



# News Analysis (29 Nov, 2021)

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## Omicron: New Corona Variant

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### Why in News

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The World Health Organization has declared the recently-discovered B.1.1.529 strain of Covid-19, to be a variant of concern.

The virus was first detected in **Southern Africa** and it is **renamed Omicron**.



### Key Points

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- **About:**
  - Omicron is placed in the **most-troubling category of Covid-19 variants**, along with the **globally-dominant Delta plus** its weaker rivals Alpha, Beta and Gamma.
  - This variant has a **large number of mutations**. Some of them are cause for serious concern because they may allow the new variant to evade immunity obtained from a past infection or via a vaccine.
    - However, there are no reliable estimates of just how much more transmissible the Omicron variant is compared to previous strains of the virus
    - Apart from South Africa, Omicron has been detected in **Israel in people coming from Malawi; Botswana; Belgium and Hong Kong**.
- **Nomenclature:**
  - The WHO has decided to name the variants **after the letters of the Greek alphabet**, to avoid the **countries that first detected them being stigmatised**.
  - WHO selected the name Omicron, **instead of Nu or Xi**, the two letters between Mu and Omicron. This is because:
    - Xi happens to be a popular **surname in China** (avoiding 'causing offence to any cultural, social, national, regional, professional or ethnic groups).
    - Nu could have been confused with the **word 'new'**.
- **Situation In India:**
  - Seroprevalence studies indicate that a **large proportion of the population has already been exposed to the virus** providing some level of protection to subsequent infections.
    - Further, the immunisation campaign has gained momentum.
    - Approximately 44% of Indian adults have been fully vaccinated and 82% have received at least one dose.
  - Scientists believe that prior infection followed by one or two doses of vaccination may have a **larger protective effect** than two doses of the vaccination alone.

## Variants of Concern

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- A variant for which there is evidence of an **increase in transmissibility, more severe disease** (e.g., increased hospitalizations or deaths), **significant reduction in neutralization by antibodies** generated during previous infection or vaccination, **reduced effectiveness of treatments or vaccines**, or diagnostic detection failures.
- The new Variants could kick off **new wave(s) of epidemic transmission**.
- The WHO currently lists **5 variants of concern**:
  - **Omicron (B.1.1.529)**, identified in southern Africa in November 2021
  - **Delta (B.1.617.2)**, which emerged in India in late 2020 and spread around the world
  - **Gamma (P.1)**, which emerged in Brazil in late 2020
  - **Beta (B.1.351)**, which emerged in South Africa in early 2020
  - **Alpha (B.1.1.7)**, which merged in Britain in late 2020.

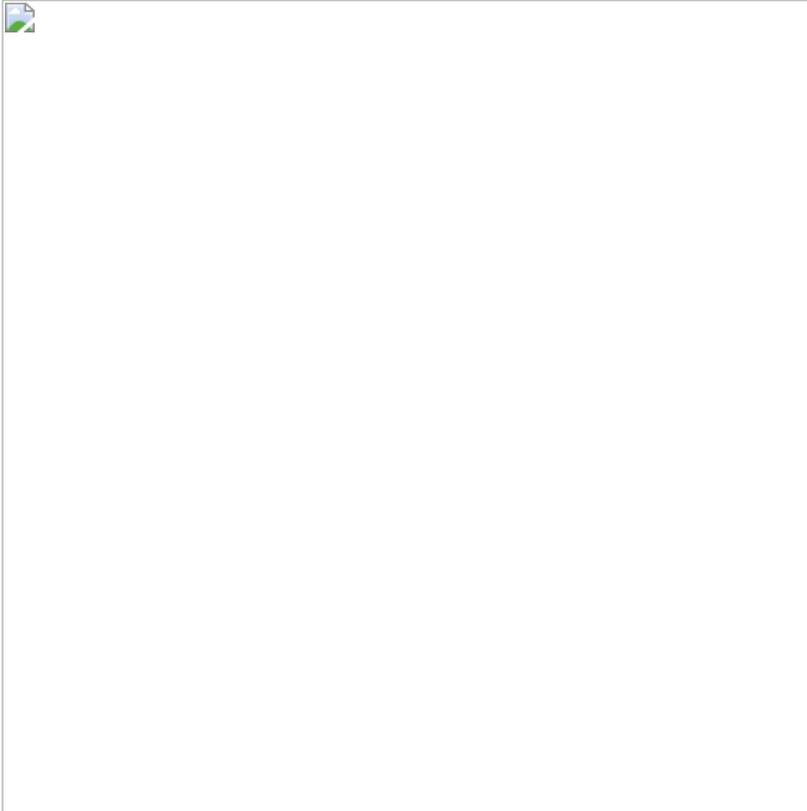
## Variants of Interest

- A variant **with specific genetic markers** that have been associated with changes to receptor binding, reduced neutralization by antibodies generated against previous infection or vaccination, reduced efficacy of treatments, potential diagnostic impact, or predicted increase in transmissibility or disease severity.

