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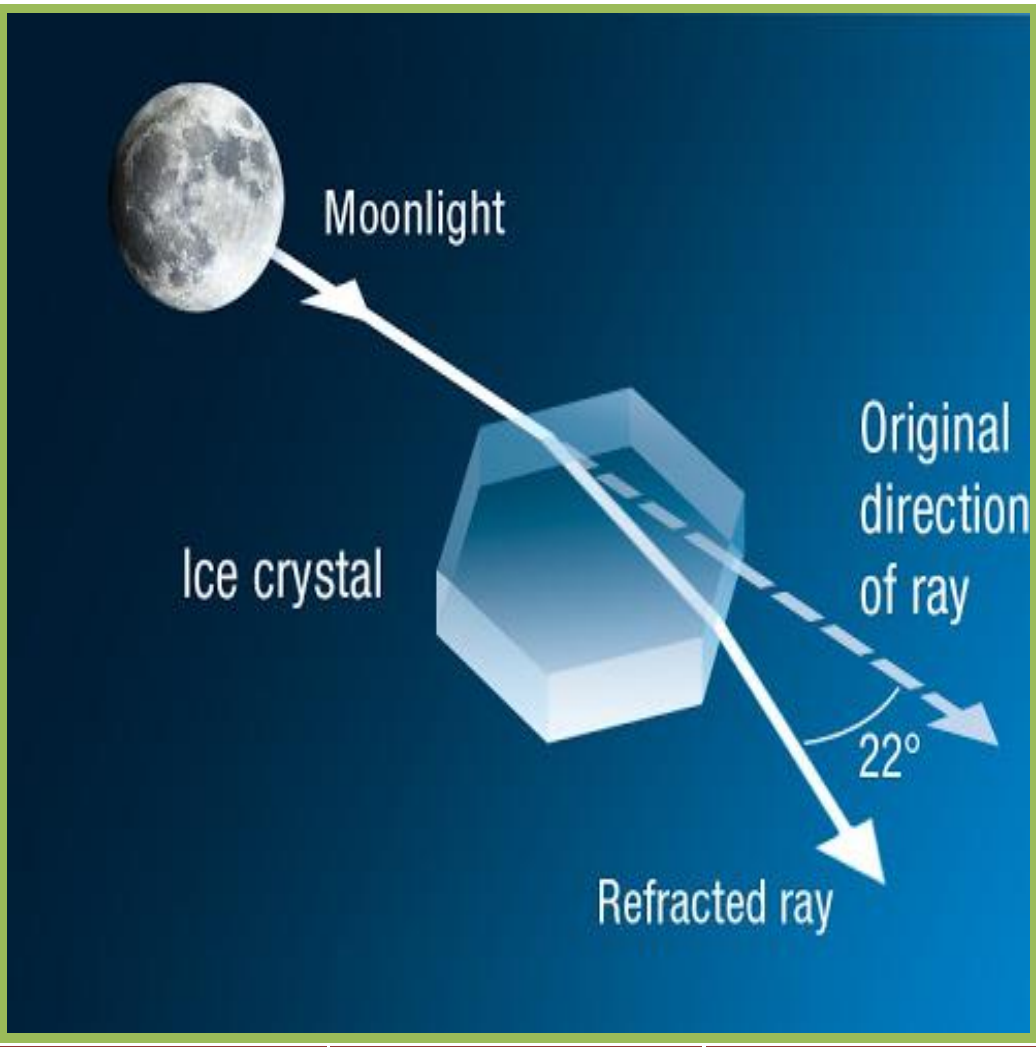

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JUNE

2021

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NITI AAYOG: STUDY ON 'NOT-FOR-PROFIT' HOSPITAL MODEL

Recently, the NITI Aayog has released a **comprehensive study on the not-for-profit hospital model** in the country and called it a step towards closing the information gap on such institutions.

INDIA NEEDS A NOT-FOR-PROFIT HOSPITAL

Lack of last-mile connectivity of healthcare services: The lack of penetration of quality healthcare, especially among the economically weaker sections of society in both urban and rural areas.

Not-for-profit hospital provided quality healthcare to the unreached at low cost: It prompted the need for a targeted study to gain a crisp and structured understanding about the not-for-profit hospital model in India.

Unavailability and unaffordability in healthcare services: The existing hospital beds and hospitalization services have a high level of concentration in urban areas, which in turn impact the accessibility and affordability of hospitalization services.

Low share of not-for-profit hospital: It currently account for only a miniscule share of hospitalization cases.

- The private hospitals are largely divided into "for-profit hospitals" which account for 23.3% of treated ailments and "not-for-profit hospitals," which account for only 1.1% of treated ailments.

Public hospitals that offer healthcare at negligible cost are overstretched: The burden of healthcare provision shifts to private hospitals, which generally offer healthcare at a higher cost to the patient, as they must sustain themselves.

Disparity in terms of hospitalization cases: The for-profit hospitals account for 55.3% of in-patients, while the not-for-profit hospitals account for only 2.7% of in-patients in the country.

Significance of Not-for-profit Hospital Model

In-house funding of hospitals: A not-for-profit hospital does not make profits for its owners from the funds collected for patient services.

- The owners of these hospitals are often charitable organizations or non-profit corporations.

- The fees for service at these hospitals are generally lower than for-profit hospitals and the income from fees (above the cost of service) are reinvested in the hospital.

Potential remedy to the challenges of unavailability and unaffordability: The infrastructure, services, and charges of these hospitals are positioned to cater to the unreached and underprivileged population of the country.

- These hospitals have managed to create a perception of goodwill in the country not only through selfless healthcare services with a social cause, but also through various community engagement programs.

Low cost healthcare services: The cumulative cost of care at not-for-profit hospitals is lesser than for-profit hospitals by about one-fourth in the in-patient department.

Lower operating cost of not-for-profit hospital: The cost categories such as Employee costs, Material Costs, Repair & maintenance Costs, Electricity & fuel costs are significantly lower than for-profit hospitals.

Strong focus on Quality practices: The study found a strong focus on quality care across all categories of not-for-profit hospitals, as most of them had some form of accreditation for their services.

CHALLENGES FACED BY NOT-FOR-PROFIT HOSPITAL

Recruitment and retention of doctors & staff: Most of the hospitals find it difficult to recruit and retain doctors and staff because of the following reasons:

- The lower salaries offered than the for-profit hospitals form a hindrance for recruiting specialist and super-specialist consultants.
- The remoteness of location of the hospitals in rural areas is a major challenge.

Reimbursements for treatment of Government health scheme beneficiaries: The perennially delayed reimbursements and long-pending amounts causing strain in their cash flows burdening their operations.

Infrastructure and equipment expansions: The hospitals could contribute only a small amount of their operational revenue toward the purchase of much-needed new equipment and can only purchase/expand with the help of external funding.

Regulatory Challenges: The not-for-profit hospitals have reported challenges because of the high compliance burden of staffing requirements of the Regulations for running a blood bank, Clinical Establishments Act, PNDT Act, and Quality standards.

Measures to be adopted to implement Not-for-profit Hospital Model

SHORT-TERM MEASURES

Categorization of the prominent not-for-profit hospitals based on the premise of services and their ownership: It would be useful to understand the vision behind the establishment of these hospitals and the guiding force behind them.

Understanding the business model of the hospitals: Its objective is to understand the operating model of these hospitals, along with the financial viability, and their dependence on donations and grants for meeting their operational needs.

Develop mechanisms to rank these hospitals on a performance index: The creation of a rating scale based on the volume of services utilized annually, the extent of charity work done, impact on the community health indicators of the location, operational efficiency, and self-sufficiency, to rank the top few hospitals.

Create a national level portal/directory of these hospitals: All the not-for-profit hospitals can be listed to highlight the hospital and its functions in the public domain.

Tax exemptions on donations to these hospitals: The income-tax exemption could be increased from the current 50% exemption to 100% exemption for philanthropy toward the identified not-for-profit hospitals.

Extension of a low-cost credit line: The Government can consider the provision of working capital loans with lower interest rates, which would be more financially viable for the not-for-profit hospitals and would assist in adequate cash flows during times of need.

Single window clearance for Government reimbursements: The timely release of these funds can be a substantial boost to their working capital for operations.

LONG-TERM MEASURES

Promote the top hospitals for facilitating philanthropy, investments and patient flows: The Top 50 hospitals should be prominently displayed along with the amount of funding received over a specific timeline.

Involving high performing Hospitals in PPP models: It is perceived that they can use the available infrastructure of the existing Government facilities and achieve efficient utilization to promote Health for All.

- The National Health Mission guidelines on Public Private Partnership can be used for such endeavors.

Revisiting the compliance requirements of regulations: It is necessary to customize the mandatory manpower requirements to make them more relevant to the realities of the remote areas and making them less cumbersome for these hospitals.

Mechanism to incentivize super-specialists to work in remote areas: The super-specialist doctors should be given some incentives and motivation to engage with hospitals in remote areas where there is a dire need for their services.

Grant-in-Aid scheme: Other States can consider the implementation of a Grant-in-Aid scheme similar to the Gujarat Model, wherein the Government funds up to 75% of admissible costs of the not-for-profit hospitals.

Timely allocation of unencumbered land: It will help many not-for-profit hospitals who face operational delays in their expansion plan because of permissions and regulatory clearances.

ROAD AHEAD

- India has an **ever-increasing need for healthcare services** with population of about 1.38 billion and counting and India's policies and programmes are aimed at achieving Universal Health Coverage by 2030.
- The "Not-for-Profit" Hospital Sector has the **reputation of providing affordable and accessible healthcare** for many years because the sector has done yeoman service over the years with some institutions from even before Independence.
- It is required to **ascertain and propose targeted interventions**, which will not only mitigate the challenges faced operationally, but also provide insights for the overall growth of the sector from a strategic perspective.
- The representatives of high-performing not-for-profit hospitals across different geographical locations can be **invited to relevant policymaking committees**.

DOES PRIVATIZATION OF PUBLIC ENTERPRISE SERVE THE PUBLIC INTEREST?

The privatisation of the public sector, including banks, has been part of the wish list of economic reformers since 1991 but it is now being **pursued with vigour and has high priority** with extremely ambitious targets.

GOVERNMENT IS PLANNING TO PRIVATIZE PUBLIC ENTERPRISE

Economic contraction: The highest ever contraction in the economy took place in 2020 which resulted in rise in unemployment, incomes for growing numbers are falling, bank non-performing assets (NPAs) may be ballooning, and the fiscal deficit is rising.

Financially sick enterprises: Their difficulties can be traced to ministerial micromanagement especially in enterprises with a direct consumer interface.

Obsolete technology in enterprises: There is the category of enterprises which have been sick for a long time as their technology, plants and machinery are obsolete and their managerial and human resources have atrophied.

Bureaucratic management: The organizations are run by bureaucrats who may not have knowledge of running an enterprise or knowledge of the industry trends and practices.

Lack of autonomy: These enterprises lack freedom and flexibility as they are subject to the control of the politicians and bureaucrats.

Delayed decisions: A file may have to pass through many officials for approval before a decision can be taken and by the time a decision is taken, the business environment might have undergone considerable changes.

No clear-cut price policy: Certain organizations follow a cost plus price policy, some administered pricing, a few dual pricing followed by those adopting association pricing.

CONCERNS ASSOCIATED WITH PRIVATIZATION OF PUBLIC ENTERPRISE

Lack of strong private enterprise in India: The number of Indian private firms which can buy out public sector firms are very few.

Creation of social unrest: The public enterprises provide for reservations in recruitment and with privatisation, this would end and unnecessarily generate social unrest.

No Welfare State: The concept of welfare state may get defeated with the Privatization of economy because the private sector would not care about the society as its main objective is to earn profits.

Less Social Development: The Government or Public sector companies keep doing social work simultaneously nut the privatization will result in fewer funds for society because private companies have no obligation to do social work.

Long Term Risk: Risk of short term gains is prominent in private companies and there are decisions to start ventures which result in short term benefits but may not be good for long term.

Less Transparency: The private companies are less transparent than government offices, and this reduced transparency paired with a drive for profit can be a breeding ground for corruption.

SIGNIFICANCE OF PRIVATIZATION OF PUBLIC ENTERPRISE

Restoring values of existing enterprises: The introduction of private management through privatisation or induction of a strategic partner is the best way to restore value of these enterprises.

Improvement in efficiency of enterprises: It is believed the privatization is aimed

- To limit the scope for political interference in decision making;
- To increase managerial incentives by making managers responsible to shareholders who will monitor their performance better than governments; and

- To impose the financial discipline of private capital markets

Development of domestic capital markets: It leads to a reduction in public sector deficits, especially if the government can dispose of loss-making enterprises.

- It may disarm public sector trade unions that are abusing a monopoly position.

Tax Reductions and Job Creation: By providing public services more efficiently and at a lower cost by privatizing them, governments can lower the taxes they impose on residents.

Acceleration of technological progress: Since private companies have to compete in fierce markets, they are often required to invent new technologies and products in order to stay competitive in the long run.

ROAD AHEAD

Working towards debt-free management: The public enterprise should ideally be made debt free and a new management should have freedom permitted under the law in personnel management to get investor interest.

- The Government could reduce its stake further and get more money as valuation rises.

Calibrated divestment to get maximum value: The Government can continue to reduce its shareholding by offloading shares and even reducing its stake to less than 51% while remaining the promoter and being in control.

Timely support to managements of enterprises: The managements may be given longer and stabler tenures, greater flexibility to achieve outcomes, and more confidence to take well-considered commercial risks.

It would be better for **India entering a higher growth trajectory with an increase in investment rates** which have been falling, than in using their scarce resources for taking over government enterprises with no real value addition to the economy in the near term.

Proper project appraisal: It is common to observe that many projects are announced without any sort of appraisal of the need and viability of the project.

It should be ensured that before any project is taken up for implementation, there is a **thorough appraisal of the viability of the project** from the technical, economic, social, and commercial point of view.

STATE OF LGBTQ+ RIGHTS: 'INDIA DOES NOT HAVE ANTI-DISCRIMINATION CODE'

The Constitution was conceived by **India's founding fathers as a beacon of fundamental rights** but the queer community is still a stigmatized and invisible minority.

CHALLENGES FACED BY SEXUAL MINORITIES

Lack of political will in providing rights: The Union of India has recently opposed any move to accord legal sanction to same sex marriages in India stating that the decriminalisation of Section 377 of the Indian Penal Code does not automatically translate into a fundamental right for same sex couples to marry.

Lack of social sensitization towards gender orientation: Heteronormativity is the belief that heterosexuality is the only natural expression of sexuality in our society.

- This belief system can be harmful to sexual minorities because it creates a hierarchy among sexual practices that can reinforce heterosexism and homophobia.

High incidents of conflict and rejections: The fear of rejection and serious negative reactions kept many LGB adults from openly sharing their lives.

Problems of Homelessness: The myriad problems facing LGBTQ people who are homeless include a lack of housing and services that meet their specific needs.

Frequent hate crimes aimed at LGBTQ: The LGBTQ people experience stigma and discrimination across their life spans, and are targets of sexual and physical assault, harassment and hate crimes.

Legal Injustice: The specific groups within the LGBTQ community are disproportionately affected by violence and discrimination, sometimes at the hands of law enforcement officials.

IMPACT OF DISCRIMINATION ON SEXUAL MINORITIES

Unwilling to continue work at workplaces: The existence of discriminatory language and behavior toward sexual and gender minorities in the workplace has a negative effect on willingness to continue working.

Exclusion across all spheres of life: The LGBT people face tremendous difficulties growing up in a society where heterosexuality is often presented as the only acceptable orientation and homosexuality is regarded as deviant.

- The exclusion and discrimination have major impacts on the lives of lesbian, gay and transgender persons such as dropping out of school earlier, leaving Home and Family, unable to find regular jobs, etc.

Hiding gender orientation identity: In the labour market, a majority of LGBT people continue to hide their sexual orientation or to endure harassment out of fear of losing their job.

Psychological Distress: The LGBT people face considerable levels of stigmatization, discrimination and harassment in their daily lives.

- This had a negative impact on their mental health, leading to significant levels of psychological distress, self-harm and suicidality.

Drug Addiction of LGBT people: The LGBTQ people are more likely to use alcohol, tobacco and other drugs than the general population.

MEASURES TO BE ADOPTED AGAINST SEXUAL MINORITIES' DISCRIMINATION

Expansion of grounds of non-discrimination: Article 15 secures the citizens from every sort of discrimination by the state, on the grounds of religion, race, caste, sex or place of birth or any of them.

- Article 15 should state that the government may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth.

Sensitization towards gender orientation: The Government needs to sensitise the general public and officials, including police officials, to reduce and finally eliminate the stigma associated with LGBTQ+ community through the mass media and the official channels.

Schools and teacher education programmes: The school and university students should be sensitised about the diversity of sexuality to deconstruct the myth of hetero normativity.

THE SCHOOLS CAN IMPLEMENT THE FOLLOWING POLICIES AND PRACTICES TO HELP PROMOTE HEALTH AND SAFETY AMONG LGBT YOUTH:

- Encourage respect for all students and prohibit bullying, harassment, and violence against all students;
- Identify safe spaces such as counselors' offices, designated classrooms, or student organizations, where LGBTQ youth can receive support from administrators, teachers, or other school staff;
- Encourage student-led and student-organized school clubs that promote a safe, welcoming, and accepting school environment; and
- Ensure that health curricula or educational materials include HIV, other STD, or pregnancy prevention information that is relevant to LGBTQ youth

Establishment of new international human rights standards: The legal obligations of States to safeguard the human rights of LGBT people are well established in international human rights law on the basis of the Universal Declaration of Human Rights and subsequently agreed international human rights treaties.

Reforming the Medical Establishment: The Medical Council of India should issue guidelines to ensure that discrimination in medical treatment of sexuality minorities, which would include refusal to treat a person on the basis of his/her sexual orientation, is treated as professional misconduct.

Interventions by Civil Society: The human rights and social action organizations should take up the issues of sexuality minorities as a part of their mandate for social change.

ROAD AHEAD

- It is clear that LGBT individuals who basically have different sexual orientation, face discrimination, exclusion from the society, and meet with obstacles to satisfy their needs.
- The LGBTQ organizers and groups are increasingly drawing connections between the movement for LGBTQ rights and the movement for economic and racial justice.
- The core legal obligations of States with respect to protecting the human rights of LGBTQ people include obligations to:
  - ✓ Protect individuals from homophobic and transphobic violence;
  - ✓ Prevent torture and cruel, inhuman and degrading treatment;
  - ✓ Repeal laws criminalizing homosexuality;
  - ✓ Prohibit discrimination based on sexual orientation and gender identity; and
  - ✓ Safeguard freedom of expression, association and peaceful assembly for all LGBTQ people
- The LGBTQ people belonging to minority and indigenous communities may finally begin to receive greater recognition within their own communities and from society at large as the barriers begin to lower with recognition of their shared challenges.

INDIA'S AFRICA POLICY: TOWARD A MORE COHERENT ENGAGEMENT

Africa is considered a **foreign policy priority** by India because even in the COVID-19 pandemic New Delhi took new initiatives to assist Africa through prompt despatch of medicines and later vaccines.

INDIA's AFRICA POLICY NEED RE-ENERGIZING

Decline in India-Africa Trade: According to the Confederation of Indian Industry, in 2020-21, India's exports to and imports from Africa stood, respectively, at $27.7 billion and $28.2 billion, a reduction of 4.4% and 25% over the previous year.

- The bilateral trade valued at $55.9 billion in 2020-21, fell by $10.8 billion compared to 2019-20, and $15.5 billion compared to the peak year of 2014-15.

Decrease in investment by India in Africa: India's investments in Africa saw a decrease from $3.2 billion in 2019-20 to $2.9 billion in 2020-21.

- The total investments over 25 years, from April 1996 to March 2021, are now just $70.7 billion, which is about one-third of China's investment in Africa.

Lack of diversity in India-Africa Trade: The composition of the India-Africa trade has not changed much over the two decades.

- India's top three exports to Africa are mineral fuels and oils (processed petroleum products), pharmaceutical products and vehicles.
- The mineral fuels and oils, (essentially crude oil) and pearls, precious or semiprecious stones are the top two imports accounting for over 77% of our imports from Africa.

India's focus is confined to Indo-Pacific region: The geopolitical tensions in Asia and the imperative to consolidate its position in the Indo-Pacific region have compelled New Delhi to concentrate on its ties with the United Kingdom, the EU, and the Quad powers.

Confinement of India's security role: India's security role in the Africa's continental littorals has struggled to move beyond the anti-piracy agenda.

- The institutional capacity building efforts in terms of the provision of security and surveillance assets and critical technology to African navies have remained rudimentary.

SIGNIFICANCE OF INDIA'S AFRICA POLICY

India has major centres of exports and imports in Africa: India's top five markets today are South Africa, Nigeria, Egypt, Kenya and Togo and the countries from which India imports the most are South Africa, Nigeria, Egypt, Angola and Guinea.

Geo-political and social engagement of India in Africa: India's role in peacekeeping in Africa, in lending support to African counter-terrorism operations, and contributing to African institutions through training and capacity enhancing assistance.

India's technical cooperation with Africa: Information technology (IT) is an important pillar given the role of the information and communication technology (ICT) sector in India's growth story and the importance most African leaders attach to ICT sector development.

India-Japan-Africa Growth Corridor (IJAGC): It represents a joint Indo-Japanese effort aimed at building infrastructure in Africa which is meant to be complemented with digital connectivity across Africa.

Economic importance of India's Africa Policy: The Indian and African economies represent two of the world's most dynamic economic growth stories.

- ✓ Many of the world's fastest growing economies are in Africa and the combined GDP of the continent is $2.4 trillion.
- ✓ By 2030, Africa will represent almost a quarter of the world's workforce and consumers.

MEASURES TO BE ADOPTED TO RE-ENERGIZE INDIA'S AFRICA POLICY

Fresh allocation of financial resources to Africa: India must allocate fresh financial resources for grants and concessional loans to Africa as previous allocations stand almost fully exhausted.

International ally support for India's Africa Policy: India-EU Summit has identified Africa as a region where a partnership-based approach will be followed.

- ✓ A robust partnership plan for Africa should be announced when the first in-person summit of the Quad powers which is going to be held in Washington.

Ability to raise its security game in Africa: Africa's maritime sector has shown great promise for economic development with rising economic development and the gradual integration of African states into the global economy.

Economic relations should receive the top priority: Indian and African governments must exert themselves more to address the concerns and grievances of Indian business and industry.

- ✓ The formation of an 'India-Africa Business Forum' for each of the five regions of Africa should be considered.

Focus on multiple sectors of mutual complementarily: The priority needs to be accorded to healthcare and pharma, agriculture, education and capacity building, energy, digital cooperation especially fintech, trade and investment, and the Blue Economy.

Capacity building in India-Africa cooperation: The flagship programme i.e. India Technical and Economic Cooperation (ITEC) needs an independent, critical evaluation with a view to making it more modern, effective, and responsive to African needs.

ROAD AHEAD

- ➢ It is time to seize the **opportunity and restore Africa to its primary position** in India's diplomacy and economic engagement.

- It is essential to impart a 21st century complexion to the partnership with Africa which means **developing and deepening collaborations in health, space and digital technologies**.
- There is now a growing view among Indian analysts and policymakers that **India's growing maritime influence leaves New Delhi with little option but to raise its involvement in maritime security** of coastal Africa.
- **Clear strategy for African development**: It should prepare a focused Africa strategy for the next decade and identify a few areas for closer cooperation.
- It will help improve development outcomes and make India's development cooperation programme more effective.
- **Harness Indian civil society organisations, NGOs, and Indian diaspora**: The Indian government should explore greater collaboration with these organisations to implement development projects in Africa at low costs.
- **Promote development-friendly private investments**: India should try to support Indian companies making investment in development-friendly projects for mutual benefit.
- **Improve the experiences of Africans in India**: The Indian government should ensure that Africans studying or working in India are safe and enjoy their stay in the country.

DELTA VARIANT OF COVID-19

In its latest risk assessment for **SARS-C0V-2 variants**, Public Health England (PHE) has said a **staggering 61% of the samples sequenced** are now of the **Delta variant (B.1.617.2)**. This means the **Delta variant, first detected in India**, is more dominant in the UK than the **Alpha variant** that had triggered a surge in the UK.

Multiple SARS-CoV-2 variants are circulating globally. One of these is the **B.1.617 lineage**, detected in India earlier this year. Early evidence suggests that **its sub-lineage B.1.617.2**, known as the **Delta variant**, is more transmissible than contemporary lineages.

The World Health Organizaton **(WHO),** which has given it the **label Delta**, has categorised it as a **variant of concern** (VOC). It has said it continues to observe **"significantly increased transmissibility"** and a **"growing number of countries reporting outbreaks associated with this variant".**

WHO classifies a variant as a VOC when it is associated with an **increase in transmissibility or detrimental change in Covid-19 epidemiology**; increase in virulence; or decrease in the effectiveness of public health measures or available diagnostics, vaccines, therapeutics.

Different variants are **characterised by mutations** — or **alterations in the virus's genetic material**. An **RNA virus**, such as **SARS-CoV-2**, is made of about **30,000 base pairs of amino acids**, placed like bricks next to each other.

