



News Analysis (25 Jul, 2019)

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Unlawful Activities (Prevention) Amendment Bill, 2019

The Lok Sabha has passed the Unlawful Activities (Prevention) Amendment Bill, 2019.

- The Bill **amends the Unlawful Activities (Prevention) Act, 1967**, providing special procedures to deal with terrorist activities, individuals and groups that foster terrorism in India.
- The Bill is yet to be tabled in the Rajya Sabha.

Key Features of the Bill

- It empowers the government to **designate individuals as terrorists** if the person commits or participates in acts of terrorism, prepares for terrorism, promotes terrorism or is otherwise involved in terrorism.
This has been done as it is seen that when a terrorist organization is banned, its members form a new organization to spread terrorism.
- The bill also **empowers the Director-General, National Investigation Agency (NIA)** to grant approval of seizure or attachment of property when the case is being investigated by the agency.
 - Under the existing Act, the investigating officer is required to obtain the prior approval of the Director General of Police (DGP) to seize properties that bear any connection to terrorism.
 - It has been seen that many times a terror accused own properties in different states. In such cases, seeking approval of DGPs of different states becomes very difficult, and the delay caused by the same may enable the accused to transfer properties.
- It **empowers the officers of the NIA** — of the rank of Inspector or above, to investigate cases.
The existing Act provides for investigation of cases to be conducted by officers of the rank of Deputy Superintendent or Assistant Commissioner of Police or above.
- No changes being made in arrest or bail provisions. Also, the provision that the burden of proof is on the investigating agency and not on the accused, has not been changed.
- The **International Convention for Suppression of Acts of Nuclear Terrorism (2005)** has also been added in the Second Schedule through the Amendment.

The Unlawful Activities (Prevention) Act, 1967

- The UAPA, an upgrade on the Terrorist and Disruptive Activities (Prevention) Act TADA (lapsed in 1995) and the Prevention of Terrorism Act - POTA (repealed in 2004) was originally passed in the year 1967.
- Till the year 2004, "unlawful" activities referred to actions related to secession and cession of territory. Following the 2004 amendment, **"terrorist act" was added** to the list of offences.
- The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- According to statistics published by the **National Crime Records Bureau (NCRB)**, 922 cases were reported under UAPA in 2016, which was 5% less than what was recorded in 2014, with 976 cases. At the

same time, it was up by 3% from 2015 (897 cases). In total, 2,700 cases were registered over 2014, 2015 and 2016.

National Investigation Agency

- The NIA Act was enacted on 31st December, 2008 and thus the National Investigation Agency (NIA) was born.
- At present, NIA is functioning as the Central Counter Terrorism Law Enforcement Agency in India.

Source: PIB

Global Innovation Index-2019

The Government of India, has launched the **Global Innovation Index** (GII) in New Delhi.

- This is the **first** time that the GI is being launched in an **emerging economy**.
- The Department for Promotion of Industry and Internal Trade (DPIIT) of Ministry of Commerce and Industry, Government of India, **World Intellectual Property Organization (WIPO)** and Confederation of Indian Industry (CII) are co hosting the event.

India's Performance

- India's ranking in the Global Innovation Index is **52** which shows an improvement of 5 points from the last years ranking (57).
- India's rankings has been **consistently** increasing over the last few years and is among the top in the world in innovation drivers such as **Information and Communication Technology (ICT)**, **services exports, graduates in science and engineering**, the **quality of universities, gross capital formation** (a measure of economy-wide investments) and **creative goods exports**.
- India stands out in the world's top **science and technology clusters**, with Bengaluru, Mumbai, and New Delhi featuring among the top 100 global clusters.
- India continues to be the most **innovative economy** in **central** and **southern Asia** (a distinction held since 2011).

Global Performance

Switzerland tops the GI index followed by Sweden, United States of America, Netherlands, United Kingdom, Finland, Denmark, Singapore, Germany and Israel.

