



## Current Affairs of the Day

### ‘Let dam committee continue for a year’

1. The Centre suggested to the Supreme Court to let the Mullaperiyar dam supervisory committee continue for a year, by which time the National Dam Safety Authority under the new Dam Safety Act will become fully functional.

#### An eye on dams

The Dam Safety Bill envisages the following functions for the National Dam Safety Authority:

- Liaise with State dam safety organisations and owners of dams for standardising safety-related data and practices
- Investigate dam failures and have the authority to fine States that are found amiss in implementing safety measures
- Look into “unresolved points of issue” between States which share dam territory and look to “eliminating potential causes for inter-state conflicts”



India has over 5,200 large dams; nearly 450 are under construction

2. “During the period of one year, when the National Dam Safety Authority becomes fully functional, the Supervisory Committee on Mullaperiyar Dam may continue its functioning as per the existing mandate in regulating the operations of the dam,” a note submitted by the Centre, represented by Additional Solicitor General Aishwarya Bhati, said.
3. The Centre suggested that the Chief Secretaries of Tamil Nadu and Kerala be made accountable in order to ensure that the decisions of the supervisory committee on the maintenance and safety of the dam are duly complied with by the two States. “To address the technical concerns of both the States, their Chief Secretaries may be requested to nominate technical experts to attend the meetings conducted by the supervisory committee,” the Centre recommended.
4. Once the National Dam Safety Authority is fully functional, the functions of the supervisory committee would be taken over by the authority and the committee could be dissolved.



## MAKING DAMS SAFE

### DAM DISASTER IN INDIA

Total number of dam disaster | **36**

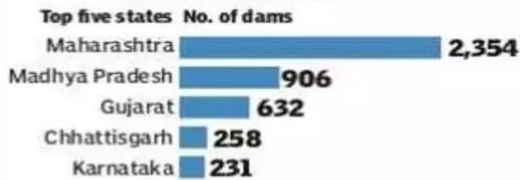
#### State-wise break-up



### LARGE DAMS IN INDIA

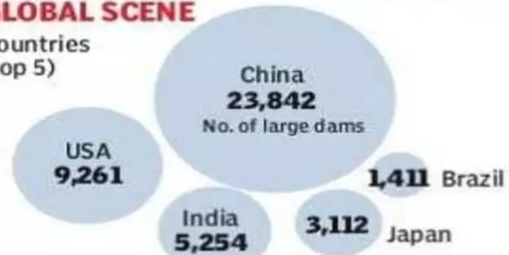


#### State-wise break-up



### GLOBAL SCENE

Countries (top 5)



- A large dam is classified as one with a maximum height of more than 15 metre from its deepest foundation to the crest
- A dam between 10 and 15 metre in height is also included in this category with certain conditions

(Source: International Commission on Large Dams, 2016 and Ministry of water resources)

## The recombinant variants of SARS-CoV-2

### How are variants created?

1. SARS-CoV-2, the virus that causes COVID-19, is an RNA virus that evolves by accumulating genetic errors in its genome. These errors are produced when the virus infects a person and makes copies of itself inside the host's cells.



PANGO NETWORK

2. The PANGO network, an open global consortium of researchers from across the world, provides a system for naming different lineages of SARS-CoV-2. These variants or lineages are widely followed by epidemiologists for tracking the evolution of SARS-CoV-2.



## Mutation and Recombination:

1. Apart from mutation, another process through which a virus increases its genetic diversity is recombination.
2. Recombination occurs when two different lineages of the virus co-infect the same cell in the host and exchange fragments of their individual genomes which generates a descendent variant having mutations that occurred in both the original lineages of the virus.
3. There is little evidence to suggest that recombinant lineages have a varied clinical outcome compared to the currently dominant Omicron variant.
4. The World Health Organization (WHO) has flagged the emergence of a new variant of the SARS-CoV-2 virus — the XE recombinant.

