and promote the cultural, social, linguistic identity, and heritage of the Assamese people.
- These safeguards **aim to address concerns regarding the state's demographic and cultural integrity amidst the influx of migrants.**
- **Biplab Sarma Committee**
 - **Formation of the committee**
 - In July 2019, the Union Home Ministry formed a **14-member committee**, chaired by **retired Assam High Court Justice Biplab Kumar Sarma**, to provide recommendations on implementing **Clause 6** of the Assam Accord.
 - A key issue the committee addressed was defining "**the Assamese people**" eligible for the safeguards under Clause 6.
 - **Submission of the report**
 - The committee submitted its final report in **February 2020**.
 - However, instead of being presented to the Union Home Ministry, it was received by then Assam Chief Minister **Sarbananda Sonowal**.
 - In **August 2020**, four committee members publicly released the confidential report.
 - **Key Recommendations:**
 - **Definition of Assamese People:** The committee suggested that "Assamese people" should include:
 - Indigenous Tribals
 - Other Indigenous Communities of Assam
 - Indian citizens residing in Assam on or before January 1, 1951, and their descendants
 - Indigenous Assamese People
 - **Safeguards:** Based on this definition, the committee recommended reservations for "Assamese people" in **Parliament, the state Assembly, local bodies, and jobs.**
- **Recommendations of the report to be implemented**
 - **Classification of Recommendations**
 - The committee's 67 recommendations are divided into three categories:
 - 40 recommendations under the state government's jurisdiction
 - 12 recommendations requiring Centre's concurrence
 - 15 recommendations exclusively within the Centre's domain
 - The 52 recommendations in the first two categories will be implemented by April 2025, with a roadmap to be submitted to AASU by October 25, 2024.
 - **Acceptance of 1951 Cut-off Date**
 - The Assam govt has accepted the **1951 cut-off date** for the specific recommendations of the Justice Biplab Sarma Committee report.
 - However, the definition of "**Assamese people**" is limited to the context of the report's recommendations.
 - **Land Safeguards**
 - **Special Revenue Circles:** Designating areas where only Assamese people can own and transfer land.
 - **Land Titles:** A three-year program to grant land titles to Assamese people who have long occupied land without proper documentation.
 - **Char Areas Survey:** Surveying char areas (riverine regions) to treat newly formed chars as government land, prioritizing allocation to those affected by river erosion.
 - **Language Safeguards**
 - **Assamese as Official Language:** Retaining Assamese as the official state language per the **1960 Assam Official Language Act**, with provisions for local languages in certain regions.
 - **Bilingual Government Documents:** Issuing all state government acts, rules, and orders in both Assamese and English.

- **Autonomous Language Council:** Establishing a council to preserve and promote indigenous languages of Assam.
- **Assamese in Schools:** Making Assamese a compulsory subject in all English medium schools up to Class VIII or Class X.
- **Cultural Heritage Preservation**
 - **Sattras (Neo-Vaishnavite Monasteries):** Setting up an autonomous body to oversee the development of sattras and provide them financial assistance.
 - **Cultural Complexes:** Building multipurpose cultural complexes in every district to preserve the cultural heritage of all ethnic groups.
- **Sixth Schedule Areas**
 - The autonomous councils of Assam's Sixth Schedule Areas, including the Bodoland Territorial Council, the North Cachar Hills Autonomous Council, and the Karbi Anglong Autonomous Council, will decide whether to implement the 52 recommendations.
 - These councils have certain legislative and judicial autonomy under the Sixth Schedule of the Constitution.
- **Recommendations that have been left out by the govt**
 - **Inner Line Permit**
 - Proposal for implementing an ILP for entry into Assam, similar to existing regulations in Nagaland, Arunachal Pradesh, Manipur, and Mizoram.
 - **Reservations for Assamese People**
 - **Parliament and State Assembly:** 80-100% reservation of seats for Assamese individuals in Parliament and state Assembly, as well as in local bodies.
 - **Government Jobs:** 80-100% reservation in Assam government jobs.
 - **Private Sector Collaborations:** 70-100% reservation for vacancies in partnerships between the Assam government and private companies.
 - **Creation of an Upper House:** Proposal for establishing a Legislative Council in Assam, exclusively reserved for Assamese people.

