

The discovery of the 5.9 million tonnes inferred resources of lithium in Reasi in Jammu & Kashmir has been heralded as a game changer in India's transition to a green economy. India's market for critical metals is projected to register a compounded annual growth rate of 23.76% by 2028. This will also help advance the Indian government's ambitious plan of "30% EV penetration in private cars, 70% for commercial vehicles, and 80% for two and three wheelers by 2030 for the automobile industry."

The applications of lithium in renewable energy infrastructure often obscures its significant environmental consequences. Extracting lithium from hard rock mines, similar to what has already been proposed in J&K, entails open-pit mining followed by roasting the ore using fossil fuels. Industry estimates suggest that this process consumes 170 cubic metres of water and releases 15 tonnes of CO<sub>2</sub> for every tonne of lithium extracted. As India embarks on this new journey, it could learn from the experiences of South American countries, especially the 'lithium triangle' of Bolivia, Chile, and Argentina. The lessons from these countries point to the importance of a strong regulatory apparatus that can address both the environmental and the social consequences of Li mining.

90 percentage by which the European Union will propose to cut emissions for new trucks from 2040 to help mitigate climate change. The aim is to bring the transport sector in line with the EU's goal to have zero net greenhouse gas emissions by 2050. It comes after the 27-nation bloc last year agreed to a 2035 deadline for new cars to be CO<sub>2</sub> free.

More than seven million children have been affected by the massive earthquake and a major aftershock that devastated Turkey and Syria last week, James Elder, spokesperson for the UN children's agency UNICEF, told reporters in Geneva on Tuesday, voicing fear that "many thousands" more had died.

India's wholesale price inflation cooled further in January to a two year low of 4.73% from 4.95% in December, thanks to a slight decline in manufactured products' price rise and fuel and power inflation, even as pace of inflation in food and primary articles hardened sequentially.

The month long anti-encroachment drive in Jammu and Kashmir to retrieve government land has been halted following an intervention by the Union Home Ministry, a government source told The Hindu. The J&K administration has been asked to issue notices and give proper hearing to residents before arriving with bulldozers. A J&K administration official, however, denied that the drive had been halted, and said that "geo-tagging and geo-referencing" of the retrieved land was going on. The official said the drive to recover public land was being done as per a 2020 order of the J&K High Court to scrap the Jammu and Kashmir State Land (Vesting

## SUPREME COURT (SC) DISMISSES CHALLENGE TO DELIMITATION IN JAMMU & KASHMIR (J&K)

- Petitioners had raised arguments that: Only Election Commission of India was empowered to conduct delimitation exercise. Article 170 freezes delimitation exercise till the first census after 2026. SC, while dismissing the challenges, stated that: J&K Reorganisation Act, 2019 which created two new UTs, assigns role of readjustment of constituencies to Delimitation Commission (DC) under Delimitation Act, 2002.
- Article 4 permits Parliament to incorporate such provisions made in accordance with Article 3 for formation of new States and UTs. Article 239A and not Article 170 was applicable to UTs. Delimitation is process of fixing limits or boundaries of territorial constituencies in a country or a state with a legislative body. Under Article 82, Parliament enacts a Delimitation Act after every Census establishing a DC.
- Under Article 170, States get divided into territorial constituencies. It provides equal representation for equal population segments, and fair division of geographical areas, so that no political party has an advantage. DC have been constituted in 1952, 1963, 1973 and 2002. It is appointed by President and its orders have force of law and cannot be challenged before any court.

## DRAFT GEO-HERITAGE SITES AND GEO-RELICS (PRESERVATION AND MAINTENANCE) BILL VESTS POWERS ENTIRELY IN GEOLOGICAL SURVEY OF INDIA (GSI), SAY EXPERTS

