Reservation Not a Fundamental Right: Supreme Court

Why in News

Recently, the **Supreme Court** of India has said that reservation of seats provided to certain communities is not a fundamental right.

Key Points

- All political parties from Tamil Nadu had filed a writ petition in the Supreme Court seeking direction to the Centre to implement 50% Other Backward Class (OBC) reservation in the all-India **NEET** seats surrendered by the state.
- They have accused the Centre of "violating the right of the people to have a fair education" by neither implementing the 50% quota for OBC in Tamil Nadu nor providing 27% reservation for OBC candidates in other states for the All India Quota seats.
- However, the Supreme Court pointed that a writ petition under Article 32 of the Constitution can be filed only in case of violation of fundamental rights.
- The Court observed that the **Right to Reservation is not a fundamental right.**
- Earlier, the Court had ruled that **reservation in promotion is not a fundamental right.**

    - The fundamental rights have been **classified under the six categories-** Right to Freedom, Right to Equality, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational rights and Right to constitutional remedies.
    - They are mentioned in Part III (Articles 12 to 35) of the Indian Constitution.

Constitutional Provisions for Reservation in Education and Jobs

- Various **provisions in Article 15 and 16 of the Constitution** empower the State to make special provisions in **education and jobs** respectively for the **socially and educationally backward section of the society** and for the **economically weaker section.**
- Although these provisions are mentioned in **Part III (fundamental rights)** of the Constitution, **their nature is like directives to the state i.e.** they are not binding on the state.
- **SC/ST Reservation:**

    - The state (both Centre and the states) is permitted to make any special provision for the advancement of scheduled castes and scheduled tribes. For example, reservation of seats or fee concessions in public educational institutions and providing reservation in government jobs if they are not adequately represented.
    - The quota for SCs is 15% and for STs it is 7.5%
- **Other Backward Class (OBC) Reservation:**

    - The state (both Centre and the states) is empowered to make provision for the advancement of OBCs regarding their admission to educational institutions and government jobs.
    - The quota limit for OBCs is 27%. However, various state governments have different quota limits for OBCs in their state. E.g Tamil Nadu (50% reservation for OBCs).
    - In the **Indra Sawhney 1992 judgement**, the Supreme Court fixed the upper limit for the combined reservation quota i.e. should not exceed 50% of seats.
- **Economically Weaker Section (EWS) Reservation:**

- The **103rd Constitution Amendment Act, 2019**, empowers both Centre and the states to provide 10% reservation to the EWS category of society in government jobs and education institutions.

Writ Jurisdiction

- The Supreme Court under Article 32 and the High courts under Article 226 of the Constitution can issue the writs of **habeas corpus, mandamus, prohibition, certiorari and quo-warranto.**
- The Parliament under Article 32 can also empower any other court to issue these writs. However, no such provision has been made so far.
- **Difference in writs of Supreme Court and High court.**

    - The Supreme Court can issue writs only for the enforcement of fundamental rights whereas a High court can issue writs for the enforcement of Fundamental Rights and also for an ordinary legal right.
    - The Supreme Court can issue writs throughout the territory of India whereas a High court can issue writs within its territorial jurisdiction.
    - A **remedy under Article 32 is in itself a Fundamental Right** and hence, the Supreme Court may not refuse to exercise its writ jurisdiction. On the other hand, a **remedy under Article 226 is discretionary** and hence, a High court may refuse to exercise its writ jurisdiction.

        - The Supreme Court is thus constituted as a defender and guarantor of the fundamental rights.

Source: IE

India Rankings 2020: NIRF

Why in News

Recently, **'India Rankings 2020'** of Institutions of Higher Education was released.

- These rankings come days after the **QS World University Rankings** which showed that India's best institutions like **Indian Institutes of Technology** (IITs) and **Indian Institute of Science** (IISc) have slipped in the global list.