Global Innovation Index

- The theme of **GII- 2019** (12th edition) is “**Creating Healthy Lives - The Future of Medical Innovation**” which aims to explore the role of medical innovation as it shapes the future of healthcare.
 - It is published annually by **Cornell University, INSEAD** and the **UN World Intellectual Property Organization (WIPO)**.
 - The GII relies on two sub-indices :
 - Innovation Input Sub-Index.
 - Innovation Output Sub-Index.
 - These sub indices are built around several key pillars namely , Input pillar and Output pillar :
 - **Input pillars** capture elements of the national economy that enable innovative activities
 - Institutions
 - Human capital and research
 - Infrastructure
 - Market sophistication
 - Business sophistication.
 - **Output pillars** capture actual evidence of innovation outputs:
 - Knowledge and technology outputs
 - Creative outputs.
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R&D Expenditure Ecosystem in India

The report titled “**Research and Development (R&D) Expenditure Ecosystem**” was also released during the **global launch of Global Innovation Index (GII)-2019** by the **Economic Advisory Council to the Prime Minister (EAC-PM)**.

The objectives of the report are:

- To address the data gaps in compiling R&D data so that up to date data on R&D is available in order

- to reflect India's true rank globally.
- The second objective is to examine expenditure trends in various sectors and their shortcomings.
- The final objective is to lay down the road map for achieving the desired target of R&D spend by the year 2022, i.e 2% of the GDP.

Economic Advisory Council to the Prime Minister

- Economic Advisory Council to the Prime Minister (EAC-PM) is a **non-constitutional, non-statutory, independent body** constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.
- As of July, 2019, the Council consists of: **Dr. Bibek Debroy (Chairman), Shri Ratan P. Watal (Member Secretary), Dr. Rathin Roy (Part-Time Member), Dr. Ashima Goyal (Part-Time Member) and Dr. Shamika Ravi (Part-Time Member).**
- The terms of reference of EAC-PM are:
 - Analyzing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon,
 - Addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister.
 - These could be **either suo-motu** or on **reference from the Prime Minister** or anyone else.
 - It also includes attending to any other task as may be desired by the Prime Minister from time to time.

Recommendations

- The growth in research and development (R&D) expenditure should be commensurate with the economy's growth and **should be targeted to reach at least 2% of the Gross Domestic Product (GDP) by 2022.**
- The line ministries at the Centre could be mandated to **allocate a certain percentage** of their budget for research and innovation for developing and deploying technologies as per the priorities of the respective ministries.
- To stimulate **private sector's investment in R&D from current 0.35% of GDP**, it is suggested that a minimum percentage of turn-over of the company may be invested in R&D by medium and large enterprises registered in India.
- To help and keep the industry enthused to invest in R&D, the **weighted deduction provisions on R&D investment should continue.**
- The **states can partner Centre** to jointly fund research and innovation programmes through socially designed **Central Sponsored Schemes (CSS).**
- The report also pitched for **creating 30 dedicated R&D Exports Hub** and a corpus of **Rs 5,000 crore for funding mega projects** with cross cutting themes which are of national interest.

Background

- Investments in R&D are key inputs in economic growth. The impact of this is proven on productivity, exports, employment and capital formation.
- India's investment in R&D has shown a **consistent increasing trend** over the years.
 - However, as a **fraction of GDP, it has remained constant at around 0.6% to 0.7%.**
 - This is **below the expenditure of countries** like the US (2.8), China (2.1), Israel (4.3) and Korea (4.2).
- Government expenditure, **almost entirely the Central Government**, is the driving force of R&D in India which is in contrast to the advanced countries where the private sector is the dominant and driving force of R&D spend.

There is a **need for greater participation of State Governments** and the **private sector in overall R&D spending** in India especially in application oriented research and technology development.

- Earlier in 2018, the Prime Minister of India had underlined that there should be greater emphasis on collaborative R&D by the Central Public Sector Enterprises (CPSEs) with a focus on partnerships with Indian Institute of Technologies and Universities.
 - Consequently, one hundred fifty-four such innovation cells have been set up by CPSEs which will work on market oriented research.
 - From the year 2014-15 to 2017-18, there has been an increase of 116% in R&D spending by CPSEs.
 - CPSEs of the petroleum and power sector are the biggest spenders in R&D. Therefore, the need of the hour is that all CPSEs must come on board for higher spend on R&D.