- There are currently two:
  - **Mu (B.1.621)**, which emerged in Colombia in early 2021
  - **Lambda (C.37)**, which emerged in Peru in late 2020

### **Mutation, Variant and Strain**

- When a virus replicates it doesn't always manage to produce an exact copy of itself.
- This means that, over time, the virus may start to differ slightly in terms of its genetic sequence.



- Any changes to the viral genetic sequence during this process is known as a **Mutation**.
- Viruses with new mutations are sometimes called **Variants**. Variants can differ by one or multiple mutations.
- When a new variant has different functional properties to the original virus and becomes established in a population, it is sometimes referred to as a **New Strain of the virus**.  
**All strains are variants, but not all variants are strains.**

### **Way Forward**

- **Scientific approach to Travel Ban:** India should take a **risk-based and scientific approach** when considering travel curbs in light of the variant.
- **Reinforcing Public Health Measures:** New emerging variants signify public health measures are still important.  
 For example, distancing, mask-wearing, avoiding crowded spaces, and good ventilation.
- **Lesson Learnt:** An important lesson the **pandemic** has taught us in India is the critical importance of biomedical research and capacity building – for saving lives and economic growth.

**Source: IE**

# Draft Framework for Cross Border Insolvency

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## Why in News

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Recently, the Ministry of Corporate Affairs (MCA) has published a draft framework for **cross border insolvency** proceedings based on the **UNCITRAL (United Nations Commission on International Trade Law)** model under the **Insolvency and Bankruptcy Code (IBC)**.

- It is proposed **to be made applicable for both corporate debtors as well as personal guarantors** to such debtors.
- A personal guarantor is a person or an entity that promises the payment of another person's debt, in case the latter fails to pay it off.

## Key Points

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- **About:**
  - **Cross Border Insolvency Proceedings:**
    - It is relevant for the resolution of distressed companies with assets and liabilities across **multiple jurisdictions**.
    - Broadly, the cross-border insolvency process **pertains to those debtors having assets and creditors overseas**.
    - A framework for cross border insolvency proceedings allows for the **location of such a company's foreign assets**, the **identification of creditors and their claims** and **establishing payment towards claims** as well as a process for coordination between courts in different countries.
    - The need for having robust institutional arrangements to **deal with cross-border insolvency issues has gained momentum in various jurisdictions**, particularly under the aegis of UNCITRAL Model Law, during the last few decades.
  - **Current Status in IBC:**

While foreign creditors can make claims against a domestic company, the IBC currently **does not allow for automatic recognition of any insolvency proceedings in other countries**.
- **Significance:**
  - The inclusion of a cross-border insolvency chapter in the IBC **would be a major step forward and would bring the law on par with that of matured jurisdictions**.
  - It would **enable Indian firms to claim their dues from foreign companies**, while allowing foreign creditors to recover loans from Indian companies.
  - It will **help foreign branches of Indian banks to recover their dues in India**.
  - It will **also bring overseas assets of a domestic corporate debtor into consideration of insolvency resolution in India** and will avoid delays in resolution of stressed assets.

- **UNCITRAL Model Law:**

- The UNCITRAL model is the **most widely accepted legal framework** to deal with cross-border insolvency issues.

It has been **adopted by 49 countries**, including the UK, the US, South Africa, South Korea and Singapore.

- The model law deals with **four major principles of cross-border insolvency:**

- **Direct access to foreign insolvency professionals and foreign creditors** to participate in or commence domestic insolvency proceedings against a defaulting debtor.

- **Recognition of foreign proceedings** & provision of remedies.

- **Cooperation between domestic and foreign courts** & domestic and foreign insolvency practitioners.

- **Coordination between two or more concurrent insolvency proceedings** in different countries. The main proceeding is determined by the concept of **Centre of Main Interest (COMI)**.

The COMI for a company is determined based on where the company conducts its business on a regular basis and the location of its registered office.

