

UPSC "PT" DNA (Daily News Analysis)

ASEAN Summit

GS-II | 01 March, 2021

- Headquarters – **Jakarta, Indonesia**



Image: ASEAN

Objectives

- To accelerate **economic growth, social progress** and cultural development for a prosperous and peaceful community of Southeast Asian Nations.
- To promote **regional peace and stability** through abiding respect for justice and the rule of law and adherence to the principles of the **United Nations Charter**.
- To promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, technical, scientific and administrative fields.

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- To collaborate more effectively for the greater utilisation of **agriculture and industries**, the **expansion of their trade**, the improvement of transportation and communications facilities and the raising of the living standards of peoples.
- To promote **Southeast Asian studies**.
- To maintain close and beneficial cooperation with existing international and regional organisations.
- Establishment – 8 August 1967
- Total Countries – 10 (Brunei, Cambodia, Indonesia, Laos, Malaysia, Burma (Myanmar), Philippines, Singapore, Thailand, Vietnam)
- Chairman – Philippines Rodrigo Duterte
- **35th ASEAN Summit 2019 – Bangkok**
- **37th ASEAN Summit 2020 – Vietnam**
- **39th ASEAN Summit 2021 – Bandar Seri Begawan**

ASEAN Summit 2020

- **Theme – Cohesive and Responsive ASEAN**
- It is a virtual meeting that is presided by **Vietnam** against the backdrop of COVID-19 pandemic.

Source: Aspire IAS Notes

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Financial Action Task Force (FATF) -Pakistan still in grey list

GS-II | 02 March, 2021

Financial Action Task Force (FATF) -Pakistan still in grey list

Introduction

- To Islamabad's deep disappointment, the **Paris-based 39-member Financial Action Task Force (FATF)** has decided once again to keep Pakistan on its "grey list" of countries under "**increased monitoring**", giving it another three months to complete its commitments.

27-point action list

- After being removed from that list in 2015, Pakistan was put back on it in June 2018, and handed a 27-point action list to fulfil.
- On Thursday, **FATF President Marcus Pleyer** announced that although Pakistan has made "significant progress", it had **three remaining points of the 27** that were only partially addressed, notably all in the area of curbing terror financing.

Pakistan's remaining tasks in the 27-point action list

- The body listed the remaining tasks:
 - **Terror-funding prosecution:** Demonstrating **terror-funding prosecution** is accurate, effective and dissuasive,
 - **Financial sanctions:** Thoroughly implementing **financial sanctions** against all terrorists designated by the UN Security Council, which include **LeT founder Hafiz Saeed, JeM chief Masood Azhar**, other leaders of terror groups in Pakistan, and those belonging to al Qaeda.

Pakistan's response

- Pakistan's former Interior Minister Rehman Malik has protested the decision most vociferously, even suggesting that the FATF should be taken to **The Hague**, given that other countries that have completed nearly all the points on their task lists have been dropped from the grey list.

Impact of 'grey-list' on Pakistan

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- **Economic loss:** Pakistan has lost \$38 billion because of its time on the grey list (2008-2015 and 2018-the present).
- **India-Pakistan ceasefire:** First signs of a thaw between India and Pakistan since 2016. The decision of the **Directors General of Military Operations**, also on Thursday, to strictly observe the **ceasefire agreement at the LoC**.
- **Improving India-Pakistan relations:** Both the countries are committed to resolving "core issues" that lead to violence between the two sides, indicating more dialogue between India and Pakistan could be on the cards.
 - There are no political, trade, cultural ties at present.
- **Actions taken by Pakistan:** Pakistan's next steps on the FATF directive to **successfully prosecute terrorists and terror financiers** identified by the grouping are in its own interests.

Way ahead

- Mr. Pleyer (FATF Head) advised Pakistan to complete the remaining tasks by June 2021, when the FATF will meet again to vote on the issue.
- Any proposed New Delhi-Islamabad engagement in the next few months would get a much-needed boost if Pakistan traverses this 'last mile' on the FATF grey list, addressing India's main grievance on cross-border terror that emanates from its soil.

Source: TH

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Economic revival from the economic recession

GS-III | 03 March, 2021

Economic revival from the economic recession

Introduction

- After two quarters of a sharp contraction, India's economy is estimated to have rebounded out of a 'technical recession' to record feeble growth in the October-December 2020 period, with **GDP rising by 0.4% and GVA by 1%**.

Reboot in production lines

The 'unlocking phase' that was largely complete by late September, brought back a semblance of normalcy, with pent-up and festival demand spurring spending, and helping reboot production lines.

- **Agriculture sector:** Agriculture remained the resilient bulwark in the third quarter as well, with farm **GVA rising by 3.9%** after being the sole sector to clock growth in the preceding two quarters.
- **Manufacturing and construction sector:** Manufacturing and construction resurfaced from a collapse to expand 1.2% and 6%, respectively.
 - Both these sectors had been under stress even before the pandemic, posting contractions starting from the second and third quarters of 2019-20.
- **Public Spending:** Despite the Centre's push on government spending, public administration, defence and other services contracted 1.5% last quarter.
 - However, investment demand is estimated to have rebounded, with fixed capital formation posting positive momentum after several quarters, driven perhaps by public spending.
- **Service Sector:** Most worryingly, retail, trade, hotels, transport and communication contracted by 7.7%.

Macroeconomic data

- **Wider contraction of GDP in 2021-22:** Despite the Q3 uptick, the second advance estimates of national income for the year project an **8% contraction in the GDP**, wider than the – 7.7% estimated in January.
 - This may partly be due to the NSO revising the first quarter's GDP shrinkage to 24.4%, from the 23.9% calculated earlier.

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- **Real GDP growth:** Like the growth rate for 2019-20 was revised from 4.2% to 4% in January, the real GDP growth for the third quarter of the last fiscal has been scaled down to 3.3%, from 4.1%.

Conclusion

- Growth numbers alone may still not be capturing the tumult faced by swathes of informal and micro-enterprises, nor do they reflect a recovery in the job market.
- The continuing stress in employment- and contact-intensive services sectors is a worry, and the government must consider support measures.

Source: TH

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Sedition in India

GS-II | 04 March, 2021

Sedition in India

How is sedition defined under the law?

- Sedition, which falls under **Section 124A of the Indian Penal Code**, is defined as any action that brings or attempts to bring **hatred or contempt** towards the government of India and has been illegal in India **since 1870**.
- It defines sedition as an offence committed when "**any person by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India**".
- Disaffection includes disloyalty and all feelings of enmity. However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section.

History of Sedition

- Sedition laws were enacted in **17th century England** when lawmakers believed that only good opinions of the government should survive, as bad opinions were detrimental to the government and monarchy.
- The law was originally **drafted in 1837 by Thomas Macaulay**, the British historian-politician, but was inexplicably **omitted** when the Indian Penal Code (IPC) was enacted in 1860.
- **Section 124A was inserted in 1870** by an amendment introduced by **Sir James Stephen** when it felt the need for a specific section to deal with the offence.

Impact of Sedition

- Sedition is a **non-bailable offence**. Punishment under the Section 124A ranges from imprisonment up to three years to a life term, to which fine may be added.
- A person charged under this law is **barred from a government job**.
- They have to live **without their passport** and must produce themselves in the court at all times as and when required.

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Sedition data

- NCRB, starting in 2017, **introduced a new category of crime**: incidents of violence by "**anti-national elements**". These anti-national elements - bucketed into four groups: north-east insurgents, 'Jihadi' terrorists and Naxalites and other terrorists - had 1,012 cases registered against them in 2018.
- In 2019, 9% of the sedition cases pending from previous years and filed in 2019 resulted in closure because the accused were untraceable.
- Chargesheets were filed in only 17% of the cases.
- The conviction rate in such cases in 2019 was only 3.3%.
- That our government since 2014 has been misusing this law is evident from the fact that 96% of sedition cases against 405 persons for criticising politicians and governments were registered after 2014.
- Since then, there has been a 28% spurt over previous years in the number of sedition cases filed.
- Around 65% of the 10,938 individuals accused of sedition since 2010 have been implicated during the present regime.
- According to the National Crime Records Bureau's report, Crime in India, 93 cases of sedition were filed in 2019, which is a 165% jump from 35 in 2016. The state of Uttar Pradesh seems to be the most enthusiastic in this regard.
- Around 77% of the 195 sedition cases since 2010 were registered in the last four years since Yogi Adityanath became chief minister. More than half of these cases targeted those who protested against the Citizen (Amendment) Act, 2019.
- The authoritarian streak of the present regime is apparent from the indiscriminate use of the law of sedition to shackle guaranteed fundamental freedoms without reasonable cause.
- This is reflected in India slipping from the 27th position in 2014 to the 53rd in 2020 in the **Economist Intelligence Unit's Democracy Index** global ranking. In terms of press freedom too, India is ranked 142 out of 180 countries in the **World Press Freedom Index 2020**.

Major Supreme Court Decisions on Sedition Law:

1) Brij Bhushan vs the State of Delhi and Romesh Thappar vs the State of Madras.

- The SC highlighted debates over sedition in 1950 in its decisions in **Brij Bhushan** vs the State of Delhi and **Romesh Thappar** vs the State of Madras.

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- In these cases, the court held that a law which restricted speech on the ground that it would disturb public order was unconstitutional.
- It also held that disturbing the public order will mean nothing less than endangering the foundations of the State or threatening its overthrow.
- Thus, these decisions **prompted the First Constitution Amendment**, where Article 19 (2) was rewritten to replace "undermining the security of the State" with "**in the interest of public order**".