An alteration in any of these bases causes a mutation, effectively changing the **shape and behaviour of the virus.** The **Delta variant contains multiple mutations in the spike protein**. At least **four mutations** are important.

One of these is called **L452R,** first reported in Denmark in March last year. This mutation has been found more **transmissible than wild-type strains** and also has been associated with reduced antibody efficacy and reduced neutralisation by vaccine **sera**.

The **mutation P681R** has been associated with chemical processes that may enhance transmissibility, PHE says.

The **D614G mutation was first documented in the US** early in the pandemic, having initially circulated in Europe. "There is evidence that variants with this mutation spread more quickly," the Centers for Disease Prevention and Control (CDC) says.

Another mutation in Delta is T478K. This was present in around **65% of occurrences in variant B.1.1.222**, first detected in **Mexico** last year and associated with higher infectivity.

Public Health England said **Delta continues to demonstrate a substantially increased growth rate** compared to **Alpha** across multiple analyses. In the week beginning 17 May 2021, PHE analysis of genome sequencing data in the UK found that 61% of cases are delta.

Delta cases are rising while **Alpha cases are declining**. Also, PHE said, secondary attack rates have remained higher for Delta than Alpha.

PHE said **early evidence from England and Scotland suggests** there "may be an increased risk of **hospitalisation compared to contemporaneous Alpha cases**". "A large number of cases are still within the follow-up period. In some areas, hospital admissions show early signs of increasing, but the national trend is not clear," it said.

The PHE says there are analyses from England and Scotland supporting a **reduction in vaccine effectiveness for Delta compared to Alpha**. This is more pronounced after one dose. "Iterated analysis continues to show vaccine effectiveness against Delta is higher after 2 doses but that there is a reduction for Delta compared to Alpha," it said.

A paper in The Lancet said **adults fully vaccinated with the Pfizer-BioNTech vaccine** are likely to have more than five times lower levels of neutralising antibodies against the Delta variant than against other variants. "In the longer term, we note that both increased age and time since the second dose of **BNT162b2** significantly correlate **with decreased NAb activity against B.1.617.2 and B.1.351—**both of which are also characteristic of the population in the UK at highest risk of severe Covid-19 ," the study states.

The latest analysis of **874 cases of reinfection in the UK** shows that **556 were of Alpha variant**, and only **96 were with the Delta variant**. "During the period of time that Delta became prevalent, there has been no increase in PCR-positive participants in the... cohort overall and reinfections remain at very low numbers in individuals previously either PCR positive or seropositive," the PHE said.

A SCRUTINY OF SEDITION LAW WITH REFERENCE TO THE RECENT JUDGEMENT IN VINOD DUA CASE IN RELATION TO KEDAR NATH SINGH CASE OF 1962

The **Supreme Court** 3 June 2021 **quashed the sedition case registered against journalist Vinod Dua** in Shimla, Himachal Pradesh, more than a year after an FIR was filed against him by a local BJP leader over comments Dua made on his YouTube show criticising the Central government.

A bench of Justices U U Lalit and Vineet Saran had on 6 October 2020 reserved the verdict on the petition after hearing arguments for Dua, the Himachal Pradesh government and the complainant in the case. On the issue of **protection of freedom of speech and expression of media personnel,** it said, "**Every journalist is entitled to protection under the Kedar Nath Singh judgment** (the famous verdict of 1962 on the scope and ambit of offence of sedition in the IPC)."

The complainant had alleged that Dua had accused Prime Minister Narendra Modi of using "**deaths and terror attacks"** to get votes, and the journalist was charged **under sections 124A (sedition), 268 (public nuisance), 501 (printing matter known to be defamatory)** and **505 (statements conducive to public mischief).**

The relief for Dua comes after four days of the apex court restraining the Andhra Pradesh police from taking coercive action against two TV news channels charged with sedition, saying that it is of the view that **section 124A of the IPC**, which deals with the offence, will need interpretation — especially on its application with regard to freedom of the press.

In 1953, Kedar Nath Singh, a member of the **Forward Communist Party from Bi**har, got into trouble after he took on the ruling Congress during a rally at Begusarai, where he said, "Today, the dogs of CBI are loitering around Barauni [in Begusarai]. Many official dogs are sitting even in this meeting. The people of India drove out the British from the country and elected these Congress goondas to the gaddi. As we drove out the British, we shall strike and drive out these Congress goondas as well. They have today established a rule of lathis, bullets in the country

We believe in revolution which will come, and in the flame of which, capitalists, zamindars and Congress leaders will be reduced to ashes, and on their ashes will be established a government of the poor and the **downtrodden people of India**."

The **fiery speech led to his conviction and imprisonment** by a first class magistrate on sedition charges, and an appeal to the Patna High Court was struck down. Then 1962, an appeal by Singh came before the Supreme Court, in which he questioned the **constitutional validity of Section 124A,** contending it stifled his right to **free speech under Article 19 of the Constitution.**

The top court had its task cut out, since it had to lay down the law in the face of two directly conflicting **interpretations of Section 124A by British era courts**. The two previous judgments, one from 1942 and the other from 1947, expressed contradictory views on whether the incitement to violence or a tendency to disturb public order was a **necessary ingredient of the offence under Section 124A.**

In a landmark verdict, a **Constitution Bench of the top court** upheld the **validity of section 124A (sedition) of the IPC,** but also attempted to restrict the colonial-era law's scope for misuse by trying to demarcate the difference between which acts amounted to sedition and which ones did not. The five-judge Bench comprised Chief Justice BP Sinha and Justices AK Sarkar, JR Mudholkar, N Rajagopala Ayyangar and SK Das.

It said that any act that had the **"effect of subverting the Government"** by violent means or creating public disorder would come within the definition of sedition. It also **upheld Section 505 (statements conducive to public mischief) as constitutionally valid.**

"Acts within the meaning of s. 124A which have the effect of subverting the Government by bringing that Government into contempt or hatred, or creating disaffection against it, would be within the penal statute because the feeling of disloyalty to the Government established by law or enmity to it imports the idea of tendency to public disorder by the use of actual violence or incitement to violence. In other words, any written or spoken words, etc., which have implicit in them the idea

of subverting Government by violent means, which are compendiously included in the term 'revolution', have been made penal by the section in question," ruled the top court.

However, the court ruled that disapproval of the measures of government with a view to their improvement or alteration by lawful means is not sedition. It held that "comments, however strongly worded, expressing disapprobation of actions of the Government, without exciting those feelings which generate the inclination to cause public disorder by acts of violence" would not attract the penal offence.

The court added that **"commenting in strong terms upon the measures** or acts of Government, or its agencies, so as to ameliorate the condition of the people or to secure the cancellation or alteration of those acts or measures by lawful means, that is to say, without exciting those feelings of enmity and disloyalty which imply excitement to public disorder or the use of violence", is not sedition.

"A citizen has a right to say or write whatever he likes about the Government, or its measures, **by way of criticism or comment**, so long as he does not incite people to violence against the Government established by law or with the intention of creating public disorder," it further maintained.

While the court did read down S.124A, Kedar Nath's appeal was rejected, after the Bench held that his words did not fall within the purview of the definition of sedition as had been interpreted in the verdict.

FUGITIVE ECONOMIC OFFENDERS

Economic offences relate to fraud, counterfeiting, money-laundering, and tax evasion, among others. Currently, various laws contain provisions to penalise such offences. These include: (i) the Prevention of Money-Laundering Act (PMLA), 2002 which prohibits money-laundering, (ii) the Benami Properties Transactions Act, 1988 which prohibits benami transactions, and (iii) the Companies Act, 2013 which punishes fraud and unlawful acceptance of deposits. Other laws such as the Indian Penal Code, 1860 and the Code of Criminal Procedure, 1973 also cover economic offences, such as forgery and cheating.

Fugitive Economic Offenders Act, 2018:

It **seeks to confiscate properties of economic offenders** who have left the country to avoid facing criminal prosecution or refuse to return to the country to face prosecution.

Fugitive Economic Offender (FEO): A person against whom an arrest warrant has been issued for committing an offence listed in the Act and the value of the offence is at least Rs. 100 crore.

Some of the **offences** listed in the act are:

- ❖ Counterfeiting government stamps or currency.
- ❖ Cheque dishonour.
- ❖ Money laundering.
- ❖ Transactions defrauding creditors.

Declaration of a Fugitive Economic Offender:

- ✓ After hearing the application, a special court (designated under the **PMLA, 2002**) may declare an individual as a fugitive economic offender.
- ✓ It **may confiscate properties** which are proceeds of crime, Benami properties and any other property, in India or abroad.
- ✓ Upon confiscation, **all rights and titles of the property will vest in the**

central government, free from encumbrances (such as any charges on theproperty).

- ✓ The central government may appoint an administrator to manage and dispose of these properties.

Bar on Filing or Defending Civil Claims:

- ➢ The Act allows any **civil court or tribunal to prohibit a declared fugitive economic offender** from **filing or defending any civil claim**.
- ➢ Further, any **company or limited liability partnership** where such a person is a majority shareholder, promoter, or a key managerial person, may also be barred from filing or defending civil claims.
- ➢ The authorities may **provisionally attach properties of an accused**, while the application is pending before the Special Court.

Powers:

- The authorities under the PMLA, 2002 will exercise powers given to them under the Fugitive Economic Offenders Act.
- These powers will be **similar to those of a civil court**, including the search of persons in possession of records or proceeds of crime, the search of premises on the belief that a person is an FEO and seizure of documents.

PREVENTION OF MONEY LAUNDERING ACT (PMLA):

Money Laundering:

- ❖ Money laundering is **concealing or disguising the identity of illegally obtained proceeds** so that they **appear to have originated from legitimate** sources. It is frequently a component of other, much more serious, crimes such as drug trafficking, robbery or extortion.
- ❖ According to the International Monetary Fund **(IMF)**, global Money Laundering is estimated between **2 to 5%** of **World GDP**.

Salient Features:

Punishment for money-laundering:

- Money laundering is punishable with rigorous imprisonment for a minimum of 3 years and a maximum of 7 years and Fine.
- If the crime involves the **Narcotic Drugs and Psychotropic Substances Act, 1985**, the punishment can go up to **10 years**, along with fine.

Powers of attachment of tainted property:

- The property is believed to be "proceeds of crime" and can be provisionally attached for 180 days. Such an order is required to be confirmed by an independent Adjudicating Authority
- The **Enforcement Directorate (ED)** is responsible for investigating offences under the PMLA.
- Also, the **Financial Intelligence Unit – India (FIU-IND)** is the national agency that receives, processes, analyses and disseminates information related to suspect financial transactions.

Burden of proof: A person, who is **accused of having committed the offence** of money laundering, has to prove that alleged proceeds of crime are in fact lawful property.

ENFORCEMENT DIRECTORATE

- Directorate of Enforcement is a **specialized financial investigation agency** under the Department of Revenue, **Ministry of Finance**.
- On 1st May 1956, an 'Enforcement Unit' was formed, in the Department of Economic Affairs, for handling Exchange Control Laws violations under Foreign Exchange Regulation Act, 1947.
- In the year 1957, this Unit was renamed as 'Enforcement Directorate'.
- ED enforces the following laws:
- ✓ Foreign Exchange Management Act,1999 **(FEMA)**
- ✓ Prevention of Money Laundering Act, 2002 **(PMLA)**

VENUS IS BACK IN THE EXPLORATION LIMELIGHT.

NASA has selected **two missions** to the **planet Venus, Earth's nearest neighbour**. The missions called **DAVINCI+** and **VERITAS** have been selected based on their **potential for scientific value** and the **feasibility of their development plans**. NASA is expected to allot $500 million to each of these missions that will launch between **2028-2030**.

On Earth, **Venus is the second-brightest object in the sky after the moon**. It appears bright because of **its thick cloud cover** that reflects and scatters light. But while Venus, which is the **second closest planet to the Sun**, is called the **Earth's twin because of their similar sizes**, the two planets have significant differences between them.

For one, the **planet's thick atmosphere traps heat** and is the reason that **it is the hottest planet in the solar system**, despite **coming after Mercury**, the closest planet to the Sun. **Surface temperatures on Venus can go up to 471 degrees Celsius**, which is hot enough to melt lead, NASA notes.

Further, **Venus moves forward on its orbit around the Sun** but **spins backwards around its axis slowly**. This means on Venus the **Sun rises in the west and sets in the East**. **One day on Venus is equivalent to 243 Earth days** because of its backward spinning, opposite to that of the Earth's and most other planets. **Venus also does not have a moon and no rings.**

Because of the planet's harsh environment, **no humans have visited it** and even the **spacecraft that have been sent to the planet have not survived for a very long time**. "Venus' high surface temperatures overheat electronics in spacecraft in a short time, so it seems unlikely that a person could survive for long on the **Venusian surface**, NASA says.

So far, **spacecraft from several nations have visited the planet**. The first such spacecraft was the **Soviet Union's Venera series** (the spacecraft, however, could not survive for long because of the planet's harsh conditions), followed by **NASA's Magellan Mission** that studied **Venus from 1990-1994**. As of now, **Japan's**

Akatsuki mission is studying the planet from Orbit.

Both missions are part of the space agency's Discovery Program, which began in 1992 to give scientists the chance to launch some missions that use fewer resources and have shorter developmental times. The two selections are a part of the **ninth Discovery Program** and were made from proposals submitted in 2019.

DAVINCI+ is short for '**Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging'** and is the **first US-led mission to the planet's atmosphere since 1978.** It will try to understand Venus' composition to see how the planet formed and evolved. This mission also consists of a **descent sphere** that will pass through the planet's thick atmosphere and make observations and take measurements of noble gases and other elements.

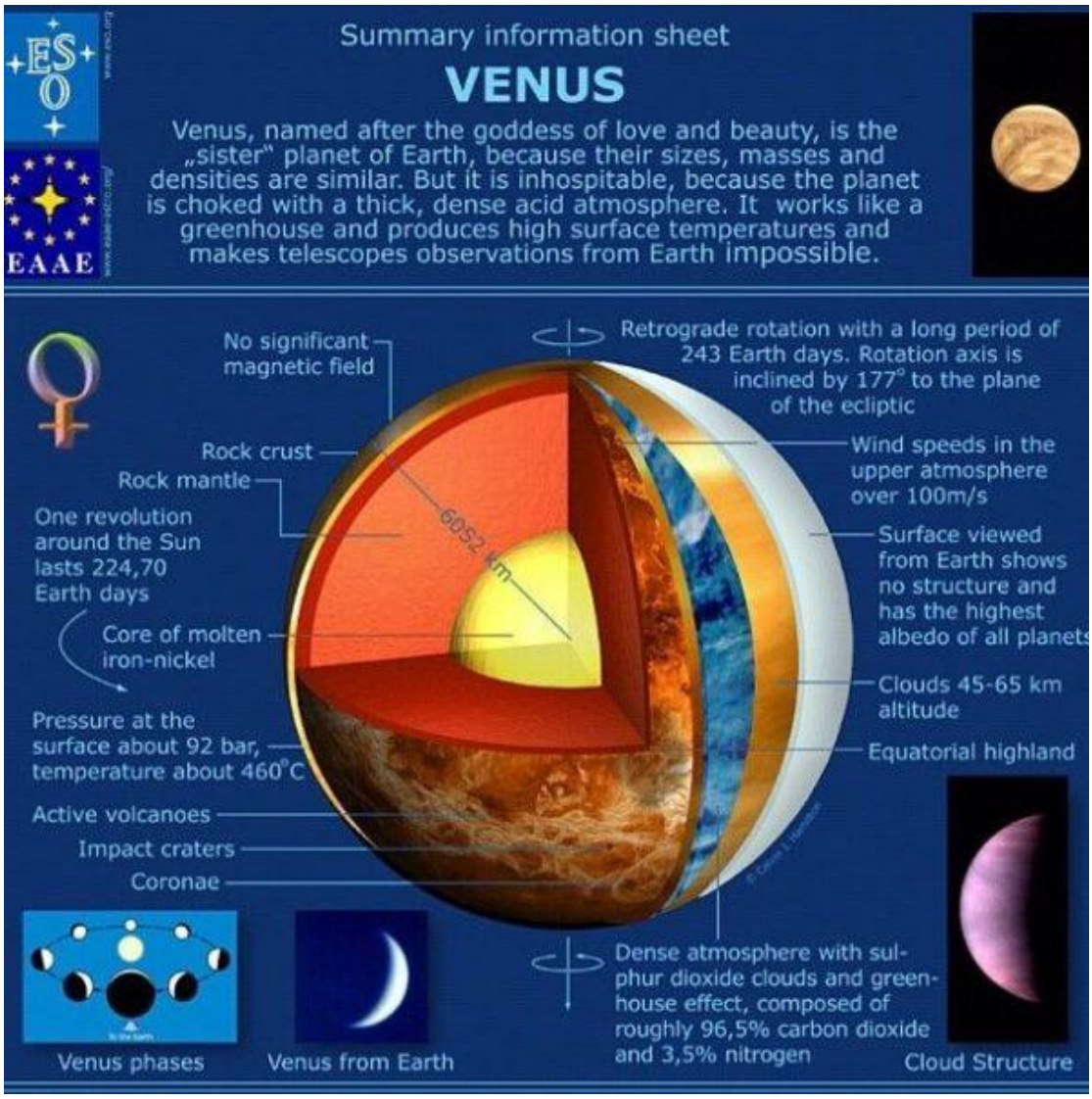
Significantly, **this mission will also try to return the first high resolution photographs of a geological feature** that is unique to Venus. This feature, which is called "**tesserae**" may be comparable to Earth's continents, NASA says. The presence of tesseraes may suggest that **Venus has tectonic plates like Earth**.

The second mission called **VERITAS** is short for '**Venus Emissivity, Radio Science, InSAR, Topography, and Spectroscopy'** and will map the **planet's surface to determine its geologic history** and understand the reasons why it developed so differently from Earth.

VERITAS will orbit Venus with a radar that will help to create a three dimensional reconstruction of its topography which might be able to tell scientists if processes such as plate tectonics and volcanism are still active there. This mission will also map the emissions from Venus's surface that may help in determining the type of rocks that exist on **Venus–a piece of information** that is not exactly known yet. It will also determine if active volcanoes are releasing water vapour into the atmosphere.

The **results from DAVINCI+** are expected to **reshape the understanding of terrestrial planet formation in the solar system and beyond**. Taken together, both missions are expected to tell scientists more about the planet's thick cloud cover and the volcanoes on its surface.

Further, scientists speculate about the **existence of life on Venus** in its distant past and the possibility that life may exist in the top layers of its clouds where temperatures are less extreme.



WHAT THE MODEL TENANCY ACT MEANS FOR LANDLORDS, TENANTS AND NRIS?

After releasing the **draft in 2019**, the Centre on 2 June 2021 formally approved the **Model Tenancy Act (MTA)** to streamline the process of renting property in India.

As per Census 2011, **more than 1 crore houses were lying vacant in urban areas** across the country. The **Ministry of Housing and Urban Affairs** says that the **existing rent control laws** are restricting the growth of rental housing as they discourage the owners from renting out their vacant houses due to fear of not getting them back.

In **absence of a model law**, there are **informal agreements with arbitrary clauses** and often litigation arising out of disputes. As per the government, both the **tenants as well as the owner are** often found at the wrong end of a bargain in informally drafted agreements.

The **existing rent control laws are restricting the growth of rental housing** and discourage owners from renting out their vacant houses due to **fear of repossession**. One of the potential measures to unlock the vacant house is to bring transparency and accountability in the existing system of renting of premises and to balance the interests of both the property owner and tenant in a judicious manner, the law says.

States can adopt the new act as it is by fresh legislation, as it is a state subject, or they can amend their existing rent acts suitably to factor in the new MTA. **States and Union Territories have MoUs signed with the Centre** under the **Pradhan Mantri Awas Yojana-Urban** which has this provision.

In 2015, before the **Housing for All by 2022 Mission** (Pradhan Mantri Awas Yojana-Urban) was launched, it was decided that **20 per cent of the two crore houses** that were to be created should be exclusively for rent. The decision was based on a **2013 report by a Union government Task Force for Rental Housing**, which held that affordable rental housing **"addresses the issues of the underprivileged and**

inclusive growth, in an even more direct manner than affordable ownership housing". The **Expenditure Finance Committee** even cleared an outlay of Rs 6,000 crore for a rental component in PMAY-U; the Centre would bear 75 per cent of the expenses incurred to create rental housing stock, while the rest would be borne by states, urban local bodies, or through NGOs or CSR activities of the private sector.

As per the ministry's studies, **rental housing is a preferred option for different segments of society** such as **migrant labour, working professionals** and especially students. After enforcement of this Act, no person shall let or take on rent any premises except by an agreement in writing.

Repeal of local rent control Acts has been a politically sensitive issue in cities with **high-value rent markets,** like especially in South Mumbai, where old properties in prime locations have been occupied for decades by residential and commercial tenants at negligible rents. The **Model Act has been in the making since 2015**, but has been held up on this point.

The **new Act will be applicable prospectively** and will not affect existing tenancies. **Rent and duration of tenancy to be fixed by mutual consent** between owner and tenant through a written agreement. This Act seeks to cover urban as well as rural areas.

The law envisages a dedicated and **robust redressal ecosystem in India** for rent-agreement-related disputes. **States will set up grievance redressal mechanisms** consisting of **Rent Authority**, **Rent Court** and **Rent Tribunal** to provide fast-track resolution of disputes. Disposal of complaint/appeal by Rent Court and Rent Tribunal will be mandatory within 60 days.

There is **no monetary ceiling under the new law**, which enables parties to negotiate and execute the agreement on mutual agreed terms. While this is the case even now, in many old properties let out under **archaic rent-control acts**, such ceilings have forced landlords to be stuck with outdated rent amounts. Now, this law will give confidence to landlords to let out their vacant premises.

A **digital platform will be set up in the local vernacular language** or the language of the State/UT for submitting tenancy agreement and other documents. The Rent Authority will keep a tab on these agreements. It would avoid dispute by clarifying the roles and responsibilities of landlord as well as tenant, the ministry says.

Verbal agreements will be out of the picture, as the MTA mandates written agreement for all new tenancies which is to be submitted to the Rent Authority. The tenant will continue to pay the rent even during the pendency of a dispute with a landlord, and this is enshrined in the new Act. **Subletting of premises can only be with the prior consent of the landlord** and no structural change in the premises can be done by the tenant without the written consent of the landlord.

The **security deposit to be paid by the tenant** should not exceed two months' rent for residential property, and should be a minimum of one month's rent for non-residential property. **It lists the kinds of repairs each party would be responsible for**, with the proviso that money for repairs can be deducted from the security deposit or rent, as applicable, if a party refuses to carry out their share of the work. No arbitrary eviction of tenant can be done during the currency of tenancy period except in accordance with provisions of the Act.

The **Rent Court can allow repossession of the property by the landlord** if the tenant misuses the premises, after being served a notice by the landowner. Misuse of the premises, as defined, includes public nuisance, damage, or its use for **"immoral or illegal purposes".** If the tenant refuses to vacate, the landlord can claim double the monthly rent for two months, and four times the monthly rent thereafter.

In case of **"force majeure"** event, the **landlord shall allow the tenant to continue in possession till a period of one month from date of cessation** of such disastrous event on the terms of existing tenancy agreement.

The **security deposit will be equal to a maximum of two month's rent** in case of residential premises and **maximum of six month's rent in case of non-residential premises**.

The government says the Act aims **to formalise the shadow market of rental housing, unlock vacant properties, increase rental yields, ease/remove exploitative practices, reduce procedural barriers in registration**, increase transparency and discipline, which would help in reposing confidence of investors in the sector besides improving quality of rental housing stock.

Case of NRIs

Indian real estate has long been of interest to the NRIs. Residing overseas this community looks to have a house/residential property back in their home country which can be used to settle down once they decide to move back or even to invest in an asset class that has delivered superior returns in the long term.

The NRIs/HNIs expect investor-friendly laws for investment in any asset class with well-defined norms. The Model Tenancy Act once implemented by the states can help in the following ways.

Ease of Leasing – One of the biggest pain points in leasing out the properties was the fear in the mind of the NRIs, overseas investors, or even people who stay outstation that the tenant may not vacate the property post the lease tenure. There is a clause of penalty on the tenant in the event of failure to vacate the premise post the lease period. The Act safeguards the rights of the landlord as well as the tenants. The Act aims to do away with the concept of a hefty security deposit; the step will boost rental activities.

A steady flow of income – A high number of residential units were purchased and kept vacant due to the uncertainties related to the tenant vacating the property post the tenure of the lease. The act clears the air, will instill confidence in the minds of the investors to lease out the properties and unlock gains in the form of regular monthly rentals.

Institutional investment in residential units – The Act aims to formalize the renting & leasing activity of real estate properties in the country. The clarity on leasing laws will help boost institutional investment in residential real estate properties. Till now the HNI/NRI investment was largely seen in commercial

properties due to the sheer scale, size, and high rental yields vs the residential properties. The new Act will boost confidence and institutional investment in residential real estate too. Developers can now work on projects that are built to lease which will reduce their cost substantially.

Institutionalizing rental business in India – Investor-friendly laws will help attract global investment into the Indian real estate industry. We have already seen a stellar response to several REITs' IPO in India. The new act has the potential to attract similar investment in the residential real estate segment and institutionalize the renting business in India.