- It is **designed to assist States in reforming and modernizing their laws on arbitral procedure** so as to take into account the particular features and needs of international commercial arbitration.

- **Difference between Indian framework's and Model Law:**

- Many countries that adopt the UNCITRAL model law do make certain changes to suit their domestic requirements.

- Indian cross border insolvency framework **excludes financial service providers from being subjected to cross border insolvency proceedings**, noting that many countries “exempt businesses providing critical financial services, such as banks and insurance companies, from the provisions of cross- border insolvency frameworks.”

- The companies undergoing the **Pre-packaged Insolvency Resolution Process (PIRP)** be exempted from cross border insolvency proceedings as the provisions for PIRP have been introduced recently, and the “jurisprudence and practice under the pre-pack mechanism are at a nascent stage”.

The PIRP was introduced earlier this year under the IBC to permit speedy resolution of **Micro, Small and Medium Enterprises**.

## UNCITRAL

- It is the **core legal body of the United Nations system** in the **field of international trade law**.
- UNCITRAL was **established in 1966** with a recognition that international trade cooperation among States is an important factor in the promotion of friendly relations and, consequently, in the maintenance of peace and security.
- Through its several model laws, conventions, legislative guides and robust debates in working groups, UNCITRAL **has provided a valuable platform for countries to compare, examine, debate and adopt principles of international commercial and trade law** appropriate to their circumstances.
- Since its inception, **India is only one of eight countries** that has been a member of UNCITRAL.

## Insolvency and Bankruptcy Code

- It is a **reform enacted in 2016**. It amalgamates various laws relating to the insolvency resolution of business firms.
  - **Insolvency**: It is a situation where individuals or companies are unable to repay their outstanding debt.
  - **Bankruptcy**: It is a situation whereby a court of competent jurisdiction has declared a person or other entity insolvent, having passed appropriate orders to resolve it and protect the rights of the creditors. It is a legal declaration of one's inability to pay off debts.
- It **lays down clear-cut and faster insolvency proceedings to help creditors**, such as banks, recover dues and prevent bad loans, a key drag on the economy.

**Source: IE**

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## **Ganga Connect Exhibition: UK**

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### **Why in News**

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Recently, the **Ganga Connect exhibition** concluded in London on 25<sup>th</sup> November 2021.

- It was inaugurated in Glasgow, Scotland after the successful culmination of **COP-26 (Conference of parties)** on 12<sup>th</sup> November 2021.
- **10 key strategic initiatives** were announced during the exhibition

### **Key Points**

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- **About:**
  - It is a global exhibition **that will showcase multiple facets of the river basin and connect with interested parties.**
  - It has been a major effort of the **National Mission for Clean Ganga**, the High Commission of India and **C-Ganga (Centre for Ganga River Basin Management and Studies)** to engage with the international community of scientists, technology companies, policy makers, industry, investors and finance professionals.
- **Objective:**

To showcase the level of development in the **Ganga River basin** to a global community of environmental stakeholders..

- **Significance:**
  - **Creating Awareness:**
    - It is significant from the point of view of **preserving and protecting Ganga** and its ecosystem and creating widespread awareness about the river basin.
    - It demonstrates the **deep spiritual and philosophical connect** that Indians have with the river.
  - **Understanding Ecosystem:**

The Ganga Connect exhibition offers a **clear and deep understanding** of the size, magnitude and complexity of the **Ganga riverine ecosystem**.
  - **Enables Engagement:**

It **enables engagement with interested parties** and the diaspora who want to get involved in the rejuvenation, restoration and conservation of the river system.
  - **Development of Environmental Solution:**

It **emphasizes** on river Ganga as a major lab for global technology and the scientific community **to develop cutting-edge environmental solutions**.

### Key Initiatives Announced

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#### Ganga Connect UK Community Engagement Chapters

- The chapters established are: **Scotland – Ganga Connect, Wales –Ganga Connect, Midlands – Ganga Connect, London – Ganga Connect.**
- Each chapter will have conveners who will connect various interest groups with the NamamiGangeprogramme including scientists, technology companies, investors and community members.

#### Twinning of Rivers

It has been announced to share knowledge, best practices and experiences of river basin management including community engagement programmes.

#### Scotland – India Water Partnership

- This partnership builds upon the MOU (Memorandum of Understanding) of **National Mission for Clean Ganga** and Government of Scotland MOU of 2017.
- It will channel the high level of interest amongst **Scottish entities specialising in water into entering the Indian market and the Namami Gange programme** will act as a major platform for Scottish entities to enter the Indian market.

