

ARTICLE 370 ABROGATION UPHELD

Why in news?

- The Supreme Court in a 5-0 unanimous ruling upheld the Centre's abrogation of Article 370 of the Constitution.

Article 370

- **About**
 - Article 370 is the first article of **Part XXI of the Constitution** - 'Temporary, Transitional and Special Provisions'.
 - It exempts J&K from the application of the Constitution of India (except Article 1 and Article 370 itself) and permits the state to draft its own Constitution.
 - It restricts Parliament's legislative powers in respect of J&K and for extending a central law on subjects included in the Instrument of Accession (IoA), mere "consultation" with the state government is needed.
- **Timeline**

OCT 26, 1947: Following the invasion by tribesmen supported by Pak army, Maharaja Hari Singh sought Indian assistance, eventually leading him to sign Instrument of Accession (IoA).	1952: Delhi Agreement between Sheikh Abdullah and Prime Minister Jawaharlal Nehru expanded the relationship between India and J&K.
MAY 27, 1949: Constituent Assembly of India cleared draft Article 370, as per the terms in the IoA.	MAY 15, 1954: Art. 35A introduced through a Presidential Order to protect laws passed by state legislature regarding permanent residents.
MAY 1, 1951: Dr Karan Singh issued a proclamation convening the Constituent Assembly for the State.	NOV 17, 1957: Constitution of State of J&K adopted; came into force on Jan 26, 1958.

Abrogation of Article 370

- - On 5 August 2019, the Indian government revoked nearly all of Article 370 of the Indian constitution.
- On August 5th, the President issued **The Constitution (Application to Jammu And Kashmir) Order, 2019**.
 - This order replaced the term 'Constituent Assembly' from Article 370(3) with 'Legislative Assembly [of Jammu & Kashmir]'.
 - The Order technically amended the interpretation clause Article 367, not Article 370 itself (it used Article 370(1) to do so).
- Later, a Statutory Resolution was introduced in the Rajya Sabha that abrogated most of Article 370.

- This was possible without the Jammu & Kashmir Legislative Assembly's concurrence because the State was under President's rule.
- On 6 August, Parliament passed the Jammu and Kashmir Reorganisation Bill, 2019 that bifurcates the State into two Union Territories: Jammu & Kashmir and Ladakh.
 - The former is provided with a legislative assembly.

WHAT IS ARTICLE 356 OF THE INDIAN CONSTITUTION?

The Supreme Court recently held that the declaration of State emergency under Article 356 and the subsequent actions of the President should have a “reasonable nexus”.



About Article 356:

- Article 356 of the Constitution of India is based on Section 93 of the Government of India Act, 1935.
- According to Article 356, **President's Rule can be imposed on any state** of India on the **grounds of the failure of the constitutional machinery**.

This is of **two types**:

- If the **President receives a report from the state's Governor** or is otherwise convinced or satisfied that the state's situation is such that the **state government cannot carry on the governance according to the provisions of the Constitution**.
- **Article 365**: As per this Article, President's Rule can be imposed **if any state fails to comply with all directions given by the Union** on matters it is empowered to.
- In simple words, the President's Rule is when the **state government is suspended and the central government directly administers the state through the office of the Governor** (centrally appointed).
- **Parliamentary approval is necessary** for the imposition of the President's Rule in any state.

- **The proclamation of President's Rule should be approved in both Houses of Parliament within two months of its issue. The approval is by a simple majority.**
- **The President's Rule is initially for a period of six months. Later, it can be extended for a period of three years with parliamentary approval, every six months.**
- **The 44th Amendment to the Constitution (1978) brought in some constraints on the imposition of the President's Rule beyond a period of one year. It says that President's Rule cannot be extended beyond one year unless:**
 - **There is a national emergency in India.**
 - **The Election Commission of India certifies that it is necessary to continue the President's Rule in the state because of difficulties in conducting assembly elections in the state.**

What happens after the President's Rule is imposed?