- Draft Bill, published by Ministry of Mines in December 2022, provides for declaration, preservation, protection and maintenance of geo-heritage sites and geo-relics of national importance for geological studies, education, research etc. Geo-heritage sites are sites of rare and unique geological and geomorphologic significance having geomorphological, mineralogical, petrological, paleontological, and stratigraphic significance including caves, natural rock-sculptures etc.
- Geo-relics are any relic or material of geological significance or interest like sediments, rocks, minerals, meteorites, or fossils. GSI has declared 32 geo-heritage sites, including Fossil Parks (e.g. Siwalik Fossil Park, Himachal Pradesh); Geological Marvels (e.g. Lonar Lake, Maharashtra), Rock Monuments (e.g. Peninsular Gneiss, Karnataka) etc. GSI is an attached office under Ministry of Mines.
- Key Highlights of the Draft Bill**-Authorising Central Government to: Declare a geo-heritage site to be of national importance. Acquire area under a geo-heritage site under provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. Declare area around each geo-heritage site as prohibited area and regulated area. Penalties for destruction, removal, defacement, misuse of geo-heritage sites and geo relics.

## GOVERNMENT STEPS UP EFFORTS TO DRIVE INNOVATION IN PHARMACEUTICAL SECTOR

- Government has begun stakeholder consultations to identify 'moonshot' projects and role of industry as it plans to roll out its latest budget proposal to promote research and innovation in pharmaceutical sector. Moon-shot is an ambitious, exploratory and ground-breaking initiative undertaken without assurance of near-term profitability or benefits. E.g. precision medicine, chronic disease management etc.
- Announcements in the recent budget included-A new programme to promote research and innovation, which will be taken up through centers of excellence. Support faculty from medical colleges and R&D teams from the industry. Indian Pharmaceutical industry is currently ranked third in production by volume. It is currently valued at \$50 bn and is expected to reach \$130 bn by 2030.
- India supplies over 50% of generic demand in Africa, ~40% in US and ~25% of all medicine in UK. India also accounts for ~60% of global vaccine demand. However, it is yet to establish itself as an innovator because of various reasons such as: Absence of strong academic research network. Limited expenditure on R&D by companies. Concerns over the Intellectual Property (IP) Regimes of India. E.g. Section 3(d) of Indian Patent Act, 1970; Compulsory licensing etc.
- Section 3(d) of Indian Patent Act, 1970 is seen as a deterrent by pharmaceutical companies as it bars patents to mere discovery of a new form of a known substance with no known efficacy enhancement. Compulsory licensing is when a government allows someone else to produce a patented product or process without the consent of the patent owner.

## PM SETS USD 5 BILLION TARGET IN DEFENCE EXPORTS BY 2024-25

- While inaugurating 14th edition of Aero India 2023, PM called upon private sector to invest in defence sector to make India among the

**Ownership to the Occupants) Act, popularly known as the Roshni Act.**

The Income Tax Department on Tuesday conducted a 'survey' at the offices of the British Broadcasting Corporation (BBC) in Delhi and Mumbai over a "charge of deliberate noncompliance with Indian laws, including transfer pricing rules and diversion of profits illegally".

250 number of planes Air India has agreed to buy from Airbus, including 210 narrowbody planes and 40 widebody aircraft. The deal is part of a huge order by Air India for 470 planes which is expected to also include an order for 220 planes from Boeing as it heralds a decade long expansion.

Former Maharashtra Chief Minister Uddhav Thackeray said in the Supreme Court that the "artful" dodges legislators employ to subvert the Tenth Schedule (anti-defection law) to bring down governments and the "sweeping discretion" available to Speakers in deciding cases of disqualification of legislators need a relook by a larger Bench.

In the week since two powerful earthquakes hit Turkey and Syria, the Indian government has sent medical assistance worth ₹7 crore to the affected nations, Union Health Minister Mansukh Mandaviya said. On February 6, when the disaster struck, three truckloads of relief material consisting of life saving emergency medicines and protective items were arranged at the Hindon airbase within 12 hours. The consignment consisted of 5,945 tonnes of emergency relief material which included 27 life saving medicines, two kinds of protective items and three categories of critical care equipment,= valued at approximately ₹2 crore.

Former U.S. Ambassador to the United Nations Nikki Haley announced on Tuesday she is running for President in 2024, challenging fellow Republican candidate Donald Trump by proposing a "new generation" of leadership in Washington. "I'm Nikki Haley and I'm running for President," the 51 year old former Governor of South Carolina and the child of Indian immigrants said in a video statement.