7. China's launch of an intercontinental ballistic missile GS 2 (International Relations)

- **Why in News:** China conducted a successful test of an **intercontinental ballistic missile (ICBM)** designed to potentially reach US cities. This marked a rare public display of military capability aimed at showcasing China's strategic deterrence. China choosing the Pacific Ocean as the location for test-firing its missile comes across as both a display of its increased nuclear capabilities and as a warning to the United States and its allies in the region.
- **About intercontinental ballistic missile (ICBM)**
 - China's latest ICBM is known to be **DF-41 (Dongfeng-41)**, which first came into service in 2017. It is known to have an operational range of up to 12,000–15,000 km, capable of reaching the United States' mainland.
 - Chinese state-run media have claimed the missile can load up to 10 MIRV warheads with a total weight of 2,500 kg.
 - An ICBM typically has a range greater than 5,500km (3,420 miles) and is designed to carry nuclear warheads.
 - **How common are missile tests in the Pacific region?**
 - Few countries have ICBMs in their arsenal, and testing is usually restricted to their own territory.
- **China's military**
 - China boasts the **world's largest standing army** and the **biggest navy**.
 - The U.S. report also estimated China had more than 500 operational

China conducts rare ICBM test, launches it into Pacific Ocean

LAURIE CHEN & BEN BLANCHARD
BEIJING, TAIPEI, SEPTEMBER 25

China said on Wednesday it had successfully conducted a rare launch of an intercontinental ballistic missile into the Pacific Ocean, a move likely to raise international concerns about the country's nuclear build-up.

The ICBM, carrying a dummy warhead, was launched by the People's Liberation Army Rocket Force at 8:44 a.m. Beijing time (0044 GMT) on Wednesday and "fell into expected sea areas," the Chinese defence ministry said in a statement, adding that it was a "routine arrangement in our annual training plan" and not directed at any country or target.

China "informed the countries concerned in advance," according to a separate Xinhua report, which did not clarify the path of the missile or where in the "high seas of the Pacific Ocean" it fell.

The launch "effectively tested the performance of weapons and equipment and the training level of the troops, and achieved the expected goal," Xinhua reported.

A Japan Coast Guard official said it had received a navigation



The ICBM was launched into the Pacific Ocean. File

warning from China on Monday for "space debris" in three zones in South China Sea and the Pacific north of the Philippines' Luzon island, and in the South Pacific, on Wednesday.

The official declined to confirm whether it was related to the reported missile launch.

It is rare for China to fire long-range missiles into the sea as it prefers to test them unannounced in isolated provinces such as Inner Mongolia, analysts said. The PLA Rocket Force, which oversees the country's conventional and nuclear missiles, has been tasked with modernising China's nuclear forces in the face of developments such as improved U.S. missile defences, better surveillance capabilities, and strengthened alliances.

REUTERS

nuclear warheads as of May 2023 and was on track to accumulate more than 1,000 operational nuclear warheads by 2030.

- China has not revealed the size of its nuclear arsenal.
- In comparison, Russia is believed to have a total inventory of more than 5,580 warheads — including 4,380 stockpiled warheads for operational forces, as well as an additional 1,200 retired warheads awaiting dismantlement — according to a report this year by the Federation of American Scientists.
- The same report put the U.S. nuclear warheads at 5,044.

8. India joins US-led Mineral Security Network GS 2 (International Relations)

• Why in News:

- India has formally joined the Minerals Security Finance Network (MSFN), a US-led initiative focused on enhancing cooperation among members to secure supply chains for critical minerals. The announcement, made by the US State Department on the sidelines of the UN General Assembly, involves a pact signed by 14 countries and the European Union.
- The MSFN is an extension of the Minerals Security Partnership (MSP), launched by the US in 2022. **India had already joined the MSP in June 2023.**