- **The governor carries on with the administration of the state on behalf of the President. He or she takes the help of the state's Chief Secretary and other advisors/administrators whom he or she can appoint.**
- **The President has the power to declare that the state legislature's powers would be exercised by the Parliament.**
- **The state legislative assembly would be either suspended or dissolved by the President.**
- **When the Parliament is not in session, the President can promulgate ordinances with respect to the state's administration.**

Revocation of the President's Rule:

- **President's Rule can be revoked any time after such a proclamation has been made by a subsequent proclamation by the President.**
- **A proclamation of revocation does not require approval by Parliament.**

WHAT IS RADIOCARBON DATING?

Archaeologists have recently used radiocarbon dating to analyse the oldest true wooden frame saddle in East Asia, revealing how the rise of Mongolian steppe cultures was likely aided by advances in equestrian technology.



About Radiocarbon Dating:

- Radiocarbon dating, or **carbon-14 dating**, is a scientific method that can accurately determine the age of organic materials as old as approximately **60,000 years**.
- First developed in the late 1940s at the University of Chicago by Willard Libby, the technique is **based on the decay of the carbon-14 isotope** (Carbon-14 is a **radioactive isotope** of carbon).
- It has been used for historical studies and atmospheric science.
- It can be **used on any object that used to be alive**. That includes pieces of **animals, people, and plants**, but **also paper** that was made from reeds, **leather** made from **animal hides, logs** that were used to build houses, and so forth.

How does it work?

- **Carbon 14** is continually **being formed in the upper atmosphere** by the effect of cosmic ray neutrons on nitrogen 14 atoms. It is rapidly oxidized in air to form carbon dioxide **and enters the global carbon cycle**.
- **Plants and animals assimilate carbon 14** from carbon dioxide **throughout their lifetimes** into their tissues.
- **When they die**, the **carbon-14 starts to change into other atoms** over time.
- Scientists can estimate how long the organism has been dead by counting the **remaining carbon-14 atoms**.
- Carbon-14 has a **half-life of about 5,730 years**. That means half the atoms in a sample will change into other atoms, a process known as “decay,” in that amount of time.

EXERCISE VINBAX-2023

Recently, the Indian Armed Forces contingent comprising 45 personnel reached Hanoi, Vietnam to take part in the Joint Military Exercise VINBAX-2023.



About Exercise VINBAX-2023:

- It was **instituted in 2018** and the **first edition** was conducted at Jabalpur, Madhya Pradesh.
- It is an annual training event conducted **alternatively in India and Vietnam**.
- Last edition was conducted at **Chandimandir** Military Station in August 2022.
- This year's exercise will be conducted at **Hanoi, Vietnam**.
- The Indian contingent comprises 39 personnel from an **Engineer Regiment** of Bengal Engineer Group and six personnel of **Army Medical Corps** are participating.
- Aim of the exercise is to **foster collaborative partnership**, promote inter- operability and share best practices between the two sides under Chapter VII of United Nations Charter on Peacekeeping Operations.
- The exercise will be conducted as a Command Post Exercise cum Field Training Exercise with focus on deployment and employment of an Engineer Company and a Medical Team.
- Both sides will conduct technical military operations in accordance with scenarios akin to worldwide deployment of United Nations' contingents

LESSONS FROM COP28: HOW TO SAVE WHAT WE CAN

Context

- Recently, the United Nations Environment Programme (UNEP) released its **14th Emissions Gap Report (2023)**.

- The report was released just before the Conference of Parties (COP28) meeting in Dubai, highlighting the extent to which the world must reduce its carbon emissions to mitigate the global temperature increase.

Emissions Gas Report

- The emission gap measures the difference between what will be the world's emission level by adopting mitigation/adaptation measures as planned compared to what it should be to avoid climate shocks.
- This report gives details of how far the world at large is away from what is required to be done to limit temperature rise to 1.5 degrees Celsius by 2100 when compared to the temperature during the pre-industrial period.

Greenhouse Gases (GHGs) and their Origins

- GHGs mainly comprise of carbon dioxide (CO₂), methane, nitrous oxide, and other synthetic gases.
- CO₂ has a dominant share in the total GHGs and its effects can last for more than a century.
- Though methane is about 28 times more potent than CO₂, its generation is much lower than CO₂ and its ill-effects get wiped out in about 10 years.
- Most of the CO₂ that is being generated is through the burning of fossil fuels for power generation and process heat (43 per cent), transport (20 per cent), manufacturing and construction (18 per cent), buildings (8 per cent), and industry (5 per cent).