Source: PIB

Molecular Framework for Superbugs

Researchers at the Indian Institute of Technology (IIT) Kanpur and the Lucknow-based Central Drug Research Institute (CDRI) have designed a **novel molecular framework** that would help drugs latch on to the germs and thus prevent them from multiplying.

- It's structure is such that it **stops energy production in the bacteria** for 20 minutes thus preventing it from multiplying.
- The new molecule **targets gyrase B**.
 - A substance called gyrase is essential for bacteria's survival and multiplication.
 - In most organisms, there are two types of gyrases — gyrase A and gyrase B.
 - Almost all of antibacterial drugs in use currently work by targeting gyrase A. The bugs modify gyrase A in such a way that the drugs fail to bind to them.
 - Gyrase B is more conserved in organisms and hence difficult to mutate.
- The new molecule when used in combination with fluoroquinolone drugs, the first line of antibiotic drugs, both gyrase A and gyrase B are attacked, making them more effective. This makes it possible to **destroy the bacteria** with the **same class of drugs** to which they have **developed resistance**.
- The framework is still in a proof-of-concept stage but the scientists have found it to be effective in lab-grown bacterial cells.
- Scientists have also found that the bacteria do not develop resistance to the new molecule that easily.
- This development has come at a time when there is a fear that the **multidrug-resistant superbugs** may kill as many as 10 million people worldwide by the year 2050.

Note:

- The scientists used **staphylococcus aureus** bacteria frequently found in the nostrils, upper respiratory tract and on the skin of nearly 30% of people for developing the framework.
- While this bacteria is innocuous in healthy people, in those with low immunity levels, it causes many infections, some of them lethal. Over the years, it has become resistant to most drugs that are commonly used in clinics.
- **CDRI** is a constituent laboratory of the **Council of Scientific and Industrial Research (CSIR)**, Ministry of Science & Technology.

Source: HBL

EB-5 Visa

The U.S. is all set to increase the investment amount under EB-5 Visa. The minimum amount required to be invested in the Targeted Employment Areas (TEAs) in the U.S. will now go up to \$9,00,000 (₹6.2 crore), an 80% hike from the existing \$5,00,000 (₹3.5 crore).

- United States Citizenship and Immigration Services (USCIS) administers the EB-5 program, created by Congress in 1990 to stimulate the U.S. economy through job creation and capital investment by foreign investors.
- The new EB-5 fee structure, the first such move since the inception of the programme in 1990, will come into effect from November 21, 2019.
- Several high networth professionals, students, entrepreneurs and families in India have been exploring EB-5 in the last three decades as it is the **easiest channel to get a green card and permanent residency in the U.S.**

Implication for India

- With stricter norms on H1-B visa and now the hike in investment amount, immigration options have really reduced for Indian applicants.
- However, considering most Indians opt for the EB-5 visa with an eye on **better educational and career prospects** for their children, the hike is unlikely to cause Indians to explore alternative options.
- Rise of minimum investment amount in EB5 coupled with retrogression caused by over subscription of employment-based green cards such as EB2, EB3 and EB5 would dampen the spirit of not only Indians living in India but also Indians living in the United States on H1B visa.
- EB-5 will still remain an option for the ultra HNIs (high networth individuals) because it remains the fastest way of getting a green card.

Source: The Hindu

Fair and Remunerative Prices for Sugarcane

The Union Cabinet has cleared a proposal to create an **emergency sugar reserve** of **4 million tonne** and approved the **Fair and Remunerative Prices** for sugarcane for the year 2019-20.

Sugar Industry

- Sugar industry is an important agro-based industry that impacts rural livelihood of about 50 million sugarcane farmers and around 5 lakh workers directly employed in sugar mills.
- India is the **world's second largest sugar producer** after Brazil and also the **largest consumer**.