• China's strategy of restricting access to critical minerals

- **China blocking the access to critical minerals**
 - On August 15, 2023, China announced restrictions on antimony exports, a critical mineral for military and defense equipment, citing "national security."
 - The move, effective from September 15, was part of a broader pattern of counteractions in response to global efforts to reduce reliance on Chinese minerals.
- **China is using its dominant position**
 - China dominates the global supply chains for critical minerals, controlling 60% of rare earth and critical minerals production and 80% of their processing, making other nations, such as the U.S., EU, India, and Japan, strategically vulnerable.
- **Past instances where China weaponized its dominant position**
 - China has previously weaponized its mineral dominance, as seen in 2010 when it halted rare earth exports to Japan after a maritime dispute.
 - In 2023, China imposed further export restrictions on minerals like gallium, germanium, and graphite, in retaliation against U.S. export controls on advanced technology.
 - These actions signal China's willingness to leverage its control over critical minerals to counter U.S.-led efforts to diversify supply chains and reduce dependency on Chinese resources.
 - China's actions aim to undermine Western efforts to decouple from its supply chains and hinder development in areas like submarines and fighter jets, which require large amounts of rare earth elements
 - This shift marks a **departure from cooperation to coercion in China's foreign relations**, signaling that mineral export controls will intensify as tensions with the West grow.

To push clean energy transition, India joins US-led Minerals Security Finance Network

Securing critical minerals in focus amid an overwhelming dependence on China for rare earths

ANIL SASI
NEW DELHI, SEPTEMBER 25

INDIA is now formally a part of the Minerals Security Finance Network (MSFN), a US-led initiative aiming to strengthen cooperation among members to secure supply chains for critical minerals. The announcement, made by the US State Department on the margins of the United Nations General Assembly on September 23, involved a pact entered by 14 countries and the European Union. The Minerals Security Finance Network (MSFN) is a new initiative that stems from the Minerals Security Partnership (MSP), a framework established by the US in 2022. India was inducted into the MSP in June 2023.

Creating synergies

The strengthening of the MSP with an additional offshoot in the MSFN comes at a time when there is an overwhelming dependence on countries such as China for critical resources, especially with respect to rare earth minerals.

Under this new partnership, signatory nations acknowledged that the scope and scale of meeting the rapidly increasing global demand for critical minerals to achieve the proposed clean energy transition was "beyond the purview of any single institution" and that the public sector and private sector in member countries "would need to work together to deploy capital into new and existing markets in this sector".

This new partnership brings together DFIs (development finance institutions) and ECAs (export credit agencies) from the participating nations to "create synergies, and increase impact". "The participating DFIs and ECAs discussed, including with representatives from the private

EXPLAINED Catalysing investments

IN JUNE 2023, India had been inducted into the Minerals Security Partnership, a US-led collaboration of these 14 countries that aimed to catalyse public and private investment in critical mineral supply chains globally.

sector, how they can work together to meet this challenge," the joint statement on establishment of the Minerals Security Partnership Finance Network said. "The energy transition is at risk. We need more production capacity for critical minerals that need to come online — many of these supply chains are concentrated in one or two countries and lack resilience," US Undersecretary of State Jose W Fernandez said during the United Nations General Assembly in New York.

Earlier, in June 2023, India had been inducted into the MSP, a US-led collaboration of these 14 countries that aimed to catalyse public and private investment in critical mineral supply chains globally. A joint India-US statement issued on June 23, 2023, had then reiterated the intention of the two governments "to work together to ensure that our respective markets are well-supplied with essential critical minerals" and reaffirming a pledge by the two sides "to hasten bilateral collaboration to secure resilient critical minerals supply chains", welcomed India into the grouping. India's inclusion had particular significance given that one of the key elements of New Delhi's growth strategy is powered by an ambitious shift in the mobility space through the

conversion of a large part of public and private transport to electric vehicles. This, alongside a concerted electronics manufacturing and semiconductor push, underlines the need to secure the supply of critical minerals.

The proposal to onboard India in the MSP initiative last year came after a strong diplomatic push mounted by New Delhi, given that there was considerable disquiet within sections of the Union government over the country not finding a place in the strategic partnership that was aimed at reducing dependency on China for securing critical minerals. The concerns grew after the partnership, originally floated mid-2022, was expanded in early 2023 to include a new member, Italy.

The MSP is learnt to have weighed the possibility of collaborative work on some 150-odd projects and shortlisted a dozen projects where members are likely to commence work, including fostering a critical minerals and metals cooperation forum for sharing of expertise, developing battery materials and jointly developing a minerals processing facility in South America.

Supply chains

The MSP grouping, industry insiders said, is focused on the supply chains of minerals such as cobalt, nickel, lithium and also the 17 "rare earth" minerals. While cobalt, nickel and lithium are required for batteries used in electric vehicles, rare earth minerals are critical, in trace amounts, in the semiconductor and high-end electronics manufacturing. China is a strong player in this space and has created processing infrastructure in rare earth minerals and has acquired mines in Africa for sourcing elements such as cobalt.

