

**PRELIMS EDGE 2025****11-07-2025****PLACES IN NEWS****Bulgaria**

- It is located in the **south eastern region of the European continent, occupying the eastern part of the Balkan Peninsula.**
- **Bordered by:** It is bordered by 5 countries: by Romania in the north; by Turkey and Greece in the south; by North Macedonia in the southwest and by Serbia in the west. It is bounded by the Black Sea in the east.
- **Mountain Ranges:** The Balkan Mountains cut across the central part of the country, while the Rhodope Mountains run through southern

Bulgaria, along its border with Greece.

- The highest point in the country, located in the Rila Mountains, is Musala Mt (at 9,594 ft.)
- **Rivers:** Major rivers include the Danube River, as it forms the northern border with Romania, and the Iskur, Maritsa, Struma, Tundzha and Yantra rivers.
- **Climate:** Most of Bulgaria has a moderate continental climate, which is tempered by Mediterranean influences in the south.
- **Capital:** Sofia

TERMS IN NEWS**Accelerator Mass Spectrometry (AMS) Dating**

- It is a **precise method for measuring the radioactive isotope values of Carbon-14 (C-14).**

- It involves accelerating the ions to extraordinarily high kinetic energies followed by mass analysis.
- It is used primarily in **determining carbon 14 content of archaeological artifacts and geological samples.**
- It detects atoms of specific elements according to their atomic weights.
- There are essentially two parts in the process of radiocarbon dating through accelerator mass spectrometry.
- The first part involves accelerating the ions to extraordinarily high kinetic energies, and the subsequent step involves mass analysis.
- **Applications:** It is most widely used for isotope studies of ^{14}C , which has applications in a variety of fields such as radiocarbon dating, climate studies, and biomedical analysis.

Advantages

- **Sample size:** Accelerator mass spectrometers need only as little as 20 milligrams and as high as 500 milligrams for certain samples whereas conventional methods need at least 10 grams in samples.
- **Time:** It takes less time to analyze samples for carbon 14 content compared to radiometric dating methods that can take one or two days.
- AMS measurements usually achieve higher precision than radiometric dating method.

Carbon Border Adjustment Mechanism

- It is a European Union (EU) tariff on carbon-intensive products.
- It is a new EU instrument for preventing carbon leakage, that is, the shifting of the production of goods to non-EU countries where there is a lower or no carbon cost associated with their production.
- **Purpose:** To put a fair price on the carbon emitted during the production of carbon-intensive goods that are entering the EU and to encourage cleaner industrial production in non-EU countries.
- By confirming that a price has been paid for the embedded carbon emissions generated in the production of certain goods imported into the EU, the CBAM will ensure the carbon price of imports is equivalent to the carbon price of domestic production, and that the EU's climate objectives are not undermined.
- Imports mean any imports to the EU from outside the EU, including e.g., imports of goods ordered online and imports of gifts.



- The CBAM is designed to be compatible with WTO rules.

Carbon Certificates:

- If implemented as planned, EU importers will have to buy carbon certificates corresponding to the carbon price that would have been paid in the EU if the goods had been produced locally.
- The price of the certificates would be calculated according to the auction prices in the EU carbon credit market.
- The number of certificates required would be defined yearly by the quantity of goods and the embedded emissions in those goods imported into the EU.
- EU importers will declare the emissions embedded in their imports and surrender the corresponding number of certificates each year.
- If importers can prove that a carbon price has already been paid during the production of the imported goods, the corresponding amount can be deducted.
- Companies in countries with a domestic carbon pricing regime equivalent to the EU's will be able to export to the EU without buying CBAM certificates.

Implementation Timeline:

- CBAM will apply in its definitive regime from 2026, while the current transitional phase lasts between 2023 and 2025.

- The CBAM commenced in its transitional phase as of 1 October 2023.
- Only reporting obligations arise during the transitional period, and financial obligations apply from 2026.
- Coverage: CBAM will initially cover several specific products in some of the most carbon-intensive sectors at risk of "carbon leakage": iron and steel (including some downstream products such as nuts and bolts), cement, fertilizers, aluminum, electricity, and hydrogen.