USA'S NEW EAGLE ACT, AND INDIANS

A **legislation to remove the per-country cap on permanent residency visas**, or **green cards,** for the US has been introduced in the House of Representatives.

On 1 June 2021, Democrat Representative Zoe Lofgren and Republican John Curtis, introduced the **Equal Access to Green cards for Legal Employment (EAGLE) Act** of 2021, which, according to their statement, will **"benefit the US economy** by allowing American employers to focus on hiring immigrants based on their merit, not their birthplace".

The bill will be **advantageous for Indian job-seekers** who currently rely on temporary visas or await green cards to work in the US.

What does the EAGLE Act say about the per-country limit?

The **bipartisan act** seeks to **phase out the seven per cent per-country limit** on employment-based immigrant visas and raises the per-country limit on family-sponsored visas **from seven per cent to 15 per cent**. It provides for a **nine-year period for the elimination of this limit.**

The **seven per cent limit was introduced in the mid-20th century**, which has led countries with relatively small populations to be allocated the same number of visas as a **relatively large-population country**, states a press release by the Representatives.

A person from a **large-population country with extraordinary qualifications** who could contribute greatly to our economy and create jobs waits behind a person with lesser qualifications from a smaller country, the statement further reads, adding that the act seeks to **'de-emphasize birthplace'**.

How does it help Indians?

Think-tank Cato Institute had reported in March 2020 that **75 per cent of the backlog for employment-based visas** was made up of Indians.

"Backlogged Indian workers face an impossible wait of nine decades if they all could remain in the line," the report states. **"More than 200,000 petitions filed** for Indians could expire as a result of the workers dying of old age before they receive green cards."

With the EAGLE Act, the **per-country cap would be removed**, which may expedite the petitions for those applying for **employment-based green cards**.

However, since the **highest number of applicants is from India and Ch**ina, the EAGLE Act also seeks to reserve visas for '**Lower Admission States'** for nine fiscal years (FY). While **30 per cent of employment-based visas** will be reserved in FY1, this would be reduced to five per cent in FY 7, 8 and 9.

The bill also ensures that **"no country may receive more than 25 per cent of reserved visas** and no country may receive more than 85 per cent of unreserved visas," in the nine fiscal years.

What about predecessors to the EAGLE Act?

A similar Fairness for **High-Skilled Immigrants Act (HR1044)** was passed by the House of Representatives in July 2019 with a resounding margin 365 to 65 votes. A total of 224 Democrats and 140 Republicans had voted in favour of the Bill.

The **bill sought to implement similar provisions** which would remove the **seven per cent cap on per-country employee-backed immigrant visas.**

Another version of the bill (S386) was passed by the Senate in the **116th session of the Congress.** Some of the co-sponsors of the bill include now-Vice President Kamala Harris and Republican Mitt Romney.

However, according to the **American Immigration Lawyers' Association**, the legislation failed because **"the differences between the two versions were not reconciled prior to the end of the session,"** which meant that a bill would have to be re-introduced.

According to the Washington Street Journal, Senator Rick Scott had inserted two measures which were not included in the House's version of the bill. These included "a new cap of sorts for the next decade on the overall number of immigrants on **H-1B visas** who can receive green cards" and tighter restrictions for Chinese nationals seeking immigration.

Close to 45 organisations, including **civil rights and immigration-related bodies**, had written to Jerrold Nadler and Lofgren seeking removal of such provisions which were "reminiscent of the Chinese Exclusion Act".

The **EAGLE Act bill which has now been introduced makes no such provisions**. It would have to be passed through the House of Representatives and the Senate, and then signed by the President of the United States for it to become a law.

THE UTTER ECONOMIC NECESSITY OF REFORMING INDIA'S POWER SECTOR

The COVID-19 pandemic and the nationwide lockdown to contain its proliferation has, in turn, **set off an unprecedented blow** to the already moribund power sector.

Indian power sector needs reforming, because

Continuous increase of payables by power DISCOMS: The total liquidity package of Rs 90,000 crore announced for discoms and more than Rs 70,000 crore has been sanctioned and Rs 25,000 crore has been disbursed.

- It has led to significance increase of payables of discoms which is a growing concern and the amount released by the government until now is not sufficient.

Growth of Indian power sector: The IEA anticipates India's power system to grow to an installed capacity of up to 1 500 GW by 2040.

- It will push the scale of India's power market beyond the size of the EU's synchronised grid, which connects around 1 000 GW of installed generation across 27 countries.
- It will bring it much closer to the size of China's grid, which handled 2 000 GW in 2019.

Fuel Security Concerns: The thermal capacity addition is plagued by the growing fuel availability concerns faced by the Industry.

- The coal supplies by CIL is restricted to around 65% of actual coal requirement by coal based thermal plants, leading to increased dependence on imported coal with the cascading result of high power generation costs.

Financial Health of State Discoms: The mounting AT&C losses and operational inefficiencies have adversely affected the financial health of State Discoms which are currently plagued with humongous out-standing debts.

Under-procurement of Power by States: The increasing power generation costs due to limited fuel availability, poor financial health of State Discoms, high AT&C losses have contributed in suppressed demand projections by State Discoms.

Inimical Financing Environment: Over the last 4-5 years, the leading rates have increased significantly from the time of project appraisal resulting in project cost overrun and hence higher end tariffs.

Policy Paralysis: The micro level policies governing the fuel cost pass-through, mega power policy, competitive bidding guidelines are not in consonance with the macro framework like The Electricity Act 2003 and the National Electricity Policy.

Measures to be adopted for reforming Indian Power sector

Promotion of renewable energy for power generation: India has set an ambitious target of setting-up 300 GW of solar capacities over the next 10 years.

- The government also plans to double the solar modules or cell manufacturing in two years, which is expected to increase the appeal of the sector even more for investors.

Increase in investments in renewable energy: It is believed that the investments in the renewable energy segment can surge by as much as 35 per cent.

- The push towards clean energy is driving global investor interest in the Indian renewables sector that has been reflected in the project tenders in India getting oversubscribed amid strong participation by global investors.

Reform the electricity tariff system: The IEA commends the government's push for reforms towards cost-reflective tariffs and direct subsidy schemes.

- India's governments could explore two measures through reducing cross-subsidization from industrial demand and providing direct transfers for vulnerable consumers, paid out of state budgets, instead of paying price subsidies for residential users to discoms.

Implementation of direct benefit transfers as a means of subsidy reform: The direct transfers for the most vulnerable consumer groups and streamlined electricity tariffs for all consumers are revenue-neutral for state budgets.

- The government should present new guidelines for tariff structures across India as models for state governments and regulators to follow.

Achieve an India-wide wholesale electricity market with efficient trades: The power trading is largely a physical exchange of ancillary services to stabilise the synchronised system.

- The central government should boost a diverse set of flexibility options for the cost-effective integration of higher shares of variable renewables.

Seize the economic recovery as a major opportunity to boost the power sector resilience: The government needs to make sure that the governance of the distribution sector is adequate to meet those challenges and safeguard its physical and financial resilience.

ROAD AHEAD

- There is a dire need to **develop both conventional and non-conventional forms of energy**, wherein, three key factors must be kept in view for developing an energy mix:
- ✓ The pattern of energy demand seen in the country;
- ✓ The availability of fuels; and
- ✓ Fuel production and import costs
- The regulators need to be **sensitized to the challenges faced by the sector** and **policy framework needs to be crafted** and enforced to ensure a win-win situation for all the stakeholders.
- A **robust and sustainable credit enhancement mechanism** for funding in Energy Sector needs to be put in place through increased participation by global funding agencies like The World Bank, ADB etc. in the entire value chain.
- The private sector has been playing a key role in **generating power and a more supportive environment** will help in bridging the energy deficit of the country.

INDIA NEEDS REALISTIC TARGETS TO ACHIEVE ITS MARITIME GOALS.

The **growing maritime capability of China** is making India to quickly think and work towards **national maritime security strategy** to control China in Indian Ocean.

INDIA NEEDS TO BECOME A MARITIME POWER, BECAUSE

Global overpowering of China: China has not only overtaken the US Navy in numbers but it is also the world's top ship-producing nation, with the largest merchant navy, coast-guard and fishing fleet/maritime militia in the world.

Widening Gap in maritime capabilities: China laid down its first indigenous aircraft-carrier in 2015 and commissioned it in 2018 and the work on India's first indigenous aircraft-carrier commenced in 2009 and in 2021, the ship awaits completion.

Poor state of India's maritime capability: The initiation of programmes with inappropriate aims, choosing unrealistic targets, abandoning/renaming projects and not ensuring faithful implementation are the reasons underlying the dismal state of our maritime capability.

India is lagging behind various countries: The nations which were lagging behind India a few decades ago have surged ahead because of their vision and dynamism in the vital maritime arena.

India is tantamount to the inviolability of India's borders: The multifarious challenges to coastal security are posed by malevolent non-State actors and State-sponsored malevolent non-State actors predominate over all others.

- The maritime border of India lies 12 nautical miles (nm), i.e., 22 kilometres, seaward of the country's promulgated baseline.
- India is focussed upon attaining the objectives arising from a detailed analysis of the country's principal maritime interests.

IMPORTANCE OF INDIA AS A MARITIME POWER

Decisive role in the India-China rivalry: The naval power is going to play a decisive role because all eyes are focused seawards but the navies remain hollow without the backing of a strong maritime sector.

Sea offers wide range of benefits for a nation: The Sea contributes significantly to the development and prosperity of nations as the scientific and technological advances coupled with the progressive implementation of new concepts of use make the seas a rich source of opportunities.

Protection from sea-based threats to India's territorial integrity: The preservation, promotion, pursuit and protection of offshore infrastructure and maritime resources within and beyond the Maritime Zones of India (MZI).

- The promotion, protection and safety of India's overseas and coastal seaborne trade and her Sea Lines of Communication (SLOCs), and, the ports that constitute the nodes of this trade.

Ensuring Secure Seas: It envisages a coordinated and cooperative set of actions, in consideration of the spectrum of threats and challenges, and the key determinants and developments.

Indian peninsula is ensconced by seas & oceans: The nation's strategic location in the IOR and its potentials as a maritime power is a blessing for both the security of the region and the Indian economy.

India's role as a maritime power: It is crucial as 90 per cent of trade by volume and over 74 per cent by value takes place via sea routes.

CHALLENGES FOR INDIA IN BECOMING MARITIME POWER

China being a rival in Asia: An economically strong, expansionist, and militaristic China will use the Maritime Silk Route initiative to expand its sphere of influence and ensure dominance in the Indo-Pacific.

Domestic confinement of maritime projects: India launched its first "maritime modernisation" plan, bearing the catchy title of "Sagarmala" in 2003 but its focus was limited to port development and road/rail connectivity.

Lack of approach towards maritime power: The exclusive focus of successive governments on port development has led to gross neglect of other critical components of India's maritime capability.

- ❖ It includes merchant shipping, shipbuilding, ship repair, seabed exploration and fisheries etc. all of which have implications for India's maritime security as well as its "blue economy".

Tardy progress of national maritime plans: In seven years of National Maritime Development Plan (NMDP) 2005, only 82 of the 276 projects had been completed, while 30 had been dropped and 66 were still in the planning stage.

Maritime Domain Challenges: India's major ports are overloaded and inefficient, our shipbuilding industry is moribund, the merchant fleet is inadequate and growing at a snail's pace, seabed exploitation has yet to take off, the fishing industry is backward, and human resources are lacking everywhere.

Missing Industrial Underpinning: India finds itself in an anomalous situation wherein it possess nuclear weapons and boasts of the world's 5th or 6th largest armed forces, but is forced to support their operational requirements through massive imports.

Timely replacement of ageing platforms and obsolescent equipment: The failure of India to acquire even a reasonable level of self-reliance in major weapon systems in the past 66 years has made India the biggest importer of arms world-wide.

MEASURES TO BE ADOPTED BY INDIA TO BECOME A MARITIME POWER

Long-term approach to enhance maritime capability: It is time India evolved a National Strategy for the maritime sector that charts a 50-year path and receives Parliament's approval to ensure survival through changes of government.

Development of genuine intelligence-competence: It is a critical area upon which India needs to concentrate.

- The Sri Lanka Navy is the most experienced on the planet in fighting a maritime insurgency and also in innovatively maintaining high-speed Fast Attack Craft.

Development of regional Maritime Domain Awareness: It is itself a significant facet of intelligence the execution of a capability-centric maritime strategy based upon information and its country-specific translation into intelligence.

Creation of multi-disciplinary maritime advisory body: The first task of such a body should be to craft an overarching Maritime Security Policy and thereafter to undertake its integration with India's Maritime Strategy.

APPROACH FOR NATIONAL STRATEGY FOR MARITIME SECURITY

Strategy for Deterrence: It is the foundational strategy for India's defence as the prevention of conflict and coercion against India is the primary purpose of India's armed forces.

Strategy for Conflict: It describes the broad manner of employment of India's maritime forces during conflict which is based on the principles of war, with application of force and focus on strategic effect as additional operational principles.

Strategy for Shaping a Favourable and Positive Maritime Environment: It describes the ways in which the Indian Navy will contribute to shaping a favourable and positive maritime environment, to enhance net security therein.

Strategy for Coastal and Offshore Security: It describes the ways by which the cooperative framework and coordinative mechanisms for coastal and offshore security will be strengthened and developed, against threat of sub-conventional armed attack and infiltration from the sea.

Strategy for Maritime Force and Capability Development: It describes the ways to develop and maintain a combat ready, technology driven, network enabled navy, capable of meeting India's maritime security needs into the future.

ROAD AHEAD

- The governance of the **Indo-Pacific region should be partnership based rather than dominance based**, to ensure creating mutual prosperity in a free and open Indo-Pacific.
- The sustainability concern is critical to **adhere to the challenge of climate change** and ensure good order at sea for the global sea boundary.
- The maritime security lies in the mind, and needs to be dealt with on a cognitive plane as **India need to remind itself of its basic purpose** and the fact that sustenance of a powerful and expensive navy requires the support of a sound industrial base.
- It is necessary for India's decision-makers to appreciate that **maritime security must be viewed in a holistic manner.**
- The Asian countries which **have brought holistic focus on their maritime sector** have not only reaped tremendous economic benefits but also reinforced their maritime security.

BRIDGING THE GENDER GAP IN SCIENCE AND TECHNOLOGY

Recently, the Women and Child Development Minister Smriti Irani had announced that **11 women scientists would be honoured with national chairs (professorships)** named after "historical women scientists".

CAUSES OF GENDER GAP IN SCIENCE AND TECHNOLOGY IN INDIA

Discriminatory familial responsibilities weigh women down: It is still often assumed that women are the primary caregivers and liable to compromise their professional responsibilities.

- It is still considered okay to judge the parental or life-partner status of a woman scientist while deciding to hire her or give her a leadership position, overlooking her merit.

Under-representation of women in the field of science: There is extensive evidence of gender differences in academia suggesting that women are underrepresented in most scientific disciplines and publish fewer articles throughout a career.

Lack of payment equality among men and women: It is also a well-known fact that women in science and technology are paid less for their work and often experience huge difficulties to advance their careers.

Disparity differs across academic disciplines: The women scientists tended to occupy lower rungs of the institutional hierarchy.

- A drop in the selected women-fraction compared to that of the pool is a hallmark of the discrimination in the process.

IMPORTANCE OF WOMEN IN THE FIELD OF SCIENCE AND TECHNOLOGY

Growth of GDP: It is estimated that narrowing the gender gap could add between $12 and $28 trillion to the global gross domestic product (GDP).

Achieving SDGs require women participation: The women and girls must be given equal opportunities to design and develop many of the solutions needed to achieve the UN Sustainable Development Goals and the Paris Agreement.

A bigger boost to growth: The productivity and growth gains from adding women to the labor force are larger because women bring new skills to the workplace.

Higher productivity: When interpreting past data in situations where the gender gap has been narrowing over time, the contribution to growth from improved efficiency (or total factor productivity gains) is overstated.

Higher male incomes: There are results which suggest that men's wages will also increase as a result of greater inclusion of women in the labor force since productivity will increase.

A bigger payoff to reducing gender barriers along development paths: The rise of the services sector driven by economic development brings more women into the labor force.

CHALLENGES IN CLOSING GENDER GAP IN SCIENCE AND TECHNOLOGY

Lack of enrolment of women in PhD programme: The women constitute nearly 50 per cent of science PhDs employed in Indian higher education, but granular statistics, from physics, engineering and the industrial workforce show a large gender gap that widens further at the higher echelons.

Higher gender gap at prestigious positions: About 680 faculty span mostly engineering and science, of which nearly 60 hold prestigious "chairs" but only 14 per cent of the faculty and 9 per cent of the chairs are women, even as 25 per cent of the chairs remain unfilled.

Underrepresentation may lead to displacement: The under-representation of women in STEM puts women as a group at the high risk of being displaced by technology as India is likely to overtake the US as the world's largest developer population centre by 2024.

Social Conditioning: It is the most acute problem throughout one's childhood and adolescence.

- The dangerous spin-off brought about by social conditioning of children is when they develop cognitive biases as adults.

Caregiver: Women are often considered as caregivers for the family and there is more emphasis on time-off policies for new mothers and not concerned on academic and research contribution of women.

Stigmas towards women still exist: The gender bias and discrimination is prevalent in different areas, including publishing in peer reviewed journals.

- There is a deeply chauvinistic society where men are in positions of leadership and women are not allowed for a position of leadership.

INITIATIVES TAKEN BY GOVERNMENT TO PROMOTE WOMEN IN SCIENCE

Vigyan Jyoti: It is an initiative that will create a level-playing field for the meritorious girls in high school to pursue Science, Technology, Engineering, and Mathematics (STEM) in their higher education.

Gender Advancement for Transforming Institutions (GATI): It will develop a comprehensive Charter and a framework for assessing the Gender Equality in Science, Technology, Engineering and Mathematics (STEM).

An **online portal for science and technology resources** for women will provide E-resources related to all women-specific government schemes, scholarships, fellowships, career counseling with details of subject area experts from various disciplines in science and technology.

Women Scientist Scheme (WOS): It is aimed at providing opportunities to women scientists and technologists who desire to return to mainstream science after a break in career due to social responsibilities.

Knowledge Involvement in Research Advancement through Nurturing (KIRAN): It was launched in 2014 to bring gender parity in Science &Technology through gender mainstreaming.

Women technology parks (WTPs): It acts as a single window hub for convergence of diversified technologies, leading to socio-economic development of women through capacity building and adoption of location-specific technologies.

INDO-US Fellowship for Women in STEMM (WISTEMM): It aims to provide opportunities to Indian women scientists, engineers and technologists to undertake international collaborative research in premier institutions in USA to enhance their research capacities and capabilities.

MEASURES TO BE ADOPTED TO CLOSE GENDER PARITY IN SCIENCE AND TECHNOLOGY

Gender Sensitization: It is necessary to stop women-only training workshops to "fix the women" and instead gender-sensitise all faculty and management because all of us, regardless of gender, are raised to accept sexist thought and action.

Address cultural impediments: Some cultures perpetuate stereotypes about who belongs in tech and who does not.

- It is necessary to counter culture with culture as we must elevate female role models (especially girls and women of colour) in pop culture, business and everyday life.

Encouraging girls to be brave: Programming is all about risk-taking, tinkering and trying new things and it is about trial and error and the acceptance of setbacks.

Dedicated commitments and investments: It is required from the private sector, philanthropies and governments which will help girls overcome the many obstacles they face in primary school and college.

Availability and implementation of specific policies: The strategies in wider policies for the promotion of (female) participation in STEM-related TVET aim at a systemic response by simultaneously targeting different parts of the system.

Collection and analysis of data: There is a need to develop indicators at a global level that can better capture changing patterns of participation and performance of girls and women in STEM-related subjects.

ROAD AHEAD

- The parents should take care to **remind their children that they can grow up to do anything** that they want, while providing a wide range of opportunities for children to explore their interests.
- The **scholarships and grants** can help to bring women into STEM departments.
- It is **critical for employers to identify and address discrimination in their hiring practices** so they can produce a diverse workplace to promote greater happiness and productivity among their employees.
- The DST plans to **run intensive gender sensitisation programmes**, especially for the top leadership of institutions, and work within existing rules such as pushing for women members on selection committees during recruitment processes.

INTERNET FROM THE SKIES

Following the **successful launch of 36 satellites** on 28 May 2021, **OneWeb's Low Earth Orbit (LEO) constellation** reached **218 in-orbit satellites**. The company only has one more launch to complete before it obtains the capacity to enable its **'Five to 50' service of offering internet connectivity to all regions** north of **50 degrees latitude**. The **Five to 50 service is expected to be switched on by June 2021** with global services powered by **648 satellites available in 2022**.

OneWeb is a global communications company that **aims to deliver broadband satellite Internet** around the world through **its fleet of LEO satellites**. In 2010, the company declared bankruptcy **but was able to resume operations** following an inflow of investment from a consortium consisting of the UK Government, Hughes Communication, Sunil Mittal's Bharti Global Limited, SoftBank and Eutelsat, a leading European satellite operator.

OneWeb satellites are built at a OneWeb and Airbus joint venture facility in Florida that can produce up to **two satellites a day**. The launch roll-out of the satellites is **facilitated by French company Arianespace** using **Russian made Soyuz rockets**. The company has announced plans to **enter the Indian market by 2022**.

LEO satellites have been **orbiting the planet since the 1990s**, providing companies and individuals with **various communication services**. **LEO satellites are positioned around 500km-2000km from earth**, compared to stationary orbit satellites which are approximately 36,000km away. **Latency**, or the **time needed for data to be sent and received,** is **contingent on proximity**. As **LEO satellites orbit closer to the earth**, they are able to provide **stronger signals and faster speeds** than **traditional fixed-satellite systems**. Additionally, because **signals travel faster through space than through fibre-optic cables**, they also have the potential to rival if not exceed existing ground-based networks.

However, **LEO satellites travel at a speed of 27,000 kph** and **complete a full circuit of the planet in 90-120 minutes**. As a result, **individual satellites can only make direct contact** with a land transmitter for a short period of time thus requiring massive LEO satellite fleets and consequently, a significant capital investment. Due to these costs, of the **three mediums of Internet – fibre, spectrum** and **satellite** – the **latter is the most expensive**. In line with that assessment, part-owner of OneWeb, Sunil Mittal, has asserted that **LEO satellite broadband is only preferable in areas** that cannot be reached by fibre and spectrum services. In his opinion, **OneWeb's target market** will therefore be rural populations and military units operating away from urban areas.

OneWeb's chief competitor is Starlink, a **venture led by Elon Musk's SpaceX**. **Starlink currently has 1,385 satellites in orbit** and has already **started beta testing in North America** and **initiating pre-orders in countries like India**. However, **Starlink's satellites fly closer to the earth** and therefore, the company requires a **larger fleet to provide global connectivity than OneWeb**.

Rivals, including OneWeb, have complained that at the **lower altitude Starlink interferes with their services** and **increases the risk of collision**. Despite their complaints, **SpaceX recently won a year-long legal battle to modify its operating licence to fly 2,800 more satellites closer to earth**. Starlink services are currently priced at $500 to purchase the antenna and modem with an additional $99 per month in subscription fees. No other company has announced its pricing mechanism thus far, but experts hope that costs will go down with economies of scale.

According to an Asian Development Bank report, authored by John Garrity and Arndt Husar, **Starlink is "by far the most advanced in its satellite deployments**" with **OneWeb coming in second** and **Canadian company Telesat**, a distant **third**.

Amazon is a newcomer to the space, with its **Project Kuiper initiative** announced in 2019. Garrity and Husar argue that **Starlink has a distinct advantage** over its competitors due to the ability of SpaceX to produce its own satellites and reusable rockets. While **Amazon also has its own rocket production**

capability, its **Blue Origin rocket is far less developed than SpaceX's Falcon 9**. The **Soyuz rockets used by OneWeb** are perhaps at the biggest disadvantage with the technology being 50 years old and the costs of launch significantly higher.

Other companies have also ventured into this market, including tech heavyweights **Google and Facebook**. The former launched its '**Loon' project in 2013**, using **high-altitude balloons to create an aerial wireless network**. After testing the service in **rural Kenya**, Google's parent company, **Alphabet, abandoned the project in 2021**. Taking a different track, **Facebook attempted to beam internet down to earth using drones**. However, after two failed test flights, it also **abandoned the project in 2018**. It has since announced its intention to launch a new internet service using **satellite technology**.

During the days of the **Sputnik and Apollo missions**, governments dominated and **regulated space-based activities**. However, today, **the balance of power** has shifted from countries to companies. **Euroconsult**, a **leading satellite consultancy firm**, estimates that 1**,250 satellites will be launched annually this decade**, with **70% of them for commercial purposes**. Even government entities like the US Department of Defence have turned to private providers, entering into a contract to buy satellites from SpaceX. As a result, there are questions related to **who regulates these companies**, especially given the myriad of nations that contribute to individual projects.