## Pango network:

1. The Pango dynamic nomenclature is a system for identifying SARS-CoV-2 genetic lineages of epidemiological relevance. It was first proposed in early April 2020 and a scientific paper describing the system was published in July 2020.
2. The Pango nomenclature is being used by researchers and public health agencies worldwide to track the transmission and spread of SARS-CoV-2, including variants of concern. You may have come across Pango lineage names such as B.1.1.7 and P.1 in the news.
3. Researchers at the Universities of Oxford and Edinburgh had formalised the Pango Network, an international team of experts to oversee the identification and naming of different lineages of the SARS-CoV-2 virus.
4. The Pango Network is a resource for scientists, public health specialists, journalists, and other stakeholders worldwide who need to communicate clearly about the different genetic types and variants of SARS-CoV-2.

## Process and significance:

1. The lineages and their names are decided by a small team in two committees, made up of experts from around the world who analyse virus genomic information and make a judgement about whether a new lineage is warranted.



2. Pango was inspired by the influenza virus naming system which is an established system that informs vaccination plans and public health decisions. The Pango nomenclature limits lineage names to a maximum of four levels of ancestry, to ensure lineage names don't get too long.
3. Most scientists studying the pandemic believe that we will not be able to completely eliminate COVID-19 and that vaccines will be key to the long-term management of the virus.
4. The Pango nomenclature has been created with this future in mind and provides a consistent system for tracking various SARS-CoV-2 outbreaks across the world.
5. By using Pango to categorise different lineages, professionals can better understand virus transmission and spread and make informed decisions about public health responses.

## The Indian Antarctic Bill and its various provisions

1. The Indian Antarctic Bill, 2022 introduced in the Lok Sabha envisages regulating visits and activities to the Antarctic. It also prescribes penal provisions for certain serious violations.
2. India has now established two standing research stations in Antarctica, Bharati and Maitri. The major thrust areas of the Indian Antarctic Programme are climate processes and links to climate change, environmental processes and conservation and polar technology.

### What does the Antarctic Bill envisage?

1. The Bill envisages regulating visits and activities to Antarctica as well as potential disputes that may arise among those present on the continent.
2. It also prescribes penal provisions for certain serious violations. If the Bill were to become law, private tours and expeditions to Antarctica would be prohibited without a permit or the written authorisation by a member country.
3. A member country is one of the 54 signatories of the Antarctic Treaty signed in 1959 — India joined the Treaty System in 1983.



4. The Bill also lays out a structure for government officials to inspect a vessel and conduct checks of research facilities.
5. The draft also directs the creation of a fund called the Antarctic fund that will be used for protecting the Antarctic environment.
6. The Bill extends the jurisdiction of Indian courts to Antarctica and lays out penal provisions for crimes on the continent by Indian citizens, foreign citizens who are a part of Indian expeditions or are in the precincts of Indian research stations.
7. The Bill also establishes a 'Committee on Antarctic Governance and Environmental Protection.'
8. The Bill prohibits mining, dredging and activities that threaten the pristine conditions of the continent. It bans any person, vessel or aircraft from disposing of waste in Antarctica and bars the testing of nuclear devices.

### Why was this Bill necessary?

1. India had been a signatory to the Antarctic Treaty since 1983, which obliged it to specify a set of laws governing portions of the continent where it had its research bases.
2. India is also a signatory to treaties such as the Convention on the Conservation of Antarctic Marine Living Resources and the Protocol on the Environmental Protection to the Antarctic Treaty — both of which enjoin India to help preserve the pristine nature of the continent.
3. In the future, the private ship and aviation industry will also start operations and promote tourism and fishing in Antarctica, which needs to be regulated.

### What is the history of the Antarctic Treaty?

1. The Antarctic Treaty came into force in 1961 after ratification by the 12 countries then active in Antarctic science.
2. The Treaty covers the area south of 60°S latitude. Its key objectives are to demilitarise Antarctica, to establish it as a zone free of nuclear tests and the disposal of radioactive waste, and to ensure that it is used for peaceful purposes only; to promote international scientific cooperation in Antarctica and to set aside disputes over territorial sovereignty.