2) Kedar Nath Singh vs State of Bihar

- In 1962, the SC decided on the constitutionality of Section 124A in Kedar Nath Singh vs State of Bihar.
- It upheld the constitutionality of sedition, but limited its application to "acts involving intention or tendency to create disorder, or disturbance of law and order, or incitement to violence".
- It distinguished these from "very strong speech" or the use of "vigorous words" strongly critical of the government.

3) In 1995, the SC, in **Balwant Singh vs State of Punjab**, held that mere sloganeering which evoked no public response did not amount to sedition.

4) Recent news: Farooq Abdullah

- Voicing dissent against the government does not amount to sedition, the Supreme Court said while rejecting a plea to "terminate" the Lok Sabha membership of National Conference leader Farooq Abdullah and book him for sedition.

Why is there less conviction in Sedition cases in India?

- One reason for this could be that sedition as an offence has **no solid legal grounding** in India. The Indian Constitution lays out **freedom of expression as a fundamental right** which many legal scholars have argued prevents sedition from being an offence.

About Unlawful Activities (Prevention) Act (UAPA) and its comparison with Sedition law

- In 1967, the government enacted the Unlawful Activities (Prevention) Act (UAPA). This was meant to be a more specific law intended to impose more reasonable restrictions on freedom of speech in the **interests of sovereignty**

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and integrity of India.

- In 2018, there were 1,182 cases registered under UAPA. And almost all these cases (92%) were concentrated in five states (Uttar Pradesh, Jammu and Kashmir, Assam, Jharkhand and Manipur).
- Because of its use to clamp down on dissent, the UAPA has faced similar criticisms as the sedition law.
- And the joint existence of a sedition offence and the UAPA governing the same category of offence makes little sense.
- UAPA and sedition though are just two of the many offences that can be committed against the state.
- Under the NCRB's breakdown of offences against the state, the biggest offence comes under the **Prevention of Damage to Public Property Act**. The Act, which lays down the law about damage to public property, accounted for more than 80% of all offences against the state in 2018 and has increased since 2016.

Arguments in Support of Section 124A:

1. Section 124A of the IPC has its utility in combating anti-national, secessionist and terrorist elements.
2. It protects the elected government from attempts to overthrow the government with violence and illegal means. The continued existence of the government established by law is an essential condition of the stability of the State.
3. If contempt of court invites penal action, contempt of government should also attract punishment.
4. Many districts in different states face a maoist insurgency and rebel groups virtually run a parallel administration. These groups openly advocate the overthrow of the state government by revolution.
5. Against this backdrop, the abolition of Section 124A would be ill-advised merely because it has been wrongly invoked in some highly publicized cases.

Arguments against Section 124A:

1. Section 124A is a **relic of colonial legacy and unsuited in a democracy**. It is a constraint on the legitimate exercise of constitutionally guaranteed freedom of speech and expression.
2. Dissent and criticism of the government are essential ingredients of robust **public debate in a vibrant democracy**. They should not be constructed as sedition.
3. Right to question, criticize and change rulers is very fundamental to the idea

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- of democracy.
4. The **British**, who introduced sedition to oppress Indians, **have themselves abolished the law** in their country.
 5. The terms used under Section 124A like 'disaffection' are vague and **subject to different interpretations** to the whims and fancies of the investigating officers.
 6. IPC and Unlawful Activities Prevention Act 2019 have provisions that penalize "disrupting the public order" or "overthrowing the government with violence and illegal means". These are sufficient for protecting national integrity. There is no need for Section 124A.
 7. The sedition law is being **misused** as a tool to persecute political dissent. A wide and concentrated executive discretion is inbuilt into it which permits the blatant abuse.
 8. In 1979, **India ratified the International Covenant on Civil and Political Rights (ICCPR)**, which sets forth internationally recognized standards for the protection of freedom of expression. However, misuse of sedition and arbitrary slapping of charges are inconsistent with India's international commitments.

Way Forward

- India is the largest democracy of the world and the right to free speech and expression is an essential ingredient of democracy.
- Section 124A should not be misused as a tool to curb free speech. The SC caveat, given in Kedar Nath case, on prosecution under the law can check its misuse.
- The definition of sedition should be narrowed down, to include only the issues pertaining to the territorial integrity of India as well as the sovereignty of the country.
- The word 'sedition' is extremely nuanced and needs to be applied with caution. It is like a cannon that ought not to be used to shoot a mouse; but the arsenal also demands possession of cannons, mostly as a deterrent, and on occasion for shooting.

Source: TH

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Marital rape-Rape and Marriage

GS-II | 04 March, 2021

Marital rape-Rape and Marriage

Introduction

- **Requirements in a relationship:** A relationship between two individuals, including marriage, is built around **love, respect, trust and consent**.
- Within that civilised framework, a violent and exploitative act like rape has no place.

Recent SC stance on rape and marriage

- Seen in that context, the Supreme Court's latest query to a Maharashtra government employee asking whether he would marry a girl he was accused of raping repeatedly while she was a minor is insensitive to the core.
- By offering marriage as a solution to a rape victim, the **judiciary failed to protect the rights of a girl**.
- Instead of meting out harsh punishment, the Court asked the lawyer representing the accused to find out whether his client would be willing to marry the victim or risk going to jail.

Can lead to an act of misogyny

- Equal rights activists have always worked hard against misogyny, patriarchal mindsets and other failings such as blaming the victim for rape.
- This arduous battle for equality becomes even more difficult when people in high offices make offensive remarks.

Supreme court on marital rape

- In another case, the Bench stayed the arrest of a man accused of rape after falsely promising marriage. The victim said she was promised marriage and was "brutally and sexually abused".
 - The CJI asked the girl's lawyer: "When two people are living as husband and wife, however brutal the husband is, can you call sexual intercourse between them 'rape'?"
 - In both cases, these crimes attract severe penalties under the **Criminal Law (Amendment) Act, 2013**.

Justice J.S. Verma Committee on marital rape

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- On marital rape, though the recommendation was not included in the Act, **the Justice J.S. Verma Committee** was clear the law ought to specify that a marital or another relationship between the perpetrator and victim cannot be a defence against sexual violation.

C.R. vs U.K case

- Citing the judgment of the European Commission of Human Rights in C.R. vs U.K., it endorsed the conclusion that **"a rapist remains a rapist regardless of his relationship with the victim"**.

Shimbhu & Anr vs State of Haryana (2013)

- In **Shimbhu & Anr vs State of Haryana (2013)**, the Supreme Court said the offer of a rapist to marry the victim cannot be used to reduce the sentence prescribed by law.

Conclusion

- The law should deliver justice, not blatantly tilt the scales against women's rights.

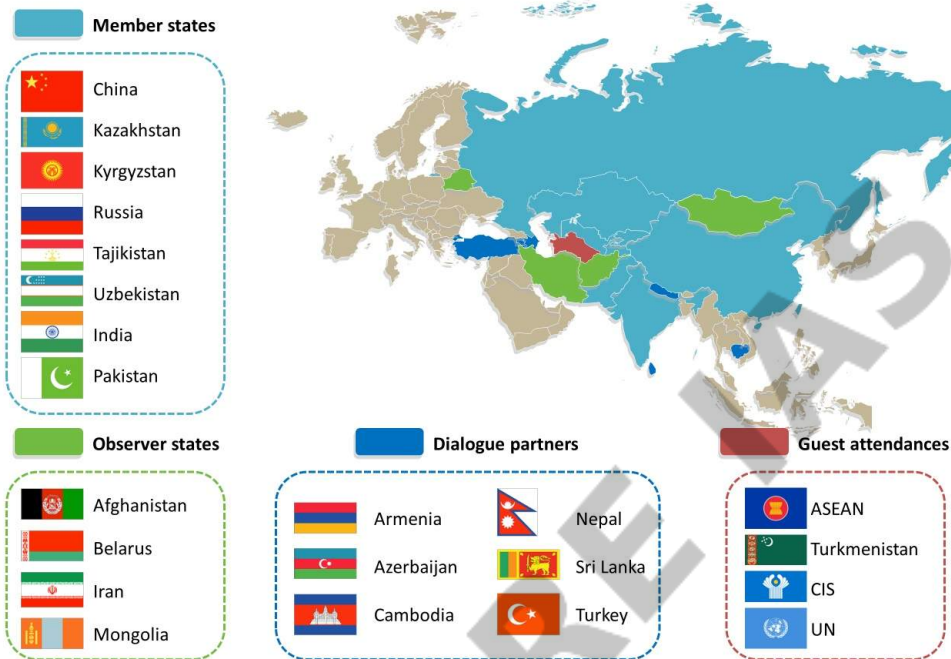
Source: TH

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Shanghai Cooperation Organization

GS-II | 05 March, 2021

- It is a Eurasian political, economic, and military organisation which was founded by the leaders of **China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Uzbekistan**.



- Current member states (8) - **China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Uzbekistan, India and Pakistan**.
- Observer States (4) - Afghanistan, Belarus, Iran and Mongolia
- The official working languages of the Shanghai Cooperation Organisation are **Chinese and Russian**.
- The SCO **Secretariat**, based in **Beijing**, is the main permanent executive body of the SCO
- The Council of Heads of State is the top decision-making body in the SCO.
- The **Regional Anti-Terrorist Structure** (RATS), headquartered in **Tashkent**, Uzbekistan, is a permanent organ of the SCO which serves to promote cooperation of member states against terrorism, separatism and extremism.
- The original purpose of the SCO was to serve as a **counterbalance to NATO** and in particular to avoid conflicts that would allow the United States to intervene in areas bordering both Russia and China.

