

NEWS TODAY

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.

DELIMITATION EXERCISE IN J&K

- Before 2019, delimitation in **J&K's parliamentary constituencies** was **governed by Constitution of India**, and **Assembly constituencies** were governed by state government.
- After abrogation of J&K's special status in 2019, delimitation of **both Assembly and parliamentary seats** is governed by **Constitution.**

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.

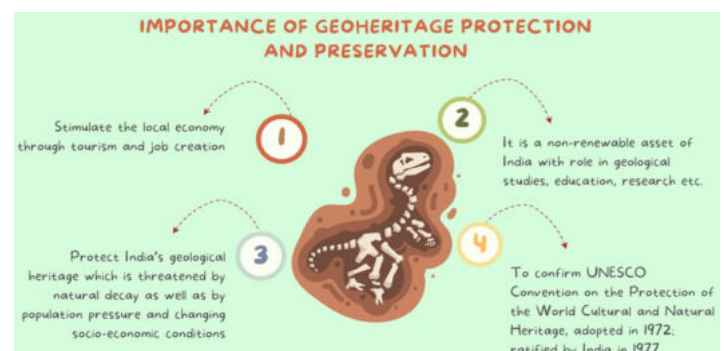
- GSI is an attached office under **Ministry of Mines.**

• **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.
 - Moonshot is an **ambitious, exploratory and groundbreaking 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 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**.



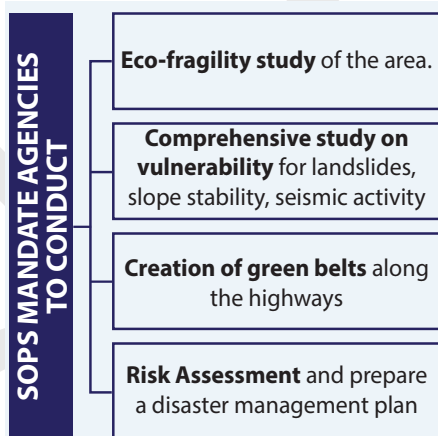
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (MOEF&CC) ISSUED SOP FOR ALL HIGHWAY PROJECTS NEAR BORDER AREAS

- 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 favor	Arguments against
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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.

STEPS TAKEN TO IMPROVE WEATHER FORECASTING

Covering whole India by **Doppler Weather Radar** Network by 2025.

Introduction of **Urban Flood Warning System** in Mumbai (2020) and other cities.

Fine tuning of numerical models for improved impact based weather forecast.

Development of smart warning systems such as **Mausam App** for weather forecasts, **Meghdoot App** for advisories to farmers etc.

ALSO IN NEWS



Cotton Futures Contract

- Trading in newly launched Cotton Futures Contract has commenced** with collaborative approach of Government of India, Multi Commodity Exchange (MCX) etc.
- A futures contract is **a legal agreement to buy or sell a particular commodity asset, or security at a predetermined price at a specified time in future.**
 - Futures contract is **held at a recognized stock exchange.**
 - Exchange **acts as mediator and facilitator** between the parties.
- It will **help in real price discovery** and will provide a **platform for industry to hedge their risk** from future adverse price volatility.



Directorate of Revenue Intelligence (DRI)

- DRI **seized over 24 kg gold** smuggled from Bangladesh **under operation Eastern Gateway.**
- DRI, **under Central Board of Indirect Taxes and Customs**, Ministry of Finance, is **apex agency of Indian Customs in the field of anti-smuggling in India.**
- DRI **enforces provisions of Customs Act, 1962 and over fifty other allied Acts** including Arms Act, NDPS Act, Wildlife Act, Antiquities Act etc.
- It is tasked with
 - Curbing smuggling of contraband**, including drug trafficking and illicit international trade in wildlife.
 - Combating commercial frauds** related to international trade and evasion of Customs duty.




BIMARU states

- BIMARU is an **acronym** used to describe states of **Bi**har, **MA**dhya Pradesh, **Ra**jasthan and **Ut**tar Pradesh.
 - These states accounted for **41% of India's total population in 2001** and are expected to reach **43.5% in 2026.**
- It was coined by **demographer Ashish Bose in 1980** to hint that states **lagged in terms of economic growth, healthcare and education.**
- Bose mainly argued that **from a family planning and population control perspective, these four states were likely to offset the gains made elsewhere** in the country.