3. India is a signatory to the Antarctic Treaty which came into force in June 1961. Of the 54 signatory countries, 29 have 'consultative' status that gives them voting rights. The Treaty parties meet each year at the Antarctic Treaty Consultative Meeting.

## SC to soon take up the case against the poll bonds scheme

Chief Justice of India N.V. Ramana told advocate Prashant Bhushan that the court had wanted to take up a long-pending challenge against the government's electoral bonds scheme.

### Unlimited donations

The electoral bonds scheme and amendments in the Finance Act of 2017 allow for "unlimited donations from individuals and foreign companies to political parties without any record of the sources of funding".

### 'Transparency in funds'

1. The government has, however, justified the scheme, saying it will promote transparency in funding and donation received by political parties. It had defended the scheme as a measure to eradicate black money in political funding.
2. "They [bonds] can be encashed by an eligible political party only through their bank accounts with the authorised bank.
3. The bonds do not have the name of the donor or the receiving political party, and only carry a unique hidden alphanumeric serial number as an in-built security feature," the government's 21-page affidavit had said.
4. The government had described the scheme as an "electoral reform" in a country moving towards a "cashless-digital economy".

### 'Anonymity legalised'

1. However, the Election Commission of India filed an affidavit in 2019, saying the government's scheme for political funding has legalised anonymity.
2. Electoral bonds protect the identity of political donors and parties receiving contributions.



3. Donors who contribute less than ₹20,000 to political parties through the purchase of electoral bonds need not provide their identity details, such as Permanent Account Number (PAN).

## Plea against gender bias in Succession Act

1. The Supreme Court asked the Centre to respond to a petition challenging provisions in the Hindu Succession Act as gender discriminatory.
2. The petition said Sections 15 and 16 of the Act, which deals with the inheritance of self-acquired and inherited properties of Hindu women, “unveils deeply rooted patriarchal ideology”.
3. The petition draws attention to Section 15 of the 1956 Act which actually mandates how the husband’s heirs have the first right over the self-acquired property of a woman who dies intestate. That is, the husband’s family comes first in the line of inheritance.

## ‘BrahMos sale to the Philippines a bilateral deal’

1. While the BrahMos supersonic cruise missile was a joint development between India and Russia, the sale of the systems to the Philippines was a transaction between the two countries, and India would be able to move ahead on a “bilateral basis”, India said, amid the global developments following the Russian war in Ukraine.

2. This is a frontline system in the Indian defence forces and the fact that we are willing to share was appreciated by the Philippines. There



is definitely in terms of the Philippines' self-defence national security requirements, a clear requirement on the part of their armed force for this capability.



3. To a question, if China may have an issue with the sale, the envoy referred to a Philippines statement that it saw it as a self-defence platform and so he did not see “how this can be a concern in other capitals.”

## ‘Rural India will create 1.2 cr. jobs in the dairy sector’

1. Rural India will create 1.2 crore new jobs in dairy-related activities in 10 years and these jobs would mean livelihood and food security for a large segment of the population in the country, said Amul MD.
2. The sector has the potential to generate a large number of new jobs, entrepreneurial opportunities, and sustainable incomes for families and therefore ensure food security.
3. The country’s dairy sector would do well for the next 50 years, especially when many neighbouring countries were facing milk shortages.
4. Software firm SAP and Amul announced a joint community outreach, focused on knowledge transfer and technology capacity building that would transform the lives of 1.5 million people in Gujarat.
5. More than one lakh children, adolescents and women will be helped with digital literacy and skilling through computer labs in schools.

## Consider having NGT benches in every state, SC tells Centre

1. Why cannot the National Green Tribunal (NGT) have its benches in every state to enable citizens to raise important issues of the environment without having to travel hundreds of kilometres to approach one of the five existing benches, the Supreme Court asked the Union government.
2. The SC emphasised that the principle of access to justice coupled with the idea of protecting the environment should guide the Centre in considering more zonal benches.
3. It will be very helpful for the litigants and would also lighten the burden of the existing benches. Most importantly, this will bring this important forum to the doorstep of the citizens.