For example, **OneWeb is owned by a consortium comprising an Indian businessman**, **an American company**, an intergovernmental organisation formed by 17 European countries, a Japanese investment firm and the UK government. Its satellites are produced in the US, its rockets are made and launched in Russia and its launches are facilitated by a company based out of France. Moreover, it has to receive requisite licences to operate in each country, including, in most cases, from the country's telecommunications sector and department of space. All those considerations make for a **complicated regulatory framework** and that's before going into the question of **who dictates activities in space**. SpaceX for its part has

addressed that question, stating in its terms of conditions that while the company currently complies with California law, if it extends its reach to Mars, **"no Earth-based government has authority or sovereignty over Martian activities."**

There are **logistical challenges** with **launching thousands of satellites into space** as well. Satellites can sometimes be seen in the night skies which creates difficulties for astronomers as the satellites reflect sunlight to earth, leaving streaks across images. **Satellites travelling at a lower orbit can also interrupt the frequency of those orbiting above them**, an accusation that has been levelled against Starlink satellites already. Another worry is that there are already **almost 1 million objects larger than 1cm in diameter in orbit,** a **byproduct of decades of space activities**. Those objects, colloquially referred to as **'space junk**,' have the potential to damage spacecraft or collide with other satellites.

The **acquisition of OneWeb by Bharati Limited** could arguably give it a **distinct advantage in India and parts of Africa**, in which another Bharati company, Airtel, already has a significant presence. Currently, **Starlink and OneWeb aim to launch in India** by **2022**, with **Amazon's Project Kuiper also in talks to receive regulatory approval** to operate in the country. Over **70% of rural Indians do not have access to the Internet**, a problem that is particularly worrisome given the increasing need for digital integration in the fields of education and banking in light of the pandemic. However, while companies like **OneWeb and Starlink have marketed themselves to rural Indian consumers**, given their price points (and expected price points in the case of OneWeb,) it is unlikely that most rural Indians will be able to afford their services.

Additionally, according to the **ADB report referenced earlier, "telecom operators are already challenging the expected market entry of NGSO (LEO) satellites**," fearing that they could cut into their profits. Barriers to entry and elevated prices will make it difficult for satellite broadband companies to operate in India in the short term but according to several estimates, they will eventually become a major player in the industry.

DISRUPTIVE INNOVATION IN INDIA HEALTHCARE: THE TIME HAS COME TO THINK DIFFERENTLY

Amid the coronavirus pandemic, the **medical community has been selfless**, but also losing a number of staffs in the process.

- ❖ It is in such a situation that the **relevance of disruptive technology and its applications** comes into focus in order to reduce the chances of hospital staff contracting the infection.

WHY DISRUPTIVE TECHNOLOGY IS NEEDED FOR INDIA'S HEALTHCARE?

Universal Health Coverage (UHC): It is the single most powerful concept that public health has to offer.

- ✓ It is a powerful social equalizer and the ultimate expression of fairness.

Growing popularity of medical tourism: The healthcare is now one of the largest sectors in India both in terms of revenue and employment, and it is booming thanks to increased investment by private players.

Moving Healthcare from Hospital to Home: The COVID-19 has ramped up technological disruption in the healthcare industry.

- ✓ The pandemic accelerated the need for remote patient monitoring and usage of IoMT in ambulatory and home care, which has led to a boom in tele-consultations and monitoring.

Increased role of secondary and tertiary hospitals: These centers are now able to provide higher levels of care thanks to advancements such as telemedicine.

- ✓ The specialists who are employed only by primary hospitals in large urban centers are no longer limited to only serving patients in-person.

Application of smart devices: It allows both patients and providers to monitor conditions at a previously unprecedented level.

- ✓ The apps for consumer devices such as smart watches and fitness bands provide patients with real-time data and allow providers to view information over time.

Technology and human hand-in-hand for a better healthcare: could help transform unsustainable healthcare systems into sustainable ones, equalize the relationship between medical professionals and patients, and provide cheaper, faster and more effective solutions for diseases.

ROLE OF TECHNOLOGY IN HEALTHCARE AND SOCIETY

Creation of autonomous systemic data: Blockchain technology can help in addressing the interoperability challenges that health information and technology systems face.

- ✓ The health blockchain would contain a complete indexed history of all medical data, including formal medical records and health data from mobile applications and wearable sensors.

Big data analytics: It can help improve patient-based services tremendously such as early disease detection.

- ✓ The AI and the Internet of Medical Things, or IoMT (which is defined as a connected infrastructure of medical devices, software applications, and health systems and services) are shaping healthcare applications.

Medical autonomous systems: It can also improve health delivery to a great extent and their applications are focused on supporting medical care delivery in dispersed and complex environments with the help of futuristic technologies.

- ✓ It may also include autonomous critical care system, autonomous intubation, autonomous cricothyrotomy and other autonomous interventional procedures.

Usage of cloud computing facility: It facilitates collaboration and data exchanges between doctors, departments, and even institutions and medical providers to enable best treatment.

Level-playing field for all sectors: The big data applications in the health sector should help hospitals provide the best facilities and at less cost, provide a level playing field for all sectors, and foster competition.

Connectivity among healthcare services: The IoMT offers the connection of smart medical devices and software applications to improve the services offered by hospitals, medical equipment, outsourced expertise, telemedicine, medical tourism, and health insurance.

CHALLENGES AHEAD ADOPTION OF TECHNOLOGY FOR HEALTHCARE SECTOR

Lack of interoperability: The patient identification is not standardized yet and often making it impossible to match a person with their records.

- ✓ Nearly anyone can input information into a patient's electronic health records (EHRs), but withdrawing data isn't always possible.

Keeping Up With Old Tech: The outdated software creates security holes which allow hackers to take down the healthcare systems.

User-Unfriendly Interfaces: If there is too much data on the screen at once, or the interface does not help users navigate, no one is going to use it.

Overcomplicated Asset Tracking: The asset tracking through electronic health records can be both a blessing and a curse.

- ✓ The medical workers can use it to find anything with a barcode or RFID tracking chip.
- ✓ The physicians often complain that poorly designed systems impede their work, making them a slave to their EHRs.

Serious Digital Risks: The prevailing model of health care delivery is highly complex.

- ✓ It comprises layers of processes, a network of patients and partners,

insurance reimbursement models, delivery models, and regulatory requirements.

- ✓ These complexities when combined with technological advancements expose the industry to severe digital risks.

Poor Training and Onboarding: The traditional application and technology training in healthcare is not focused on efficiently using the software but rather on the process.

TECHNOLOGICAL MEASURES TO BE ADOPTED FOR INDIA'S HEALTHCARE SECTOR

Innovative field hospitals using robots to care for COVID-19 patients: There are hospitals, in China, that use 5G-powered temperature measurement devices at the entrance to flag patients who have fever/fever like symptoms.

Achieving UHC through technology: It should be led by a robust strategy integrating human, financial, organisational and technological resources.

Indigenous digital health strategy: India needs to own its strategy that works and leads towards universal health coverage and person-centred care.

- ✓ It should emphasise the ethical appropriateness of digital technologies, cross the digital divide, and ensure inclusion across the economy.

National response drawn upon local knowledge: Community nurses, doctors, and health workers in developing countries do act as frontline sentinels.

- ✓ The primary health centres (PHCs) in India could examine local/traditional knowledge and experience and then use it along with modern technology.

ROAD AHEAD

- ❖ The initial efforts should involve **synchronisation and integration**, developing a template for sharing data, and reengineering many of the institutional and structural arrangements in the medical sector.

- With the advent of technologies such as artificial intelligence, big data, and 3-D printing, the healthcare sector worldwide is going through an **unprecedented phase of disruption.**
- The Artificial intelligence (AI) has the potential to **make inventory need predictions much more accurate**, and IoMT can **connect inventory management** between pharmaceutical and healthcare businesses.

India could have a **comprehensive inventory management system that tracks, predicts, and adjusts inventory across the healthcare** and pharmaceutical sector when AI and IoMT are fully developed and implemented.

THE PROMISE AND PERILS OF ARTIFICIAL INTELLIGENCE PARTNERSHIPS

Historically, Technology competition has been a main aspect of geopolitics. In this day and age, it can be increasingly reflected in geopolitical battles between the US and China. One such technological competition can be easily witnessed in the field of **Artificial intelligence (AI).**

Artificial intelligence is that activity devoted to making machines intelligent or to make them think like humans. AI has emerged as one technology of particular importance because of its role as an accelerator, its versatility, and its wide applicability.

However, AI can also be used for a host of undesirable purposes — generating misinformation, criminal activity, and encroaching upon personal privacy or inducing technological unemployment.

Therefore, as the global community seeks to leverage the promises of AI, they should also confront similar challenges when it comes to the development and deployment of AI and develop a human-centric approach to AI.

PROMISES

Some Primary advantages of AI are as follows:

- AI drives down the time taken to perform a task. It enables multi-tasking and eases the workload for existing resources.
- AI enables the execution of hitherto complex tasks without significant cost outlays.
- AI operates 24×7 without interruption or breaks and has no downtime
- AI augments the capabilities of differently abled individuals
- AI has mass market potential, it can be deployed across industries.
- AI facilitates decision-making by making the process faster and smarter.

360-degree Effect: Based on these advantages, AI can be used in many positive ways — to foster innovation, increase efficiency, improve development, and enhance consumer experience.

- For India, AI deployment will be tied closely to inclusive growth and its development trajectory, with potentially positive implications for agriculture, health, and education, among other sectors.
- Driven by recent breakthroughs in machine learning & Big data, AI is a good bellwether for the possibilities and challenges of international cooperation on emerging technologies.

PERILS

Promoting Prejudices and Inequalities: It shouldn't be forgotten that AI systems are created by humans, who can be biased and judgemental. Thus, AI can promote prejudices and inequalities, if initial training of the AI algorithms are biased.

- For example, it can lead to AI facial recognition and surveillance technology to discriminate against people of color and minorities.

Comprising Privacy: AI systems learn by analyzing huge volumes of data and they keep adapting through continuous modelling of interaction data and user-feedback.

- Thus, with the increasing use of AI, the right to privacy can be under threat due to unauthorized access to one's activity data.

Disproportionate Power and Control: Technology giants are investing heavily in regard to artificial intelligence, both at the scientific/engineering and also at the commercial and product development level.

- These big players have an unmatched advantage when compared to any ambitious competitor out there which is a symptom of data-oligarchic society.

Technological Unemployment: AI companies are building intelligent machines that perform tasks typically carried out by low-income workers.

- For example self-service kiosks to replace cashiers, fruit-picking robots to replace field workers, etc.
- Moreover, the day is not far when many desk jobs will also be edged out by AI, such as accountants, financial traders, and middle managers.

ROAD AHEAD

International Cooperation: Given that various governments have only recently established AI policies, and in some cases are still formulating them, international cooperation is still very much a work in progress in the setting of standards at the multilateral level.

Building Resilient Supply Chains: Beyond talent, additional challenges like, securing the necessary infrastructure; ensuring resilient supply chains, alignment on standards, governance, ensuring critical minerals and other raw materials required for the development

Right Steps Taken: AI technological revolution brings great opportunities for prosperity and growth—but it has to be ensured that the technology will be applied and used in the right direction.

- In this regard, some steps are already being taken in different parts of the world, like Explainable AI (XAI) and the **European Union's GDPR—General Data Protection Regulation).**

The critical decisions made in the near future could have transformative effects for international cooperation on AI, which, in turn, could decisively shape the contours of what some have described as the **Fourth Industrial Revolution**.

NEGATIVE IMAGE OF THE STATE GOVERNORS

Recently, the West Bengal Chief Minister described the **Governor** of the state as the **central government's own person.** The Chief Minister, including several MPs, have written to the President of India demanding the withdrawal of the Governor.

It is necessary to remember that the office of the governor under the constitution of independent India is altogether different from the provincial governors of the Maurya, Mughal or British empires. Governor's role and functions had been widely debated by some of the best minds in the Constituent Assembly like Dr. P.S. Deshmukh, T.T. Krishnamachari, H.V. Kamath, Pt. H.N. Kunzru, Alladi Krishnaswamy Ayyar, Rohini Kumar Chaudhury, Shibban Lal Sakshena, K.M. Munshi and of course, Dr. Ambedkar. Their understanding was that the proposed constitution was creating **'responsible government'** in the states as much as at the centre — that is, responsible alone to the respective legislatures, that the states were indeed sovereign within their own domain, that the discretionary power, beyond the specific situations mentioned in the constitution, does not enable a governor to override the state government.

CONSTITUTIONAL PROVISIONS RELATED TO GOVERNOR:

- **Article 153** says that there shall be a Governor for each State. One person can be appointed as **Governor for two or more States**.
- A Governor is **appointed by the President** and is a **nominee of the Central Government.**
- It is stated that the Governor has a **dual role**.
- He is the **constitutional head of the state**, bound by the advice of his council of ministers (CoM).
- He functions as a **vital link** between the Union Government and the State Government.
- **Articles 157** and **158** specify eligibility requirements for the post of governor.
- Governor has the power to **grant pardons, reprieves**, etc. (**Article 161**).
- There is a CoM with the CM at the head to aid and advise the Governor in the

exercise of his functions, **except some conditions for discretion**. (**Article 163**)

- Governor **appoints the Chief Minister** and **other Ministers** (**Article 164**).
- Governor **assents, withholds assent, or reserves the bill** for the consideration of the President passed by the Legislative Assembly (**Article 200**).
- Governor may promulgate the **Ordinances** under certain circumstances (**Article 213**).

CONTROVERSIES RELATED TO GOVERNOR'S ROLE:

Abuse of Power by the Centre: There are numerous examples of the Governor's position being abused, usually **at the behest of the ruling party at the Centre**.

- The process of appointment has generally been the cause behind it.

Biased Ideology: In several cases, politicians and former bureaucrats identifying with a particular political ideology have been appointed as the Governors by the central government.

- This **goes against the constitutionally mandated neutral seat** and has resulted in bias, as appears to have happened in Karnataka and Goa.

Puppet Rulers: Recently, the Governor of **Rajasthan** has been charged with the **violation of the model code of conduct.** His support of the central ruling party is **against the spirit of non-partisanship** that is expected from the person sitting on constitutional posts.

- Due to such incidents, negative terms like an **agent of the Centre**, **Puppet and rubber stamps** are used to describe a governor of the state.

Favouring a Particular Political Party: Governor's discretionary powers to invite the leader of the largest party/alliance, post-election, to form the government has often been misused to favour a particular political party.

Misuse of Power: A Governor's recommendation for **President's Rule** (**Article 356**)

in a state has not always been based on 'objective material', but on political whim or fancy.

RECOMMENDATIONS

On Appointment and Removal of Governor:

- The **"Punchhi commission – 2010"** recommended that there should be a provision for the **impeachment of the governor** by the **state legislature**.
- The **state chief minister should have a say in the governor's appointment**.

On the Use of Article 356:

- The **"Punchhi commission – 2010"** recommended that **Articles 355 & 356** be **amended**.
- The **Sarkaria Commission (1988)** recommended that **Article 356 should be used in very rare cases** when it becomes unavoidable to restore the breakdown of constitutional machinery in the State.
- **Recommendations** have also been given by the **Administrative Reforms Commission (1968)**, **Rajamannar Committee (1971**) and **Justice V.Chelliah Commission (2002).**

On Dismissal of State Government under Article 356:

- **S.R. Bommai Judgment (1994):** The case put an end to the **arbitrary dismissal of State governments by a hostile Central government.**
- The verdict ruled that the floor of the Assembly is the only forum that should test the majority of the government of the day, and not the subjective opinion of the Governor.

On Discretionary Powers:

The Supreme Court in the **Nabam Rebia judgment (2016)** ruled that the exercise of **Governor's discretion Article 163 is limited** and his choice of action should not be arbitrary or fanciful.

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ROAD AHEAD

- ❖ **Governor's Discretion Should Be Only Her Discretion**: For the smooth functioning of government, it is equally essential that the governor must act judiciously, impartially and efficiently while exercising his discretion and personal judgment.
- ❖ **Strengthening of Federalism**: In order to check misuse of the office of governor, there is a need to strengthen federal setup in India.
- ✓ In this regard, the Inter-State council and the role of Rajya Sabha as the chamber of federalism must be strengthened.
- ❖ **Reform the Method of Appointment of Governor**: The appointment can be made from a panel prepared by the state legislature and actual appointing authority should be the Inter-state Council, not the central government.
- ❖ **Code of Conduct for Governor**: This 'Code of Conduct' should lay down certain **'norms and principles'** which should guide the **exercise of the governor's 'discretion' and his powers** which he is entitled to use and exercise on his judgment.

RBI CIRCULAR ON CRYPTOCURRENCY CLARIFIES NO BAN IN INDIA

Recently some leading banks cautioned people against **dealing in cryptocurrencies**, the Reserve Bank of India **(RBI)** on 31 May 2021 said banks and other regulated entities cannot cite its **April 2018 order on virtual currencies (VCs)** as it has been set aside by the **Supreme Court of India in 2020**.

In view of the order of the Supreme Court, the **circular is no longer valid** from the **date of the Supreme Court judgement**, and therefore cannot be cited or quoted from, the RBI said in a notification to banks.

The RBI clarification came after **State Bank of India and HDFC Bank** cautioned their customers against **dealing in virtual currencies such as Bitcoin** citing the **April 2018 order of the RBI**. Banks also warned customers that failure to adhere to the advisory may **lead to cancellation or suspension of their cards**. The RBI has no option but to allow it after the Supreme Court lifted the banking ban last year. So, the RBI intervened and asked banks to stop being notorious. But **why they did such an act** in the first place raises a lot of unanswered questions, said Hitesh Malviya, Cryptocurrency Expert.

DOES IT CLARIFY THE POLICY POSITION FOR CRYPTOCURRENCY HOLDERS?

The **clarification from the RBI**, which is developing its **own virtual currency**, is expected to give some relief to customers who have invested in cryptocurrencies. As **many Indians have invested in cryptocurrencies like Bitcoin and Ethereum**, the RBI move will be a big respite for them and their money – estimated to be around Rs 10,000 crore — won't be blocked.

It has come to our attention through media reports that **certain banks and regulated entities** have cautioned their customers against dealing in virtual currencies by making a reference to the **RBI circular dated April 8, 2018**, the RBI said. Such references to the RBI circular by banks and regulated entities are not in order as this circular was set aside by the Supreme Court on 4 March 2020 in the

matter of writ petition (Civil) No.528 of 2018 (Internet and Mobile Association of India vs Reserve Bank of India)," the RBI said.

WHAT ARE BANKS EXPECTED TO DO NOW?

Banks, as well as other entities addressed above, may continue to carry out customer due diligence processes in line with regulations governing standards for **Know Your Customer (KYC), Anti-Money Laundering (AML), Combating of Financing of Terrorism (CFT)** and obligations of regulated entities under **Prevention of Money Laundering Act, (PMLA), 2002** in addition to ensuring compliance with relevant provisions under **Foreign Exchange Management Act (FEMA)** for overseas remittances, the RBI said. In other words, banks can't take action against investors in virtual currencies following the court and RBI directives.

WHAT'S THE RBI'S POSITION?

The **RBI's 2018 position was more restrictive**. In view of the associated risks, it has been decided that, with immediate effect, **entities regulated by the Reserve Bank** shall not deal in VCs or provide services for facilitating any person or entity in dealing with or settling VCs, the RBI had said in its April 2018 circular. Such services include **maintaining accounts, registering, trading, settling, clearing, giving loans against virtual tokens,** accepting them as collateral, opening accounts of exchanges dealing with them and transfer / receipt of money in accounts relating to purchase or sale of VCs, the RBI had said. The RBI had said regulated entities which already provide such services should exit the relationship within three months from the date of the circular.

However, the **RBI which is against other virtual cryptocurrencies** has warned people against such currencies several times in the past. RBI has indicated **it's "very much in the game"**, and getting ready to launch its own digital currency. **Central bank digital currency** is a work in progress. The RBI team is working on it, technology side and procedural side... how it will be launched and rolled out, Governor Shaktikanta Das said recently.

DID CORONAVIRUS COME FROM A LAB?

On 26 May 2021, **US President Joe Biden** announced that he had **tasked the country's "intelligence community** to **redouble their efforts to collect and analyse** information that would bring us closest to a definitive conclusion" **on whether the virus that causes Covid-19 originated from human contact** with an infected animal, or from a "laboratory accident". A report will be submitted to him in 90 days.

THE LAB LEAK THEORY

Biden's announcement that **US intelligence agencies** were divided on the question of the **virus's origin** has given wings and new respectability to the **"Wuhan lab leak"** theory, earlier dismissed as a right wing, racist conspiracy theory propagated by President Donald Trump and his fellow travellers.

That theory had been under serious consideration since at least September 2020 emerged on 15 January this year, a fortnight before the Trump Administration stepped down, when the US State Department made public a **"fact sheet"** that included **"previously undisclosed information"**, combined with open source information.

It made three main points:

* That **researchers** at the **Wuhan Institute of Virology (WIV) had fallen ill** with symptoms consistent with both Covid-19 and seasonal illnesses, well before the first reported case on 8 December 2019;

* that **2016 researchers at WIV** had been conducting experiments with **RaTG13**, a **bat coronavirus** that has a **96.2 % match Covid 19**; RaTG13 was isolated as far back as 2013 from samples taken from bat faeces in a mine in Yunan, where six miners had died in 2012;

* that **WIV carried out classified military research** including **animal experiments** on behalf of the People's Liberation Army.

However, according to a report in CNN, the **Biden Administration shut down the State Department investigation** as a waste of time and resources after officials questioned its legitimacy. But pressure was building on Biden to reconsider his position that Covid-19 had originated in nature, especially after a WHO report failed to come up with conclusive answers on the origin of the virus.

Then on 14 May, a **group of 18 scientists wrote in the journal Science** that an inquiry to establish **"greater clarity about the origins of this pandemic is necessary and feasible to achieve",** and demanded that both possibilities, **"natural and laboratory spillovers**", be considered seriously.

On 23 May and 24, the Wall Street Journal published two reports that appear to have pushed Biden into action. One report quoted a **US intelligence report** as going **"beyond the State Department fact sheet"** and saying three researchers at WIV had fallen sick in November 2019. The second report was about the Yunnan copper mine where six miners had fallen ill.

THE MINE & THE VIRUS

The WSJ report said the miners, **diagnosed with severe pneumonia**, had the same lung patches seen in Covid patients. Over the next year, WIV scientists studied samples from **276 bats in the mine**, among which they identified a coronavirus strain they called RaBTCoV/4991. The research was published in 2016. In February 2020, the same researchers published a paper in Nature, describing RaTG13, which had a 96.2% genome sequence match with SARS-CoV-2.

After scientists around the world noticed similarities in the sample dates and partial **genetic sequences of RaBTCOV/4991** and **RaTG13**, WIV researchers said the two viruses were the same. But they said it was not this virus that had caused the death of the miners back in 2012.

At the very least, the late admission by WIV that the two viruses were the same, and some contradictions in their explanations for this, has raised questions about the **transparency of data from WIV.** At the other extreme are those who do not rule out that WIV was conducting experiments to construct new viruses by combining elements of different bat viruses, perhaps for finding vaccines, and that this could have accidentally led to the leakage of a harmful virus from the lab.

All this has led to heightened concerns that the WHO report on the origins of the virus did not present a complete picture.

THE WHO REPORT

The **120-page report**, released on 30 March 2021, was inconclusive about the **origins of the virus.** But of four scenarios, it said it is **"likely to very likely"** the virus spread from an animal to an intermediate host to humans. The report said a **lab leak** was **"extremely unlikely"** although it did not study this possibility enough. WHO Director General Tedros Adhanom Ghenreyesus said "as far as WHO is concerned all hypotheses remain on the table". Although the team concluded that a lab leak is the least likely hypothesis, he said "this requires further investigation, potentially with additional missions involving specialist experts, which I am prepared to deploy".

The report caused concerns among most countries. The **US and 13 other countries issued a statement at the World Health Assembly** "expressing shared concerns regarding the recent **WHO-convened study in China**, while at the same time reinforcing the importance of working together toward the development and use of a swift, effective, transparent, science-based, and independent process for in evaluations of such outbreaks of unknown origins in the future". EU member states said there was a "need to further work to study the origins of the virus and its route of introduction to the human population".

The **18 scientists who wrote to Science also criticised the WHO report** for weighing on the side of a zoonotic spillover from an intermediate host without having studied the lab leak possibility adequately.

Biden announced his inquiry as the World Health Assembly met. No country except China has as yet opposed it.

HOW THE THEORY GAINED GROUND

2019: First Identification

December 31: **WHO is informed of cases of pneumonia of unknown cause** in Wuhan City? On 7 January, Chinese authorities identified a novel coronavirus as the cause.

2020: CLAIMS & SCEPTICISM

3 February: In a paper in Nature, Wuhan Institute of Virology researchers say **SARS-CoV-2 has a 96.2% genome match with a bat coronavirus, RaTG13.** Three days later, a researcher from South China University of Technology suggested in a paper, later withdrawn, that the coronavirus "probably originated from a laboratory in Wuhan".

19 February: In a statement published in The Lancet, a **group of 27 scientists condemn conspiracy theories** about the coronavirus and conclude it originated in wildlife. In a paper in Nature Medicine in March, scientists say it is impossible to prove or disprove the theories but add they do not believe it emerged from a lab.