Price Determination of Sugarcane

- Sugarcane prices are determined by:
 - Federal Government
 - State Government
- The Federal/Central Government announces **Fair and Remunerative Prices** which are determined on the **recommendation** of the **Commission for Agricultural Costs and Prices (CACP)** and are **announced** by the **Cabinet Committee on Economic Affairs**, which is chaired by Prime Minister.
- The **State Advised Prices (SAP)** are announced by key sugarcane producing states which are generally **higher than FRP**.

Commission for Agricultural Costs and Prices (CACP)

- The Commission for Agricultural Costs and Prices (CACP) is an attached office of the Ministry of Agriculture and Farmers Welfare, Government of India. It came into existence in January 1965.
- It is an advisory body whose recommendations are not binding on Government.

Source: PIB

National Data Quality Forum

The Indian Council of Medical Research (ICMR)'s National Institute for Medical Statistics (ICMR-NIMS), in partnership with Population Council (International non profit NGO that conducts research in biomedicine and social science) has launched the **National Data Quality Forum (NDQF)**.

- The National Data Quality Forum (NDQF) is an **integrated national-level platform** that aims to improve the **quality** of **health** and **demographic data** by generating **meaningful dialogue** around the **improvement** of **data quality** in general, and for health and medical research in particular.
- NDQF will bring all relevant stakeholders, subject matter experts, industry leaders, decision makers, and data scientists/analysts on a common platform for discussing improvements in the quality of **data ecosystem** in India.
- NDQF will integrate learnings from **scientific** and evidence-based initiatives and guide actions through **periodic workshops** and **conferences**.
- NDQF's activities will help establish **protocols** and **good practices** of **data collection, storage, use** and **dissemination** that can be applied to **health** and **demographic data**, as well as can be replicated across other industries and sectors also.

National Institute for Medical Statistics

- NIMS is one of the **permanent institutes** of Institutes of Indian Council of Medical Research (ICMR), New Delhi.
- The Institute came into existence in the year 1977 with the mandate to provide **technical expertise** on **research methodology, programme evaluation, mathematical modeling, data analysis etc.**
- It is India's only institute to coordinate and standardize the **collection** of **medical** and **health statistics** in the country.

Major Achievements of NIMS

- Establishment of India's **first Clinical Trials Registry**, in collaboration with the Department of Science and Technology and **World Health Organisation (WHO)**.
- Integrated Behavioural and Biological Assessment on National Highways (IBBA-NH) among truckers for HIV epidemic in the country.
- Identified as the **National Nodal Agency** for the implementation of **Integrated Disease Surveillance Project (IDSP)**-Non-Communicable Disease (IDSP- NCD) risk factor survey.

Source: TH

Milky Way's Violent Birth Decoded

Based on the Gaia space observatory data, Scientist has observed that the **Milky Way**, home to our sun and billions of other stars, merged with another smaller galaxy in a cosmic collision roughly 10 billion years ago.

Gaia Space Observatory

- Gaia is a mission to chart a three-dimensional map of our Galaxy, the Milky Way, in the process revealing the composition, formation and evolution of the Galaxy.
- Gaia will provide unprecedented positional and radial velocity measurements with the accuracy needed to produce a census of about one billion stars in our Galaxy.
- According to scientists, the union of the Milky Way and the so-called dwarf galaxy Gaia-Enceladus increased our galaxy's mass by about a quarter and triggered a period of accelerated star formation lasting about 2 to 4 billion years.
- Galaxies of all types, including the Milky Way, began to form relatively soon after the **Big Bang** explosion that marked the beginning of the universe some 13.8 billion years ago, but were generally smaller than those seen today and were forming stars at a rapid rate. Subsequent galactic mergers were instrumental in configuring galaxies existing now.
- Certain stars with higher content of elements other than hydrogen or helium arose in the Milky Way and others with lower such content originated in Gaia-Enceladus, owing to its smaller mass.