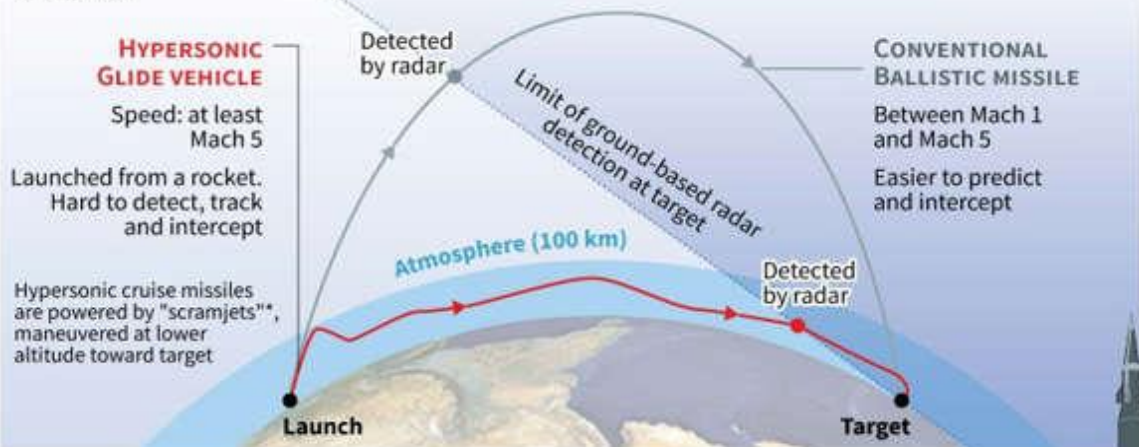
- The bench was hearing a petition challenging various provisions of the NGT Act, which gave unbridled power to the Centre in matters of the establishment of the tribunal and fixing the Supreme Court as the only appellate forum for contesting appeals arising out of the NGT orders.

## AUKUS to deepen cooperation on hypersonic missile

### Hypersonic weapons

Considered the next generation of arms with conventional or nuclear warheads that are hard to detect and can travel more than five times the speed of sound

#### TRAJECTORY AND DETECTION



#### GLOBAL HYPERSONIC WEAPONS PROGRAMMES

##### ADVANCED (latest developments)

- Russia had completed two launches of hypersonic cruise missiles, including one from submerged submarine in October
- US successfully tested a scramjet-powered hypersonic in September
- China launched a nuclear-capable hypersonic missile but missed target in August

##### DEVELOPING, COUNTRIES INCLUDE

- Australia
- India
- France
- Japan
- Germany

##### BASIC RESEARCH

- Iran
- South Korea
- Israel

North Korea claimed to have tested a hypersonic gliding missile (Hwasong-8) in September

Sources: Congressional Research Service/MDAA/UCS/Stratfor/KCNA/FT

\*Supersonic combustion ramjets



- In a step that enhances their security commitments and visibility in the Indo-Pacific, with a clear eye on the challenge posed by China's military assertiveness and technological advances, leaders of Australia, the United



Kingdom and the United States (AUKUS) have declared that they are commencing “new trilateral cooperation on hypersonics, counter-hypersonics, and electronic warfare capabilities”.

2. The three allies are also expanding their information-sharing and cooperation on defence innovation.
3. The three leaders also said they were pleased with the progress in our trilateral programme for Australia to establish a conventionally armed, nuclear-powered submarine capability.

<b>MAINS DAWP</b>	Q1. Will AUKUS upset the Indo-Pacific balance?
<b>MCQs</b>	Q1. Recently seen in the news <i>Pango network</i> is <ol style="list-style-type: none"><li>a. A network for conservation of Pangolins of India</li><li>b. Global spyware network</li><li>c. Ransomware that regularly attacked power infrastructure in Maharashtra in India</li><li>d. A system for identifying SARS-CoV-2 genetic lineages of epidemiological relevance</li></ol>