#### Impact Project using Arth Ganga Framework

- It will be developed on the model of rejuvenation and economic development of the **River Clyde in Glasgow**. It will include many aspects such as **sustainable tourism, river front development, sustainable transport and other activities.**
- It will **create significant livelihood opportunities and bring new economic activities** but in a manner that creates a model approach of environmentally sustainable development.

<b>Ganga Finance and Investments Forum</b>	<ul style="list-style-type: none"> <li>• A number of investors and finance companies have come together to establish the Ganga Finance and Investments Forum (GFIF) to develop state of the art <b>financial instruments</b> such as <b>river bonds, blue bonds, impact and outcome bonds, credit enhancement and guarantee instruments</b>.</li> <li>• It will also provide ongoing <b>support to NMCG and the Namami Gange programme</b> for continuous funding and project finance for various initiatives.</li> </ul>
<b>Environment Technology Verification (ETV) programme</b>	<ul style="list-style-type: none"> <li>• Three innovative technologies are selected and on-boarded onto the ETV programme:</li> <li>• This takes the total number of companies in the ETV programme to over 40 of which 14 are from the UK.</li> </ul>
<b>Tech &amp; Innovation Financing</b>	<p>To support the successful candidates a partnership with OPG Power Ventures, a company listed on the <b>AIM (Alternative Investment Fund)</b> segment of the London Stock Exchange, is being established that will create up to a Rs 30 crore facility to <b>fund technologies and innovations</b>.</p>
<b>UK-India Scientific Collaboration</b>	<p>A number of scientists and research institutions have agreed to come together to form a <b>knowledge pool for exchange of scientific and technological ideas</b> leading to development of collaborative research.</p>
<b>Collaboration bridge between India and the UK</b>	<p>Scientists and academics from various institutions have agreed to establish a collaboration bridge between India and the UK <b>to work meticulously on river rejuvenation and conservation</b>.</p>
<b>Global Youth for Ganga</b>	<ul style="list-style-type: none"> <li>• It will <b>engage in interdisciplinary discussions, raising worldwide awareness, and encouraging engagement in the Clean Ganga Mission</b>, bringing together young students, researchers and professionals across the globe.</li> <li>• The aim is to make Clean Ganga a reality and also to inspire the rest of the world to take similar initiatives in their states down to the very grassroot level.</li> </ul>
<b>Clean Ganga Charity</b>	<p>The charity set up process has been expedited and it will be set up soon with a view to start mobilising communities and friends of Ganga in the coming months.</p>

Source: PIB

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## 9th BRICS Science & Technology Ministers Meeting

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### Why in News

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Recently, India's **Minister for Science & Technology** chaired the **9<sup>th</sup> BRICS Science & Technology Ministers meeting**.

- Earlier, the Prime Minister chaired the **annual summit of the BRICS** which was held virtually.
- 2021 is an important landmark year in BRICS Cooperation as the grouping completed 15 years.

## Key Points

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- **Highlights of Address:**
  - **Global Innovation Index:** The member countries should work towards a rightful place for **BRICS (Brazil, Russia, India, China, and South Africa)** in the **Global Innovation Index**.
    - It can be achieved through further strengthening the cooperation in the field of **Science, Technology and Innovation (STI)**.
    - **BRICS Ranking in Global Innovation Index, 2021:** India (46), China (12), Russia (45), Brazil (57) and South Africa (61).
  - **Cooperation:** BRICS countries must come together and innovate cost effective, affordable, accessible, sustainable and scalable scientific solutions, as they face many similar and unique challenges.
- **BRICS Innovation Cooperation Action Plan (2021-24)**
  - **About:**
    - BRICS member countries have agreed to a **Science, Technology and Innovation (STI)-led BRICS Innovation Cooperation Action Plan (2021-24)** proposed by India during the 12<sup>th</sup> meeting of the grouping's science & technology steering committee.
    - It will **facilitate sharing of experiences** of each other's innovation ecosystem and networking of innovators and entrepreneurs.
  - **Thematic areas included:**

Transient Astronomical Events and Deep Survey Science, **Antimicrobial Resistance (AMR)**, **Big Data Analytics**, Innovation and Entrepreneurship on Photonic, Nanophotonics, and Metamaterials for Addressing Biomedicine, Agriculture, Food Industry, Energy Harvesting Issues etc.
  - In accordance with the plan BRICS Ministers and their representatives endorsed the **BRICS Science, Technology and Innovation Calendar of Activities 2020-2021**.

