



News Analysis (31 Aug, 2018)

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Ministry of Human Resource Development Launches Innovation Cell

Innovation cell has been established at All India Council for Technical Education (AICTE) premises with a purpose to systematically foster the culture of Innovation in all Higher Education Institutions (HEIs) across the country.

- The primary mandate of Innovation Cell is to encourage, inspire and nurture young students by exposing them to new ideas and processes resulting in innovative activities in their formative years.
- Along with Innovation cell, **Atal Ranking of Institutions on Innovation Achievements (ARIIA)** has also been launched which aims to encourage healthy competitiveness among Higher Educational Institutions.
- The move comes after India's ranking in the **Global Innovation index** Ranking moved slightly up to **57 in 2018** from 60 in 2017. India has been constantly outperforming on innovation relative to its level of development for many years in a row.

Major Programs under Innovation Cell

1. **Network of Innovation Clubs (NIC)**

They will be established in Higher Educational Institutions to encourage, inspire and nurture young students by providing a platform for various activities like:

- Interaction with renowned Business Leaders and top-notch academicians,
- Mentoring by Industry Professionals,
- Experiment with new technologies, etc.

2. **Atal Ranking of Institutions on Innovation Achievements (ARIIA)**

- ARIIA will rank education institutions and universities primarily on innovation related indicators.

- It considers all major indicators which are commonly used globally to rank most innovative education institutions/ universities in the world.
- More than quantity, ARIIA will focus on quality of innovations and will try to measure the real impact created by these innovations nationally and internationally.
- It will primarily focus on 5 main parameters:
 - Budget Expenses and Revenue generated through Innovation and entrepreneurship development.
 - Facilitating access to advance centres / facilities and entrepreneurial support system.
 - Idea to Entrepreneurship.
 - Development of Innovation Ecosystems Supported through Teaching & Learning.
 - Best innovative solutions Developed In-house for Improving Governance of the Institution.

3. Smart India Hackathon (SIH) 2019

Smart India Hackathon 2019 is a nationwide initiative to provide students a platform to solve some of pressing problems of daily lives.

[Read more about SIH-2019](#)

4. National Student Startup Policy (NSSP)

- AICTE launched its Student Start-up Policy in 2016, which is designed for the AICTE approved Institutions in accordance with Govt of India's "Start-up India" Action plan.
- It intends to guide AICTE approved institutions to promote student driven innovations and start-ups.
- The policy aims at identifying the innovative and entrepreneurial potential of students and transforming them into start-up entrepreneurs.

Steps Taken by Government to Promote Innovation

- **"India Innovation Index"** launched by NITI Aayog, Department of Industrial Policy & Promotion (DIPP) and Confederation of Indian Industry (CII).
- The Government is promoting **Research Parks (RPs)** and **Technology Business Incubators (TBIs)** which would nurture and promote the innovative ideas till they become commercial ventures.
- The projects for promoting research and innovation like the **IMPRINT** and **Uchhatar Avishkar Yojana (UAY)** have brought focused attention of the scientific community on the need for promoting innovation.
- The **Start Up India** initiative of the Government has also put in place a mechanism for identifying and incubating the innovative ideas.

Decriminalising the Politics

The Supreme Court expressed displeasure over the Centre not giving details sought by it on setting up of special courts to exclusively deal with cases involving politicians.

- In November, 2017, Supreme Court had directed the Centre to set up special fast-track courts to exclusively try lawmakers and politicians facing criminal cases.
- The Supreme Court in December, 2017 directed the Centre to set up 12 special courts to exclusively deal with cases involving politicians and said that these should start functioning from March 1 this year.
- Earlier as per a March 2014 Supreme Court order, cases against politicians ought to have been disposed of within one year.
- Under the Representation of People Act 1951, a convicted person is disqualified for contesting elections for six years from the date of release from prison.