The SCO Summits

- 2019 Summit - **Bishkek, Kyrgyzstan**
- 2020 Summit – **St. Petersburg, Russia**

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◦ Theme- *Reformed Multilateralism*

- The 2021 Summit will be chaired by *Tajikistan* in Dushanbe.

Source: TH

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Quad Group and India

GS-II | 06 March, 2021

Quad Group and India

What is the news?

- Leaders of Australia, India, Japan and the United States will soon meet virtually for the first ever summit under the quadrilateral security arrangement.
- Mr. Morrison said the four-power security dialogue was "central" to the U.S. and the Australian point of view of the Indo-Pacific region.

What is Quad grouping?

- Quadrilateral Security Dialogue (Quad) is the informal strategic dialogue between **India, USA, Japan and Australia** with a shared objective to support a "free, open and prosperous" Indo-Pacific region, that China seeks to threaten.
- The manner of China's dismissal of the Arbitral Award in the dispute with the Philippines on the South China Sea, militarisation of the islands in the region and individual conflicts with Quad countries have once again brought the four countries onto the same page and given a second chance to the Quad.
- Engaging with Quad may serve two geo-strategic goals of India viz. countering China's aggressive on border with India's assertives in the maritime domain and emerge as a net security provider in the region.

Background of Quad

- China's unilateral claim on the Nine-Dash Line in the South China Sea; rapid warship building its first overseas base in Djibouti; and its surface and subsurface activities in Indian Ocean beyond the Malacca Straits have alarmed regional countries like India and Japan about increasing Chinese ambition.
- In this context, the idea of Quad was first mooted by Japanese Prime Minister Shinzo Abe in 2007.
- However, the idea couldn't move ahead with Australia pulling out of it, apparently due to Chinese pressure.
- In December 2012, Shinzo Abe again floated the concept of Asia's "Democratic Security Diamond" involving Australia, India, Japan and the US to safeguard the maritime commons from the Indian Ocean to the western

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Pacific.

- In November 2017, India, the US, Australia and Japan gave shape to the long-pending "Quad" Coalition to develop a new strategy to keep the critical sea routes in the Indo-Pacific free of any influence (especially China).
- Quad is criticised by China as Asian version of the North Atlantic Treaty Organization (NATO).

What is the opportunity for India under Quad grouping?

1. India can use Quad group as a counter to China and OBOR. The maritime space is a lot more important to China than engaging in opportunistic land grab attempts in the Himalayas.
2. India can provide Maritime security to the Indo Pacific region: There is a growing great power interest in the maritime sphere, especially with the arrival of the concept of 'Indo-Pacific'. For instance, many European countries have recently released their Indo-Pacific strategies.
3. Further, India with Quad countries can check imperialist policies of China in Indian ocean region and ensure Security and growth for all in the region.

Issues Related to Quad

- **Undefined Vision:** Despite the potential for cooperation, the Quad remains a mechanism without a defined strategic mission.
- **Maritime Dominated:** The entire focus on the Indo-Pacific makes the Quad a maritime, rather than a land-based grouping, raising questions whether the cooperation extends to the Asia-Pacific and Eurasian regions.
- **India's Aversion of Alliance System:** The fact that India is the only member that is averse to a treaty alliance system, has slowed down the progress of building a stronger Quadrilateral engagement.

Way Forward

- **Need For Clear Vision:** The Quad nations need to better explain the Indo-Pacific Vision in an overarching framework with the objective of advancing everyone's economic and security interests.
- This will reassure the littoral States that the Quad will be a factor for regional benefit, and a far cry from Chinese allegations that it is some sort of a military alliance.
- **Expanding Quad:** India has many other partners in the Indo-Pacific,

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therefore India should pitch for countries like Indonesia, Singapore to be invited to join in the future.

- **Need for a Maritime Doctrine:** India should develop a comprehensive vision on the Indo-Pacific which would ideate on the current and future maritime challenges, consolidate its military and non-military tools, engage its strategic partners.

Conclusion

In order to secure national and regional interests, India should now focus on the maritime sphere also. In this context establishing a new division under the Ministry of External Affairs (MEA) to deal with the Indo-Pacific is a step in the right direction.

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Initiatives for Transgender persons

GS-I | 07 March, 2021

Initiatives for Transgender persons

- This is the first-of-its-kind gender inclusive community policing initiative in the country, the Cyberabad police inaugurated a '**Transgender Community Desk**' at **Gachibowli Police Station**.
- The desk will be managed by a police liaison officer and a transgender person who is designated as community coordinator.
- It will be the focal point for all grievance redressal among the transgender community in the Cyberabad Commissionerate.
- The desk will provide support to file cases in offences related to violence or discrimination against any transgender person.
- Among other services, the desk will also provide counselling, legal aid, life skills, soft skills training, job placements, and referral linkages to welfare schemes in partnership with the Department of Women and Child Welfare, and District Legal Services Authority.
- The Society for Cyberabad Security Council (SCSC) will also organise monthly training, employability, life-skill training, and facilitate access to job opportunities, while Prajwala, a non-governmental organisation, would assist the desk to facilitate a safe space for any transgender person who needs emergency transit stay.
- Over 200 transgender persons participated in the event, during which Mr. Sajjanar spoke about the need to build an inclusive society ensuring equal opportunities for all

National Council for Transgender Persons

Recently, the **Ministry of Social Justice and Empowerment** has constituted the **National Council for Transgender Persons**, under the **Transgender Persons (Protection of Rights) Act, 2019**.

Background

- Indian Census never recognized third gender i.e. Transgender while collecting census data. But in 2011, data of Transgender was collected with details related to their employment, literacy and caste.

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- As per 2011 Census, the total population of Transgender is 4.88 lakhs, highest being in Uttar Pradesh followed by Andhra Pradesh, Maharashtra and Bihar.
- In **National Legal Services Authority v. Union of India case (2014)**, Supreme Court of India declared **transgender people to be a 'third gender'**. It also affirmed that the fundamental rights granted under the Constitution of India will be equally applicable to transgender people, and gave **them the right to self identification of their gender as male, female or third-gender**.

Transgender Persons (Protection of Rights) Bill, 2019

- The Bill **defines a transgender person** as one whose gender does not match the gender assigned at birth. It includes transmen and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities. such as kinnar and hiira.
- A transgender person may make **an application to the District Magistrate** for a certificate of identity, indicating the gender as 'transgender'.
- It calls for establishing a **National Council for Transgender persons (NCT)**.
- The **Bill prohibits discrimination** against a transgender person, including denial of service or unfair treatment in relation to Education, Employment, Healthcare, Movement, Reside, Rent, public or private office. access a Govt or private establishment.
- The Act has a provision that provides transgender the **right of residence** with parents and immediate family members.
- It states the **offences** against Transgender persons **will attract jail of 6 months to 2 years + fine**.
- Bill also seeks to provide **rights of health facilities to transgender** persons including separate HIV surveillance centres, and sex reassignment surgeries. **Govt shall review medical curriculum and provide medical insurance**.

Functions of National Council for Transgender Persons:

- **Advising the Central government** on the formulation of policies, programmes, legislation and projects with respect to transgender persons.
- **Monitoring and evaluating** the impact of policies and programmes designed for achieving equality and full participation of transgender

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persons.

- **Reviewing and coordinating** the activities of all the departments.
- **Addressing grievances** of transgender persons.
- Performing such **other functions** as prescribed by the Centre.

Composition of the Council:

- Its **chairperson** will be the Union **Minister of the Ministry of Social Justice and Empowerment**.
- It will also consists of:
- **Representatives from 5 states or UTs** (one each from the north, south, east, west and northeast regions), on a rotational basis.
- **Five members of the transgender community** (one each from the north, south, east, west and northeast regions).
- The tenure of the community members shall be **three years**.
- **Representatives from 10 central departments**.
- The council will have joint secretary-level members from the **Ministries of Health, Home, Minority Affairs, Education, Rural Development, Labour and Law**.
- In addition, there will be a member from the **Department of Pensions (Ministry of Personnel, Public Grievances & Pensions), NITI Aayog, National Human Rights Commission and National Commission for Women**.

Way Forward

- The establishment of National Council for Transgender Persons which seeks to increase awareness and inculcate sense of respect and acceptance for transgender community, is a welcome step. However, its upto the effective functioning of the council whether it will able to identify the issues faced by the transgender community and accordingly advice the government.
- Apart from policies and regulations, there is also a need for an inclusive approach, sensitising legal and law enforcement systems in particular towards the issues of transgender community.

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National Health Policy for Rare Diseases

GS-III | 08 March, 2021

Rare diseases in India

- According to the government, so far **only about 450 diseases** have been recorded in India from tertiary care hospitals that are globally considered as rare diseases.
- The **most commonly reported diseases** include Haemophilia, Thalassemia, Sickle-cell Anaemia and Primary Immuno Deficiency in children, auto-immune diseases, Lysosomal storage disorders such as Pompe disease, Hirschsprung disease, Gaucher's disease, Cystic Fibrosis, Hemangiomas and certain forms of muscular dystrophies.
- There are 7,000 - 8,000 rare diseases, but **less than 5% have therapies available**.
- About 95% rare diseases have no approved treatment and less than 1 in 10 patients receive disease specific treatment.
- Where drugs are available, they are **expensive**.

National Health Policy for Rare Diseases, 2020

- The Delhi High Court directed the Centre to finalise the National Health Policy for Rare Diseases of 2020 by March 31 and make operational provision of crowdfunding envisaged under the law for treatment of high-cost rare diseases.
- Justice Prathiba M. Singh passed the direction while hearing two different pleas concerning children, who are suffering from **duchenne muscular dystrophy**, a condition that causes progressive muscle degeneration and weakness in the victim.

