

Melting Glacier in Uttarakhand | Uttarakhand | 25 Apr 2024

Why in News?

Recently, a <u>glacier</u> slid down towards the <u>Johar Valley</u> along the strategically important **Munsiyari-Milam road** in Uttarakhand's **Pithoragarh district**, affecting crucial connectivity to the <u>India-China border</u> and villages in the region.

Key Points

- The <u>Border Roads Organisation (BRO)</u> has initiated efforts to clear the road, but significant challenges persist due to the extensive snow cover.
 - Experts underscore that the glacier's rupture serves as a stark reminder of the escalating impacts of climate change.
 - The <u>Himalayan region</u>, vulnerable to the effects of <u>global warming</u>, <u>faces mounting risks</u>, including accelerated glacier melt.
- Snowfall was observed in the upper regions of Pithoragarh in March 2024. Now, with temperatures rising, the glaciers are melting, leading to avalanches and occasional break-offs.

Border Road Organisation

- BRO was conceived and raised in 1960 by Pandit Jawaharlal Nehru for coordinating the speedy development of a network of roads in the North and the North Eastern border regions of the country.
- It works under the administrative control of the Ministry of Defence.
- It has diversified into a large spectrum of construction and development works comprising airfields, building projects, defence works and tunneling and has endeared itself to the people.

Bhojshala-Kamal Maula Complex | Madhya Pradesh | 25 Apr 2024

Why in News?

The <u>Archaeological Survey of India (ASI)</u>, is conducting a scientific survey at the medieval-era Bhojshala complex on High Court's direction. It has sought eight more weeks to complete the exercise.

Bhojshala complex is located in **Dhar district** of **Madhya Pradesh**.

Key Points

Hindus consider Bhojshala, an ASI-protected 11th-century monument, to be a temple

dedicated to Vagdevi (Goddess Saraswati), while the Muslim community call it Kamal Maula Mosque.

- As per an arrangement made by the ASI on 7th April 2003, Hindus perform puja in the Bhojshala premises on Tuesdays, while Muslims offer namaz in the complex on Fridays.
- The high court had on 11th March 2024 ordered the ASI to conduct a "scientific survey" of the Bhojshala-Kamal Moula mosque complex within six weeks.
- According to ASI, a detailed survey of the complex and its peripheral area is in progress using scientific tools, and the team is conducting detailed documentation of the entire monument.
 - Excavation, which is a very systematic and slow process, is also in progress, and more time will be needed to understand the nature of exposed portions of the structures.
 - On close examination of the monument, it is observed that later filling in the entrance porch is hiding the original features of the structure, and its removal is to be done very carefully, without causing any damage to the original structure, which is a slow and timetaking process.
- The ASI has requested the <u>National Geophysical Research Institute (NGRI)</u> to conduct a <u>Ground-Penetrating Radar (GPR) survey.</u>
 - A team from the NGRI and their scientists were surveying the entire area regularly, strictly complying with the directions passed by the High Court.

Note: The National Geophysical Research Institute (NGRI) is a geoscientific research organization established in 1961 under the Council of Scientific and Industrial Research (CSIR).

Ground-Penetrating Radar (GPR)

- Archiological Survey of India (ASI) uses GPR to produce a 3-D model of buried archaeological features.
- GPR operates by introducing a short radar impulse from a surface antenna and records the time and magnitude of return signals from the subsoil.
- Radar beam spreads like a cone, causing reflections before the antenna passes over the object.
- Radar beams spread out in a cone, leading to reflections that may not directly correspond to physical dimensions, creating false images.

Telecom Technology Development Fund (TTDF) | Rajasthan | 25 Apr 2024

Why in News?

Recently, C-DOT, the premier Telecom R&D Centre of the Department of Telecommunications (DoT), Government of India and Indian Institute of Technology, Jodhpur (IIT-J) signed an agreement for "Automated Service Management in 5G and Beyond Networks Using AI".

Key Points

- The agreement is signed under the <u>Telecom Technology Development Fund (TTDF)</u> of the **DoT**, which is designed for providing funding support to domestic companies and institutions involved in **technology design, development, commercialization of telecommunication products and solutions** to enable affordable broadband and mobile services in rural and remote areas.
- The primary objective is to develop AI frameworks for automated network management, fault detection, and diagnostic techniques by utilizing continuous information generated within the network like 5G.

The service will establish a real time 5G and Beyond testbed (in compliance with O-RAN) for the demonstration of the developed automated network management and slicing techniques in conjunction with specific application use-cases such as smart metering, remotely operated vehicles, etc.

Open-RAN

- It is not a technology, but rather an ongoing shift in mobile network architecture that allows networks to be built using subcomponents from a variety of vendors.
- O-RAN has an open, multi-vendor architecture for deploying mobile networks, as opposed to the single-vendor proprietary architecture.
- O-RAN uses software to make hardware manufactured by different companies work together.
- The key concept of Open RAN is "opening" the protocols and interfaces between the various subcomponents (radios, hardware and software) in the RAN.