Criminalization of Politics

- It implies the criminals entering the election fray and contesting elections and even getting elected to the Parliament and state legislature.
- The criminals need the patronage of politicians occupying public offices to continue with their criminal activities and the politicians need the money and muscle power that the criminals can offer to the politicians to win elections. In course of time, the nexus led the criminals themselves to contest elections.
- This is perpetuated by inbuilt delays in the criminal justice system. It takes on an average 15 years for a criminal case to be finally disposed off by the courts.
- The rate of conviction in the country has been going down which means more and more criminals may go unpunished as their guilt is not proved beyond reasonable doubt in court of law. Thus, the known criminals are not legally prohibited from contesting elections.

Consequences

- The major problem is that the law-breakers become law-makers.
- According to Association of Democratic Reforms, about 34% of members elected to 16th Lok Sabha 2014, are facing criminal charges in court of law which makes the Parliament less efficient in enacting necessary laws for the effective administration of country. The Parliament loses its credibility and the Council of Ministers loses its legitimacy to administer the country.
- It also leads to increased circulation of unaccounted money or black money during and after elections, diluting the probity in public life.

- Further, it introduces a culture of violence in the society and sets a bad precedent for the youth to follow.

Election Commission's Measures and Recommendations

- In 1997, Election Commission directed all the Returning Officers (ROs) to reject the nomination papers of any candidate who stands convicted on the day of filing the nomination papers even if his sentence is suspended.
- The Election Commission recommended that if a person is found guilty by a Commission of Inquiry then he shall be disqualified from contesting elections.
- Further, Election Commission believes that if a court of law frames the criminal charges against the accused person then prima facie he might have been involved in the alleged crime, hence he should be disqualified from contesting elections.
- The First Past The Post (FPTP) electoral system shall be replaced by the 2-ballot system under which a candidate is declared elected from a territorial constituency on the basis of majority principle. If no one wins 50 percent of the vote, all candidates except the top two are excluded and voters are asked to vote a second time. In the second round, the candidate who wins the most votes is elected.
- The 2-ballot system will make winning election very difficult for criminals as they will have to garner the widest possible support from the voters to get the majority votes.

Judicial Measures

- In 2002, Supreme Court gave a historic ruling in **Union of India (UOI) vs. Association for Democratic Reforms** that every candidate, contesting an election to the Parliament, State Legislatures or Municipal Corporation, has to declare their criminal records, financial records and educational qualifications.
- In 2005, the Supreme Court in **Ramesh Dalal vs. Union of India** held that a sitting Member of Parliament (MP) or Member of State Legislature (MLA) shall also be subject to disqualification from contesting elections if he is convicted and sentenced to not less than 2 years of imprisonment by a court of law.
- In 2013, in **Lily Thomas vs. Union of India**, the Supreme Court held that Section 8(4) of The Representation of the People Act, 1951 is unconstitutional which allows MPs and MLAs who are convicted to continue in office till an appeal against such conviction is disposed of.
- In 2013 in **People's Union for Civil Liberties vs. Union of India** case Supreme Court asked Election Commission to provide 'none of the above' choice to voters to exercise their right to express no confidence against all candidates in fray.
- In 2014 Supreme Court recommends to PM/CMs not to include persons, against whom charges have been framed in serious offences, in their council of Ministers.

- In 2016, Supreme Court refers to 5-judge Constitution bench whether framing of charge in heinous crimes (which entails imprisonment of five years or more) against an MP or MLA would disqualify him. This also meant whether a person against whom charges framed in serious offences be debarred from contesting elections.
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High Water Discharge From China Threatens Arunachal, Assam

State of Arunachal Pradesh and Assam have been put on high alert after Government received a report from China of high water discharge in Siang river (tributary of Brahmaputra) due to heavy rainfall in Tibet.

Background

- India is a low riparian state in case of rivers originating from Tibetan Plateau. China has been building dams on the river e.g. Zangmu Dam and Dagu Dam on the Yarlung Tsangpo (the Brahmaputra in China) or diverting the river water for its populated northern region. India's north-east states are dependent on these rivers for their water need for agriculture and drinking.
- These rivers are also responsible for floods which occur in this region every year. Thus, any change in the amount of water flowing in these rivers directly impacts the lives of millions of Indians living downstream.