FULL REPORT ON
www.indianexpress.com

- **MSP**

- **About**

- In August 2022, US and 10 other nations agreed for this alliance known as MSP.
 - MSP is an international alliance that aims to ensure a stable supply of critical minerals for a clean energy transition.
 - It focuses on minerals and metals that are essential for clean energy technologies, such as lithium, cobalt, nickel, manganese, graphite, rare earth elements, and copper.

- **Goals**

- **Sustainable supply chains:** The MSP works to create diverse, sustainable, and responsible supply chains for critical minerals.
 - **Economic development:** The MSP aims to ensure that the production, processing, and recycling of critical minerals supports economic development.
 - **Environmental, social, and governance (ESG) standards:** The MSP's members commit to high ESG standards.
 - **Shared prosperity:** The MSP's members work to promote shared prosperity.

- **Members**

- Australia, Canada, Estonia, Finland, France, Germany, India, Italy, Japan, Norway, Republic of Korea, Sweden, United Kingdom, United States, and European Union

- **Minerals Security Finance Network (MSFN)**

- **Background: need for MSFN**

- The creation of the MSFN reflects a growing need to reduce dependence on countries like China for critical resources, particularly rare earth minerals.
 - Signatory nations emphasized that meeting the global demand for these minerals to support the clean energy transition requires collaboration between the public and private sectors.

- **About**

- MSFN is a new initiative that originates from the MSP, a framework established by the US in 2022.
 - The network aims to bring together institutions from the Indo-Pacific region and Europe, promoting cooperation, information exchange, and co-financing.
 - Under this, development finance institutions (DFIs) and export credit agencies (ECAs) from member nations will work together to enhance production capacity and resilience in mineral supply chains.

- **Countries that are part of this initiative**

- The partnership includes 14 countries and the European Commission.
 - These are the USA, Australia, Canada, Estonia, Finland, France, Germany, **India**, Italy, Japan, the Republic of Korea, Norway, Sweden, the United Kingdom, and the EU.

- **India's participation**

- India's participation in this initiative is aimed at diversifying and securing its supply of critical minerals from nations like Argentina, Chile, Australia, and select African countries.
 - Kazakhstan, in Central Asia, is also being explored as a potential source for India's mineral requirements.
 - **China dominates rare earth production, controlling about 70% of global output, while India seeks to establish itself in the lithium value chain.**
 - New Delhi is heavily dependent on the imports of critical minerals such as lithium, nickel, cobalt and copper, which resulted in an **import cost of around ₹34,000 crore in FY23.**
 - It is estimated that India's hunger for minerals will only grow, and so will the import cost, further increasing India's vulnerability.
 - This partnership with the US-led network marks a critical step forward for India in its quest to reduce reliance on China for these minerals and build a robust, self-sustaining supply chain for its green energy initiatives.

MCQ Current Affairs
26th Sept, 2024

1. In the context of criminal law, which of the following is a key element required to prove constructive possession?

- a) Physical custody of the object
- b) Proximity to the object.
- c) Ownership of the property where the object is found.
- d) Intent and capability to exercise control over the object.

2. Consider the following statements regarding Supreme Audit Institutions (SAIs):

- A. They are public oversight institutions responsible for the audit of government revenue and expenditure.
- B. The Comptroller and Auditor General of India (CAG) and the Indian Audit and Accounts Department (IAAD) functioning under him constitute the SAI of India.

Which of the statements given above is/are correct?

- a) A only
- b) B only
- c) A and B
- d) Neither of two

3. "Pact for the Future", recently in the news was adopted by:

- a) World Health Organisation
- b) United Nations Environment Programme
- c) World Trade Organisation
- d) United Nations General Assembly

4. Consider the following statements regarding the Nagar Van Yojana:

- A. It aims to enhance the urban greenery to improve the quality of life in cities.
- B. It provides financial assistance of Rs. 4 lakh per hectare for the creation and maintenance of these urban forests.

Which of the statements given above is/are correct?

- a) A only
- b) B only
- c) A and B
- d) Neither of two

5. MAPCIS crater, recently seen news, is located in:

- a) India
- b) Australia
- c) Kenya
- d) Russia

MCQ Current Affairs
26th Sept, 2024

1. d
2. c
3. d
4. c
5. b