27 March: The US Defense Intelligence Agency's updated assessment includes the possibility of "unsafe laboratory practices" leading to the emergence of the coronavirus.

30 **April**: US President Donald Trump says people are looking at the **laboratory-origin theory "very, very strongly".** Three days later, Secretary of State Mike Pompeo tells ABC News: "These are not the first times that we have had the world exposed to viruses as a result of failures in a Chinese lab."

4 July: The Times reports that a virus similar to **SARS-CoV-2 was found in an abandoned copper mine** in China in 2012, and then studied at WIV.

17 November: BioEssays journal publishes a paper headlined: "The genetic structure of SARS-CoV-2 does not rule out a laboratory origin."

2021: STRONGER CLAIMS

15 January: US State Department's **"fact sheet" on WIV**, in the last fortnight of the Trump Administration, makes a case for the **lab-origin theory**.

30 March: WHO report, while inconclusive, finds **laboratory leak hypothesis "extremely unlikely".** But WHO Secretary General Tedros Adhanom Ghebreyesus says "all hypotheses remain on the table".

14 May: **A group of 18 scientists**, writing in Science, call for an enquiry to establish "greater clarity about the origins of this pandemic", and demand that both possibilities, "natural and laboratory spillovers", be considered seriously

23-24 May: The Wall Street Journal quotes a US intelligence report as saying three WIV researchers had fallen sick in November 2019; in another report it refers to the miners who fell sick in 2012, and says they had the same lung patches seen in Covid patients.

THE PRIORITY SECTOR LENDING INDIA NEEDS

The **priority sector lending (PSL)** is a **lending requirement administered by the RBI on scheduled commercial banks** requiring banks to give a minimum proportion of their loans to sectors of development importance

- The origins of priority sector (PS) lending can be traced back to 1966 when Morarji Desai saw a need for **increasing credit to agriculture and small industries**.
- The definition for PS was only **formalised based on a Reserve Bank of India (RBI) report** in the National Credit Council in 1972.

SIGNIFICANCE OF PRIORITY SECTOR LENDING (PSL) IN INDIA

Instrument to channelize credit: It provides loans at preferential rates to specified sectors of the economy that may not get timely and adequate credit in the absence of such special dispensation.

Access of credit to vulnerable section: The objective of the PSL is to ensure that the vulnerable sections of the society get access to credit.

Adequate flow of resources: It aims to provide credit and other resources to those segments of the economy which have higher employment potential and help in making an impact on poverty alleviation.

Avenue for investment in agriculture sector: It must be acknowledged that agriculture as a priority sector has a special status, a special place other than other activities which also find place in the head of 'priority sector' of the country.

Growth of India's export sector: The categorization of the export sector as a priority sector is justified on account of the fact that bank credit is a primary source of credit for the sector.

- The credit to the export sector finances various activities of exporters, from researching the profitability of new markets and making market-specific investments in capacity to achieving compliance with regulations.

Emergence of Micro, Small and Medium Enterprise (MSMEs): The MSME sector accounts for approximately 45 percent of India's manufacturing output, and 40 percent of exports.

CONCERNS ASSOCIATED WITH PRIORITY SECTOR LENDING (PSL) IN INDIA

Growing percentage of non-performing assets: The NPAs have become a big problem for the banks as it has been a major concern for the bank promoters and government.

- It deters banks from expanding their current year's scale of lending because it would ultimately increase the bank's PSL target for the next year.

Reluctance of banks towards MSMEs: Out of the total formal credit to the sector (22 percent), banks accounted for 92 percent of the formal credit supply to the MSME sector.

- It highlights that that the banks are reluctant to lend to small businesses because of size-related risks and limited collateral.

Similar PSL targets for all type of banks: The requirement of all banks to lend 18 percent of PSL targets to agriculture is not an efficient way to direct credit to agriculture.

Health sector is a sub-category under PSL: It is shocking that health is only a sub-category of social infrastructure with a ₹10 crore limit for building hospitals.

Small portion of credit facility for education sector: The educational infrastructure has a low credit limit of ₹5 crore.

MEASURES TO BE ADOPTED TO REDEFINE PRIORITY SECTOR LENDING (PSL) IN INDIA

Profitability of private banks must be given importance: The private banks should be given a free hand to decide on their investment/lending avenues so that a right balance is struck between pursing profitability and fulfilment of the public functions.

Reset PSL Targets by Bank Type: Public, private and foreign banks must be assigned targets that conform to their business models to ensure the efficiency of the banking sector is not adversely affected.

Provide Risk Cover to Agriculture and Make it More Attractive to Private Investors: In the backdrop of a stagnating agrarian economy, it is evident that provision of increased credit supply is necessary, but not sufficient, to improve agricultural production in the country.

- Creating an enabling environment for the sector to attract public and private investments at the grass-root level instead of increased formal bank credit is the key to solving the sector's productivity issues.

Use Innovative Market Driven Instruments: It is required to issue Priority Sector Lending Certificates (PSLCs) to a registered lender engages in PSL and gets the PLSCs worth the amount of the PSL loans and allowing for trade of these PLSCs.

- It would provide a platform that would enable deficient banks to purchase these certificates to complete their PSL targets and sub targets and provide the lending institutions with funds to sustain their financial viability.

Strengthening the roles of specialized lenders: The government needs to strengthen Cooperative Banks, Regional Rural Banks, and Microfinance Institutions by enhancing regulatory oversight.

- It is important to create an enabling environment for encouraging the operations of microfinance institutions and encouraging small banks in rural and semi urban areas that specialize in satisfying the small credit needs of priority sectors.

Efficient functioning of the banking industry: A well-functioning credit infrastructure facilitates by allowing for widespread collection and maintenance of information on borrower credit history, low cost pledging and enforcement of collateral interests.

Use Technology to Reduce Cost of Credit Delivery: The usage of technology through ATMSs, mobile and internet banking, to deliver credit rather than branches would save costs for banking institutions.

Making health sector as a separate category under PSL: It needs to be a large independent category where the lender could encourage "right size" not "small size" hospitals i.e. big in urban centres but smaller outside.

- It is necessary to create institutions for training nurses, health technicians, and health machine operators, and more broadly for training in basic technology and digital applications is dire.

ROAD AHEAD

- The resetting of **PSL targets for banks based on their underlying business models** will certainly enable them to meet their targets efficiently.
- The conversion of some part of PS lending to a **grant paid directly by government can unlock large amounts of efficiency in the system,** and dramatically increase the valuation of public sector banks also.
- The talk of being India a superpower should wait till the **government can offer its people even minimum access to the basic social infrastructure** needed for living.
- A strategic **re-prioritisation of directed credit to agriculture, exports and micro, small and medium enterprise** sectors can moderate the costs of correcting the adverse redistributive effects of inflation.
- It is imperative that the priority sector be **redefined more from the objectives of growth and employment** and the equity angle be left to be best served through the policy of financial inclusion.

WHY NASA IS SENDING BABY SQUIDS, WATER BEARS TO INTERNATIONAL SPACE STATION?

On 3 June 2021, NASA sent **128 glow-in-the-dark baby squids** and some **5,000 tardigrades** (also called water bears) to the **International Space Station** for research purposes.

The **water animals,** which will be launched aboard **SpaceX's 22nd cargo** resupply mission to the ISS, are part of experiments that **could help scientists design** improved protective measures for astronauts going on long-duration space travel. The experiments are also aimed at better understanding **how beneficial microbes interact with animals,** potentially leading to **breakthroughs in improving human health on Earth.**

A **space station is essentially a large spacecraft** that remains in **low-earth orbit** for extended periods of time. It is like a **large laboratory in space**, and **allows astronauts to come aboard** and **stay for weeks or months** to **carry out experiments in microgravity**.

The **ISS has been in space since 1998,** and has been known for the exemplary cooperation between the **five participating space agencies** that run it: **NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe),** and **CSA (Canada).**

For over 20 years since its launch, humans have continuously lived and carried out scientific investigations on the $150 billion ISS **under microgravity conditions**, being able **to make breakthroughs in research not possible on Earth.**

As per NASA, the **floating laboratory** has hosted more than 3,000 research and educational investigations from researchers in 108 countries and areas, carrying out cutting edge research in various disciplines, including **biology, human physiology,** and **physical, material** and **space science.**

SO, WHY ARE THE SEA ANIMALS NEEDED AT THE ISS?

The **water bears and bobtail squid** will be involved in experiments aboard the floating laboratory, and will be arriving in a **semi-frozen state** before they are thawed out, revived and grown in a **special bioculture system.**

One of these studies involves looking at how the water bears– tiny animals (around 1mm long) that **can adapt to extreme conditions on Earth**, including **high pressure, temperature and radiation**– would behave in a **spaceflight environment**. Researchers will be able to study their hardiness close up, and possibly identify the genes that allow them to become so resilient.

By learning **how the water bears can survive in low gravity conditions**, it would be possible to **design better techniques** to keep **astronauts healthy on long-duration space missions.**

Scientists also want to look at how **microgravity conditions** affect the relationship between the **bobtail squid** –which are also tiny (3 mm long)– and **beneficial microbes**, as part of a study called **UMAMI, short for Understanding of Microgravity on Animal-Microbe Interactions.**

Microbes play a crucial role in the normal development of animal tissues and in maintaining human health, and the research will allow scientists to have a better understanding of **how beneficial microbes interact with animals** when there is a **lack of gravity.**

In the **human body, microorganisms contribute to a variety of functions, including digestion, developing the immune system** and **detoxifying harmful chemicals.** A disruption in our relationship with these microbes can lead to disease.

As per NASA, this research may lead to important breakthroughs. On Earth, we may be able to find ways to protect and even **enhance the complex relationship between animals and beneficial microbes,** ensuring better human health and well being. In space, the findings will help space agencies develop better measures to protect astronauts from adverse **host-microbe alterations on long-duration missions.**

SRI LANKA REVERTS TO $400 MILLION FOREIGN CURRENCY SWAP WITH RBI

Bangladesh's central bank has approved a **$200 million currency swap facility** to **Sri Lanka.** What does this mean and **why is it significant?**

Bangladesh Bank, Bangladesh's central bank, has in principle approved **a $200 million currency swap agreement with Sri Lanka**, which will help Colombo tide over its foreign exchange crisis, according to media reports from Bangladesh, quoting the bank's spokesman.

Sri Lanka, staring at an **external debt repayment schedule of $4.05 million** this year, is in urgent need of foreign exchange. Its **own foreign exchange reserves** in March year stood at **$4 million.**

The two sides have to **formalise an agreement to operationalise the facility** approved by Bangladesh Bank. Dhaka decided to extend the facility after a request by Sri Lankan Prime Minister Mahinda Rajapaksa to Bangladesh's Prime Minister Sheikh Hasina.

WHAT IS A CURRENCY SWAP?

In this context, a **currency swap is effectively a loan that Bangladesh will give to Sri Lanka in dollars,** with an agreement that the debt will be repaid with interest in Sri Lankan rupees. For Sri Lanka, **this is cheaper than borrowing from the market**, and a lifeline as is it struggles to maintain adequate forex reserves even as repayment of its external debts looms. The period of the currency swap will be specified in the agreement.

ISN'T IT UNUSUAL FOR BANGLADESH TO DO THIS?

Bangladesh has not been viewed so far as a **provider of financial assistance** to other countries. It has been among the **most impoverished countries of the world**, and still receives billions of dollars in financial aid. But over the last two decades, its economy has pulled itself up literally by the bootstraps, and in 2020, was the fastest growing in South Asia.

Bangladesh's economy grew by 5.2 per cent in 2020, and is **expected to grow by 6.8 per cent in 2021.** The country has managed to pull millions out of poverty. Its per capita income just overtook India's.

This may be the **first time that Bangladesh is extending a helping hand to another country**, so this is a landmark of sorts.

Bangladesh's forex reserves in May were a healthy $45 billion. In 2020, despite fears that the pandemic would hit remittances, Bangladeshis living abroad sent over $21 billion. It is also the first time that Sri Lanka is borrowing from a **SAARC country other than India**.

WHY DIDN'T SRI LANKA APPROACH INDIA, THE BIGGEST ECONOMY IN THE REGION?

It did, but did not get a reply from Delhi. Last year, President Gotabaya Rajapaksa knocked on Prime Minister Narendra Modi's door for a **$1 billion credit swap**, and separately, a moratorium on debts that the country has to repay to India. But **India-Sri Lanka relations** have been tense over Colombo's decision to cancel a valued container terminal project at Colombo Port.

India put off the decision, but Colombo no longer has the luxury of time. With the **tourism industry destroyed since the 2019 Easter attacks,** Sri Lanka had lost one of its top foreign exchange pullers even before the pandemic. The tea and garment industries have also been hit by the pandemic affecting exports. **Remittances increased in 2020**, but are not sufficient to pull Sri Lanka out of its crisis.

The country is already deep in debt to China. In April, **Beijing gave Sri Lanka a $1.5 billion currency swap facility**. Separately, China, which had extended a $1 billion loan to Sri Lanka last year, extended the second $500 million tranche of that loan. According to media reports, **Sri Lanka owes China up to $5 billion.**

WHAT ABOUT LAST YEAR'S CREDIT SWAP FACILITY THAT INDIA GAVE SRI LANKA?

Last July, the **Reserve Bank of India did extend a $400 million credit swap facility** to Sri Lanka, which the Central Bank of Sri Lanka settled in February. The arrangement was not extended.

RBI has a framework under which it can offer credit swap facilities to SAARC countries within an overall **corpus of $2 billion**. According to RBI, **the SAARC currency swap facility** came into operation in November 2012 with the aim of providing to smaller countries in the region "a backstop line of funding for short-term foreign exchange liquidity requirements or balance of payment crisis till longer term arrangements are made".

The presumption was that only India, as the **regional group's largest economy**, could do this. The Bangladesh-Sri Lanka arrangement shows that is no longer valid.

THIS TIME FOR MALE: ON MALDIVES' UNGA PRESIDENCY

Recently, the Maldives' Foreign Minister **Abdulla Shahid** was elected the **President of the 76th session of the United Nations (UN) General Assembly (GA)** for 2021-22.

The win was **welcomed by India** as Indian diplomats had been helping the Maldives and **India expects close cooperation with Maldives at the UN.**

However, the **Maldives has made no decision** on opening an **Indian consulate in its southern Addu Atoll** even as the Indian Cabinet cleared a proposal for it.

President of UNGA:

- This is a **post held on an annual basis**, rotated amongst various regional groupings. The **76th session (2021-22) is the turn of the Asia-Pacific group**. This is the first time Maldives will be occupying the office of the President of UNGA.
- Maldives also sees it as a win for the 52-member **Small Island Developing States (SIDS),** which are battling climate change vulnerability and other developmental challenges.

Addu Atoll:

- Addu Atoll, also known as **Seenu Atoll**, is the **southernmost atoll of the Maldives**.
- Apart from its strategic location in the Indian Ocean, Addu is the **second largest city in the archipelago**, home to over 30,000 people.

India's Stand:

- India approved the opening of a new consulate in the Maldivian city of Addu, in reflection of the **importance India attaches to its ties with the strategically located island nation.**
- India's decision to expand its diplomatic presence in the Maldives comes

amid **China's consistent efforts to increase its influence in the island nation.**

- Also Indian rationale for the consulate was **to help Addu residents with speedy visa services.**

Opposition of the Initiative:

- Some Maldivians see a new consulate with suspicion, especially on the heels of a USD 33-million Maldivian police training facility that India is helping build in Addu.
- There is already an Indian Embassy in Male.

GEO-STRATEGIC IMPORTANCE OF MALDIVES TO INDIA:

Maldives, a Toll Gate in Indian Ocean:

- Located at the southern and northern parts of this island chain lies the two important sea lanes of communication (SLOCs).
- These SLOCs are critical for maritime trade flow between the Gulf of Aden and Gulf of Hormuz in West Asia and the Strait of Malacca in Southeast Asia.
- Nearly 50% of India's external trade and 80% of its energy imports transit these SLOCs in the Arabian Sea.

Part of Important Groupings:

Besides, Maldives is a member of the South Asian Association for Regional Cooperation (SAARC) and the South Asia Subregional Economic Cooperation (SASEC).

INDIA – MALDIVES RELATIONS

COOPERATION BETWEEN INDIA & MALDIVES:

Security Cooperation:

- Through the decades, **India has rushed emergency assistance to the Maldives, whenever sought.**

- In 1988, when armed mercenaries attempted a coup against President Maumoon Abdul Gayoom, **India sent paratroopers and Navy vessels** and restored the legitimate leadership under **Operation Cactus**.
- India and Maldive conduct the joint military exercise '**Ekuverin**'.

Disaster Management:

- The 2004 **tsunami** and the drinking water crisis in Male a decade later were other occasions when **India rushed assistance**.
- The Maldives has been one of the biggest beneficiaries of the **Covid-19** assistance and **vaccines delivered** by India among India's all neighbouring countries.
- When the world supply chains were blocked because of the pandemic, India continued to provide crucial commodities to the Maldives under **Mission SAGAR**.

PEOPLE TO PEOPLE CONTACT:

Maldivian students attend educational institutions in India and patients fly here for superspeciality healthcare, aided by a liberal visa-free regime extended by India.

Economic Cooperation:

Tourism is the mainstay of Maldivian economy. Given the geographical limitations imposed on the Maldives, **India has exempted the nation from export curbs on essential commodities.**

IRRITANTS IN RELATIONS:

Political Instability:

- India's major concern has been the **impact of political instability in the neighbourhood on its security and development.**
- The February **2015 arrest of Maldives' opposition leader Mohamed Nasheed on terrorism charges** and the consequent political crisis have posed a real diplomatic test for India's neighbourhood policy.

Radicalisation:

- In the past decade or so, the number of **Maldivians drawn towards terrorist groups like the Islamic State (IS)** and Pakistan-based madrassas and jihadist groups has been **increasing**.
- Political instability and **socio-economic uncertainty** are the main drivers fuelling the rise of Islamist radicalism in the island nation.

China Angle:

China's strategic footprint in India's neighbourhood has increased. The Maldives has emerged as an important 'pearl' in China's **"String of Pearls"** construct in South Asia.

Also, the Maldives have started using the China card to bargain with India.

ROAD AHEAD

- It is hoped that **India in the UN Security Council and the Maldivian President of the General Assembly will work in tandem** as India pursues its goals for **multilateral reform, and re-energise the dormant process of effecting change in the old power structures in the global body**.
- In accordance with the **Neighbourhood First Policy** of the government, India remains a committed development partner for a stable, prosperous and peaceful Maldives.

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HIKE IN MSP FOR KHARIF CROPS FOR 2021-22

In a bid **to encourage crop diversification**, the Central Government has hiked the **Minimum Support Price (MSP)** for **Paddy, Pulses** and **Oilseeds** (for all mandated **Kharif Crops**).

The MSP is the **rate at which the government purchases crops from farmers**, and is **based on a calculation of at least one-and-a-half times the cost of production incurred by the farmers.**

MSP is a "minimum price" for any crop that the government considers as remunerative for farmers and hence deserving of "support".

CROPS UNDER MSP:

- The **Commission for Agricultural Costs & Prices** (CACP) recommends **MSPs for 22 mandated crops** and **fair and remunerative price (FRP)** for **sugarcane**.
- **CACP** is an **attached office** of the **Ministry of Agriculture and Farmers Welfare**.
- The mandated crops include **14 crops** of the **kharif** season, **6 rabi crops** and **2** other **commercial crops**.
- In addition, the MSPs of **toria** and **de-husked coconut** are fixed on the basis of the MSPs of rapeseed/mustard and copra, respectively.

FACTORS FOR RECOMMENDING THE MSP:

- The CACP considers various factors while recommending the MSP for a commodity, including **cost of cultivation**.
- It takes into account the **supply and demand** situation for the commodity, **market price trends** (domestic and global) and **parity vis-à-vis other crops**, and **implications for consumers** (inflation), **environment** (soil and water use) and **terms of trade between agriculture and non-agriculture sectors**.

THREE KINDS OF PRODUCTION COST:

The CACP projects **three kinds of production cost** for **every crop**, both at **state and all-India average levels.**

'A2': Covers all paid-out costs directly incurred by the farmer in cash and kind on seeds, fertilisers, pesticides, hired labour, leased-in land, fuel, irrigation, etc.

'**A2+FL'**: Includes A2 plus an imputed value of unpaid family labour.

'C2': It is a more comprehensive cost that factors in rentals and interest forgone on owned land and fixed capital assets, on top of A2+FL.

- CACP considers both **A2+FL** and **C2** costs while **recommending MSP**.
- CACP reckons only **A2+FL cost** for return.

However, C2 costs are used by CACP primarily as benchmark reference costs (opportunity costs) to see if the MSPs recommended by them at least cover these costs in some of the major producing States.

- The **Cabinet Committee on Economic Affairs** (CCEA) of the Union government takes a final decision on the level of MSPs and other recommendations made by CACP.

SIGNIFICANCE OF MSP HIKE:

The added focus on **nutri-rich nutri-cereals** is to incentivise its production in the areas where **rice-wheat cannot be grown** without long term adverse implications for groundwater table.

Concerted efforts have been made over the last few years **to realign the MSPs in favour of oilseeds, pulses** and **coarse cereals** to encourage farmers shift to larger areas under these crops and adopt best technologies and farm practices, to correct demand – supply imbalance.

ISSUES WITH HIKE:

- This increase **seems modest keeping in mind the cultivation costs** – particularly on account of diesel used for powering tractors, irrigation pumps and harvester combines – have gone up.
- Some increases, especially for maize, **did not even keep pace with inflation**.
- Further, **absence of assured procurement** means farmers have no incentive to cultivate them.
- The announcement comes at a time **when farm unions have been demanding legislation to guarantee MSP for all farmers** for **all crops**, and **a repeal of three contentious farm reform laws.**

ISSUES WITH MSP:

- The major problem with the MSP is **lack of government machinery for procurement for all crops** except wheat and rice, which the Food Corporation of India actively procures under the PDS.
- As state governments procure the last mile grain, the farmers of states where the grain is procured completely by the government benefit more while those in states that procure less are often affected.
- The MSP-based procurement system is also **dependent on middlemen**, commission agents and APMC officials, which smaller farmers find difficult to get access to.

SOLUTION:

- The CACP, in its price policy report for the **2018-19 kharif marketing season**, had suggested enactment of a legislation conferring on farmers **'The Right to Sell at MSP'**. This, it felt, was necessary **"to instil confidence among farmers for procurement of their produce".**
- The government should be **promoting crop and animal agriculture** that also leads to consumption of foods rich in proteins, vitamins, minerals and dietary fibre — as opposed to just calories and sugar — by the people.
- The right way to do it is by **freezing the MSPs of paddy and wheat**, besides capping their procurement at, say, 10-15 quintal per acre per farmer.

BLUE-GREEN ECONOMIC DEVELOPMENT

The motto of the **SDG 2030 agenda** — **"Leave no one behind"** — very much embodies the essence of Gandhiji's philosophy of sarvodaya through antyodaya, reaching the most marginalised first.

This guiding principle has long been a part of Indian thought and policy and is a fundamental virtue for the execution of the national programmes and missions

However, as the threat from climate hazards rise, the government of India should alter their urban planning and design approaches to incorporate Blue-Green Economic Framework as a counter to conventional infrastructure practices by harnessing blue elements (for instance, seas, rivers, lakes, wetlands, and water utilities) alongside the green (such as trees, parks, gardens, playgrounds and forests).

Blue-Green Economic Framework

The blue economy originates in the green economy concept of incorporating strategies to mitigate climate change and adaptation to result in "improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.

GREEN URBANISATION & POLICY MAKING INDIA

Swachh Bharat Mission: The Swachh Bharat Mission (Urban) focuses on achieving an open-defecation-free India, building solid waste management capacity and bringing about behavioural change.

- Swachhata movement, in effect, has become the harbinger of a total transformation of our urban landscape.
- It is estimated that the various initiatives under SBM-U can mitigate 17.42 million tonnes of carbon dioxide equivalent of greenhouse gas (GHG) emissions by 2022.

Smart Cities Mission: The Smart Cities Mission (SCM) envisages technological advancements of our cities to improve governance, sustainability and disaster risk resilience.

- It sought to improve energy efficiency and non-motorised transport capacity in urban centres.
- The overall reduction in GHG emissions from projects implemented under SCM is expected to reach 4.93 million tonnes of CO2 by 2022.

Climate Smart Cities Assessment Framework: It has been adopted which aims to help cities adapt, collaborate and exchange best practices to achieve international standards for green, sustainable and resilient urban habitats.

AMRUT: Under AMRUT, water supply and management, energy efficiency and increased green spaces have been part of the goal in 500 target cities.

- The mission is likely to result in the mitigation of 48.52 million tonnes of CO2 equivalent to GHG emissions by 2022.

Pradhan Mantri Awas Yojana: With 1.12 crore houses sanctioned, Pradhan Mantri Awas Yojana (Urban) has focused on new construction technologies (for eg. using fly ash bricks) that are innovative, environmentally friendly and disaster-resilient.

Overall, the mission has the potential to mitigate around 12 million tonnes CO2 equivalent of GHG emissions by 2022.

Metro Rails: These are an energy-efficient mass rapid transit system and Government of India plans to make them operational in 18 cities, in the near future.