Source: The Hindu

Blood-oozing Tree

A trio of researchers led by **Assam** forest officer Jatindra Sarma has discovered **Dracaena cambodiana**, a dragon tree species in the Dongka Sarpo area of West Karbi Anglong. This is for the first time that a dragon tree species has been reported from India.

Properties

- It is a plant that **yields dragon's blood** — a bright red resin (a precious traditional medicine in China) used since ancient times as medicine, body oil, varnish, incense and dye.
- Several **antifungal and antibacterial compounds**, antioxidants, flavonoids, etc. have been extracted from various parts of the plant.

Location

In India, the Dracaena genus belonging to the **family Asparagaceae** is represented by **nine species** and two varieties in the Himalayan region, the northeast and Andaman and Nicobar Islands. But Dracaena cambodiana is the **only true dragon tree species**, the study said.

Threat

- Recent **overexploitation** to meet the increasing demand for dragon's blood has resulted in rapid depletion of the plant. For this reason, the species is already listed in the inventory of **Rare and Endangered Plants of China**.
- The population size of the dragon tree species in Assam was estimated to be **fewer than 50 mature individuals**. The habitat of the plant is severely fragmented due to **open excavation of a stone quarry** and there is continuing decrease in its area of occupancy and number of mature individuals.
- The **Dracaena seeds are usually dispersed by birds**. But due to the large fruit size, only a few species of birds are able to swallow the fruits, thus limiting the scope of its natural conservation.

Source: The Hindu

National Institute of Miners Health

The Union Cabinet has approved the merger of **National Institute of Miners Health** with **Indian Council of Medical Research-National Institute of Occupational Health**.

Background

Expenditure Management Commission established by the Government of India to review the working and performance of autonomous institutes, recommended the merger of organisations with similar objectives.

Impact of Merger

- Enhance expertise in the field of occupational health.
- Efficient management of public resources

National Institute of Miners Health

- It was set up by the Government of India in 1990 and was registered as a Society under the Karnataka Societies Registration Act, 1960.
- It is an autonomous Institute under **Ministry of Mines** and located at Kolar Gold Fields, Karnataka and the Central Laboratory in Nagpur.
- It conducts applied research in occupational health and hygiene and specializes in providing technical support services to mining and mineral based industry with special reference to metalliferous sector.
- It has the state-of-art infrastructural facilities and expertise for conducting **Airborne Respirable Dust, Heat Stress, Vibrations, Noise Monitoring & Mapping, Illumination, ergonomic, etc. surveys** in **underground** and **opencast mines** and routine & specialized health surveillance of persons employed in mines.

National Institute of Occupational Health

- It was established in 1966 as **Occupational Health Research Institute** (OHRI) at Ahmedabad and later renamed as **National Institute of Occupational Health** (NIOH) in 1970.
- It works under the administrative control of Ministry of Health and Family Welfare.
- Its primary responsibility is to support the national policy makers for adopting an appropriate policy in the field of occupational health which includes occupational medicine and occupational hygiene.
- It has two regional office at Kolkata and Bangalore.

Source: PIB

Cuban Revolution

Aleida Guevara's (Daughter of Ernesto "Che" Guevara) visit to India coincides with 60 years of the Cuban revolution that was carried out by Fidel Castro and Ernesto "Che" Guevara.

- America had been highly influential in Cuba since the early 1900s. Much of Cuba's industry was owned by United States business and its main export, sugar, was controlled by the USA.
- In the 1950s, Cuba was being led under the corrupt and oppressive military dictatorship of Fulgencio Batista. However he supported US interests on the island and hence, Washington supported him.
- The Batista regime was extremely unpopular with the Cuban people.
- In 1956, Fidel Castro and Che Guevara gathered a force of guerrilla fighters and started a revolutionary

war against government forces.

- By 1958, the revolution had spread throughout Cuba, culminating in the fall of Havana in early 1959. Batista fled the country in 1959 and Castro formed a liberal nationalist government by liberating Cuba from US influence.

Source: HT