#joinourtelegram#

About National Policy for Rare Diseases, 2020

- It proposes to **set up a registry** under the Indian Council of Medical research (ICMR) to create a database.
- To provide **financial assistance of up to Rs 15 lakh to Ayushman Bharat beneficiaries for rare diseases** that require a one-time treatment in **tertiary hospitals only**.
- It also suggests **voluntary crowdfunding** as an alternate means of financial

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- support and notifying government hospitals to facilitate treatment.
- Alternatively, the draft proposes to set up a **digital platform** for voluntary crowdfunding.
- The draft policy also **categorises rare diseases under three categories** based on clinical experiences and treatment availability.
- The policy also states that in the absence of data to clearly define rare diseases, such diseases in India will construe the three categories as identified in the policy.

It offers **no clarity on long-term financial assistance**, appears designed on donations

Criticism of the Draft Policy

- The government, in its policy paper, has proposed financial support of up to ₹15 lakh under an umbrella scheme of the **Rashtriya Arogya Nidhi** for those rare diseases that require a one-time treatment.
- Beneficiaries for such financial assistance would not be limited to Below Poverty Line (BPL) families, but extended to 40% of the population eligible as per the norms of the Pradhan Mantri Jan Arogya Yojana, for their treatment in government tertiary hospitals only.
- "The 2017 policy on rare diseases had proposed a ₹100 crore corpus fund allocation for the treatment of patients with rare diseases, which was a Centre-State partnership of 60:40, with each State forming a technical committee to evaluate patients' applications. That has come down to ₹15 lakh support for diseases needing one-time treatment. Clearly, now, after a major lag, the policy has come with no hope in sight," noted a release from the Lysosomal Storage Disorders Support Society.
- It appears the entire policy is drafted to justify that government cannot provide treatment due to high cost as it is resource constrained.
- The policy has adopted a very narrow scope limited to only 3 categories, while ignoring those where treatment is yet to be developed and R&D is required.

Rashtriya Arogya Nidhi (RAN) (formerly National Illness Assistance Fund)

1. It was set up in **1997** and provides **financial assistance** to patients living BPL and suffering life threatening diseases like heart, liver, kidney and cancer.

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2. **Funding:** Initial contribution of Rs. 5 crore by Ministry of Health and Family Welfare (MoHFW). Apart from that, Fund could also be subscribed to by individuals, corporate bodies in public or private sector, philanthropic organisations etc. in India and Abroad (subject to FCRA regulations)
3. A **revolving fund** has been set up in 12 Govt hospitals
 1. For financial assistance upto ceiling of Rs 2 lakhs per patient (Rs 5 lakh for emergency cases since 2015).
 2. In 2015, Govt enhanced the power of Govt hospitals to sanction assistance from 2 lakhs to Rs. 5 lakhs. For assistance beyond Rs 5 lakhs (since 2015), the matter is referred to MoHFW.
 3. Upto Rs. 10 Lakh can be sanctioned to 1 patient, subject to approvals by the technical committee of RAN.
 4. Reimbursement of medical expenditure already incurred by the patients is not permissible under RAN.
4. **No grant is released for patients seeking treatment at private hospitals.**
5. Common diseases and for which other schemes provide free treatment are also not eligible for grants.
6. All contributions to TAN by resident entities are exempted from Income tax.
7. All States / UTs have been "**advised**" to set up **State Illness Assistance Fund**.
8. Within RAN, Govt also provides financial assistance through Health Minister' Cancer Patient Fund (HMCPF) set up in 2009 for cancer patients. It has an amount of 100 crore.
9. Those who are not covered under RAN, are covered under Health Minister's Discretionary Grant with financial assistance upto Rs. 1.25 lakhs.

What is the news?

- The Delhi High Court has set up a special committee to find a time-bound solution on ways to provide treatment and therapy options to patients suffering from rare diseases.
- Justice Prathiba M. Singh ordered the committee to also give "immediate concrete proposals for crowdfunding of the costs of treatment for children with rare diseases".
- The High Court's direction came while hearing a bunch of petitions filed by

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patients suffering from rare diseases such as **Duchenne Muscular Dystrophy (DMD) and Hunter's syndromes** seeking direction to the government to provide them uninterrupted free treatment in view of the exorbitant cost of treatment.

What is DMD and Hunter's syndromes?

- DMD is a condition that causes progressive muscle degeneration and weakness in the victim.
- Hunter's syndromes is a rare disease that is passed on in families. It mostly affects boys and their bodies cannot break down a kind of sugar that builds bones, skin, tendons, and other tissues.

Source: TH

China to build dams on Brahmaputra River

GS-II | 08 March, 2021

China building dams in Yarlung Zangbo river

- A draft of **China's new Five-Year Plan (2021-2025)**, which is set to be formally approved, has given the green light for the first dams to be built on the lower reaches of **Yarlung Zangbo river**, as the Brahmaputra is known in Tibet before it flows into India.

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- The draft outline of the new Five-Year Plan (FYP) for 2025 and “long range objectives through the year 2035”, submitted before the National People’s Congress (NPC), China’s ceremonial legislature, on Friday, specifically mentions the building of hydropower bases on the lower reaches of the river as among the priority energy projects to be undertaken in the next five years.
- The lower reaches refer to the sections of the river in Tibet before it flows into India.
- The inclusion of the projects in the draft plan suggests the authorities have given the go-ahead to begin tapping the lower reaches for the first time, which marks a new chapter in the hydropower exploitation of the river.
- The FYP’s backing for the projects also suggests that a number of long-pending proposals from Chinese hydropower companies to build dams on the lower reaches, including near the border with India, may be given the green light.
- On the top of a list of **energy construction projects for the next five years**,

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mentioned on page 30 of the 142-page draft document in Mandarin — it has not yet been published in English — calls for “building a hydropower base on the lower reaches of Yarlung Zangbo river”, along with “clean energy bases” in the upper and lower reaches of Jinsha river (the upper course of Yangtze river in western China).

- Other major projects include the construction of coastal nuclear power plants and power transmission channels.
- The high importance given to building dams on the “lower reaches” of the Yarlung Zangbo is underlined in the plan, where it is also mentioned on page 38 of the document among significant planned investments in infrastructure that serve major national strategies.
- The project is also listed along with the **Sichuan-Tibet railway and the national water network**.

Source: TH

Judicial overreach-on OTT Rules

GS-II | 08 March, 2021

Judicial overreach-on OTT Rules

Introduction

- Allahabad High Court denied Aparna Purohit, India Commercial Head of the content streaming platform, the relief with a sweeping declaration that some offending scenes on a new series, constituted punishable offences.

Overreach of ‘soft-touch monitoring’

The Court went through the recently notified rules for digital media and intermediaries and observed that these lacked teeth.

- It is quite unusual that a constitutional court should push for more stringent rules after finding that the **Information Technology (Guidelines for Intermediaries and Digital Media Ethics Code) Rules, 2021**, did not provide for **punishment and fine**.
- Courts generally examine the validity of such curbs on free speech and

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decide whether they are reasonable or too restrictive.

- The new rules are essentially restrictions on free speech and expression through digital media.
- It is unusual that the apex court should seek to go beyond what the executive describes as '**soft-touch monitoring**', and **press for inclusion of punishment clauses**.
- The Court seems to be concerned about **obscenity and uncensored content on streaming services**, the ostensible reason for its incursion into regulatory territory, when there was no challenge to the new rules before it.
- While **refusing pre-arrest bail**, the High Court has made an unusual claim that the title '**Tandav**' itself could **hurt the sentiments** of a majority of Indians because it is **associated with Lord Shiva**.
 - It has observed that alluding to Lord Ram gaining popularity on social media is a reference to the Ayodhya dispute, and, therefore, offensive.
- It has a sweeping claim that the **Hindi film industry**, in contrast to its southern counterparts, was **generally disrespectful to the Hindu religion**.

Conclusion

- It would be unfortunate if the judiciary lets itself be seen as departing from its record of protecting individuals harassed by those claiming that their religious or cultural sentiments have been hurt by some work of art, or even remarks or gestures by celebrities.

Source: TH

International Women's Day-Background

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International Women's Day

Background

- Among the many "international days" initiated by the United Nations, the best known is the one for women. Given its widespread institutionalisation by

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nation-states as well as private corporations targeting the woman consumer, many may now know something about its history.

- It began over a century ago as a **commemoration of the struggles of women factory workers** and was **first organised by socialist movements as "international women's day"**.
- From the **1920s onwards**, it began to be celebrated annually by **communist parties**, first in the **Soviet Union** and then in **China**.
- Much later, the **United Nations "established" International Women's Day in 1977** in the wake of the **International Women's Year in 1975**.
- In India, as elsewhere, movement-led campaigns and gatherings on March 8 spread from the 1980s.

International Women's Day 2021: Theme

- According to the UN, the theme of International Women's Day 2021 is **"Women in leadership: Achieving an equal future in a COVID-19 world"**.
- And the campaign theme for International Women's Day 2021 is **#ChooseToChallenge**.

Savitribai Phule's legacy

- In the last few years, Dalit and Bahujan feminists in India have been issuing a call to use this occasion to celebrate a different legacy, that of Savitribai Phule, long ignored by upper caste histories of women's rights.
- Savitribai's own biography is now being gradually recovered, rescuing her from being restricted to the role of the intrepid wife of Jyotiba Phule, who is himself celebrated for his dedication to the cause of "social justice" against women's caste-differentiated enslavement.
- Born in **1831**, **Savitribai was colonial India's first woman teacher**.
- Her death on March 10, 1897 has made it possible to commemorate her life and legacy as **"our" International Women's Day**.