ROAD AHEAD

Institutionalising a Blue-Green Urban Framework: To streamline and ensure the integrity of the original blue-green canvas, governments must maintain uniform statutory terminologies and definitions, and undertake a comprehensive integration of all urban plans and records that highlight environmental features.

Blue-Green Economic Agenda: India must club its ongoing green efforts with the 'blue economy' to create a blue-green economic agenda.

- A typical blue-green infrastructure project may have several economic benefits, such as health improvement, lesser pollution, better amenities and quality of life, and social cohesion. At the same time, it could also cause a loss of trees or green spaces.

Fast-Tracking SDGs: Blue-green infrastructure has the potential to fulfil multiple targets outlined in the SDGs, such as:

- Those related to water (SDG 6 and SDG 14), land (SDG 15) and climate change (SDG 13).
- Blue-green infrastructure can also accelerate progress on green employment prospects (SDG 1), food security (SDG 2), offsetting medical infrastructure load (SDG 3) and improving air and habitation quality in cities (SDG 11).
- It will also have implications for SDGs related to returns on investment and startups increasing employment prospects (SDG 8), assured resilience (SDG 9), and social inclusion through greater and more equitable access to natural spaces (SDG 10).

Outcome-Based Policies: The blue-green concept could transform India's urban planning approach from input to output based by focusing on the outcomes of projects and processes.

- This means that required environmental outcomes or specific levels of performance are specified in the framework and the method to achieve the outcome is flexible.

Sustainable Land Management: Climate change cannot be mitigated only through greening and reversing land degradation. This will have to be coupled with sustainable land management strategies.

- Sustainable land management is the use of land to meet changing human needs (agriculture, forestry, conservation), while ensuring the land's socioeconomic and ecological functions over the long term.

The concept of blue-green infrastructure is relatively new, but many global cities have already begun the transition, driven by exacerbating climate impacts and events. While the green infrastructure concept has found some acceptance in India, the country must also consider including blue infrastructure in its sustainability transition.

WHAT THE G7 CORPORATE TAX DEAL MEANS FOR INDIA?

Recently, the Finance Ministers of the **G7** advanced economies secured a landmark deal on taxing multinational companies by fixing a **Global Minimum Corporate Tax Rate (GMCTR)**

- The decision would be placed before the G20 countries, a group of developing and developed nations, in July 2021.
- The deal is aimed at modernizing the century-old international tax code and reducing the transatlantic tensions that threatened to spill into a trade war.
- The agreement paves way for levies on Multinational Companies (MNCs) in countries where they operate, instead of just where they are headquartered.
- Under the new agreement, countries where big firms operate would get the right to tax at least 20% of profits exceeding a 10% margin which would apply to the largest and most profitable multinational enterprises.
- The **Organization for Economic Cooperation and Development** (OECD) has also been coordinating tax negotiations among 140 countries for years on rules for taxing cross-border digital services and curbing tax base erosion, including a global corporate minimum tax.

GLOBAL MINIMUM CORPORATE TAX RATE (GMCTR)

Corporation tax: It is a direct tax imposed on the net income or profit that enterprises make from their businesses.

- The G7 Finance Ministers have called for a global minimum corporation tax rate of **at least 15%.**

NEED OF GMCTR:

Low Tax Jurisdictions: MNCs follow the system of locating the headquarters wherever the tax is the lowest so that the company ends up paying the tax at a much lower rate. Therefore the smaller countries such as Ireland were at advantage but the bigger countries lost out on tax revenues.

- G7 countries have announced a minimum 15% tax rate on all MNCs irrespective of whichever place they are so that the advantage of country shifting does not remain.
- There GMCTR must be fixed to avoid countries undercutting each other.

To Bring Uniformity: GMCTR will end a decades-long race to the bottom in which countries have competed to attract corporate giants with ultra-low tax rates and exemptions. And it will bring uniformity in corporate taxation worldwide.

Multilayering by MNCs for Profits: Digital giants such as Apple, Alphabet and Facebook, as well as many other major corporations typically rely on complex webs of subsidiaries to hoover profits out of major markets into low-tax countries such as Ireland or Caribbean nations such as the British Virgin Islands or the Bahamas, or to central American nations such as Panama.

GMCTR AND INDIA:

Bringing Equality: In the Indian context, the GMCTR will bring equality to those people maybe operating in India but not located in India and therefore not paying any taxes.

Attract Investments: India is likely to benefit from the global minimum 15% corporate tax rate pact as the effective domestic tax rate (other than in Special Economic Zones) is above the threshold.

- In all probability the concessional Indian tax regime would still work, and India would continue to attract investments.

India at Advantage: Due to India's tax rates too, it will be in an advantageous position because Indian tax rates have come at a position where India can afford to give concessions to big companies and yet not fall down at the international tax rates.

Challenge: Although the 15% GMCTR will not affect the current investments in India, setting up more SEZs or giving incentives to companies to invest in India will be a challenge.

CHALLENGES ASSOCIATED

Bringing Global Consensus: Bringing all the major nations on the same page, especially since the pact impinges on the right of the sovereign to decide a nation's tax policy.

A global minimum rate would essentially take away a tool that countries use to push policies that suit them.

Issues to Smaller Countries: Countries like Ireland, which has a tax rate of 12.5%, has come out against the global minimum tax, arguing that it would be disruptive to its economic model.

Issues to Developing Countries: **IMF** and **World Bank** data suggest that developing countries with less ability to offer mega stimulus packages may experience a longer economic hangover than developed nations.

- Considering the countries like Bangladesh which do not have too many advantages to offer besides a Special Economic Zone, this decision of G7 countries might not be very conducive.

Tackling Tax Evasion: A lower tax rate is a tool the countries can use to alternatively push economic activity. Also, a global minimum tax rate will do little to tackle tax evasion.

Rigidity in Rules: Once an international commitment has been made for 15%, it will be very difficult for the national governments to say who stays on 15% and who doesn't. It will introduce a rigidity in the rules which might not be as favourable for countries' economies.

ROAD AHEAD

Effective Implementation: The idea of fixing a GMCTR is good but it needs to be ensured that the way it is implemented is transparent so it doesn't involve people looking for leverage for different loopholes.

Proper Coordination: There should be appropriate coordination between the application of the new international tax rules including the Digital Services Taxes. Any final agreement could have major repercussions for low-tax countries and tax havens.

Way Ahead for India: Once this deal comes through, India shall be at an advantageous position at the G20 summit to negotiate its double taxation avoidance agreements.

- India shall take the opportunity that will be provided by this agreement as India's double tax avoidance agreements have not been signed by many countries in the west with which India has been negotiating for years.
- This initiative of the G7 countries is a welcome move to address the different challenges that many countries are facing.
- Putting in place a global corporate tax at the minimum slab fixed by the G7 will majorly impact the developing economies.

HOW mRNA AND ADENOVIRUS VECTOR VACCINES WORK?

A **killed whole-virus vaccine** is one of the **oldest vaccine** technologies. To make such a vaccine for Covid, a manufacturer **will grow large quantities of the SARS-CoV-2 virus**, and **inactivate it using heat or a chemical**. The surface of this inactivated virus is **dotted with dozens of antigens,** or proteins. When this virus is injected into the body, these **antigens provoke an immune response**.

In contrast, the **mRNA vaccine** consists **only of the genetic code for a single antigen** of the **SARS-CoV-2** virus, called the **spike antigen**, **wrapped in an oily shell**. When this is injected into the body, human cells use this code to churn out the antigen. The body then reacts by making antibodies.

This explains **why mRNA vaccine manufacturers don't need Bio Safety Level 3 labs**, as inactivated vaccine manufacturers do. **No live virus capable of infecting humans needs to be grown**; the genetic code is just a harmless chemical. It also explains why the risk of enhanced respiratory disease (ERD) is different for mRNA vaccines and inactivated vaccines. The **former introduce a single antigen into the body**, while the latter introduce a large number.

Adenovirus vector vaccines also use the **genetic code of the spike antigen**, but deploy it differently. Instead of using an oily shell to carry the code into the body, **they use a harmless virus as a vehicle**. For instance, the AstraZeneca vaccine and Covishield use an **adenovirus that causes common cold in chimpanzees**. Russia's **Sputnik V uses human adenoviruses engineered to prevent replication**. When these adenoviruses, containing DNA for the spike protein, enter the body, human cells start making the antigen.

But making such an **adenovirus vector vaccine** requires live adenovirus to be grown in large quantities first. Again, as with inactivated vaccines, precautions have to be taken to ensure the virus is contained in the lab, because **adenoviruses can infect humans too**. However, because these viruses do not pose as great a danger to humans as SARS-CoV-2 does, a BSL-2 facility is enough.

SHOULD WE RECOGNISE SEX WORK AS 'WORK'?

Recently, the **pandemic has hit millions of people** and caused a great deal of suffering across communities but there **is one community that is especially hard hit** and that is **'sex workers'**.

Why must we recognise sex work as 'work'?

Classification of respectable women and non-respectable women: It is based on the belief that sex work is "easy" work and no one will or should choose to practise it.

- It thus perpetuates the prejudice that women who do practise sex work are morally devious.

Sex workers are prone to violence: The Act has not only criminalised sex work but also further stigmatized and pushed it underground thus leaving sex workers more prone to violence, discrimination and harassment.

Imposition of government's will over individual's choice: The Act denies an individual their right over their bodies and it imposes the will of the state over adults articulating their life choices.

Women enter agreements with traffickers: The Act fails to recognise that many women willingly enter into agreements with traffickers, sometimes just to seek a better life as chosen by them.

- There are evidences which shows that many women choose to remain in sex work despite opportunities to leave after 'rehabilitation' by the government or non-governmental organisations.

Criminalization of sex work: It compromises sex workers' health and safety by driving sex work underground.

- It makes it harder for sex workers to negotiate terms with clients, work together with other sex workers for safety, and carry condoms without fear that they will be used as evidence of prostitution.

Reasons for decriminalization of sex work

Decriminalization respects human rights and dignity: A cornerstone of contemporary human rights is that all people are born free and equal in dignity and rights.

Decriminalization helps guard against violence and abuse: The fear of arrest and police abuse limits the time and methods that sex workers can use to conduct safety screenings of clients without detection by police.

Decriminalization improves access to justice: The laws that criminalize sex work cause sex workers to feel unsafe reporting crimes because they fear prosecution, police surveillance, stigma, and discrimination.

Decriminalization challenges the consequences of having a criminal record: In many countries, harsh and biased application of criminal law ensures that a large proportion of sex workers will have criminal records.

- The criminal records are often a source of stigma, and can drastically limit one's future.

Decriminalization improves access to health services: It is associated with the best access by outreach workers to brothels, and the greatest financial support for sex worker health programs.

Decriminalization reduces risk of HIV and sexually transmitted infections: It could avert up to 46 percent of new HIV infections among female sex workers over the next decade.

Challenges faced by sex workers

Exclusion from government's relief programmes: The sex workers have mostly been kept at arm's length from the government's relief programmes due to non-recognition of sex work as legitimate work.

Archaic and regressive laws governing sex work: The legislation penalises acts such as keeping a brothel, soliciting in a public place, living off the earnings of sex

work and living with or habitually being in the company of a sex worker.

- The Act represents the archaic and regressive view that sex work is morally wrong and that the people involved in it, especially women, never consent to it voluntarily.

Lack of support from civil societies: The Act gives no agency to the sex workers to fight against the traffickers and in fact, has made them more susceptible to be harassed by the state officials.

Lack of visible data on sex workers: Despite their vulnerability, sex workers remained a largely invisible, inadequately served and marginalised population.

- The main challenges sex workers faced included health risks, violence, and obstacles to gaining access to substantial health care services, legal assistance and social services.

Measures to be adopted to recognize sex work as work

Guaranteed set of labour rights: The COVID-19 pandemic has provided more reason to consider a long pending demand of sex workers in India i.e. decriminalisation of sex work and a guaranteed set of labour rights.

Recommendation of Justice Verma Commission: It is important to recognise sex work as work and stop ourselves from assigning morality to their work.

- The adult men, women and transgender persons in sex work have the right to earn by providing sexual services, live with dignity and remain free from violence, exploitation, stigma and discrimination.

Decriminalization of sex work: It means removal of criminal and administrative penalties that apply specifically to sex work, creating an enabling environment for sex worker health and safety.

- The decriminalization of sex work must be accompanied by recognition of sex work as work, allowing sex work to be governed by labor law and protections similar to other jobs.

Strengthen services for sex workers: The governments should fully decriminalize sex work and ensure that sex workers do not face discrimination in law or practice.

- It aims to ensure that they have safe working conditions and access to public benefits and social safety nets.

Community-based rehabilitation of sex workers: The Seventh Report of the Panel on Sex Work, constituted by the Supreme Court in 2012, recommended adopting community-based rehabilitation, against institutional rehabilitation, thereby recognising the efforts of existing unions and organisations.

ROAD AHEAD

- It is time we rethink **sex work from a labour perspective**, where we recognize their work and guarantee them basic labour rights.
- The parliament must take a **relook at the existing legislation** and do away with the 'victim rescue rehabilitation' narrative.
- The **sex work should be legalized**, and sex workers **offered all the protections** offered to **workers in other industries** because when sex work is recognized and treated as legitimate work, sex work can begin to benefit women.
- The government needs to **ensure their inclusion in welfare policies** such as skill development, food security, shelter, etc. in order to provide for the needs of sex workers.
- The government could **follow the NHRC by consulting non-state actors** including sex workers' unions to address the negative implications of the current schemes.
- The **sex workers' right to dignity is also a human right** because they do not deserve to live in the constant threat of being raided and stolen of their opportunity to work and provide for their families.

Decriminalization means removal of criminal and administrative penalties that apply specifically to sex work, creating an enabling environment for sex worker health and safety. For decriminalization to be meaningful, it must be accompanied by recognition of sex work as work, allowing sex work to be governed by labor law

and protections similar to other jobs. While decriminalization does not resolve all challenges that sex workers face, it is a necessary condition to realize sex workers' human rights.

EFFECT OF COVID-19 PANDEMIC ON BIOMEDICAL WASTE MANAGEMENT

The second wave of the Covid-19 pandemic has posed numerous challenges before India on multiple fronts –health, economy and also the environment.

- One such impact the Covid outbreak has posed on the environment is the **exponential increase in biomedical waste generation**.

Covid as a Challenge: Biomedical waste poses various health and environmental hazards, and this is the wider challenge that the pandemic has posed before us.

- Although there are guidelines to handle medical waste with utmost care and dispose of them safely, the exponential rise in the quantity of biomedical waste due to the pandemic has made the task very challenging.

Data as per CPCB: As per the estimates of **Central Pollution Control Board (CPCB)**, the average quantity of **Covid--19** related biomedical waste generation during May, 2021 is about 203 Tonnes Per Day.

- The **peak generation of biomedical waste** was about **250 Tonnes per day**.
- The earlier peak generation in the year 2020 was in the range of 180 – 220 Tonnes Per Day.
- This 250 tons includes only Covid related waste.
- The peak amount of waste generated by India on a daily basis is 1000 tons. Covid waste is only 25% of it.

Biomedical Waste

Biomedical waste is defined as human and animal anatomical waste, treatment apparatus like needles, syringes and other materials used in health care facilities in the process of treatment and research.

Covid-19 related Biomedical waste includes: personal protective equipment (PPE), gloves, face masks, head cover, plastic coverall, hazmat suit, syringes among other gears and medical equipment used by both healthcare providers and patients.

Hazardous Waste: Biomedical waste is a **biologically and chemically hazardous**

waste containing **biological** and **microbiological contamination**.

- It has the **potential of spreading** various types of **diseases**.
- The covid related biomedical waste contains various medicines that are toxic in nature.

Provisions for Biomedical Waste Management: The Ministry of Environment, Forest & Climate Change (MoEFCC) has notified the **'Biomedical Waste Management Rules, 2016'**.

- Also, a separate facility called **Common Biomedical Waste Treatment Facility (CBWTF)** is there.
- It is a set up where biomedical waste generated from member health care facilities is imparted necessary treatment to reduce adverse effects that the waste may pose on human health and environment.
- The treated recyclable waste is finally sent for disposal in a secured landfill or for recycling.
- About 200 such facilities are there in India to manage the waste.
- India has also **ratified the Basel Convention** on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal.

Biomedical Waste Management Rules, 2016

Biomedical waste management rules came into **force in 1998** and have undergone many amendments since then.

- The rules provide that the biomedical waste shall be properly collected, treated and disposed of.
- The rules also provide that all the data that is collected from the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) has to be submitted to CPCB and finally it should go to the MoEFCC.
- The **latest major amendment** was made in **2016**.
- There were also a few amendments to the rules in 2018 and 2019 which included the **colour coding of the containers**.
- The objective of the rules is to properly **manage the per day bio-medical waste** from **Healthcare Facilities (HCFs)** across the country.

- Under the amendment in the rules in 2016, the **ambit of the rules has been expanded** to include vaccination camps, blood donation camps, surgical camps or any other healthcare activity.
- The **rules back the pre-treatment of the laboratory waste**, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner **prescribed by** the World Health Organization **(WHO)** or by the National AIDS Control Organisation **(NACO).**
- Bio-medical waste has been classified into 4 categories instead of the earlier 10 categories to improve the segregation of waste at source.
- The rules prescribe more stringent standards for incinerators to reduce the emission of pollutants in the environment.

BASEL CONVENTION

Adopted on **March 22, 1989** by the **Conference of Plenipotentiaries in Basel, Switzerland**, the "Basel Convention on the **Control of Trans-boundary Movements of Hazardous Wastes and their Disposal**", generally known as the **Basel Convention**, came into force in 1992.

- It is an international treaty that **aims to reduce the movement of hazardous waste between countries**.
- It particularly focuses on preventing transfer of hazardous waste from developed to less developed countries.
- It provides for cooperation between the parties, including exchange of information on issues relevant to the implementation of the Convention.

India is a member of the Basel Convention.

- It ratified the convention in June 1992 and brought it into force on 22nd September 1992.
- However, **India has not ratified the Basel ban amendment**.
- Adopted by the parties in the Basel Convention in 1995, the amendment prohibits all export of hazardous wastes, including electronic wastes and obsolete ships from 29 wealthiest countries of the Organization of Economic Cooperation and Development (OECD) to non-OECD countries.

Challenges in Biomedical Waste Management

Major Waste Generated at Home: The Covid related biomedical waste is generated not just in the hospitals but also at homes. Only 20% of the patients had to go to hospital.

- 80% of Covid patients are recuperating/have recuperated at home.
- They are generating the biomedical waste at the places where it cannot be treated properly.
- There is no proper facility for the management of the biomedical waste generated at home; it is **being dumped in the ordinary** municipal waste.

Issues with Local Hospitals: Although India has the facility of managing this high amount of waste but because a large amount of this waste is being generated at homes and at provincial and local level hospitals, the waste is getting mismanaged.

- These local hospitals are not as updated in facilities and infrastructure and hence, don't have proper biomedical waste management facilities.

Municipal Workers at Risk: As such a large amount of covid waste is being generated at home, it makes the municipal workers the frontline workers too.

- Data shows that these workers too have been impacted extensively amid the pandemic, a lot of them have died too.
- There is a common perception that the virus must have been transmitted by respiratory droplets, aerosols or by touching an infected surface.
- However, there is less attention given to the poor management of the biomedical waste, a large number of people, specially the municipality workers getting infected due to coming in contact with the waste disposed of in the open.

Lack of Awareness: People are also not aware of how to segregate the waste at source and this is a bigger concern.

Issue with the Waste Management Rules: The legal provisions for the same are designed to tackle biomedical waste at hospitals only.

- They do not provide any information about how to manage such waste at home or any place other than hospitals.

Unequal Distribution of CBWTF: India has about 200 Common Biomedical Waste Treatment Facilities (CBWTF) across the country but they are located only in a few cities/districts like Mumbai or in Delhi.

- However, in far off corners of the country, there is no such treatment facility at all.
- Maharashtra had the highest number of such facilities (29) followed by Karnataka (26) and Gujarat (20). Kerala, which had witnessed the highest rate of daily generation, had only one CBWTF.

Lack of Accurate Data: The CPCB, during the first wave of the pandemic, was very quick in providing clear guidelines and a mobile app for collecting data on biomedical waste generation.

- But with the occurrence of the second wave, the impact is so bad that the hospitals are not even able to upload any data now.
- Also, considering the fact that the second wave has hit India in a worse way, the covid related biomedical waste generated should have been a lot more than 250 tons (probably around 500 tons) as in the first wave the daily biomedical waste generation was 200 tons.

ROAD AHEAD

Judiciously Managing the Waste: The potential of biomedical waste of spreading a disease through the environment, largely by polluting water, is extremely high.

- The biomedical waste generated should be collected and treated properly and must not be allowed to reach the water bodies as then it will be a problem too big to handle.
- The biomedical waste generated should either be incinerated or gasified.
- Along with managing the biomedical waste generated, nature should also be taken care of.
- The waste must be managed so judiciously so that it does not contribute to climate change or trigger any other harm.

Role of State Agencies: The state agencies responsible for providing the data to higher authorities have to play a crucial part in ensuring that data is not missed and no wrong data is forwarded to the CPCB.

Awareness Among People: The waste segregation and management is done by the state agencies by colour coding like the red coloured container means that the biomedical waste is highly hazardous.

- So the people must also be aware about these color codings as they represent the hazard level of each biomedical waste.
- If people will have knowledge about such basic things then they will be more cautious about keeping themselves away from such hazardous waste.
- People must also understand that even if they are not infected, they should not put their masks and gloves in the same municipal bins that they have; waste segregation is a must.
- People have to follow the SOPs generated by not just the WHO but other various health agencies to control the infection.

SOPs for Waste Management at Home: The CPCB shall come out with SOPs for managing biomedical waste at home for rural as well as urban communities.

- While burning biomedical waste is not an option in urban areas as the pollution levels are already high, burning biomedical waste in pits can be a possible way of managing waste in the village areas.
- The ultimate goal of biomedical waste management is to drastically reduce the environmental damage that is posed by this waste. A healthy environment at the end of the day is essential for healthy lives.
- The COVID-related biomedical waste has to be disposed of in a scientific manner as per the provisions of the Biomedical Waste Management Rules, 2016.
- Awareness drives are the need of the hour and only through these drives can we take care of all these challenges that the pandemic is posing before us.

The government shall introduce the SOPs to the common people as well as the municipality workers to handle this waste at home or any other place in order to avoid more damages.

FEDERALISM IN INDIA COMPARED WITH FEDERALISM IN USA

Origin of the idea of federalism in India was first traced in the Commission Simon, appointed **"Indian Statutory Commission"** in **1927**. The Commission was intended to revise the Indian Constitution. In its 1930 report, the Commission recommended the development of India into a **'federation of self-government units.'** India emerged as a federation that had been relieved of British Raj's clutches. Several princely states, divided and governed, came together to form the Indian Union. The pre-independence Center and Provinces became a Union of countries with clear **powers divided up** into **three lists-Union, States, and concurrent lists**. The former princely states were replaced by the Indian Union, which later became the federal units. Several such states have joined India and have become full members of the Indian Union. When the Constitution of India entered into force, the component units were grouped into four categories of States. A gradual process was followed by the reorganization of the States, which continued until the end of 1969. Ambedkar said that because the Indian Federation was indissoluble it was a "Union" and no government was allowed to separate from it. The federation is a union because it is an indestructible strong center to secure the nation. In general terms, the 'Confederation' is the structure in which the Units dominate the Union; in the Unitary State, the Union dominates the Units. An alliance will be formed among independent states in a Confederation where units can divide. Power is derived from the Central Legislative Assembly in the United State.

The union is effectively dividing legislative authority, with each unit in its position being sovereign. Dr. B.R. Ambedkar used the word Union to make clear that States do not have the right to distinguish themselves from the Union. He said that the Union was a federation and called it a versatile federation to say that it was not as static as the American constitution was. The founding fathers of the Constitution felt a need for a strong core due to the existing social, economic, and political circumstances. At the Constituent Assembly, Ambedkar stated: "The Constitution for India is a federal Constitution insofar as it defines what may be referred to as a dual policy, consisting of a Union at the Core and States at the periphery each with the sovereign powers to be exercised in their respective areas of competence under the

Constitution." There are **five essentials necessary** to be called as **federal** and these are:

- The Constitution has to be written.
- It has to be rigid.
- It must be the supreme rule of the land;
- The separation or transfer of powers between the Union or the federal government and the different States or provinces may take place.
- An autonomous and impartial judiciary must be formed to interpret the Constitution and the Rules.

However, the term 'federation' has not been used consciously. In the case of **Kesavananda Bharati vs. State of Kerala**, the Supreme Court held that its basic feature was the federal character of the Constitution. In the case of the **State of Rajasthan vs. Union of India**, the Supreme Court held that the **Constitution was an amphibian** in the sense that it could travel either on a federal or a unitary plane. Where the action is taken under Article 356, the movement shall be on a unitary plane. Article 249 is a well-designed provision intended to ensure greater consistency in the operation of the union. States have the exclusive right to legislate on matters specified in the State List. Article 249 allows for a situation in which the national interest requires Parliament to be able to legislate on a matter in the State List only if the Council of States agrees, by a two-thirds majority, that it is appropriate in the national interest. In the case of **State of Karnataka v. Union of India & Anr,** Justice Untwalia said that the Indian constitution is strictly speaking not in a federal sense because it is possible to suggest that a separate, autonomous, sovereign state has joined to form a country such as in the United States of America or the role it has in some other countries of the world. It is for this reason that it was often defined as quasi-federal.