China urged the United States on Tuesday to conduct a "thorough investigation" into what Beijing claims was a string of incursions into its airspace by U.S. balloons. On Tuesday, Beijing doubled down on unsubstantiated allegations that the U.S. has sent over 10 balloons since last year.

Amid speculation over alleged Chinese spy balloons, Taiwan's Defence Ministry said on Tuesday it would shoot down any suspected military object coming close to its shores from mainland China.

- largest defence manufacturing countries. Defence exports grew by 334% in last five years and touched a record Rs 13,000 crore in 2021-22. India is now exporting defence equipment to over 75 countries.
- Major exported items are Personal Protective items, Offshore Patrol Vessels, ALH Helicopter, Coastal Surveillance System etc.
  - Challenges to defence exports Red tapism and a poor global impression of PSUs to deliver on time. Due to lack of well-established processes and infrastructure, domestic defence industry suffers from disadvantages in terms of less competitive price and lack of high technology. Absence of designing and development capabilities (especially in critical technologies). Limited participation of private sector and poor industry-academia-defence linkage.
  - Initiatives taken**-74% FDI under automatic route. Notified Open General Export License (OGEL), one-time export license, which permits the industry to export specified items to specified destinations without seeking export authorisation.
  - Scheme for Promotion of Defence Exports** to provide an opportunity to prospective exporters to get their product certified by Government. Earmarking of 25% defence R&D Budget for industry led R&D.

### MINISTRY OF ENVIRONMENT, FOREST, AND CLIMATE CHANGE (MOEF&CC) ISSUED SOP FOR ALL HIGHWAY PROJECTS NEAR BORDER AREAS

- Standard operating procedure (SOP), issued in backdrop of Joshimath crisis, emphasize on: Environmental safeguards such as landslide and disaster management. Precautions to be taken during tunneling or drilling. Protection of river catchments and hydrology.
- Earlier, MoEF&CC notified amendments that exempt highways in border areas from obtaining prior environment clearances, changing environmental impact assessment policy.
- It exempted highways projects falling within 100 km of International Border or Line of Control. Exemption to such highway projects in border areas started a debate for need of sustainable development.
- Arguments in favour**- In view of China's huge build-up of infrastructure, such projects assumed strategic importance. Critical for movement of security forces, deployment pattern, and mobilisation in case of emergency. Will support reversing migration in border areas. To reduce emissions and travel time of tourists and traffic congestion.
- Arguments against**-Increased blasting, tunnelling, dumping and deforestation, would increase risk of landslides and flash floods. Felling of trees leading to a loss of habitat, which would force animals into invading human settlements. Regional climate warming due to carbon added to atmosphere because of construction activity and higher number of road vehicles.

### DEDICATED UNIT TO MAP ERRATIC WEATHER EVENTS

- India Meteorological Department (IMD) will dedicate a centre to provide warnings on short notice to minimise weather-related damage. As per a CSE study, In 2022 India experienced extreme weather events on 314 days.
- IMD (under Ministry of Earth sciences) is nodal agency that tracks weather developments across India. IMD uses INSAT series of satellites along with Real-Time Analysis of Products and Information Dissemination (RAPID) application that provides quick interactive visualisation along with 4-Dimensional analysis capabilities. IMD also collaborates with ISRO for ground-based observations that measure temperature, sunshine, wind direction, speed and humidity.
- Forecasting models used by IMD**-Statistical Ensemble Forecasting system (SEFS) based on: Sea Surface Temperature Gradient between North Atlantic and North Pacific Equatorial South Indian Ocean SST East Asia Mean Sea Level Pressure Northwest Europe Land Surface Air Temperature Equatorial Pacific Warm Water Volume Monsoon Mission Coupled Forecasting System for issuing seasonal forecast outlooks.
- Dynamical global climate forecasting system that simulates land, atmosphere and ocean state on supercomputers Multi-Model Ensemble forecasting system for issuing monthly and seasonal outlooks of rainfall and temperature.



*"Just by being yourself,  
you become special."*

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