Key Points

- The **Ministry of Human Resource Development** (MHRD) has taken this important initiative of creating a **National Institutional Ranking Framework** (NIRF), which has been used for the past five years for ranking institutions of higher education in different categories and domains of knowledge.

    - NIRF was launched on **29th September 2015.**
- **Objective:** To encourage institutes to compete against each other and simultaneously work towards their growth. In addition, these rankings also attract foreign students, providing a solid base for the **'Study in India'** programme for the growth of **higher education in India.**
- NIRF is one of the criterias for private institutions assessment for the Institutions of Eminence **(IoE)**

Scheme.

- IoE Scheme is a **government's scheme** to provide the regulatory architecture for setting up or upgrading of 20 Institutions (10 from public sector and 10 from the private sector) as world-class teaching and research institutions.
- NIRF **outlines a methodology to rank institutions** across the country. The methodology draws from the overall recommendations and broad understanding arrived at by a Core Committee set up by MHRD.
- **Broad Parameters:**

  - Teaching, Learning and Resources.
  - Research and Professional Practices.
  - Graduation Outcomes.
  - Outreach and Inclusivity.
  - Peer Perception.
- **90% of the parameters** in NIRF are completely **objective and fact-based,** while **only 10% is based on the subjective parameter of perception** by academic peers and employers.

  - In international rankings, Indian institutions' low ranking is due to the high weightage given to the perception which is a subjective parameter.
- It is acknowledged that Indian institutions struggle on the **"internationalisation"** parameter in global rankings and the NIRF rankings are believed to reach a point where international institutions will want to be included in the Indian ranking system rather than vice versa.
- Overall, 3,771 institutions registered in the ranking framework this year which is a **20% increase in comparison to 2019.**
- This is the **fifth consecutive edition** of these rankings. This year **'Dental'** category has been **introduced for the first time** bringing the total tally to 10 categories/subject domains.
- **Rankings (top three):**

NIRF India Ranking 2020

Overall Category
- IIT Madras,
- IISc Banglore,
- IIT Delhi

University Category
- IISc Bangalore,
- JNU New Delhi,
- BHU Varanasi

Engineering Category
- IIT Madras,
- IIT Delhi,
- IIT Bombay

Management Category
- IIM Ahmedabad,
- IIM Bangalore,
- IIM Calcutta

Pharmacy Discipline
- Jamia Hamdard University,
- Punjab University,
- National Institute of Pharmaceutical Education and Research Mohali

Colleges Category
- Miranda House DU,
- LSR for Women DU,
- Hindu College DU

Medical Discipline
- AIIMS, New Delhi,
- PGIMER Chandigarh,
- Christian Medical College, Bangalore

Law Discipline
- National Law School of India University, Bengaluru,
- NLU New Delhi,
- Nalsar University of Law, Hyderabad

Architecture Discipline
- IIT Kharagpur,
- IIT Roorkee,
- NIT Calicut

Dental College
- Maulana Azad Institute of Dental Science,
- Manipal College of Dental Science,
- Dr DY Patil Vidyapith Pune

Rights Issue

Why in News

Recent reports suggest that several companies, including Mahindra finance, Tata Power, Shriram Transport Finance among others are planning to raise funds through **"rights issue"** amidst the **Covid-19 pandemic**.

Key Points

- **Reason:**

    - Recently, Reliance Industries Limited (RIL) has concluded its rights issue and raised a total of Rs. 53,124 crore and witnessed an oversubscription of 1.59 times.

        - RIL's Rights Issue is India's largest rights issue.
    - The successful rights issue of RIL and the big demand (oversubscription) shows that there is a huge demand in the market for the shares of companies with strong credentials at a good price.
- **Definition:**

    - A rights issue is a mechanism by which companies can raise additional capital from existing shareholders.
    - It is different from **public issue (Initial Public Offer) and private placement.**
- **Advantages:**

    - A company would offer a rights issue in order to raise capital which can be used to clear its debt obligations, acquire assets, or facilitate expansion without having to take out a loan from a bank.
    - It is a more efficient mechanism of raising capital. Under it, there is no requirement of shareholders' meeting and an approval from the board of directors is sufficient and adequate.
    - Therefore, the turnaround time for raising this capital is short and is much suited for the current situation (Covid-19 pandemic).
- **Disadvantages:**

    - Raising funds through the right issue might create pressure on the company.
    - Value of each share may get diluted.
    - If the share price decreases post rights issue then investors may lose the holding value.