Both United States and India which are considered as the largest democratic countries in the world are based on federalism in their political structure. The US gained the status of Federal Republic State in the year1789; whereas India occupied the status of Socialist, Sovereign, Secular, and the Democratic Republic by enacting its Constitution in the year 1950. Thereby both countries had attained dominion status in which several smaller states got associated with a strong central

government which is known as Federal Government in the US and Central Government in India. Thus, both states became Federal Republics.

During framing of the Constitution, the drafting committee headed by Dr.Ambedkar, borrowed many features from Constitutions of other countries including US which was adopted in the Indian context. Hence, both U.S and India, even though federal in character have certain similarities as well as differences between them.

Holding together federation	**Coming together federation**
When a large country chooses to divide its authority between the member states and the central government, federalism is regarded as holding together federalism.	Independent states join together on their own to form a larger unit is known as Coming together federalism
In holding together federation, the central power always will maintain its dominance over constituent units which results in the lack of sovereignty often.	In the Coming Together Federation, the central government and the state always seem to have equal powers.
Example: India, Spain, Belgium	Examples – USA, Australia, Switzerland
Similarities between the federalism of US and India	

1) **Written Constitution**

The Constitution of both US and India is a written Constitution, which provides for a federal political structure where both the governments exercise their respective powers. The Constitutions of both the countries provide for amending the Constitution to meet the changing circumstances and the growing political, economic, social needs and demands political and economic needs and demands of their respective countries.

2) **Bill of Rights and Fundamental Rights**

The US Constitution has given its citizens fundamental rights such as the right to equality, freedom, right against exploitation, freedom of religion, cultural and

educational rights, right to property, and the right to Constitutional remedies etc. by means of 'The Bill of Rights', Part III of the Indian Constitution guarantees the fundamental rights of the people as given in Articles 14 to 34.

3) **Supremacy of the Federal or Union Government**

In both the countries, the federal government works at the centre in which various states have acceded to. In the US, there are 50 states who have associated them to the federal government and in the Indian Union, as many as 29 states and 8 Union territories have accepted this form of government. Both in US and India, states which have accepted the Federal set up have no individual power to separate from the Central Government or the Union Government. While both the Central as well as State Government is empowered to makes laws on subjects given in the concurrent list, the law enacted by the Federal or Union Government will prevail over the law enacted by the states on the same subject in case of dispute. Thus, Federal or Union Government is supreme in the present federal structure.

4) **Separation of powers**

Both US and Indian Constitutions provides for separation of powers among three institutions namely executive, legislature and judiciary. Each division is empowered with a separate power. The executive governs the country, the legislature makes laws, and the judiciary ensures justice. President of US is the chief executive head of US, whereas the Union cabinet headed by the Prime Minister is the real chief executive body in India. Both US and India have a bicameral legislature. The upper and the lower houses of US legislature are called as the House of Senate and the House of Representatives respectively, and the Indian Parliament has Lok Sabha and Rajya Sabha as its Lower and Upper house respectively.

5) **Powers of Checks and Balances**

Though there is a clear-cut separation of powers between executive, legislature and judiciary in both countries, still there can be overlapping of these powers. There are chances of abuse of power or arbitrariness. Thus, there is a need for a system of 'checks and balances prevalent in both countries.

The President having chief executive power appoints the members of his 'Kitchen Cabinet' and he is the Supreme Commander-in-Chief of Army, Navy and the Air Force. He is empowered to appoint the Chief Justice of the Supreme Court of the US. He enters into treaties with other countries. However, his treaties must be approved by the House of Senate. Otherwise, the treaty will not come into force.

Similarly in India, it is the Prime Minister and his cabinet who exercise real power. They can be removed from power by a successful no-confidence motion passed by both houses of parliament. The policy decisions become laws only after obtaining the requisite majority of the parliament. However, the laws enacted by the parliament are subject to the judicial review of the Supreme Court of India.

Differences between the federalism of US and India	
USA is a Dual Federation	**India is a Cooperative Federation**
Dual Federation (USA) – both the Centre and state are completely independent. They are complete governments	Cooperative Federation (India) – Interdependence of Centre and state govt. Neither of them is independent of the other. Centre usually has the role of big brother.
Centrifugal federalism	Centripetal federalism
Symmetrical federalism: All states are given equal representation in Senate	**Asymmetrical federalism**: 1. States have been given representation in Rajya Sabha on the basis of their population. 2. Articles 370, 371 provide special provisions to few states.
USA is a Legislative federation. This means that States have dominance in law making.	India is an Executive federation. This means that states are important at the executive level only.
USA is an indestructible union of indestructible states	India is an indestructible union of destructible states.
USA constitution provides a role to states in ratifying the international treaties through the Senate.	There is no such provision for states in the Indian Constitution.

Thus, the powers of checks and balances have been the efficient method both in the US and in India in protecting the democracy in both countries.

There are certain differences that exist between the federalism of US and India. These differences have been created by the architects of the Indian Constitution. The US federalism is very strong and more rigid as envisaged in their Constitution by its leaders. It is more federal than unitary in character. Whereas, India is more unitary than federal and we can even say that it is a quasi-federal state.

1) **The Constitution of US is very rigid than the Indian Constitution**

The Constitution of US is very precise and rigid running into only a few pages, whereas the Constitution of India is very bulky containing as many as XXII parts, 395 articles, and ten schedules. Since the US Constitution is very rigid, the provisions meant for amending the Constitution are also very rigid and more formal. The US Constitution has been amended only 27 times. Whereas, the Indian Constitution, which came into force in the year 1950, has **so far been amended 94 times**. Therefore, it is easy to amend the Indian

2) **While the US has the Presidential form of Government, India has the Parliamentary form of Government**

In the US, the President is the head of the state and so his government is popularly referred as the Presidential form of government. India, on the other hand, has a Parliamentary form of Government as the Prime Minister with his cabinet exercises real power with the President being only a nominal head. The President of US holds office for a period of four years while the Indian Prime Minister holds power for five years as long as his political party enjoys a majority in the Lok Sabha. While the US follows the bi-party system, India has a multi-party system and a complicated process of election.

3) **Differences in the judicial system between US and India**

US being a developed country have an advanced judicial system. The judicial system of India is however rapidly developing. A Judge in the US holds office as long as he

is capable of performing his duties. Indian Constitution on the other hand states that a District judge holds his post till the age of 58, a High Court judge holds till the age of 62 and a Supreme court Judge retires at the age of 65.

4) **Difference in citizenship**

The Constitution of India recognises single citizenship. On the other hand, USA Constitution provides for a double citizenship that is a US citizen can have citizenship of two countries, USA and some other country.

5) **Union and secession**

As per Article 4 of Section 3 of the U.S Constitution, it is clear that, without agreement between the legislatures of the States concerned and the Congress, no new State shall be created or established beyond the competence of any other State. Thus, it can be inferred that no State will withdraw from the U.S. Constitution from the union.

Article 1 of The Constitution of India states that India is a Union of States. Article 2 empowers Parliament to admit or form new States within the Union on such terms and conditions as it considers necessary. Further under Article 3, the Parliament may, by statute, create a new State by separating the territory from any State or by uniting two or more States or parts of States or by uniting any territory to any part of any State; by raising the area of any State; by reducing the area of any State; by altering the borders of any State; or by changing the name of any State.

The Parliament is therefore entitled to create new states, to modify current Member States' regions, and to change the names of every current State. Therefore the Constitution provides for modifications to the geographical limits and does not protect the territorial integrity of the States. It is also possible to change names. According to Article 2, the terms and conditions for the admission of any region into the Union or for the creation of a new state must be defined by the Parliament. In so doing, it is not to seek rivalry between the State of which the proposal is likely to affect its territory, boundary, or name. All that Article 3 requires is for the President

to send the Bill "to express his opinions" in such cases to the legislatures of the concerned States. If the opinions of the Member States are known, it is left to Parliament to vote on the proposed amendments.' The Parliament can, therefore, without the competition of the State or States concerned, alter the boundaries of the State or increase or decrease its area or change its name. These clauses indicate that Parliament is of utmost importance in the matter of the Constitution of States.

6) **Centre and state working**

Article 1 Section 8 of the U.S. Constitution provides for 18 subjects to be legislated and limited by the middle. The majority of the authority is with the Nations. And the residual power is with the states. In India, exhaustive lists are drawn up which cover the different areas of the Center and the states. No question of residual power ever arose. But then, if there is no entry in any of the three lists, the Center shall have the authority to do so. Thus, the residual power is with the Center.

SUMMING UP

The federalism structure of the United States and India is somewhat different, but both structures have performed effectively and preserved national independence with a different history and challenges. Federalism is like a rainbow, each colour is distinct, but they make a cohesive pattern together. A fluid balance between the center and the States must be preserved continuously by federalism. Ultimately, a community and a collection of principles and virtues such as honesty, compassion, and the spirit of cooperation must be established by the citizens and political process. It can also be inferred that certain federalist characteristics are common to both India and the United States. On the other hand, the federal character of India and the USA differ in many regions. But both the United States and the Indian federalism are very popular despite their limitations.

BIDEN REINVIGORATES TARIFF WAR AGAINST INDIA WITH RETALIATION AGAINST DIGITAL TAX

Recently, the US **suspended imposition of retaliatory tariffs against six countries**, including **India** that had begun imposing **digital services tax** on companies such as Google and Facebook.

- Other than India, the countries slapped with this tariff proposal are **Austria, Italy, Spain, Turkey,** and the **United Kingdom.**

Digital Services Taxes

- **DSTs** are the **adopted taxes on revenues that certain companies generate from providing certain digital services**. E.g. digital multinationals like Google, Amazon and Apple etc.
- The **Organisation for Economic Cooperation and Development (OECD)** is currently **hosting negotiations with over 130 countries** that **aim to adapt the international tax system.** One goal is to address the tax challenges of the digitalization of the economy.
- Some experts argue that a **tax policy designed to target a single sector or activity** is **likely to be unfair** and have complex consequences.
- Further, the **digital economy cannot be easily separated** out from the **rest of the global economy**.
- Tariffs were imposed after the office of the **United States Trade Representative (USTR)** noted that the **Digital services taxes adopted by India, Italy and Turkey discriminate against US companies** and are inconsistent with international tax principles.
- Under **Section 301 of the Trade Act of 1974**, the **USTR enjoys a range of responsibilities and authority to investigate and take action** to enforce US national interests under trade agreements and respond to certain foreign trade practices.

REASON FOR SUSPENSION:

Multilateral Solution: To **allow time for ongoing international tax negotiations** to continue. The US is **seeking a multilateral solution** while maintaining the option of imposing tariffs under **Section 301** if warranted in the future.

Damage to Global Economy: The six countries potentially impacted are passing through a weak post- Covid-19 recovery and **opening a new trade war front could be damaging** not only to them, but also to the broader global economy.

- The **combination of depressed economic activity** owing to the effects of the **pandemic** and tectonic **shifts in global supply chains** engendered by the **US' trade war with China** has **already left many economies in a weakened condition**.

Change in Administration: Under the previous US government (Trump) **USTR was used to promote what his administration considered to be free, fair and reciprocal trade**, specifically to close the gap or balance of trade between the US and foreign governments.

- However, the new administration (Biden) appears to be **seeking a middle path of waving the stick of the USTR** while allowing some space for continued tax negotiations with the nations concerned.

IMPACT ON INDIA:

Loss of Revenue: The tax levied by the Finance Bill, 2021, could yield **approximately USD 55 million** annually.

- Negotiations with the US that may result in the scaling back of this tax would **imply that a part of this revenue would be lost to the exchequer,** depending on the final rate agreed.

Impact on Exports: Close to **USD 118 million of India's exports** to the US would be subject to the **tariff proposed by the USTR**, **impacting 26 categories of goods** such as:

Basmati rice, cigarette paper, cultured pearls, semi-precious stones, certain gold and silver jewellery items and specific types of furniture products.

Growth Prospects: Any escalation matrix of retaliatory taxation with the US would **damage its growth prospects at a crucial point in its laborious recovery.**

- However, India will also not be able to **simply abandon its articulated intent to tax global tech firms,** which have generally enjoyed low-tax operations across numerous jurisdictions.

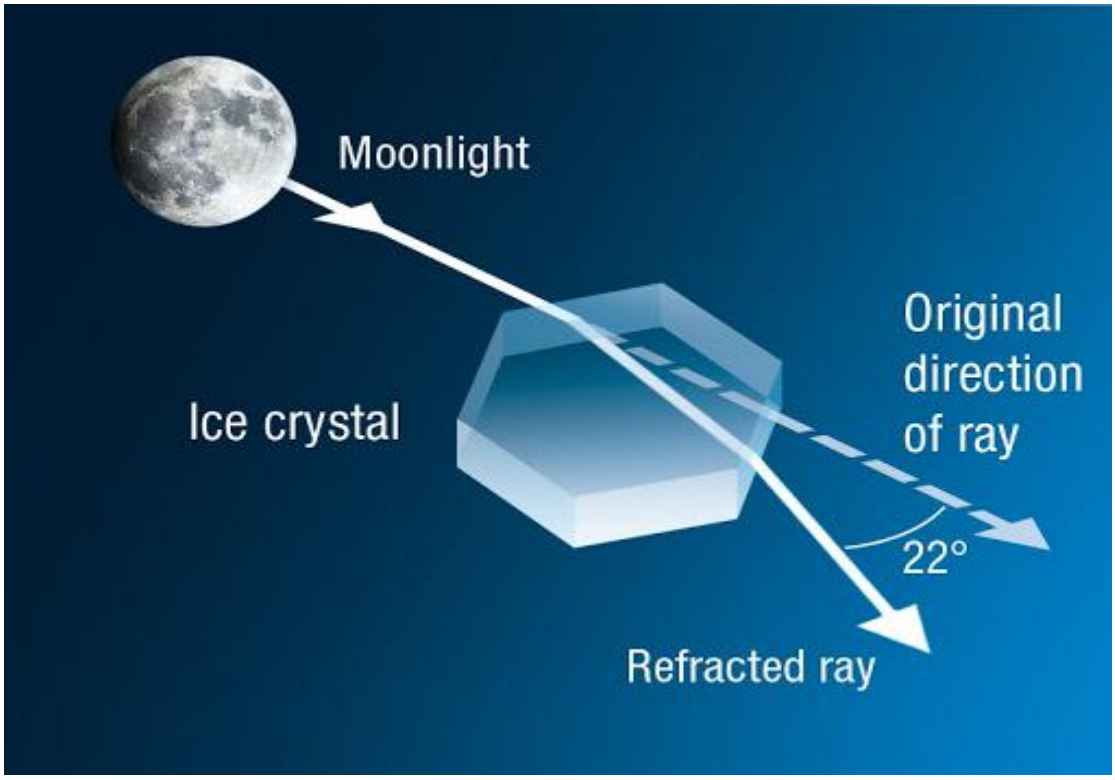
INDIA'S TAX ON DIGITAL COMPANIES

- The government had moved an **amendment in the Finance Bill 2020-21 imposing a 2% digital service tax (DST)** on trade and services by non-resident e-commerce **operators with a turnover of over Rs. 2 crore**.
- This effectively expanded the scope of equalisation levy that, till last year, only applied to digital advertising services.
- Earlier, the **equalisation levy (at 6%)** was introduced in 2016 and **imposed on the revenues generated on business-to-business** digital advertisements and allied services of the resident service provider.
- The **new levy came into effect from 1st April 2020**. E-commerce operators are obligated to pay the tax at the end of each quarter.
- The idea is to **tax payments made to offshore entities which do not have a physical presence** here and therefore the income tax department cannot subject such income earned from India to tax.

As India is racing towards becoming a digital giant, the 2% DST should be negotiated to avoid any hurdles in its implementation. India **should consider its options carefully at this juncture**. Further, there needs to be **international consensus on taxation on a digital economy.**

WHAT MAKES A HALO AROUND THE SUN OR MOON?

India's tech hub witnessed an **optical phenomenon – Sun Halo or a rainbow-coloured ring around the sun** across Bengaluru on 24 May 2021, which brightened up the day with several people on social media sharing pictures and funny captions with it.



Bengaluru residents were left awed by the rainbow-coloured halo surrounding the sun as the **striking circular rainbow ring** was reportedly visible from most parts of the capital of Karnataka.

It was first seen around 11 a.m. and lasted for over an hour, in which time Bengaluru resident's flooded social media with pixtures of the rare phenomenon.

SUN HALO

Sun halo, also known as **'22 degree halo'**, is an optical phenomenon that occurs due to **sunlight refracting in millions of hexagonal ice crystals suspended in the atmosphere**. It takes the form of a ring with a radius of approximately 22 degrees around the sun or the moon.

Where the halos are formed?

Circular halos specifically are produced by **cirrus clouds**, which are thin, detached, hair-like clouds. These clouds are formed very high up in the atmosphere, at a height of over 20,000 feet.

What causes a sun halo to appear?

The halo phenomena happen **when the light is reflected and refracted by ice crystals** and may **split into colours because of dispersion**, according to the UK based Atmospheric Optics, a knowledge-sharing website. It further explained that the crystals behave like **prisms and mirrors, refracting and reflecting light** between their faces, sending shafts of light in particular directions. Atmospheric optical phenomena like **halos were used as part of weather lore,** which was an empirical means of weather forecasting before meteorology was developed. They often indicate that rain will fall within the next 24 hours, since the **cirrostratus clouds** that cause them can signify an approaching frontal system.

How can one view a halo?

Just like a rainbow, a **halo is visible when viewed from the right angle** – sometimes appearing just white but often with colours of the spectrum also clearly present. They are the **collective glints of millions of crystals** that happen to have the right orientation and angular position to direct their refracted light into your eye.

How often do sun halos occur?

Such **Sun or Moon halos are not so common**. However they have been witnessed earlier in the country in the past. Such a halo could occur around the moon at night, which is formed due to the same phenomenon.

RURAL HEALTH CARE NEEDS FIXING, AND NOW

Recently, the two consecutive waves of COVID-19 and Mucormycosis have left us shattered but during the second wave of the pandemic, it is **our rural people who are struggling the most**.

India's health infrastructure is lagging behind in rural areas

- **Low primary healthcare centres (PHCs) to village ratio:** The second wave of the novel coronavirus pandemic has exposed the inadequate and poor health infrastructure in the rural areas.
- The fact shared by Union Minister of State for Health and Family Welfare suggest that 29,337 primary health centres (PHCs) are required in the rural areas of the country.
- India has 25,743, a shortfall of 3,594 units which implies that we have one PHC for 25 villages in India.
- **Shortfall of health specialists in Community Health Centres (CHCs):** India has 5,624 community health centres (CHCs) against the requirement of 7,322.
- The data on CHCs, which act as a referral centre covering a population of 80,000 people to 1.20 lakh people, show that, there is a shortfall of 81.8% specialists at CHCs as compared to the requirement for existing CHCs.
- **Low patient-hospital bed ratio:** According to the Human Development Report 2020, India has eight hospital beds for a population of 10,000 people, while in China, it has 40 beds for the same number of people.
- **Lack of maintenance of network of health care:** India not been able to maintain the vibrancy and vitality of the network of health care which resulted vast rural populace remains deprived of critical health interventions.
- **Gap between allocations and actual government spending on PHCs:** India's hospital-centric model has always focussed on sick-care at the tertiary level, which increases the overall burden of access, diseases and cost of health care.

- **Inadequate doctor-patient ratio**: Nearly 30,000 doctors, 20,000 dentists and 45,000 nurses graduate from medical colleges across India every year but the doctor-to-patient ratio in India is only six for every 10,000 people.

Importance of healthcare infrastructure in rural areas

- **Continuous supply of healthcare needs:** The key role of healthcare facilities in the rural areas is to provide regular and comprehensive healthcare needs guided by the World Health Organization (WHO)'s principle of Universal Health Coverage.
- **Support to financial hardships of rural population:** It aims to ensure that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality to be effective.
- **PHCs act as effective management structure:** The PHCs have proved to be an effective management structure enabling people's participation in ensuring better functioning of rural health services.
- **Early diagnosis saves healthcare-related resources:** It is necessary to treat the disease(s) at the primary level in its first stage to create a healthy India because it will help us save a lot of money and the resources being spent at tertiary level health care.

Measures to be adopted to address health infrastructure in rural India

- **Increase in primary healthcare centres (PHCs) to village ratio:** India should have one expanded PHC for every 10 villages along with the provision of some beds and other minimum necessary facilities.
- **Government's engagement with rural community:** It is of utmost importance that governments everywhere engage with all kinds of rural community organisations such as panchayats, gram sabha, notified area committees, municipal bodies and nongovernmental organisations in minimising the adverse impact of the pandemic on rural life.

- **Proper maintenance of healthcare network:** The chain of SHCs, PHCs and CHCs can very well take care of the multiple health needs of our people.
- They should have the health data of people in their respective areas because it will enable them to identify likely to slip into the secondary or tertiary care zone.
- **Regular organization of health camps:** It will help us identify those on the verge of developing tuberculosis, hypertension, diabetes or any diseases likely to be caused because of their socio and economic conditions.
- **Rural healthcare centres should be equipped with necessary resources:** A CHC or referral centre equipped with specialists will do wonders if made to work efficiently.
- Every CHC is supposed to have at least 30 beds for indoor patients, operation theatre, labour room, X-ray machine, pathological laboratory, and standby generator' and other wherewithal.
- **Cloud-based health management platform:** It would not only connect people to doctors and facilitate follow-up consultations but also rope in the nearest medical stores to ensure people received the prescribed medications.

ROAD AHEAD

- It is high time that all stakeholders need to **revisit and refurbish India's health infrastructure in the rural areas** and build them in a better manner.
- The health is a State subject, but all those living in the rural areas are not only the **responsibility of the States or the Centre** but also a **collective responsibility.**
- It is necessary to see and ensure that the **money being spent improves facilities and contributes to people's ease of life** because it is hugely challenging as a task but we have to firm up our strategies, their execution and by rigorous auditing.

- **Combining healthcare data with other parameters related to transport and housing**, for instance, could be used to generate healthcare plans and deploy healthcare services in real time to those who need it the most.

The approach to service delivery has to be aimed at **providing a functional referral link between urban and rural services** in order to establish a 'continuum of care'.

(Page **4** of **4)**

THE MANY BENEFITS OF AN ECO TAX

Environmental challenges are increasing the pressure on governments to find ways to reduce environmental damage while minimising harm to economic growth. The Covid-19 pandemic has also forced countries all over the world to rethink climate change and the need for preservation of the environment.

In this context, an **Environmental tax** is a novel idea to enforce or introduce taxes on substances, which pollute the environment, the ultimate aim being the substantial reduction of pollution.

India currently focuses majorly on the command-and-control approach in tackling pollution. The success of an environmental tax in India would depend on its architecture, that is, how well it is planned and designed.

Environment Tax & Benefits

- The aim and purpose of environmental taxes is to curb or reduce the extent and amount of the use or consumption of harmful substances or activities, or depletion of a resource.
- **Constituents:** Environmental tax reforms generally involve three complementary activities:

- Eliminating existing subsidies and taxes that have a harmful impact on the environment.
- Restructuring existing taxes in an environmentally supportive manner.
- Initiating new environmental taxes.

- **Rationale:** To the extent that promotion of 'environment' is a public good, like all public goods, financing of this public good should also be from the general pool of taxes including the environmental taxes.
- **Intended Benefits:** The implementation of an environmental tax in India will have broad benefits:

- **Environmental:** It can induce appropriate environmental decisions by raising the relative costs of polluting inputs and outputs and thereby correcting the negative externalities of a polluting activity.
- **Fiscal:** Environmental tax reforms can mobilise revenues to finance basic public services when raising revenue through other sources proves to be difficult or burdensome.

Status of Environmental Tax in India

- Under the Forest Conservation Act, 1980, any entity that diverts forest land for non-forest purposes is required to provide financial compensation for the purpose of afforestation in non-forest or degraded land.

- In 2002, the Supreme Court had directed that a Compensatory Afforestation Fund (CAF) should be created to manage the funds generated.

- Similarly, India's Clean Environment Cess or coal cess acts as a carbon tax.

- The coal cess is levied on coal, lignite and peat at the rate of ₹ 400 per tonne, and the funds raised are managed by the National Clean Environment Fund.

Challenges

Inflationary Effect: Environmental regulations may have significant costs on the private sector in the form of slow productivity growth and high cost of compliance, resulting in the possible increase in the prices of goods and services.

Diversion of Funds: A large part of taxes raised for environmental purposes are being diverted or lying unutilized.

- Most countries' experiences suggest negligible impact on the GDP, though such revenues have not necessarily been used for environmental considerations.

Affecting Competitiveness: The adding of costs to a producer within one country or region, that is not imposed on producers outside that country or region, may of course impact on the competitiveness of the local producer.

ROAD AHEAD

Assessment of Externalities: The environmental tax rate ought to be equal to the marginal social cost arising from the negative externalities associated with the production, consumption or disposal of goods and services.