Source: TH

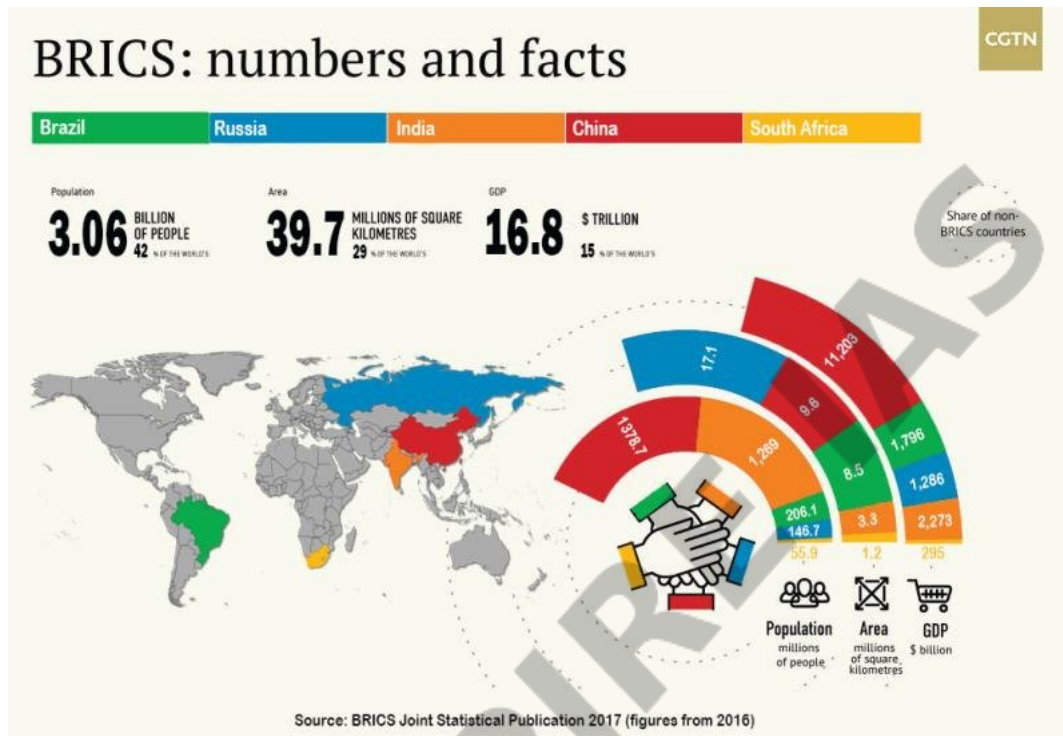
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BRICS Summit

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It is an association of 5 major emerging national economies: **Brazil, Russia, India, China and South Africa**.

- All five are G-20 members.



- Originally, BRICS was envisioned to usher in reforms in the **global financial governance**.
- At a broader level, it was to pursue democratisation of international relations and provide developing nations a greater say in global governance.
- The expanded agenda now includes several non-financial issues from **climate change** and **terror** to women empowerment, human trafficking and so on.
- It represents over **40%** of the world's population and accounts for **22%** of global GDP.
- The 11th summit of the grouping was held in **Brasilia**, Brazil.
- Theme - '**Economic Growth for an Innovative Future**'
- 12th summit was scheduled to take place in July 2020 in **Saint Petersburg**, Russia.
- Theme – **BRICS Partnership for Global Stability, Shared Security and Innovative Growth**

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- 13th Summit - **India**
- Yet to take place
- Theme for XIII BRICS Summit – "**BRICS@15: Intra-BRICS Cooperation**"

Source: TH

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Reservation issues in IndiaGS-II | 09 March, 2021

Reservation issues in India

- The Supreme Court on Monday decided to examine whether its nearly three-decade-old judgment which fixed reservation for the marginalised and the poor in government jobs and educational institutions at 50% needs a relook.
- In 1992, a nine-judge Bench of the court had drawn the "Lakshman rekha" for reservation in jobs and education at 50%, except in "extraordinary circumstances".
- However, over the years, several States, such as **Maharashtra and Tamil Nadu**, have crossed the Rubicon and passed laws which allow reservation shooting over 60%.

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Under scrutiny

The Constitution Bench will decide on these broad issues:

■ Whether the *Indira Sawhney* judgment of 1992, which fixed reservation at 50%, requires a relook by a larger Bench "in the light of subsequent constitutional amendments, judgments and changed social dynamics of the society"

■ Whether the 102nd Constitutional Amendment Act deprives a State legislature of its power to enact a legislation to identify socially and economically backward classes within the State to confer quota benefits to them

■ Whether the Maratha quota law is covered by the exemption of "exceptional circumstances" by which reservation can cross the 50% mark

■ Whether Article 342A abrogates a State's power to legislate for or classify "any backward class of citizens", and thereby, affects the federal policy/structure



Maratha quota law

- A five-judge Bench, led by Justice Ashok Bhushan, set up to hear the challenge to the Maratha quota law, decided not to confine the

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question of reservation spilling over the 50% limit to just Maharashtra.

- The Bench expanded the ambit of the case by making other States party and inviting them to make their stand clear on the question of whether reservation should continue to remain within the 50% boundary or not.
- Justice Bhushan, leading the Constitution Bench, decided to start the hearing from March 15, giving time for the other States to prepare their arguments.
- The court, meanwhile, framed a series of questions, which include whether the Indira Sawhney verdict of 1992, fixing 50% limit on quota, needs to be relooked by a larger Bench of more than nine judges.
- Another question is whether the Maharashtra State Reservation for Socially and Educationally Backward Classes (SEBC) Act of 2018, which provides 12% to 13% quota benefits for the Maratha community, thus taking the reservation percentage in the State across the 50% mark, was enacted under "extraordinary circumstances".

The Indira Sawhney judgment had categorically said "50% shall be the rule, and only in certain exceptional and extraordinary situations for bringing far-flung and remote areas population into mainstream the said 50% rule can be relaxed".

1992 Indra Sawhney Case:

- 1st time Creamy Layer & Means test concept came as people who are socially, educationally and economically advanced than other SC/STs.
- Indra Sawhney upheld Mandal commission recommendation to give 27% reservation to OBCs but it held Creamy layer should be excluded and economic criteria should be adopted.

Mandal Commission Recommendations

- Reservation of 27% public sector and government jobs for OBCs for those who do not qualify on merit.
- Reservation of 27% for promotions at all levels for OBCs in public service.
- The reserved quota, if unfilled, should be carried forward for a

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- period of 3 years and deserved after that.
- Age relaxation for OBCs to be the same as that for SCs and STs.
- A roster system should be prepared for the backward classes on the pattern of that for the SCs and STs.
- Reservations to be made in PSUs, banks, private sector undertakings receiving government grants, colleges and universities.
- The government to make the necessary legal provisions to implement these recommendations.

- It upheld reservations only in Initial appointments and not promotions.

77th Constitutional Amendment Act, 1995

- But Center (through 77th Amendment, 1995) introduced Article 16 (4A) to overcome it and extended quota for SC/ST in promotions as their representation in State's services has not reached the required level.
- Article 16 (4B) was also introduced to carry forward unfilled vacancies and 50% cap doesn't apply here.
- Article 335 was also amended in 2001 to allow relaxations in qualifying marks & lowering standards in favor of SC/STs.
- SC/STs are most backward among Backward classes. Once part of the Presidential list under Article 341 & 342, there is no question of showing their backwardness again.

M Nagaraj case (2006):

- It laid down 3 conditions for promotions of SC/ST in public Employment.
- Government can only introduce quota in promotions for SC/ST if the States show quantifiable data to prove 'Backwardness' of SC/ST.
- It upheld Creamy layer for SC/ ST in promotions.

Jarnail Singh Case (2018):

- It upheld the Creamy layer Principle to affluent SC/STs as the right to equality but doesn't tinker with Presidential list under Article 341 or 342.
- It said Nagaraj was wrong to require demonstration of backwardness for SC/STs. It favoured applying 'means test' for Creamy layer.
- Creamy layer ensures that only the deserving among the SC/STs get the benefits of reservation.
- Center has accepted Creamy layer Principle but not for Dalits. Thus,

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Government has called upon SC To form a 7 judge bench to reconsider the M Nagraj case (2006) which said that it should be applied to SC/ST communities.

- Another issue is whether the Advanced SC/ST sections can be disallowed only for promotions. Because Most of them may not fall under 'Creamy layer' category at the entry level but after some years of service & promotions, they will become. This will defeat the purpose.

Conclusion

- Reservation is not an anti-poverty programme. There is also an example where with reservation, the discrimination actually increases with a rise in economic position.
- Reservation for Dalits is not as much as of economic backwardness as much as it is on account of stigma of oppression.
- Under SC and ST (Prevention of Atrocities) Act and the Protection of Civil Rights Act, it is the Govt's responsibility to undertake a study every 5 years to bring out nature of discrimination and untouchability by Dalits.

Source: TH

Haryana reservation of jobs for locals-Son of soil doctrine

GS-II | 09 March, 2021

Haryana reservation of jobs for locals-Son of soil doctrine

Introduction

- Haryana **Governor Satyadeo Narain Arya's** assent to a law regulating private sector to recruit 75% of jobs to the locals can affect India's **investment climate and its socio-economic framework**.