        - Holding value is an indicator of an asset that someone has in his/her portfolio. It is a value which sums the impacts of all the dividends that would be given to the holder in the future, to help them estimate a price to sell or buy assets.
    - Stock exchanges put a restriction on the amount on which a company can raise via the right issue.
- **Reforms Under Rights Issue:**

    - **The** Securities and Exchange Board of India (SEBI) has provided some permanent reforms in the rights issue, it has also provided some temporary relaxations in the wake of Covid-19 pandemic.
    - **Permanent Reforms:** In November 2019, SEBI streamlined the rights issue process and the timelines for completion was significantly reduced from T+55 days to T+31 days — a 40% cut in the time.

        - The 'T' stands for transaction date, which is the day the transaction takes place.
        - It has also reduced the notice period of rights issue to at least 3 working days from

7 days earlier.

- ○ **Temporary relaxations:** SEBI relaxed certain guidelines for right issues that open on or before 31st March, 2021.

  - It reduced the eligibility requirement of average market capitalisation of public shareholding from Rs. 250 crore to Rs. 100 crore for a fast track rights issuance.

    - Market capitalisation is the value of a company that is traded on the stock market. It is calculated by multiplying the total number of shares by the present share price.

  - It reduced the minimum subscription requirement from 90% to 75% of the issue size.
  - Listed entities raising funds upto Rs. 25 crores (erstwhile limit was Rs. 10 crores) through a rights issue are now not required to file draft offer documents with SEBI.

    - Listed Entity means an entity which is listed on a recognised stock exchange(s).

Estimation Exercise of Indian Gaur in Nilgiris

Why in News

Recently, the **first population estimation exercise of the Indian Gaur (Bison)** was carried out in the **Nilgiris Forest Division, Tamil Nadu.**

- **World Wide Fund for Nature India** assisted the exercise and highlighted that there are estimated 2,000 Indian gaurs across the division.

Key Points

- It has been revealed that the majority of the **animals in conflict-prone areas** in the division live **dangerously close to human habitations** due to their **habitat loss and fragmentation,** exacerbating the probability of having problematic interactions with humans.
- Due to **easy availability of food and lack of threat from predators,** gaurs **prefer to inhabit tea estates and human settlements.**
- The **spread of invasive species of plants** in reserve forest have further **degraded the Gaur's natural habitat.**
- The **changing land-use patterns** like converting tea estates into resorts and buildings has led to **erection of more fences limiting the traditional pathways used by the gaurs** to move between habitats.
- In areas except for Nilgiri Forest Division, there are **sizable populations of gaurs** but **interactions with humans were comparatively less** due to native forests being largely free of invasive flora and land-use patterns also remaining relatively stable.

Indian Gaur

- The Indian Gaur or Bison (**Bos gaurus**) is the **largest and the tallest** in the family of **wild cattle** and is a **grazing** animal.
- **Threats:**

    - **Food Scarcity:**

        - The destruction in the grasslands has led to the decline in availability of food for these animals.
        - Due to the planting of commercially important trees, the lush grassland has diminished which is the prime source of fodder for this wild cattle.
        - They have to fight for their food due to indiscriminate grazing of domestic animals in the areas.
    - **Poaching:**

        - The illegal hunting of the Indian bison is done for their commercial value as well as due to the high demand of gaur meat in the illegal market of India-Nepal border.
- **Conservation:**

    - **IUCN Red List**: Vulnerable.
    - **Wild Life Protection Act, 1972**: Schedule I.
- Nowadays, this animal is kept well and protected in some of the famous **national parks of India** like Nagarhole, **Bandipur**, Kabini and Masinagudi (**Mudumalai)**.