## BRICS

- BRICS is an acronym for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China, and South Africa**.
  - In 2001, the British Economist **Jim O'Neill** coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
  - The grouping was formalised during the first meeting of **BRIC Foreign Ministers in 2006**.
  - South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- It comprises 42% of the world's population, has 23% of the global **Gross Domestic Product (GDP)** and around 17% of the world trade.
- The **chairmanship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- The **BRICS Leaders' Summit** is convened annually.
- During the **Sixth BRICS Summit in Fortaleza (2014)** the leaders signed the Agreement establishing the **New Development Bank (NDB)**. They also signed the **BRICS Contingent Reserve Arrangement**.



**Source: PIB**

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## **SAFAR**

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### **Why in News**

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Recently, **SAFAR (System of Air Quality and Weather Forecast and Research)** has studied post Diwali Air Pollution in the **four Indian Cities** (Delhi, Ahmedabad, Mumbai and Pune).

- Air pollution during the Diwali period in 2021 was higher compared to 2020 in the three metropolitan cities of **Delhi, Ahmedabad and Mumbai, whereas** Pune was the **only city among the four** which had lower pollution levels.
- High PM in Delhi during the Diwali period **is due to high local emissions**, combined with the **biomass burning effect**.

### **Key Point**

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- **About:**
  - SAFAR is a national initiative introduced by the **Ministry of Earth Sciences (MoES)** to measure the air quality of a metropolitan city, by measuring the overall pollution level and the location-specific air quality of the city.
  - It is an integral part of **India's first Air Quality Early Warning System** operational in Delhi.
  - It monitors all weather parameters like **temperature, rainfall, humidity, wind speed, and wind direction, UV radiation, and solar radiation.**
  - The **World Meteorological Organization** has recognized SAFAR as a prototype activity on the basis of the high-quality control and standards maintained in its implementation.
- **Pollutants Monitored:**  
**PM2.5, PM10, Ozone, Carbon Monoxide (CO), Nitrogen Oxides (NOx), Sulfur Dioxide (SO2), Benzene, Toluene, Xylene, and Mercury.**
- **Developed By:**  
The system is indigenously developed by the **Indian Institute of Tropical Meteorology (IITM), Pune** and is operationalized by the **India Meteorological Department (IMD)**.  
IITM has a giant true color LED (Light Emitting Diode) display that gives out **a real-time Air Quality Index (AQI) on a 24x7 basis** with color-coding (along with 72 hours advance forecast).
- **Objectives:**
  - To **increase awareness among the general public regarding the air quality** in their city so that appropriate mitigation measures and systematic action can be taken up.
  - To help the policy-makers develop **mitigation strategies keeping in mind the nation's economic development.**
- **Significance:**  
It will **benefit cost savings** to several other sectors like agriculture, **aviation, infrastructure, disaster management, tourism**, etc. which directly or indirectly gets affected by air quality and weather.

### **Air Quality Index (AQI)**

- It is an index for reporting daily air quality. It displays the **changes in air pollution in the atmosphere.**
- It focuses on **health effects one might experience within a few hours or days after breathing polluted air.**
- AQI keeps a tab on **8 major air pollutants in the atmosphere namely,**
  - **Ground-level ozone,**
  - PM10,
  - PM2.5,
  - Carbon monoxide,
  - Sulfur dioxide,
  - Nitrogen dioxide,
  - Ammonia,
  - Lead,
- Ground-level ozone and airborne particles are the two pollutants that pose the greatest threat to human health in India.

**Source: DTE**

# National Cadet Corps

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## Why in News

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Recently, the **National Cadet Corps (NCC)** has observed the 73<sup>rd</sup> anniversary of its raising on 28<sup>th</sup> November.

- In August 2020, the Ministry of Defence approved the proposal to **Expand the National Cadet Corps (NCC) in border and coastal districts**.
- In March 2021, the Kerala High Court ordered the Central government to **amend the National Cadet Corps Act (NCC Act) 1948** which excludes transgender persons from joining the National Cadet Corps (NCC).