Details of the Act

- The **Haryana State Employment of Local Candidates Act of 2020** seeks to ensure that **75% of all jobs with gross monthly salaries of up to ₹50,000** are provided to the State's own residents.

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- States like **Andhra Pradesh (AP)** had passed a similar law in 2019(reserving 75%), and the **Madhya Pradesh CM** has promised one to reserve **70% private sector jobs**.
- The law imposes onerous and contentious responsibilities on key personnel of firms in the State, including those with as few as 10 employees.
- There are three critical action points for businesses, attached to severe monetary penalties for perceived non-compliance.
 - They need to register every employee **earning ₹50,000** on an official portal and **employing 75%** of locals in such jobs (presumably by removing existing non-Haryanvi employees beyond the 25% limit).
 - Most preposterous is seeking exemptions to the law — firms can hire outsiders by proving that local candidates for a desired skill are not available.

Can lead to the revival of Inspector Raj

- Officials will decide if a firm can hire an outsider or should train local candidates instead, till they become proficient enough.
- Even if this harks back to an 'Inspector Raj' system, the process would dissuade employers from operating in the State, thus defeating the idea of boosting local jobs when unemployment is running high.

Impacts

- This act goes against the provisions of **Article 19(1)(g) and Article 16(2)**.
- It can impact India's already fragile reputation as a stable, trustworthy investment destination with a talented workforce.
- This act runs counter to the Prime Minister's '**Ek Bharat Shreshtha Bharat**' and '**One Nation One Market**' slogans.
- Rising unemployment could spur more States to follow suit, and the logic could be extended to internal capital flows next.

Conclusion

- It is time the Centre dissuades such legislation which threatens to not only unleash a sort of '**work visa**' regime for Indians within the country but also damage crucial workplace diversity.
- Immobilising a much-vaunted young workforce and rupturing the social fabric with this push for insularity would be the start of an unstoppable slide.

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Source: TH

Analysis of Jal Jeevan Mission

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Analysis of Jal Jeevan Mission

- Only half of government schools and anganwadis have tap water supply, despite a 100-day campaign for 100% coverage being launched by the Jal Shakti Ministry in October 2020, according to information provided to the Parliamentary Standing Committee on Water Resources.

Jal Jeevan Mission

- It envisages supply of **55 litres water per person per day** to every rural household through **Functional Household Tap Connections (FHTC) by 2024**. It focuses on integrated demand and supply side management of water at the local level.
- Creation of local infrastructure as mandatory elements like rainwater harvesting, groundwater recharge and reuse of household water to be undertaken.
- Mission is based on community approach to water and includes Information, Education and Communication as key component of the mission.
- JJM looks to create a **Jal Andolan** to make water everyone's priority.
- **Funding**: It is a Centrally **Sponsored** Schemes. 50:50 for States; 90:10 for Him and NE and 100% for UTs.

Operational guidelines of JJM: 4 level structure

1. National Jal Jeevan Mission (NJJM) at the Central level
 2. State Water and Sanitation Mission (SWSM) at the State level
 3. District Water and Sanitation Mission (DWSM) at the District level
 4. Village Water Sanitation Committee (VWSC) at Village level
- Every village will prepare Village Action Plan which will have 3

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components: Water source and its maintenance; Water supply and Greywater management.

- The ministry will roll out the Government's ambitious plan ('Nal se Jal' scheme under Jal Jivan plan) to provide piped water connection to every household in India by 2024.
- Less than 8% of schools in Uttar Pradesh and 11% in West Bengal have it, while it is available in only 2-6% of anganwadis in Assam, Jharkhand, Uttar Pradesh, Chhattisgarh and Bengal.
- At a time when schools and anganwadis are just starting to reopen after a year-long shutdown, COVID-19 safety protocols require repeated handwashing by students and teachers.
- In its report on the demand for grants submitted to the Lok Sabha on Monday, the Standing Committee urged the Ministry to take up the matter with laggard States.
- The campaign to provide potable piped water supply for drinking and cooking purposes and tap water for washing hands and in toilets in every school, anganwadi and ashramshala or residential tribal school was launched on October 2, Gandhi Jayanti.
- The 100-day period should have ended on January 10, 2021. However, as of February 15, only 48.5% of anganwadis and 53.3% of schools had tap water supply, the Ministry told the Parliamentary panel.
- Seven States — Andhra Pradesh, Goa, Haryana, Himachal Pradesh, Tamil Nadu, Telangana and Punjab — achieved 100% coverage.
- A number of other States also made significant progress in that time, and 1.82 lakh grey water management structures and 1.42 lakh rainwater harvesting structures were also constructed in schools and anganwadi centres.
- "However, some States/ UTs have indicated that they need more time to complete the task and sustain the efforts. Therefore, the campaign has been extended till March 31, 2021," the Ministry said.
- The panel noted that "children are more susceptible to water-borne diseases, more so when there is also a need for repeated washing of hands as a precautionary measure during the pandemic".

About the ICDS scheme

- Children in the age group 0-6 years constitute around 158 million of the population of India (2011 census). These Children are the

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future human resource of the country. **Ministry of Women and Child Development** is implementing various schemes for welfare, development and protection of children.

- **Launched on 2nd October, 1975**, the Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and **represents one of the world's largest and unique programmes for early childhood care and development**. It is the foremost symbol of country's commitment to its children and nursing mothers, as a response to the challenge of providing pre-school non-formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other.
- The **beneficiaries under the Scheme** are children in the age group of 0-6 years, pregnant women and lactating mothers.

Objectives of the Scheme are:

1. to improve the nutritional and health status of children in the age-group 0-6 years:
2. to lay the foundation for proper psychological, physical and social development of the child:
3. to reduce the incidence of mortality, morbidity, malnutrition and school dropout:
4. to achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and
5. to enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

Services under ICDS

The ICDS Scheme offers a package of six services, viz.

1. Supplementary Nutrition
2. Pre-school non-formal education
3. Nutrition & health education
4. Immunization
5. Health check-up and
6. Referral services

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- The last three services are related to health and are provided by Ministry/Department of Health and Family Welfare through NRHM & Health system. The perception of providing a package of services is based primarily on the consideration that **the overall impact will be much larger if the different services develop in an integrated manner as the efficacy of a particular service depends upon the support it receives from the related services.**
- For better governance in the delivery of the Scheme, **convergence is, therefore, one of the key features of the ICDS Scheme.** This convergence is in-built in the Scheme which provides a platform in the form of Anganwadi Centres for providing all services under the Scheme.

Wheat Based Nutrition Program (WBNP) - MoWCD

1. It is implemented by Ministry of Women and Child Development.
2. Foodgrains are given to ICDS for providing food to children from 2 to 6 years and pregnant/ lactating women.

Source: TH

â€™Compensate those acquitted under UAPAâ€™™

GS-III | 09 March, 2021

‘Compensate those acquitted under UAPA’

- A local court in Surat acquitted 122 persons arrested under the Unlawful Activities (Prevention) Act for participating in a meeting organised in December 2001 as members of Students’ Islamic Movement of India (SIMI), a banned outfit.
- After their acquittal, some of the accused, and also activists from the minority community, demanded that they be compensated for being “illegally framed by the police” without any evidence against them.
- “Many of them spent years in jail while facing trial ... They should be compensated,” an activist belonging to the minority community said.

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Unlawful Activities Prevention Act, 1967

- **Unlawful Activity** refers to any action taken by individual or association whether by action/ words spoken/ written/signs to questions disrupts the territorial integrity and sovereignty of India.
- It is an enhancement of TADA, 1995 and POTA, 2004. It was enacted during Indira Gandhi.
- The **National Integration Council (headed by PM)** appointed a Committee on National Integration and Regionalisation. Pursuant to this Committee, **16th CAA, 1963** was enacted to impose, by law, reasonable **restrictions in Art 19 (Speech, Association, Assembly)** in the interests of **integrity and sovereignty** of India. And to implement the provisions of 1963 Constitution Amendment Act, Unlawful Activities (Prevention) Act was enacted in 1967.

UAPA, 1967	NIA Amendment Act, 2019
<ol style="list-style-type: none">1. It aims at effective prevention of unlawful activities across India and abroad.2. Its main objective was to provide powers to Central Agencies and States to deal with terrorist activities directed against integrity and sovereignty of India.3. Center may designate an organization as a terrorist organization.4. It is applicable across the entire country.5. Any Indian or Foreign National charged under UAPA is liable for punishment under UAPA, 1967.6. It is applicable even if the crime is committed on a foreign land, outside India.7. Persons on ships and aircrafts registered in India.	<ol style="list-style-type: none">1. It amended Schedule 4 of UAPA which will allow NIA to designate Individuals as terrorist.2. It empowers DG of NIA to seize properties (which previously required permission from DGP).3. It allows NIA officers (Inspector and above) to investigate the cases. Earlier only DSP or ACP and above could investigate.4. MHA declared 4 individuals as terrorists<ol style="list-style-type: none">1. Jaish-e-Mohammed chief Masood Azhar2. Lashkar e Taiba - Hafiz Saeed, Rehman Lakhvi3. Dawood Ibrahim

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Analysis

- According to NCRB data, 922 cases were reported under UAPA in 2016, which was 5% less than 2014 (976 cases).
- India faces 1 of the highest threats of terrorism and hence, anti terrorism mechanism must be stringent.
- NIA is a specialized agency and cannot be dependent on state police for approval of seizure of property.
- It would quicken the delivery of justice.
- It would address the activities done by Lone Wolf who does not belong to any organization.
- It would also give impetus to India's demand to designate Masood Azhar and Hafiz Saeed as terrorists in International Org.
- But on the other hand, there are concerns of misuse of unfettered powers given to investigative agencies. Opposition says it could also be used against political opponents.