World Wide Fund for Nature India

- It was established as a charitable trust on **27th November, 1969** and today it is one of the leading conservation organizations in the country.
- In **1987,** it changed its name from the **World Wildlife Fund to World Wide Fund for Nature India.**
- It is a **science-based organization** which addresses issues such as the conservation of species and its habitats, climate change, water and environmental education, among many others.
- **Mission Statement:** To stop the degradation of the planet's natural environment and build a future in which humans live in harmony with nature, by:

- Conserving the world's biological diversity.
- Ensuring that the use of renewable natural resources is sustainable.
- Promoting the reduction of pollution and wasteful consumption.

Nature Index 2020: Index of Scientific Research

Why in News

Recently, a journal of science i.e. **the Nature Research,** has released the **Nature Index 2020.**

- The **Nature Index** provides a database of **high-quality research** output and collaboration at the institutional, national and regional level of institutions from different countries.

Key Points

- The top three countries in the index are **US, China and Germany** respectively.
- **Criteria for the Ranking**

  - **Sectors:** Academic and Corporate.
  - **Subjects:** Chemistry, Earth and Environmental Science, Life Sciences, Physical Sciences.
  - **Journal Group:** Nature and Science.
- The **overall ranking of India is 12th** in the index.
- **Top 3 Ranking of Institutions from india:**

  - Council of Scientific and Industrial Research (CSIR)
  - Indian Institute of Sciences (IISc)
  - Tata Institute of Fundamental Research (TIFR)

The Nature Index

- The **Nature Index** is a **database of author affiliation information collated** from research articles published in an independently selected group of 82 high-quality science journals.
- The **database** is compiled by **Nature Research.**
- The Nature research is a part of **Springer Nature** which is an American German academic publishing company based in Germany.
- The Index is updated monthly and also releases annual tables of countries.

Lonar Crater

Why in News

Recently, the water in the **Lonar lake in the Buldhana district of Maharashtra** was found to be **turning reddish** over the past few days.

- The local administration of the district has requested the **National Environmental Engineering Research Institute (NEERI), Nagpur**, to find out the reason behind it.

Key Points

- The colour of water in Maharashtra's Lonar lake, also known as **Lonar crater,** has changed to red.
- It is said to be normal when the lake gets rainwater.
- **Probable Reasons:**

    - **Algal Bloom:**

        - **An algal bloom or algae bloom** is a **rapid increase or accumulation in the population** of algae in freshwater or marine water systems, and is often recognized by the **discoloration in the water.**
        - Change in colour is generally attributed to algal bloom in the lake around the time of monsoon.
    - **Change in Salinity:**

        - Due to the evaporation of water, the salinity in the water has increased. Hence, it is believed to be a factor behind the change in colour.
    - **Biological Change:**

        - The colour change seems to be a biological change in the Lonar crater as during the **lockdown phase**, there was no disturbance to the lake and naturally it has turned red.

Lonar Lake

- Lonar Lake, also known as Lonar crater, is a notified **National Geo-heritage Monument,** saline, soda lake, located at **Lonar in Buldhana district, Maharashtra.**

    - Geo-heritage refers to the geological features which are inherently or culturally significant offering insight to earth's evolution or history to earth science or that can be utilized for education.
    - **Geological Survey of India (GSI)** is the parent body which is making efforts towards identification and protection of geo-heritage sites.
- It is situated inside the Deccan Plateau—a massive plain of volcanic basalt rock created by eruptions.
- It is believed to have been created over 52,000 years ago when a meteorite hit the Earth.
- It is formed in basaltic rock with a diameter of 1.85 km and depth of 500 feet.