## Key Points

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- **About:**
  - The NCC was formed in 1948 (on the recommendation of **H. N. Kunzru Committee-1946**), and has its roots in British era uniformed youth entities like University Corps or University Officer Training Corps.
    - Its history can be traced back to the '**University Corps**', which was created under the **Indian Defence Act 1917** with an objective to make up for personnel shortage in the Indian **Army**.
    - The NCC also **expanded later on to include the Girls Division in 1949** to provide equal opportunities to women willing to serve the country's defences.
    - Currently it has a strength of around **14 lakh cadets** from Army, **Navy** and **Air Force** wings.
  - NCC is the largest **uniformed youth organisation in the world**. It **enrolls cadets at high school and college level** and also awards certificates on completion of various phases.
    - The NCC **cadets receive basic military training** at various levels and also have academic curriculum basics related to Armed forces and their functioning.
    - Various training camps, adventure activities and military training camps are an important aspect of NCC training.
- **Ministry:**

The NCC falls under the purview of the **Ministry of Defence** and is headed by a Director General of three-star military rank.

- **Significance:**

- NCC cadets have played an **important role over the years in relief efforts** during various emergency situations.
- During the ongoing **pandemic**, over 60,000 NCC cadets have been deployed for voluntary relief work in coordination with district and state authorities across the country.
- Contribution of cadets through various initiatives in **Exercise-Yogdan in the management of the Covid-19 pandemic** have been widely appreciated by the people across the country.
- The cadets participated wholeheartedly in '**Swachhta Abhiyan**', '**Mega Pollution Pakhwada**' and played a pivotal role in spreading awareness about various government initiatives like '**Digital Literacy**', '**International Day of Yoga**', 'Tree Plantation' and Covid-19 vaccination drive, etc.
- The multifaceted activities and varied curriculum of the NCC, provides unique opportunities to the youth for **self-development**.
- Many cadets have done the nation and the organisation proud by their remarkable **achievements in the field of sports and adventure**.
- The NCC continues its relentless efforts, towards moulding the present-day youth into responsible citizens of tomorrow.

**Source: PIB**

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## **Project SWADESH**

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### **Why in News**

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Recently, the **Department of Biotechnology (DBT)-National Brain Research Centre (DBT-NBRC)** has developed **Project SWADESH**, for managing Neurological disorders.

NBRC is the only institute in India dedicated to **Neuroscience Research and Education**.

### **Key Points**

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- **About:**

- It is the **first large-scale multimodal neuroimaging database** designed specifically for the Indian population with **big-data** architecture and analytics for various disease categories under one platform.
- It proposes a **big-data architecture** that manages and **analyzes six modules**, namely **neurodegenerative** [AD, Mild Cognitive Impairment (MCI), and **Parkinson's disease** (PD)], neuropsychiatric (schizophrenia and bipolar disorder), neurodevelopmental (autism and **epilepsy**), **Covid-19**-related disorders, other disorders, and healthy subjects.
- It is supported by **JAVA-based workflow environments and Python**. Backed by a dedicated storage system, it provides quality control, data analysis reports, and data backups.

**Python and Java** are both computer programming languages.

- **Significance:**

- It will be useful in conducting multimodal brain studies to understand **Alzheimer's disease** and several neurological disorders.
- Its development will facilitate the **integration of multi-site data and collaborative research worldwide.**



## Neurological Disorders

- **Meaning:**

Neurological disorders **are diseases of the central and peripheral nervous system.**

In other words, the brain, spinal cord, cranial nerves, peripheral nerves, nerve roots, autonomic nervous system, neuromuscular junction, and muscles.

- **Types:**
  - **Non-Communicable Neurological Disorders:** Stroke, Headache disorders, **Epilepsy**, **Cerebral palsy**, **Alzheimer's disease and other dementias**, Brain and central nervous system cancer, **Parkinson's disease**, **Multiple sclerosis**, Motor neuron diseases, and other neurological disorders.
  - **Communicable Neurological Disorders:** **Encephalitis**, **Meningitis**, Tetanus.
- **Injury-related Neurological Disorders:**
  - Traumatic brain injuries, Spinal cord injuries.
- **Indian Scenario**
  - Neurological disorders **contribute 10% of the total disease burden in India.**
  - There is a growing burden of **non-communicable neurological disorders** in the country, which is mainly attributable to the ageing of the population.
  - The contribution of non-communicable neurological disorders to total DALYs (disability adjusted life-years) in India **doubled from 4% in 1990 to 8.2% in 2019**, and the contribution of **injury-related neurological disorders** **increased from 0.2% to 0.6%.**
    - Burden, high blood pressure, **air pollution**, dietary risks, high fasting plasma glucose, and high body-mass index are the leading contributors for Neurological Disorders in India.

**Source: PIB**

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