SCHEMES IN NEWS

Broadcasting Infrastructure and Network Development (BIND) Scheme



- It is a Central Sector Scheme that aims to **provide financial support to Prasar Bharati (All India Radio (AIR) and Doordarshan (DD) for expenses related to expansion and upgradation of its broadcasting infrastructure, content development and civil work related to the organization.**

- It enables the public broadcaster to undertake a **major upgradation of its facilities with better infrastructure** which will widen its reach, including in the LWE, border and strategic areas and provide high-quality content to the viewers.
- It also **focuses on development of high-quality content for both domestic and international audiences.**
- It ensures the availability of diverse content to the viewers by upgradation of the capacity of the DTH platform to accommodate more channels.
- It has potential to generate indirect employment by way of manufacturing and services related to the supply and installation of broadcast equipment.
- The Scheme will increase coverage of AIR FM transmitters in the country to 66% by geographical area and 80% by population up from 59% and 68% respectively

SPECIES IN NEWS

Kharai Camels



- They are a rare and unique breed of **dromedary camel** (with a single hump).
- They derive their name from the local term “Khara,” meaning saline, reflecting its **adaptability to both desert and coastal ecosystems.**
- They are also known as the **“Swimming Camel,”** it can traverse long distances across water.
- **Habitat:** They are endemic to the coastal regions of Kutch in Gujarat state.

Features

- They can swim up to 3 km in the open deep seas and have webbed feet for swimming.
- **Diet:** Their diet includes various plants, shrubs and mangroves.
- They have a strong digestive system to tolerate salty vegetation.
- **Ecological role:** Their grazing is a pollinating process that helps to regenerate the mangrove forests.
- The camel’s milk is rich in nutrients and has potential therapeutic benefits.
- **Conservation:** They have been preserved by the Rabari and Fakirani Jat tribes (the camel pastoralist) for over 400 years.

Threats:

- Expanding salt pans have eaten up large tracts of dense and thriving mangroves
- Industrial activities
- Climate change

IUCN Status: Endangered

PRACTICE QUESTIONS

Q1: Which among the following countries do not share borders with Bulgaria?

- A. Greece
- B. Turkey
- C. Romania
- D. Albania

Q2 : Consider the following statements regarding Accelerator Mass Spectrometry (AMS) Dating

1. It is a precise method for measuring the radioactive isotope values of Carbon-14 (C-14).
2. It is used primarily in determining carbon 14 content of archaeological artifacts and geological samples.

How many of the above statements are correct?

- A. Only Statement 1
- B. Only Statement 2
- C. Both the statements
- D. None of the Above

Q3 : Consider the following statements regarding Kharai Camels

1. They derive their name from the local term “Khara,” meaning saline, reflecting its adaptability to both desert and coastal ecosystems.
2. They are endemic to the coastal regions of Orissa and Bengal
3. The camel’s milk is rich in nutrients and has potential therapeutic benefits.

How many of the above statements are correct?

- A. Only One
- B. Only Two
- C. All of the Above
- D. None of the Above

Q4: The Carbon Border Adjustment Mechanism is a controversial Carbon Credit programme launched by which of the following?

- A. European Union
- B. USA
- C. Japan
- D. China

Q5: Consider the following statements regarding Broadcasting Infrastructure and Network Development (BIND) Scheme

1. It is a Central Sector Scheme that aims to provide financial support to Prasar Bharati for expenses related to expansion and upgradation of its broadcasting infrastructure, content development and civil work related to the organization.
2. It enables the public broadcaster to undertake a major upgradation of its facilities with better infrastructure which will widen its reach.
3. It also focuses on development of high-quality content for both domestic and international audiences

How many of the above statements are correct?

1. Only One
2. Only Two
3. All of the Above
4. None of the Above

Answers

1. D
2. C
3. B
4. A
5. C