Mammatus clouds

- NASA has released picture of Mammatus clouds**, hovering over Nebraska, US.
- About Mammatus clouds**
 - They generally** appear in connection with **substantial cumulonimbus clouds**, but they have also been sighted to form on other cloud types, **such as stratocumulus, altostratus and altocumulus.**

	<ul style="list-style-type: none"> ➤ Turbulence within cumulonimbus often leads to formation of Mammatus clouds, particularly on bottom of projecting anvil as it quickly descends to lower altitudes. ➤ Their shapes can vary greatly, from typical bulging shape to a more elongated tube dangling from the cloud above.
 River Cities Alliance (RCA)	<ul style="list-style-type: none"> ● DHARA 2023 (Driving Holistic Action for Urban Rivers), annual meeting of RCA members, was held. ➤ DHARA provides a platform to co-learn and discuss solutions for managing local water resources. ● RCA is a dedicated platform for river cities to ideate, discuss and exchange information for sustainable management of urban rivers. ➤ It focuses on three broad themes- Networking, Capacity Building and Technical Support. ● RCA includes cities from both Ganga basin and non- Ganga basin states. ● RCA is a successful partnership of Ministry of Jal Shakti and Ministry of Housing and Urban Affairs.
 Aubrite meteorite	<ul style="list-style-type: none"> ● Analysis has revealed that Diyodar meteorite of 2022 (fell in Gujarat) was India's first aubrite in 170 years. ● Aubrites, a type of meteorite, are coarse-grained igneous rocks formed in oxygen-poor conditions; containing a variety of exotic minerals that are not found on Earth. ➤ E.g. mineral heideite was first described in Basti meteorite. ● Around 90% of Diyodar meteorite was composed of orthopyroxene. ➤ Pyroxenes are silicates consisting of single chains of silica tetrahedra (SiO₄). Orthopyroxenes are pyroxenes with a certain structure. <ul style="list-style-type: none"> ▪ Pyroxenes such as diopside and jadeite have been used as gems.
 Atacama Large Millimetre/ Submillimeter Array (ALMA)	<ul style="list-style-type: none"> ● A research team from Italy has detected an elusive black galaxy, dubbed 'invisible galaxy' using ALMA. ● ALMA is a state-of-the-art telescope to study light from some of the coldest objects in the Universe. ● This light has wavelengths of around a millimetre, between infrared light and radio waves, and is therefore known as millimetre and submillimetre radiation. ➤ Light at these wavelengths comes from some of the earliest and most distant galaxies in the Universe. ● ALMA is an international collaboration including teams from Europe, Japan, US, Canada, Chile etc.
 Suez Canal	<ul style="list-style-type: none"> ● World's biggest shipping company is suing its rival, seeking compensation for delays caused by a 2021 blockage of the Suez Canal. ● Suez Canal, a human-made waterway, connects Mediterranean to Indian Ocean via Red Sea and provides shortest sea link between Asia and Europe. ➤ It was opened for navigation in 1869 and Egypt nationalized it in 1956. ● Suez Canal is one of the world's most heavily used shipping lanes, carrying over 12% of world trade by volume, 8% of Liquified Natural gas and 1 billion barrels of oil (everyday). 
 Places in News	<p>Portugal (Capital: Lisbon)</p> <ul style="list-style-type: none"> ● Independent Committee for Study of Child Abuse in Catholic Church, set up by Portuguese bishops, have reported abuse of over 4,800 children since 1950. ● Portugal is a South Western European country situated mostly on Iberian Peninsula. ● It also has small archipelagos of Madeira and the Azores in the Atlantic Ocean. ● Political Boundaries: It shares its land border with Spain only and maritime border with Morocco only. ● Geographical Features <ul style="list-style-type: none"> ➤ Highest Point: Pico Volcano (on Pico Island of Azores) and Serra da Estrela (on Mainland). ➤ Biggest River: Tagus (Tejo) River. 