Mechanism between India and China related to trans-boundary river

- China and India signed the first Memorandum Of Understanding (MoU) on sharing the Hydrological Information on the Brahmaputra River and Sutlej River during the flood seasons. China started sharing data in 2018 after it was stopped briefly during the Doklam Standoff in 2017.
- An Expert level mechanism (ELM) was established in 2006 to discuss various issues related to trans-border rivers. The 11th round of meeting took place in March 2018.

Trans-boundary River issue between India and China

- For constructing dams on trans-boundary rivers, China laid its claims through the principle of 'Absolute Territorial Sovereignty' and in the Harmon Doctrine. **Harmon Doctrine** states that an upstream nation can freely utilize a river's flow within its boundaries without considering the effect on a downstream state.
- The lower riparian states, like India and Bangladesh, lay their claims on 'absolute territorial integrity' which argues that upper riparian actions should not affect the water flowing downstream.

- China is aggressively working for its priority rights and is actively building dams on Yarlung Tsangpo (Brahmaputra), to claim its right under Principle of Prior Appropriation.
- India too decided to commence construction of hydropower projects in Arunachal Pradesh, most of which were located lower down on the Brahmaputra. This might be viewed as India's effort to establish its 'lower riparian right' to counter China's first use priority rights.
- **The Principle of Prior Appropriation:** The principle of prior appropriation, favors neither the upstream nor the downstream State but the one that puts the water to first use, thereby protecting the right to first use of water as in the past.
- With respect to data, India has asked for data for non-monsoonal flows of the river, because there are suspicions in India that China is diverting water from the Brahmaputra

Impact of Dams by China on India

- By building dams on Brahmaputra river, China could gain leverage over the Indian state of Arunachal Pradesh.
- There is suspicion in India that Chinese hydropower projects could convert the Brahmaputra into a seasonal river implying water scarcity in India.
- Another risk is the release of flood waters during the monsoon season, which could lead to floods in Brahmaputra river basin in Assam.
- There is much apprehension that the Brahmaputra may lose the silt, which makes the plains in its basin fertile, because of sediment trapping in the dams.
- There are concerns in India that, China can also use these dams in case of conflict to harm India's interests. Like releasing excess water can lead to floods in the North-east.
- Construction of Dams is causing pollution in the river. The quality of the water flowing downstream has also deteriorated.
- The disruption of the natural flow of water could impact the ecosystem of the river downstream and has economic consequences on the lives of people. In November 2017, the water of Siang and Brahmaputra turned black in color which China said was due to 'Earthquake'.
- Most hydro-power projects by China are in the highly volatile seismic zone, where Indian Plate collides with the Eurasian Plate, making them extremely earthquake-prone. It raises serious concerns about risks posed by big dams built in such seismically sensitive areas.

China stand on India's concern

- The Brahmaputra gets mightier as it flows downstream because of the flow contribution of tributaries such as Dibang, Lohit, and Subansiri.

- Despite China having 50 percent spatial share of this 3,000 km-long water system, low precipitation and desert conditions mean that Tibet generates only 25 percent of its total basin discharge, while India, with 34 percent of the basin, contributes to 39 percent of the total discharge.
- China, on its part, insists that the dams are and will continue to be run-of-river projects, wherein water will be returned to the river after use. As such there ought to be no fears of diversion, hoarding, and release of water later.

Way forward

- Any forward movement on ensuring hydro-security in the Brahmaputra basin would require a long-term understanding between the two countries. It is necessary for India to engage China in a sustained dialogue and securing a water-sharing treaty that serves the interests of both the countries.
- India is required to go beyond the exchange of hydrological data and ask China for information on the topographic condition of the whole basin.