What Should be the Mitigation Plans Going Forward?

- **Transition in Power Generation**
 - To shift away from reliance on fossil fuels in power generation, a pivotal strategy involves adopting renewable sources.
 - Solar and wind energy emerge as key players in this transition.
- **Transformation in Transportation**

- Addressing the transportation sector **necessitates a shift towards electric and hydrogen-based vehicles.**
- This move is **essential for reducing dependence on traditional fossil fuels** in the quest for sustainability.
- **Address Industrial Sector Challenges**
 - The industrial sector poses a **unique challenge in the transition away from fossil fuels.**
 - This challenge is **particularly pronounced due to the high-intensity heat requirements of industries like iron and steel and aluminium.**
 - Current renewable energy sources face **limitations in meeting these demands, making the replacement of fossil fuels in this sector a formidable task.**
- **Climate Financing Mechanism Based on the Historical Responsibility**
 - Moving away from fossil fuels is a capital-intensive process and **developing countries are not able to fund such activities.**
 - Hence, there is a **need for the developed world to transfer not only finance but also technology.**
 - The **developed world is responsible for the excessive carbon footprints and it is only natural that they pay for the damage.**
 - Logically, it is the principle of **polluter pays** which should be applicable here.
 - Countries like the US have a **cumulative CO2 emission which is 25 per cent of the global emissions** and the corresponding figures for the EU and China are 22 per cent and 12.7 per cent, respectively.
 - As compared to this, **India's cumulative emissions are only 3 per cent. In per capita terms also, it is only 1.8 tons, where the world average is 4.7 tons.**

Conclusion

- Climate change is a global phenomenon affecting all countries equally. Therefore, **the world does not need unilateral mechanisms, rather a collective fight supported by rich nations.**

- The developing countries did not create the problem, **and have limited means to pay for a clean up and setting up mitigation plans.**
 - While there have been some positive developments on loss and damage fund, **there is still a long way to go to contain the rising temperature and rich countries must walk the talk on all that can be saved.**
-

HOW DO WEB BROWSERS WORK?

Web browsers translate code into the dynamic web pages that form the backbone of our online experiences.



About Web browsers:

- The browser is an **application that people use to send and receive messages** via the internet.
- It is a program that runs on your device, with its purpose being to fetch information in different formats from the internet and show it on the device.
- It also **does the reverse**, receiving your input (say, a click), translating it to code, and transmitting it to some other machine across the internet.
- In 1990, the English computer scientist **Tim Berners-Lee** introduced the concept of the World Wide Web also named ‘**WorldWideWeb**’.
- Modern web browsers have **multiple core components**
 - **Request and response**– When we enter a website’s address (in the form of the Uniform Resource Locator, or URL) into your browser’s address bar. The browser sends a request to a server, asking for the contents of the specific web page you’re interested in.
 - This request travels through a network of servers, upon reaching the server, the request is received and processed. The server then formulates a response containing the information (or data) required to construct the web page.

- **Deconstructing the response**– The response from the server is not a singular entity. Instead, it is an amalgam of various files. Typically, these files have **information encoded in three languages: HTML, CSS, and JavaScript.**
 - **Hypertext Markup Language (HTML):** It provides the architectural **blueprint of a webpage.**
 - **Cascading Style Sheets (CSS):** This information **imparts style and aesthetics** to the HTML structure by controlling attributes like colour schemes, fonts, spacing, and positioning. CSS ensures that the webpage comes into its unique visual identity.
 - **JavaScript:** It is the **dynamic engine**, making web pages interactive and responsive. It allows interactive elements **like pop-ups, forms, animations,** and real-time updates, creating an engaging user experience.
 - **Rendering**–This involves **deciphering the HTML** to understand the structural arrangement, applying CSS for stylistic finesse, and executing JavaScript to infuse interactivity.
 - **Managing data**– Browsers serve as adept custodians of your digital footprint, so they also **implement instruments like cookies** and cache to enhance your online experience.
 - Cookies are small snippets of **data stored on your computer** by websites you visit.
-