1. Gene Therapy for Haemophilia: India has achieved a significant milestone in gene therapy with the successful first-in-human trial for **Haemophilia** conducted by Bengaluru's **BRIC-inStem.**

- **About BRIC-inStem**: A leading research institute, driving India's progress in regenerative and preventive healthcare.
  - It has developed life-saving innovations like the germicidal anti-viral mask during COVID-19 and the Kisan Kavach, a device protecting farmers from toxic pesticides.
- **About Haemophilia :** An inherited bleeding disorder where blood doesn't clot properly, leading to spontaneous or injury-related bleeding.
  - **Types:** Hemophilia A (Classic Hemophilia) and Hemophilia B (Christmas Disease)
  - **World Haemophilia Day:** April 17th.
  - **Clotting Factors:** Blood contains clotting factors (Factor VIII or IX); a deficiency causes haemophilia.
  - **Causes:** Mutations in genes responsible for clotting factor production.
  - **Symptoms:** Bleeding in joints, muscles, skin, oral bleeding, and bleeding after tooth extraction or vaccination.

2. **Last-Line antibiotics**: Recently, Indian infectious disease experts warned that the overuse of powerful antibiotics is accelerating **antimicrobial resistance (AMR),** making vital last-line treatments ineffective.

•**Antimicrobial resistance (AMR):** AMR in a person occurs when **micro-organism (bacteria, viruses, fungi and parasites)** change over time and no longer respond to medicines designed to inhibit or kill them.

- It makes infections harder to treat and increasing the risk of disease spread, severe illness and death.
- These micro-organisms are often known as **"superbugs".**

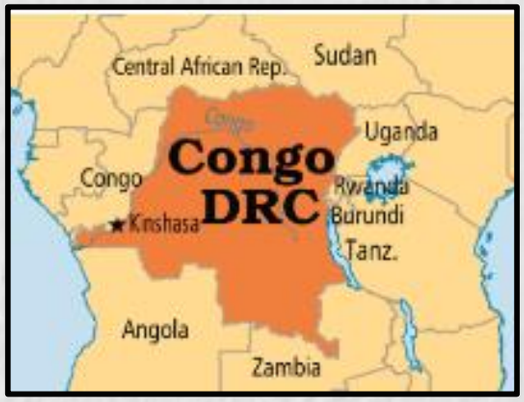
- **Last-mile antibiotics:** They are the 'last line of defence' for antibiotic resistant pathogen infections.
- **New Antibiotics: Cefiderocol** and **Cefepime-zidebactam** are expected in India soon.
  - These drugs should only be used as last-resort treatments.
  - Calls for the implementation of antibiotic stewardship protocols and strict regulatory measures to prevent misuse.

3. Adjusted Gross Revenue (AGR) : Recently, Bharti Airtel formally requested the Department of Telecommunications (DoT) to convert its deferred Adjusted Gross Revenue (AGR) dues, estimated at approximately ₹40,000 crore, into equity.

- **About AGR :** A metric used to calculate the revenue telecom operators must share with the government through spectrum usage or licensing charges.
  - Telecom operators must share a percentage of their AGR with the Department of Telecommunications.
- **AGR Calculation & Dispute**:
  - The Department of Telecom includes all revenues, including non-telecom earnings like interest and asset sales, in AGR.
  - Telecom companies argue AGR should only cover telecom service revenues.
  - In October 2019, the Supreme Court upheld the government's view, expanding AGR to include all revenues, except termination fees and roaming charges.

4. Kinshasa : According to **World Weather Attribution (WWA**), the extreme flooding in **Kinshasa, Democratic Republic of Congo (DRC)**, intensified by climate change, underscores the increasing frequency of heavy rainfall in Central Africa, with similar events anticipated every two years.

- **About Kinhasa:** Capital of the Democratic Republic of Congo (DRC), the most populous city, and the third-largest metropolitan area in Africa. The **Ndjili and Lukaya** rivers flow through the city. At least 2% of the population live in flood-prone areas, with inadequate urban flood infrastructure.



- **About WWA:** A global alliance of climate researchers that quickly assesses extreme weather events to determine climate change's impact.
  - **Founded**: 2015 by Dr. Geert Jan van Oldenborgh and Dr. Friederike Otto
  - **Objective**: To provide timely, scientifically rigorous data on the link between extreme weather and climate change
  - **Partners**: Environmental Change Institute (Oxford), Royal Netherlands Meteorological Institute (KNMI), Laboratoire des Sciences du Climat et de l'Environment (LSCE)

5. India-US Trade Agreement: According to the US Treasury Secretary, India could soon become the first country to sign a bilateral trade agreement (BTA) with the United States.

- **India-US Bilateral Trade Agreement (BTA)**
  - India and the U.S. have agreed to negotiate a multi-sector BTA by fall 2025.
  - The BTA was mentioned in the February 13, 2025, Joint Leaders Statement.
  - Both countries are WTO members, so the agreement must comply with WTO trade laws.
  - The Most Favoured Nation (MFN) principle limits preferential treatment unless specified by WTO rules.
  - The agreement could affect tariff rates, market access, and trade volumes between India and the U.S.