Source: IE

RT-nPCR Test

Why in News

Researchers at the **Centre for Cellular and Molecular Biology (CCMB)** have developed a **new test** to detect **novel coronavirus (SARS-CoV-2)** named **'Reverse Transcription nested Polymerase Chain Reaction (RT-nPCR) test.**

- CCMB, one of the **Council of Scientific & Industrial Research (CSIR) laboratories,** is situated in Hyderabad (Telangana).

Key Points

- **RT-nPCR Test:**

    - **It does not depend on RT-qPCR (**testing approved by the ICMR) **but uses standard RT-PCR** as part of an endpoint assay (i.e. to measure biochemical activity of a sample).
    - It has been developed on a **low-cost** and **low-tech** model.
    - This new test is **awaiting approval from the** Indian Council of Medical Research (ICMR)**.**
- **RT-qPCR Test:**

    - The ICMR has recommended only **Reverse Transcription Polymerase Chain Reaction (RT-qPCR) test** for novel coronavirus testing.

        - **PCR** is an enzymatic reaction used to amplify DeoxyRibonucleic Acid (DNA).
        - Unlike conventional PCR, which relies on end point analysis, **qPCR** enables the analyst to **monitor DNA amplification in real time,** as the reaction proceeds.This allows quantification of DNA.
        - However, coronavirus is made up of Ribonucleic Acid (RNA). Therefore to detect coronavirus, **RNA is converted into DNA using a technique called Reverse Transcription (RT).**
- **RT-qPCR vs RT-nPCR:**

    - In RT-qPCR, the viral RNA is quantified, whereas in RT-nPCR, the viral RNA that nests is studied.
    - RT-qPCR is costly, takes longer, needs special apparatus and can be performed only in a lab with sophisticated equipment. It requires a real time thermal cycler, which is an expensive instrument.
    - RT-nPCR is economical, can be tested on a large scale, does not require special apparatus and can be done in a lab with basic equipment. It needs a simple PCR machine.
    - Further, the CCMB scientists found a high percentage of false negative cases while comparing RT-qPCR with the new test.

        - The RT-nPCR test was able to identify 90% of the detected samples as positive by RT-qPCR. It also detected 13% samples as positive among samples that were negative by the standard RT-qPCR test (likely false negatives).

Source: PIB

IFLOWS-Mumbai: Flood Warning System

Why in News

Recently, an integrated **flood warning system - known as IFLOWS-Mumbai** was launched making Mumbai the second city in India after Chennai to have such a system.

Key Points

- **Developed by:** It is developed by the Ministry of Earth Sciences (MoES), in coordination with the Municipal Corporation of Greater Mumbai (MCGM).
- **Working/Features:** The IFLOWS-Mumbai comprises seven modules, namely **data assimilation, flood, inundation, vulnerability, risk, dissemination and decision support system.**

  - It incorporates weather models from **National Centre for Medium Range Weather Forecasting (NCMRWF), India Meteorological Department (IMD)** and field data from the rain gauge network stations.
  - This **Geographic Information System (GIS)**- based decision support system has all relevant details - such as land topography, land use, infrastructure, population, lakes, creeks and data on river **bathymetry (study of the beds or floors of water bodies)** of all rivers namely Mithi, Dahisar, Oshiwara, Poisar and Ulhas.
  - The system has provisions to capture the urban drainage within the city and predict the areas of flooding in advance so that the civic body can issue alerts in advance.
- **Benefits:** This will boost the city's resilience by providing early warning for flooding specially during high rainfall events and cyclones. Bengaluru and Kolkata may also get such a system by 2021.
- **Need**

  - Mumbai has the history of flooding during extreme rainfall events. It had faced massive floods in July 2005, and recently in 2017.
  - Rise in extreme rainfall events in India that are **driven by warming temperatures** and changes in the monsoon due to climate change.
  - According to the **Global Report on Internal Displacement 2020**, nearly five million people were displaced in India in 2019 because of disasters related to Southwest Monsoon and Cyclones.
  - According to the **'State of India's Environment 2020 in Figures'** the internal displacements in India caused by disasters and extreme weather conditions were the highest in the world in 2019.