Way Forward

- It is important to set up a Review Committee to examine this process for fairness and objectivity.
- There is a greater role for judiciary to carefully examine cases of misuse. Also Judicial Review.
- There should be balance between individual freedom and state obligation to provide security.

Source: TH

Cairn Energy wins arbitration award

GS-II | 09 March, 2021

Cairn Energy wins arbitration award

- India has been ordered to return **up to \$1.4 billion** to Cairn Energy PLC of the U.K. after an international arbitration overturned tax demanded retrospectively — an award the government indicated it may challenge.
- The three-member tribunal, which also comprised a nominee of the Indian government, unanimously ruled that India's claim of 10,247 crore in past

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taxes over a 2006–07 internal reorganisation of Cairn's India business was not a valid demand.

- India "failed to accord Cairn Energy's investments fair and equitable treatment" under the bilateral investment protection pact it had with the U.K.
- The tribunal ordered the government to desist from seeking such a tax and return the value of shares it had sold, dividends seized and tax refunds withheld to recover the tax demand.
- The government was asked to compensate Cairn "for the total harm suffered," together with interest and cost of arbitration.

Cairn wins nod from U.S., U.K., other courts for \$1.4 bn award

- Courts in five countries including the U.S. and the U.K. have given recognition to an arbitration award that asked India to return \$1.4 billion to Cairn Energy plc — a step that now opens the possibility of the British firm seizing Indian assets in those countries if New Delhi does not pay, sources said.
- Cairn Energy had moved courts in nine countries to enforce its \$1.4 billion arbitral award against India, which the company won after a dispute with the country's revenue authority over a retroactively applied capital gains tax.

What is Capital Gains Tax (CGT)?

- CGT is any profit or gain that arises from the sale of a 'capital asset' is a capital gain. This gain or profit comes under the category of 'income'.
- Hence, the capital gain tax will be required to be paid for that amount in the year in which the transfer of the capital asset takes place. This is called the capital gains tax, which can be both short-term or long-term.
- **What are Capital Assets?** Land, building, house property, vehicles, patents, trademarks, leasehold rights, machinery, and jewellery are a few examples of capital assets. This includes having rights in or in relation to an Indian company. It also includes the rights of management or control or any other legal right.

2 Types of Capital Gains Tax

- **Long-term Capital Gains Tax:** It is a levy on the profits from the

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sale of assets held for more than a year. The rates are 0%, 15%, or 20%, depending on tax bracket.

- **Short-term Capital Gains Tax:** It applies to assets held for a year or less and is taxed as ordinary income.
- Capital gains can be reduced by deducting the capital losses that occur when a taxable asset is sold for less than the original purchase price. The total of capital gains minus any capital losses is known as the "net capital gains".
- Tax on capital gains is triggered only when an asset is sold, or "realized". Stock shares that appreciate every year will not be taxed for capital gains until they are sold.

- Of these, the December 21 award from a three-member tribunal at the **Permanent Court of Arbitration in the Netherlands** has been recognised and confirmed by courts in the U.S., the U.K., the Netherlands, Canada and France, three people with knowledge of the matter said. Cairn has begun the process to register the award in Singapore, Japan, the United Arab Emirates and Cayman Islands, they said.

Permanent Court of Arbitration

- PCA is an intergovernmental organization established by treaty at **the First Hague Peace Conference, Netherland in 1899**.
- It is not a court in the traditional sense, but a **permanent framework for arbitral tribunals** constituted to resolve **specific** disputes.
- PCA seeks to facilitate arbitration and other forms of dispute resolution involving various combinations of states, state entities, international organizations and private parties.
- It was the first permanent intergovernmental organization that provided a forum for the resolution of international disputes through arbitration and other peaceful means.
- The Permanent Court of Arbitration is the **oldest** global institution for the settlement of international disputes.
- The Court offers a wide range of services for the resolution of international disputes which the parties concerned have expressly

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agreed to submit for resolution under its auspices.

- The PCA is not a court, but rather an organizer of arbitral tribunals to resolve conflicts between member states, international organizations, or private parties.
- The PCA also administers cases under the arbitration rules of the **UNCITRAL**.

What are the matters generally includes in the PCA?

- It is not a court and does not have permanent judges.
- The PCA is a permanent bureaucracy that assists temporary tribunals to resolve disputes among states (and similar entities), intergovernmental organizations, or even private parties arising out of international agreements.
- The cases span a range of legal issues involving territorial and maritime boundaries, sovereignty, human rights, international investment, and international and regional trade.
- All decisions, called "awards" are **binding on all the parties** in the dispute and have to be carried out without delay. There are some post-award proceedings available to parties unhappy with the tribunal's decision, but they are limited, particularly in inter-state disputes.

Who are members of PCA?

- Parties to the Convention on the Pacific Settlement of disputes of 1899 (71 member states) and 1907 (101 member states) are automatically parties to the PCA.
- As 51 are parties to both conventions, the PCA has 121 member states: 119 members of the United Nations, as well as Kosovo and Palestine.
- India is a party of the PCA according to the Hague Convention on 1899.

- The registration of the award is the first step towards its enforcement in the event of the government not paying the firm.

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- Once the court recognises an arbitration award, the company can then petition it for seizing any Indian government asset such as bank accounts, payments to state-owned entities, airplanes and ships in those jurisdictions, to recover the monies due to it, they said.
- The tribunal had on December 21 ruled that the Indian government had breached an investment treaty with the U.K.

Source: TH

Remote Work Models

GS-III | 09 March, 2021

Remote Work Models

Introduction

- The first known remote worker was an employee of NASA in the early 70's.
- In 1996, the National Telecommuting Initiative was launched in the U.S. to promote remote work within the government. As a result, Congress approved the use of telecommuting in Federal agencies.

Type-1: Centralized Office + Occasional Work-from-Home

- With this model, employees are required to work primarily from the office, but with the occasional work-from-home option.
- This model is attractive to just about anyone, but may be especially beneficial for busy parents or those who live further away from the office.
- The number of remote hours varies from company to company, but most who have this policy allocate at least one full remote day per week.

Type-2: Centralized Office + Work-from-Anywhere

- This model takes the flexibility from type-1 and turns it up a notch.
- Companies who subscribe to this policy give their employees freedom to choose where they work, whether that be the office, their couch, a coffee shop, or far-away lands.
- Any place with a stable Internet connection and quality coffee should suffice.

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Type-3: Fully Remote Work Without a Centralized Office

- This model is by far the most advanced remote work policy a company can embody, as team members are distributed all over the world, across different countries, and time zones.
- Companies that use it have most likely been remote since day one with no prior physical office. So, leaders who are in the early stages of starting their venture, this model is a great one to consider.

Source: WEB

National AYUSH Mission

GS-III | 09 March, 2021

National AYUSH Mission

- Ministry of AYUSH, Government of India is implementing Centrally **Sponsored** Scheme of **National AYUSH Mission (NAM)**.
- Under 'Medicinal Plants' component of the NAM scheme supporting market driven cultivation of prioritized medicinal plants in identified cluster/zones with in selected districts of States and implemented in a mission mode.
- As per the scheme guidelines, the support is provided for:
 1. Cultivation of prioritized medicinal plants on farmer's land.
 2. Establishment of nurseries with backward linkages for raising and supply of quality planting material.
 3. Post-harvest management with forward linkages.
 4. Primary processing, marketing infrastructure etc.
- Under this scheme, subsidy @30%, 50% and 75% of cultivation cost of specific plant species is provided for cultivation of 140 medicinal plants.

Other missions for AYUSH

- National Medicinal plants Board, Ministry of AYUSH, Government of India is

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also implementing Central Sector Scheme on “**Conservation, Development and Sustainable Management of Medicinal Plants**” wherein following activities are supported:

1. In-situ conservation / Ex-situ conservation
 2. Livelihood linkages with Joint Forest Management Committees (JFMCs) / Panchayats / Van Panchayats / Biodiversity Management Committees (BMCs) / Self Help Groups (SHGs).
 3. IEC activities like Training / workshops / Seminars/ Conferences etc.
 4. Research & Development.
 5. Promotion, marketing and trade of medicinal plants produce.
- Ministry of Finance has announced Rs. 4000 crore package under Atma Nirbhar Bharat for **Promotion of Herbal Cultivation**.
 - The Ministry of AYUSH has prepared a draft scheme namely “**Pradhan Mantri VRIKSH AYUSH Yojana**” for cultivation and marketing of medicinal plants which is yet to be approved from Cabinet. The scheme will be implemented throughout the country.

Source: PIB

Anti-microbial resistance crisis in India

GS-III | 09 March, 2021

Anti-microbial resistance crisis in India

What is Antimicrobial resistance?

- Antimicrobial resistance (AMR or AR) is the **ability of a microbe to resist the effects of medication** that once could successfully treat the microbe.
- In other words, Antimicrobial resistance (AMR) is the ability of a microorganism (like bacteria, viruses, and some parasites) to stop an antimicrobial (such as antibiotics, antivirals and antimalarials) from working against it.
- As a result, standard treatments become ineffective, infections persist and may spread to others.
- When an organism is resistant to more than one drug, it is said to be **multidrug-resistant**. Then

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What is Antibiotic resistance?