Haryana RERA Imposes Penalty on Countrywide Promoters | Visio Haryana | 25 Apr 2024

Why in News?

Recently, Haryana real estate regulatory authority (HRERA), Gurugram, has imposed a penalty of Rs 50 lakh on Countrywide Promoters Private Limited for publishing a misleading advertisement.

Key Points

- According to the authority, despite mandatory provisions under Section 11(2) and 13(1) of the Real Estate (Regulation and Development) Act 2016 the promoter did not describe the details in a proper manner in the advertisement, which is a punishable offence under the Section 61 of
- Countrywide Promoters Private Limited is developing an affordable plotted colony under Deen Dayal Jan Awas Yoina Affordable Plotted Housing Policy 2016 after it obtained RERA registration in 2021.

Haryana Real Estate Regulatory Authority (HRERA)

- Under the Real Estate (Regulation and Development) Act, 2016, Government of Haryana has notified The Haryana Real Estate (Regulation and Development) Rules, 2017 which came into force from 28 July 2017.
- Its objectives is as follows:
 - To regulate the real estate sector for its harmonious growth and development.
 - To bring transparency in the dealings between the promoters of real estate projects and buyers of apartments.
 - To ensure that the real estate projects are completed within the prescribed time frame
 - To resolve disputes relating to the projects expeditiously.
 - To enforce the provisions of law and the orders of the Authority.

Real Estate (Regulation and Development) Act (RERA), 2016

- It is an act passed by the Parliament in 2016 that came into effect fully from 1st May, 2017.
- It seeks to protect home-buyers as well as boost investments in the real estate sector by bringing efficiency and transparency in the sale/purchase of real estate.
- The Act establishes Real Estate Regulatory Authority (RERA) in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute resolution.

Lightest Bullet Proof Jacket | Uttar Pradesh | 25 Apr 2024

Why in News?

<u>Defence Research and Development Organisation (DRDO)</u>'s **Defence Materials and Stores Research and Development Establishment (DMSRDE)**, Kanpur has successfully developed the lightest Bullet Proof Jacket in the country for protection against Level 6 of BIS 17051 ammunition.

Key Points

- This bullet proof jacket was successfully tested at Terminal Ballistics Research Laboratory (TBRL) Chandigarh.
- This jacket is based upon a new design approach, where novel material along with new processes have been used.
- The front **Hard Armour Panel (HAP)** of this jacket defeats multiple hits in both ICW (Inconjunction with) and Standalone design.
- The ergonomically designed front HAP is made up of monolithic ceramic plate with polymer backing which enhances the wearability and comfort during the operation.

Terminal Ballistics Research Laboratory (TBRL)

■ TBRL is an important **DRDO lab based in Chandigarh** and it is actively involved in development, production, processing and characterisation of different high explosive compositions, Blast, Lethality and Fragmentation studies of warheads, shells and other ammunitions, Captive flight testing of Bombs, Missiles and Airborne systems, Ballistics evaluation of various protective system like body armour, vehicle armour and helmets against small arm ammunition etc.

Bird Flu Outbreak | Jharkhand | 25 Apr 2024

Why in News?

Recently, The **Jharkhand government** sounded an alert after multiple cases of <u>bird flu</u>, also called **Avian flu**, were reported in a state-run **poultry farm in Ranchi**.

Key Points

- Around 4000 birds, including chickens, were culled, and hundreds of eggs were also destroyed after the cases were confirmed at the Regional Poultry Farm in Hotwar in the state capital.
- An order detailing Standard Operating Procedures, issued by the government stated that the culling of remaining poultry at the Regional Poultry Farm will be conducted in the coming days and will be disposed of through scientific methods.
 - Officials have been directed to conduct a survey within a radius of 1 kilometre from the epicentre to find infections and proceed with culling. They have also been asked to make a map of the 10 km area and mark it as a surveillance zone.
 - The Union Ministry of Fisheries, Animal Husbandry, and Dairying has asked the state to take all measures to contain its spread.

Avian influenza

- Often referred to as bird flu, is a highly contagious viral infection that primarily affects birds, particularly wild birds and domestic poultry.
- In 1996, highly pathogenic avian influenza H5N1 virus was first identified in domestic waterfowl in Southern China. The virus is named A/goose/Guangdong/1/1996.
- Transmission to Humans and Related Symptoms:
 - Human cases of H5N1 avian influenza occur occasionally, but it is difficult to transmit the
 infection from person to person. As per World Health Organisation(WHO), when people
 do become infected, the mortality rate is about 60%.
 - It can range from mild flu-like symptoms, including fever, cough, and muscle aches, to severe respiratory issues like pneumonia, difficulty breathing, and even cognitive problems such as altered mental status and seizures.