- This requires an evaluation of the damage to the environment based on scientific assessments.

Provisioning: In developing countries like India, the revenue can be used to a greater extent for the provision of environmental public goods and addressing environmental health issues.

Better Targeting: In India, environmental taxes can target three main areas:

- Differential taxation on vehicles in the transport sector purely oriented towards fuel efficiency and GPS-based congestion charges;
- In the energy sector by taxing fuels which feed into energy generation;
- Waste generation and use of natural resources.

Environmental-Fiscal Reforms: There is also a need to integrate environmental taxes in the Goods and Service Tax framework as highlighted by the Madras School of Economics in its studies.

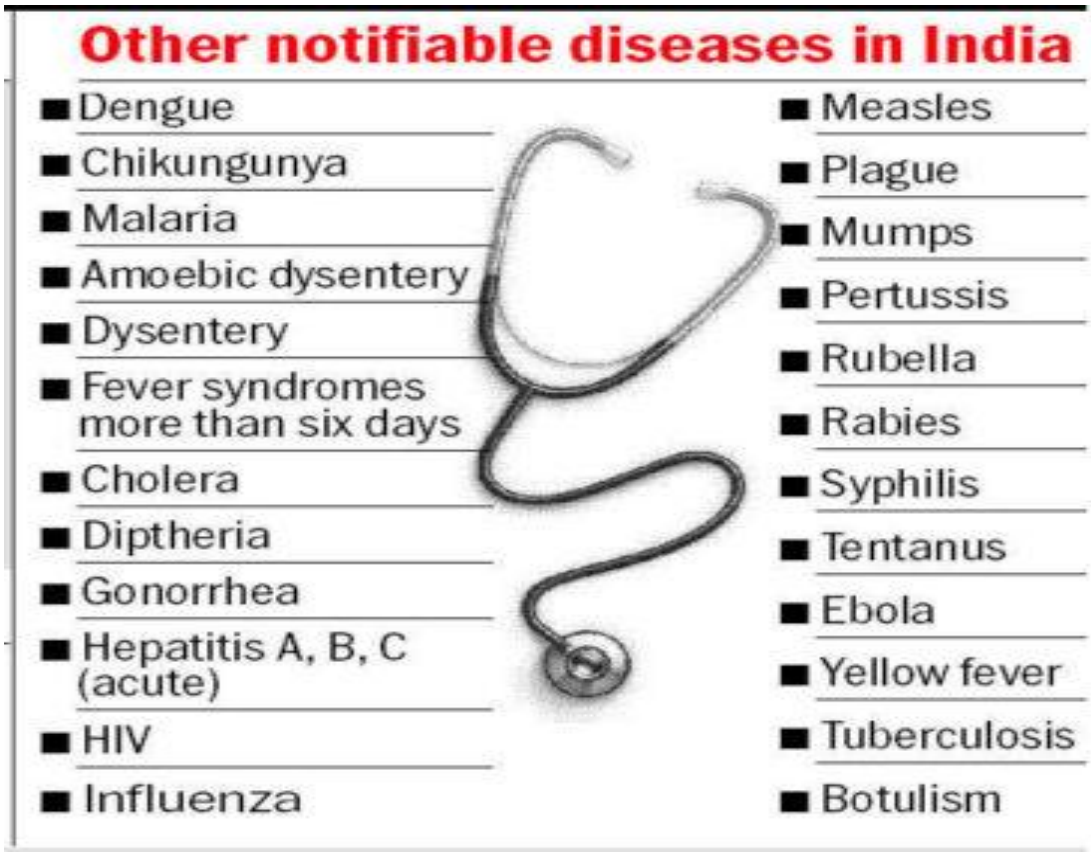
Green taxes shall have a deterrent effect, sensitizing the citizens about pollution control and management. Hence, this is the right time for India to adopt environmental fiscal reforms.

WHAT IS A NOTIFIABLE DISEASE?

Mucormycosis or 'black fungus', which is being found in a rising number of Covid-19 patients across India, has been **declared a notifiable disease** under the **Epidemic Act 1897** in many states, including **Telangana and Uttarakhand**.

It is a **rare but dangerous fungal infection** caused by a group of moulds known as **mucormycetes**, which are present naturally in the environment. It has been a **cause of panic for many states**, even more so with AIIMS Director Dr Nikhil Tandon saying that it is **airborne**.

They cause serious complications only when a **patient has pre-existing health conditions** or **has taken medications** that **compromise the immune system**. But what does it mean to **declare an infection a notifiable disease**?



A **notifiable disease** is an illness that is required by law to be informed to government authorities. This is **applicable to private establishments**. This helps the **government to form a bank of data** about the disease and **monitor it**, which helps in providing **early warnings about outbreaks.** As per the **World Health Organization's International Health Regulations, 1969**, the disease has to be flagged to the WHO to help with its **global surveillance and advisory role**.

The responsibility to declare **any disease as a 'notifiable' lays with the state governments**.

Registered medical professionals need to notify such diseases in a proper form within **three days**, or **notify verbally via phone within 24 hours** depending on the urgency of the situation. This means that **all government hospitals**, **private hospitals**, **laboratories**, and **clinics will have to report cases of the disease** to the government.

This helps **the government to track the disease** and **formulate a plan of action** to tackle it. Over the years, the **Centre has notified many diseases** including **cholera**, **diphtheria**, **encephalitis**, **leprosy**, **meningitis**, **pertussis (whoopingcough)**, **plague**, **tuberculosis**, **AIDS**, **hepatitis**, **measles**, **yellow fever** and **malaria dengue**.

India's Epidemic Diseases Act, 1897 does **not provide a clear definition of an epidemic**. But generally, an **epidemic is defined as a sudden increase in the number of cases of a particular disease**, more than **what is expected**.

THE PROBLEM OF CHILD LABOUR NEEDS MORE THAN ONE SOLUTION

The true extent of the **impact of the COVID19 pandemic on child labour** is yet to be measured but all indications show that it would be significant as children are **unable to attend school and parents are unable to find work.**

Statistics on Child Labour

- Around **152 million children around the world are still in child labour** with 73 million of them in hazardous work as the world enters the third decade of the 21st century.
- The Census of India 2011 reports **10.1 million working children in the age group of 5-14 years**, out of whom 8.1 million are in rural areas.
- UNESCO estimates based on the 2011 Census record **38.1 million children as "out of school"** (18.3% of total children in the age group of 613 years).
- The Rapid Survey on Children (2013-14), jointly undertaken by the Ministry of Women and Child Development and UNICEF, found that **less than half of children in the age group of 10-14 years have completed primary education.**
- The child labour in India **decreased in the decade 2001 to 2011** which demonstrates that the right combination of policy and programmatic interventions can make a difference.

Causes of Child Labour

- **Large number of children in India remains vulnerable:** A Government of India survey suggests that 95% of the children in the age group of 6-13 years are attending educational institutions.
  - The children in India are facing numerous physical and psychological risks to a healthy development.
- **Closure of schools and challenges of distance learning:** The children may drop out of educational institutions and leaving little scope for return unless affirmative and immediate actions are taken by the government.

- **Increase in digital divide:** The Household Social Consumption on Education in India suggests that in 2017-18, only 24% of Indian households had access to an Internet facility, proportions were 15% among rural households and 42% among urban households.
- **Poverty and unemployment levels are high:** Poor children and their families may rely upon child labor in order to improve their chances of attaining basic necessities.
- **Access to compulsory, free education is limited:** The United Nations report estimated that achieving universal education for the world's children would cost $10-30 billion i.e. about 0.7%-2.0% of the annual cost of global military spending.

- **Existing laws or codes of conduct are often violated**: The manufacture and export of products often involves multiple layers of production and outsourcing, which can make it difficult to monitor who is performing labor at each step of the process.

- **Laws and enforcement are often inadequate:** The laws around the world are often not enforced or include exemptions that allow for child labor to persist in certain sectors, such as agriculture or domestic work.

Implications of Child Labour in India

- **Risk to healthy development of children**: It may produce long term and devastating consequences for their education, their skills acquisition, and hence their future possibilities to overcome the vicious circle of poverty, incomplete education and poor quality jobs.
- **Children belong in schools not workplaces:** Child labour deprives children of their right to go to school and reinforces intergenerational cycles of poverty.
  - Child labour acts as a major barrier to education, affecting both attendance and performance in school.
- **Threat to national economies:** The continuing persistence of child labour and exploitation poses a threat to national economies.

- It has severe negative short and long-term consequences for children such as denial of education and undermining physical and mental health.

❖ **Increase in incidence of child trafficking:** Child trafficking is also linked to child labour and it always results in child abuse.

- Trafficked children face all forms of abuse-physical, mental, sexual and emotional and are subjected to prostitution, forced into marriage or illegally adopted.

Initiatives adopted towards curbing child labour

❖ **Convergence of schemes related to poverty and education:** The policy interventions such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005, the Right to Education Act 2009 and the Mid-Day Meal Scheme have paved the way for children to be in schools along with guaranteed wage employment (unskilled) for rural families.

❖ **National Child Labour Project:** The Concerted efforts towards convergence of government schemes are also the focus of the implementation of the National Child Labour Project.

❖ **Ratifying International Labour Organization Conventions:** The Indian government further demonstrated its commitment to the elimination of child labour by ratifying International Labour Organization Conventions Nos. 138 and 182 in 2017.

❖ **Platform for Effective Enforcement for NO Child Labour:** The Ministry of Labour and Employment operated online portal (PENCIL portal) allows government officials, law enforcement agencies and non-governmental organisations to share information and coordinate on child labour cases at the national, State and local levels.

Measures to be adopted to address India's cycle of child labour

❖ **Teachers should be frontline supporters to protect children**: It can alert other stakeholders such as social workers to situations where children display signs of distress or indicate they work long hours.

- **Listening to children is vital to achieving success:** A key message in the UN Convention on the Rights of the Child is that children have a right to voice their views on matters affecting them and to have these taken into account.
  - Children have the power to play a significant role in preventing and responding to child labour because they are key actors in child protection and can give valuable insights into how they perceive their involvement.
- **Identification of hazardous work:** Each country creates a list of hazardous activities by consulting with workers' and employers' organizations (social partners).
  - It describes types of work that must not be carried out by children, focusing on work that is likely to harm their health, safety or morals.
- **Carry out workplace risk assessment:** The businesses have a key role to play in the elimination of child labour, in particular by assessing and controlling safety and health risks in the workplace.
  - The risk assessment plays an important part in protecting workers and businesses, as well as complying with the laws of many countries.
- **Apply a safety and health management system:** An Occupational Safety and Health Management System (OSHMS) helps employers prevent accidents, injuries and diseases in the workplace in a continuous manner.

ROAD AHEAD

- The challenges are significant and manifold but it is not impossible to meet them if the **right level of commitment among all the relevant stakeholders** and the right mix of policy and programmatic interventions are present.
- It is through **strategic partnerships and collaborations** involving government, employers, trade unions, community-based organisations and child labour families that we could make a difference building back better and sooner.

- India needs a **strong alliance paving its way towards ending child labour in all its forms by 2025** as countries around the world have agreed to in Sustainable Development Goal 8.7.
- The governments, employers, unions, civil society organisations and even individuals must rise and pledge to **'Take Action against Child Labour'** as a part of the UN's declaration of 2021 as the **International Year for the Elimination of Child Labour.**
- The Child labour and other forms of exploitation are preventable through **integrated approaches that strengthen child protection systems** as well as simultaneously addressing poverty and inequity.

TIME TO REVIEW 50% CAP ON QUOTA?

Recently, a five-judge bench at the **Supreme Court** has decided to examine whether the 1992 verdict by a nine-judge bench capping quota at 50% (**Indra Sawhney case**) needed to be revisited in view of subsequent constitutional amendments and changed social dynamics.

Reservation for Marathas:

- The court's observation came in a case where a **reservation** for Marathas in Maharashtra caused a breach in the 50% ceiling.
- The Maharashtra government decided to grant 16% reservation of total seats to the Marathas.
- However, it was reduced by the Bombay High Court to 12% in govt jobs and 13% in educational institutions.
- When the decision was challenged before the Supreme Court, it stayed the former's order.

The Review of 1992 Judgement:

- If the Supreme Court's five-judge bench accepts that the judgment in the Indra Sawhney case should be modified, the case will have to be **referred to an 11 or 13-judge bench.**
- Only a bench of larger composition can modify a previous judgment of the Supreme Court.
- Besides, the extension of the creamy layer concept not just to OBC but also **Schedule Caste (SC)** and **Schedule Tribe (ST)** is to be reviewed too.

Questions Raised by Supreme Court:

- In the purview of increasing reservations by the states, the bench has framed six questions and has issued notices about the same to all the states and UTs. It

- includes:
- Whether the 1992 verdict needs to be referred to a larger bench in the light of subsequent constitutional amendments, judgements and changed social dynamics of the society.
- Other five questions relate to the constitutional validity of the **102nd amendment of the constitution.**
- Whether Article 342A of the Constitution abrogates states' power to legislate or classify in respect of "any backward class of citizens" and thereby affects the federal policy/structure of the Constitution of India.

Constitution and Reservation

- **77th Constitutional Amendment Act, 1995:** The Indra Sawhney verdict had held there would be reservation only in initial appointments and not promotions.
- However, addition of the **article 16(4A)** to the Constitution, empowered the state to make provisions for reservation in matters of promotion to SC/ST employees, if the state feels they are not adequately represented.
- **81st Constitutional Amendment Act, 2000:** It introduced Article 16(4B), which says unfilled SC/ST quota of a particular year, when carried forward to the next year, will be treated separately and not clubbed with the regular vacancies of that year.
- **85th Constitutional Amendment Act, 2001:** It provided for the reservation in promotion can be applied with 'consequential seniority' for the government servants belonging to the SCs and STs with retrospective effect from June 1995.
- **102nd, 103rd and 104th Amendments:** In the last couple of decades, there have been several amendments to the constitution like the **102nd** amendment, **104th** amendment.
- **10% reservation for EWS** was made by the **103rd** amendment to the Constitution.

- **Article 335:** It says that the claims of SCs and STs shall be taken into consideration constituently with the maintenance of efficacy of the administration.

The 1992 Judgement and States' Adherence

- **Indra Sawhney & Others vs Union of India, 1992:** The judgement on Indra Sawhney case was passed on 16 November, 1992.
- It was a **nine-judge verdict** which decisively laid down several landmark propositions such as 50% threshold in reservations.
- It said, "Reservation being an extreme form of protective measure should be confined to a minority of seats even though the constitution does not lay down any specific bar, the principle of balancing equality; reservation of any manner shall not exceed 50%".
- The concept of **'creamy layer'** also gained importance through this judgment and provision that reservation for backward classes should be confined to initial appointments only and not extend to promotions.
- Earlier, the reservation was meant to be only for SCs and STs. It was the **Mandal Commission case** that brought **Other Backward Classes (OBCs)** under reserved category.
- **Adherence of the Limit by the States:** Notwithstanding the judgement passed by the Supreme Court, since 1992, many states have passed laws breaching this limit of 50% such as Maharashtra, Telangana, Rajasthan and Madhya Pradesh.
- Besides, Tamil Nadu, Haryana and Chhattisgarh, have also passed similar laws, causing them to exceed the 50% reservation mark.
- The apex court has decided to look into Tamil Nadu's 69% quota law after deciding the Maratha quota case.
- The 69% quota in the state pre-dates the Indra Sawhney judgement.

- In January 2000, the Governor of the erstwhile state of Andhra Pradesh declared 100% reservation to Scheduled Tribes (ST) candidates in posts of school teachers in Scheduled Areas. However, it was ruled as unconstitutional by the apex court.
- **50% Reservation Not a Law:** Although the limit of 50% is not set by any statute but it is laid down by the apex court and hence was binding to all the authorities.
- However, the judgement itself said that in **exceptional circumstances,** the percentage can be increased.
- The issue that arises with the **'exceptional circumstance'** is that if it actually exists in a given case or not and if yes then by how much can the limit exceed.

Road ahead

- **Reviewing the 1992 Judgement:** The Supreme Court shall go a step further and look into the Indra Sawhney case to clear the issues that have arised due to various judgements given by the high courts.
- The reservation facility should be aimed at improving the socio-economic conditions of the marginalised in keeping with their standing in the caste-based census.
- **Maintaining the Federal Structure:** While deciding the reservation issue, it is also important to take into account whether the states providing reservations to different communities are maintaining the federal structure of the government or destroying it.
- Under Article 341 and **Article 342**, declaring a particular community as Scheduled Caste (SC) or Scheduled Tribe (ST) it is the power that vests in parliament.
- **Balancing the Reservation and Merit:** While giving reservation to the communities, the efficiency of the administration has to be looked upon too.

- Reservation beyond the limit will lead to the ignorance of the merit, which will disturb the entire administration.
- The sole purpose of reservation is to address the issue of historical wrong done to the less-advantaged communities but the merit beyond a certain point must not be neglected too.

IS INDIA ABOUT TO MISS THE BUS IN LEVERAGING CRYPTOCURRENCY?

When India's Covid-19 pandemic was raging towards its peak in mid-May, Vitalik Buterin, the 27-year-old founder of Ethereum, **donated cryptocurrency worth $1 billion to support pandemic relief work** in India.

Opportunities offered by Cryptocurrency

- **Easily withstand economic shocks:** The "cryptomarket" grew by over 500 per cent, even while the pandemic unleashed global economic carnage not seen since the Great Depression.
  - Within two days of the China-provoked crash, the value of the cryptomarket again recovered by over 10 per cent.
- **Increase in efficiency and transparency:** The intermediaries (including banks, credit card and payment gateways) draw almost 3 per cent from the total global economic output of over $100 trillion, as fees for their services.
  - The integration of blockchain into these sectors could result in hundreds of billions of dollars in savings.
  - The blockchain could make every aspect of e-governance, judicial and electoral processes more efficient and transparent.
- **Support to global tech firms:** The tech firms, including titans like Google and Facebook, derive most of their value from their multitude of users.
  - The blockchain could enable these internet customers to receive micro-payments for any original data they share in the digital space including ratings, reviews, and images.
- **Cryptos go mainstream with widespread applications:** The applications of blockchain include its use in 'regtech' for regulators to capture and store data, in automated risk management, and for the facilitation of regulatory reporting as well as supervisory processes.

- **Helping hand towards success in Digital India Programme:** The proportionate, proactive, participative and process-driven regulation of cryptocurrencies will aid the success of Digital India.

Challenges associated with Cryptocurrency

- **Sceptical about the very idea of crypto-currency:** In India, the reflex action is to bar what you can't understand and ban what you can't control.
  - The law enforcement and taxation agencies have clamoured for a ban, expressing wariness of these being used as instruments for illicit activities, including money laundering and terror funding.
- **Lack of government support to tech firms:** The funds that have gone into the Indian blockchain start-ups are less than 0.2 per cent of the amount the sector raised globally.
  - The current central government approach makes it near-impossible for entrepreneurs and investors to acquire much economic benefit.
- **Lack of backing by a tangible asset:** It means they may have no intrinsic value from a traditional perspective, but a virtual market value.
  - Their price discovery is in uncharted territory, which heightens the risk of market manipulation and has implications for consumer protection.
- **Threat to system stability:** The cryptocurrency raise concerns of information asymmetry, hacking vulnerability and fire sales.
- **Lack of legalization:** They are purely digital products, and our authorities are not geared to handle this advanced technology.
  - The dgital currency is a decentralized virtual entity that is why the lack of legislation regulating these digital currencies and providing any sort of user protection has become a huge challenge.
- **Technology is still immature:** The interoperability or the ability of computer system software to exchange and utilize information is a challenge faced by Blockchain.

- The technology has been divided to make multiple uses of it in different industrial domains, separate form cryptocurrency.

Measures to be adopted to grab the opportunities from cryptocurrency

- **Regulation of cryptocurrencies by authorities:** It is needed to prevent serious problems, to ensure that cryptocurrencies are not misused, and to protect unsuspecting investors from excessive market volatility and possible scams.
  - It needs to be clear, transparent, coherent and animated by a vision of what it seeks to achieve.
- **Private blockchain-supported digital currency:** The Reserve Bank has announced the launch of a private blockchain-supported official digital currency, similar to the digital Yuan.
  - Any policy, legislative or regulatory approach to private cryptocurrencies must embody the principles or proportionality and proactiveness.
  - A regulatory strategy for cryptos must not be excessive, but oriented towards mitigating the specific risks they present.
- **Testing of Private cryptos in a controlled environment:** The private cryptos can be tested in a controlled environment, such as a regulatory sandbox or RBI's Innovation Hub.
  - It would allow the experimentation not only for market participants, but for regulators as well.
  - It will allow policymakers to examine and monitor crypto applications and provide an iterative learning process through which more robust regulations could evolve.
- **Regulation and acceptance of cryptos can be done in two stages:** A central bank digital currency (CBDC) can mark the start of India's journey into the world of digital currencies, but must not be an end in itself.
  - The private cryptos may well be sustainable under regulation and could also help the government and central bank meet key policy objectives.

ROAD AHEAD

- The government must bring **new regulations for the blockchain sector** which should prevent the misuse of these digital assets without hindering innovation and investments.
- India was a **late adopter in all the previous phases of the digital revolution** when semiconductors, the internet and smartphones made their mark, we had to play catch-up, as we are still doing on 4G and 5G.
- India has the **potential to channel its human capital, expertise and resources into the digital currency revolution**, and emerge as one of the winners of this wave.
- India needs a **well-conceived regulatory framework** that facilitates transparency, and the responsible democratization of market participants could guard against digital invasion and coercive behaviour.
- The public-policy objectives can be addressed through **micro and macro prudential regulation** of private digital tokens, with an eye kept on market conduct, data privacy and operational resilience.
- India has a chance to be a **global leader in framing the regulatory architecture for a new digital world** and the democratized and appropriately-regulated use of cryptocurrencies is an opportunity that the country must seize.

SIMULTANEOUS POLLS IS AN IDEA WHOSE TIME HAS COME

As the elections in four states and one Union territory in March-April are suspected to have contributed to the second wave of Covid infections, a well-reasoned debate on a concept as important as "one nation, one election" is called for.

The concept needs to be debated mainly around five issues: Financial costs of conducting elections; cost of repeated administrative freezes; visible and invisible costs of repeatedly deploying security forces; campaign and finance costs of political parties; and the question of regional/smaller parties having a level playing field.

Genesis

- The idea has been around since at least 1983, when the Election Commission first mooted it. However, until 1967, simultaneous elections were the norm in India.
- The first General Elections to the House of People (Lok Sabha) and all State Legislative Assemblies were held simultaneously in 1951-52.
- That practice continued in three subsequent General Elections held in the years 1957, 1962 and 1967.
- However, due to the premature dissolution of some Legislative Assemblies in 1968 and 1969, the cycle got disrupted.
- In 1970, the Lok Sabha was itself dissolved prematurely and fresh elections were held in 1971. Thus, the First, Second and Third Lok Sabha enjoyed full five-year terms.
- As a result of premature dissolutions and extension of terms of both the Lok Sabha and various State Legislative Assemblies, there have been separate elections to Lok Sabha and States Legislative Assemblies, and the cycle of simultaneous elections has been disturbed.

For

A NITI Aayog paper says that the country has at least one election each year; actually, each state has an election every year, too. In that paper, NITI Aayog argued that multiple elections incurs many direct and indirect disadvantages

- **Incalculable Economic Costs of Elections:** Directly budgeted costs are around Rs 300 crore for a state the size of Bihar. However, there are other financial costs, and incalculable economic costs.
  - Each election means government machinery misses out on their regular duties due to election duty and related work.
  - These costs of the millions of man-hours used are not charged to the election budget.
- **Policy Paralysis:** The Model Code of Conduct (MCC) also affects the government's functionary, as no new significant policy can be announced and executed after the elections are announced.
- **Administrative Costs:** There are also huge and visible costs of deploying security forces and transporting them, repeatedly.
  - A bigger invisible cost is paid by the nation in terms of diverting these forces from sensitive areas and in terms of the fatigue and illnesses that repeated cross-country deployments bring about.

Against

- **Federal Problem:** Simultaneous elections are almost nearly impossible to implement, as it would mean arbitrarily curtailing or extending the term of existing legislatures to bring their election dates in line with the due date for the rest of the country.
  - Such a measure would undermine democracy and federalism.

- **Against Spirit of Democracy:** Critics also say that forcing simultaneous elections is against democracy because trying to force an artificial cycle of elections and restricting the choice for voters is not correct.
- **Regional Parties At Disadvantage:** Regional parties are supposed to be at a disadvantage because in simultaneously held elections, voters are reportedly likely to predominantly vote one way, giving the dominant party at the Centre an advantage.
- **Diminished Accountability:** Having to face the electorate more than once every 5 years enhances the accountability of politicians and keeps them on their toes.

It is obvious that the Constitution and other laws would need to be amended for implementing simultaneous elections. However, it should be done in such a way that it doesn't hurt the basic tenets of democracy and federalism.

In this context, the Law Commission has suggested an alternative i.e. categorising states based on proximity to the next general election, and having one round of State Assembly polls with the next Lok Sabha election, and another round for the remaining States 30 months later. But there is still no guarantee that mid-term polls would not be needed.