6. State Environment Impact Assessment Authority (SEIAA): In a recent National Green Tribunal (NGT) hearing, the Assam government presented its case regarding the environmental clearance (EC) for the commando battalion camp on forest land in Hailakandi district.

  - The government claimed the camp qualifies as an 'educational institution' and is exempt from environmental clearance under the 2025 notification.

- **About SEIAA**
  - **Established by:** Ministry of Environment, Forest and Climate Change (MoEFCC) under EIA Notification 2006.
  - **Role:** Acts as a regulatory authority for environmental clearances at the state level.
  - **Function:** Reviews and clears project proposals with significant environmental impact, based on SEAC recommendations.

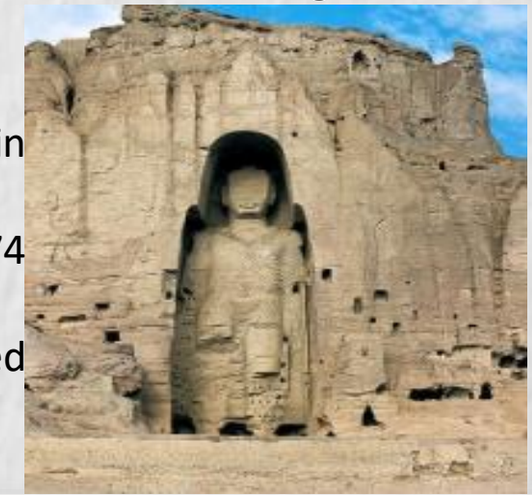
7. Indian Telecom Services Performance Indicator Report : TRAI has recently published the **"Indian Telecom Services Performance Indicator Report,"** offering a detailed overview of the telecom services landscape in India.

- **About Report**: The report outlines key trends and developments in **Telecom Services**, **Cable TV**, **DTH**, and **Radio Broadcasting sectors**, based on data from service providers.
- **Key quality benchmarks set by TRAI:**
  - **Outage Reporting:** 100% within 24 hours, **Point of Interconnection (POI) Congestion:** ≤ 0.5%, **Latency (4G/5G):** ≤ 75 ms, **Packet Drop (4G/5G):** ≤ 3%.

- **Major findings:**
  - **Total Telecom Subscribers**: Slight decrease of 0.06% to 1,190 million. Rural subscribers dropped to 44%.
  - **Wireless Subscribers**: Declined 0.27% to 1,151 million. Wireless tele-density fell from 82% to 81%. Urban stable at 626 million, rural dropped to 524 million.
  - **Wireline Growth**: Increased by 6% to 39 million. Wireline tele-density grew from 2.5% to 2.80%.
  - **Broadband & Internet**: Total internet subscribers decreased by 0.14%. Rural internet grew to 407 million, while urban remained higher at 563 million.
  - **Revenue Growth**: Gross revenue up by 5% to ₹96000 crore. AGR grew by 3.48% to ₹78000 crore. License fees increased by 3.50%.

8. Bamiyan Buddhas: Recently, the Taliban has changed its stance on heritage sites in Afghanistan**.** Despite calling for the protection of ancient artifacts months before their 2021 takeover, sparking skepticism, the group now pledges to preserve the nation's cultural heritage.

- **Destruction by the Taliban:** In February 2001, the Taliban declared the statues “un-Islamic” and systematically destroyed them with explosives over 25 days.
  - This act of cultural destruction is considered one of the most infamous in modern history.
- **Post-Destruction:** Despite the devastation, the Bamiyan Valley was designated a UNESCO World Heritage Site in 2003.
  - In 2021, a 3D holographic projection temporarily recreated the **Salsal** statue, offering a modern way to engage with the lost heritage.
- **About Bamiyan Buddhas**
  - Carved in the 6th century CE, the Bamiyan Buddhas were located in Bamiyan Valley, Afghanistan.
  - The two monumental statues, **Salsal** (115 feet) and **Shamama** (174 feet), were iconic representations of Buddhist art.
  - Exemplifying the **Gandhara School of Buddhist Art,** they showcased a unique blend of Indian, Persian, and Greco-Roman influences.



- These statues were key symbols of the spread of Buddhism across Central and South Asia between the 1st and 13th centuries.
- **Cultural Fusion:** The statues embodied a harmonious mix of Gupta, Sassanian, and Hellenistic art forms, reflecting a significant confluence of ancient civilizations.

9. Chlorpyrifos: Recently, the COPs (Conferences of the Parties) for the Basel, Rotterdam, and Stockholm Conventions are being held in Geneva, focusing on addressing hazardous chemicals, including chlorpyrifos.

- **About Chlorpyrifos:** Classified as **'moderately hazardous'** by the **World Health Organization**.
  - **Banned in over 40 countries**, yet remains approved for use in **India** on **18 crops**.
  - Associated with severe health risks, including: **Neurotoxicity**, **Reproductive toxicity** and **Irreversible brain damage** in unborn children
  - Contributes to **widespread environmental contamination** due to its high mobility.