Rivers between India and China

1. **The Brahmaputra:** The Brahmaputra originates, under the name of Siang or Dihang, from the Chemayungdung glacier of the Kailash range near the Mansarovar lake. It enters India west of Sadiya town in Arunachal Pradesh. **Tributaries of Brahmaputra:** Dibang, Lohit, Siang, Burhi Dihing, Tista, and Dhansari.
2. **The Sutlej:** The Satluj rises from the Mansarovar-Rakas Lakes in western Tibet. It enters India near Shipki La on the Tibet-Himachal Pradesh boundary.
3. **The Indus:** Indus river originates from Tibetan Plateau from north of Mansarovar Lake. It enters India from Ladakh region in Jammu and Kashmir. **Tributaries of Indus:** Gilgit, Dras, Hunza, Shyok, Panjad.

International Agreements For Trans-Boundary River System

- UN Convention on the Law of the Non-navigational Uses of International Watercourses, 1997
 - Article 11 of this UN Convention mentions the need for states to share information regarding the use of international watercourses.
 - Both China and India are not signatory to the convention. India too has not ratified it because the Convention has no force over non-party countries such as China.

- Helsinki Rules, 1966
 - In 1966, a codification of the principles of international law relating to transboundary water resources was completed through the International Law Association (ILA) Helsinki Rules on the Uses of the Waters of International Rivers.
 - The principles of Helsinki rules can be briefly summed up as reasonable usage and an obligation to do no harm. However, the enforceability of the Helsinki Rules is undermined by the ILA's status as an unofficial organization.
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Important Facts for Prelims (31st August 2018)

Water Spotted at Jupiter's Great Red Spot

- NASA scientists have found water above Jupiter's deepest clouds using ground based Telescopes.
- The pressure of the water, combined with the measurements of another oxygen-bearing gas (carbon monoxide), imply that Jupiter has two to nine times more oxygen than the sun.
- The findings support theoretical and computer-simulation models that have predicted abundant water (H₂O) on Jupiter.
- This will supplement the information being gathered by the NASA's Juno spacecraft.

Jupiter

- Jupiter is the fifth planet from the sun. Its atmosphere is made up of hydrogen and helium and packed with so much radiation that it would be over 1,000 times the safety level for a human.
- The gas giant is also enshrouded in the strongest magnetic field in the solar system.
- Jupiter is perhaps best known for its Great Red Spot, which is actually a massive storm, bigger than the Earth, that has been raging for hundreds of years.
- The planet is marked by cold, windy clouds of ammonia and water that appear as reddish, brown and beige stripes and swirls.

Juno

- Juno is a NASA space probe orbiting the planet Jupiter which was launched in 2011.
- The Juno spacecraft uses a microwave radiometer instrument to measure water, essentially a radio receiver that can help the Earth-bound scientists "see" inside the Jupiter's atmosphere.
- The amount of water inside Jupiter is crucial to understanding how the solar system formed because it can explain how Jupiter formed.

- The spacecraft will also rotate as it revolves around Jupiter, providing something like a three-dimensional CAT scan.
- The spacecraft will also study Jupiter's gravitational field, magnetic field and interior.

Ice, Cloud and Land Elevation Satellite-2

- NASA is set to launch the most advanced laser instrument into the space to measure the changes in the heights of Earth's polar ice in unprecedented detail.
 - ICE-SAT-2 will measure the average annual elevation change of land ice covering Greenland and Antarctica, capturing measurements every second.
 - It will advance the knowledge of how the ice sheets of Greenland and Antarctica contribute to the rise in sea level.
 - As ICESat-2 circles Earth from pole to pole, it will measure ice heights along the same path in the polar regions four times a year, which provides seasonal and annual monitoring of ice elevation changes.
 - Beyond the poles, ICESat-2 will measure the height of ocean and land surfaces, including forests.
 - Its Advanced Topographic Laser Altimeter System (ATLAS) measures height by timing how long it takes individual light photons to travel from the spacecraft to Earth and back.
 - ATLAS, designed to measure both the tops and the ground below of trees, combined with existing datasets on forest extent — will help researchers estimate the amount of carbon stored in the world's forests.
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