- The **term antibiotic resistance is a subset of AMR**, as it applies **only to bacteria** becoming resistant to antibiotics.
- Antibiotics are medicines used to prevent and treat bacterial infections. Antibiotic resistance occurs when bacteria change in response to the use of these medicines.
- **Bacteria, not humans or animals**, become antibiotic-resistant.
- These bacteria may infect humans and animals, and the infections they cause are harder to treat than those caused by non-resistant bacteria.
- Antibiotic resistance occurs naturally, but misuse of antibiotics in humans and animals is accelerating the process.
- A growing number of infections – such as **pneumonia, tuberculosis, gonorrhoea, and salmonellosis** – are becoming harder to treat as the antibiotics used to treat them become less effective.
- It leads to higher medical costs, prolonged hospital stays, and increased mortality.

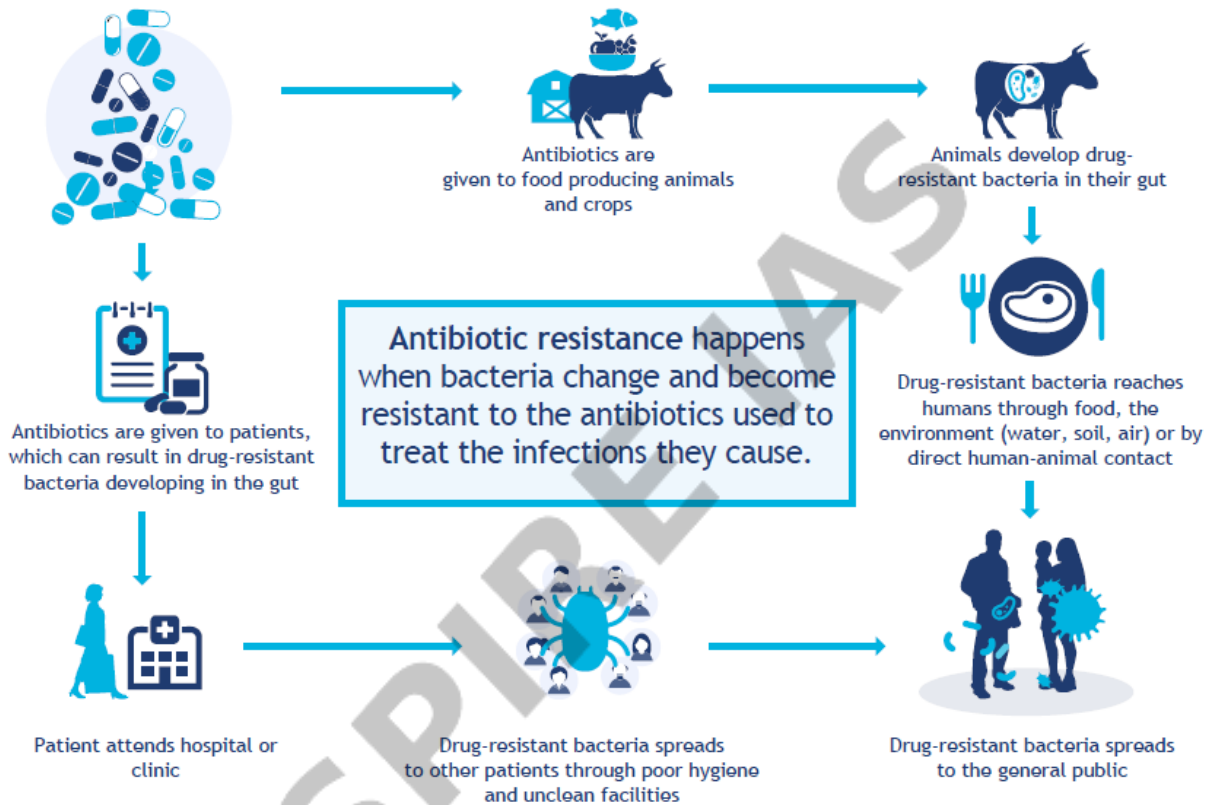
Key findings:

1. India is one of the top users of antibiotics.
2. The private sector clocked high levels of antibiotic prescription rates (412 per 1,000 persons per year).
3. The highest rate was seen among children aged 0–4 years (636 per 1,000 persons) and the lowest in the age group 10–19 years (280 per 1,000 persons).
4. Per-capita antibiotic consumption in the retail sector has increased by around 22% in five years from 2012 to 2016.

Ways by which individuals become antibiotic resistant (2019 PT)

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ANTIBIOTIC RESISTANCE HOW IT SPREADS



www.who.int/drugresistance

#AntibioticResistance



World Health Organization

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CAUSES OF ANTIBIOTIC RESISTANCE



Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.



Over-prescribing
of antibiotics



Patients not finishing
their treatment



Over-use of antibiotics in
livestock and fish farming



Poor infection control
in hospitals and clinics



Lack of hygiene and poor
sanitation



Lack of new antibiotics
being developed

www.who.int/drugresistance

#AntibioticResistance



World Health
Organization

- Inappropriate use of antibiotics such as popping pills for mild ailments like common cold.
- Rampant use of antibiotics in livestock and poultry animals. Antibiotics used

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in animals to treat infections and for growth promotion are often passed on to humans who consume their meat.

- Improper disposal of residual antibiotics that eventually enter the food chain.
- Prolonged illness
- Poor diagnosis
- Poor health and hygiene management in Hospitals (Fluid exchange)
- Globalisation

Doctors' take on antibiotics

- Doctors believe that the inappropriate and sometimes rampant use of antibiotics has transformed the healthy human intestinal gut flora into a reservoir of antibiotic resistance organisms.
- At present organisms are resistant to low end antibiotics but if the misuse persists, these may become resistant to high end antibiotics as well.
- There are as many bacteria in a human body as the number of cells. They perform a host of functions to keep the body running for example, processing the food we eat and modulating the immune system. The antibiotic resistant bacteria aren't healthy so they cannot perform these functions well.
- The presence of antibiotic resistance in healthy individuals is a cause for concern because it signals that it will get more difficult to treat infections in the future.

India's action plan for AMR

- A national policy for containment of AMR was introduced in 2011. The policy aims to understand emergence, spread and factors influencing AMR.
- To set up an antimicrobial program to rationalize use of antimicrobials and to encourage the innovation of newer and effective antimicrobials.
- In addition, some major action points identified in the national policy are:
 1. Establishing an AMR surveillance system.
 2. To strengthen infection, prevention and control measures.
 3. Educate, train and motivate all stakeholders in the rational use of antimicrobials.
 4. Providing sanitation, clean water and good governance.
 5. Increasing public health expenditure and better regulating the private health sector.

WHO's take on antibiotic resistance

- As per the World Health Organization (WHO), antibiotic resistance is rising to dangerously high levels in all parts of the world.
- The alarming rate at which bacteria are becoming resistant has led the World

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Health Organization (WHO) to identify AMR as one of the top ten threats to global health.

- The world body recommends that countries must prioritize their national action plans to scale up financing and capacity building efforts, put in place a stronger regulatory systems and support awareness programmes for responsible and prudent use of antimicrobials by professionals in humans, animals and plants health.
- In addition, countries must invest in ambitious research and development technologies to combat AMR.
- The WHO also suggests a number of steps that can be taken at various levels to reduce the impact and also limit the spread of this resistance.

At individual level

- For individuals, the most important step towards preventing and controlling the spread of this antibiotic resistance is to use antibiotics only when prescribed by a certified health professional. Also, never sharing with anyone used leftover antibiotic.
- Preparing food hygienically and avoiding close contact with sick people.
- Practising safer sex and keeping vaccinations up to date.
- Following the WHO's five keys to safer food i.e. to keep clean, separate raw and cooked, cook thoroughly, keep food at safe temperatures, use safe water and materials and choose foods that have been produced without the use of antibiotics for growth promotion or disease prevention in healthy animals.

For Policymakers

- Policymakers must ensure that a robust national action plan is in place to tackle antibiotic resistance.
- Surveillance of antibiotic-resistant infections must be improved.
- Policies, programmes and implementation of infection prevention and control measures must be strengthened.
- It is required to regulate and promote the appropriate use of quality medicines.
- Information must also be made available on the impact of antibiotic resistance.

For Health Professionals

- Health professionals need to play a major role in preventing and controlling the spread of antibiotic resistance.
- The first and foremost thing that must be done is to ensure that their hands,

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instruments and environment are clean.

- They should only prescribe and dispense antibiotics when they are needed.
- They must immediately report antibiotic resistant infections to surveillance teams.

For different sectors

- Sectors like healthcare and agriculture must also act to prevent and control the spread of antibiotic resistance.
- The healthcare industry can invest in research and development of new antibiotics, vaccines, diagnostics and other tools.
- The agricultural sector must adhere to the guidelines such as giving antibiotics to animals only under veterinary supervision.
- Antibiotics should not be used for growth promotion or to prevent diseases in healthy animals.
- Animals must be vaccinated to reduce the need for antibiotics and use alternatives to antibiotics when available.
- The agriculture sector should also promote and apply good practices at all steps of production and processing of food from animals and plants sources.
- In addition, they must also improve biosecurity on farms and prevent infections through improved hygiene and animal welfare.

Global Efforts for Anti-microbial resistance:

GLASS (Global Antimicrobial Surveillance System)

- In 2015, WHO launched the global antimicrobial surveillance system (GLASS) to work closely with WHO collaborating centres and existing antimicrobial resistance surveillance networks.
- As members of GLASS, countries are encouraged to implement the surveillance standards and indicators gradually based on their national priorities and available resources.
- Recently, the United Nations (UN) has begun considering the threat of antimicrobial resistance (AMR) to be at par with diseases like ebola, HIV.
- The WHO has launched a global campaign that urges countries to adopt its new online tool aimed at guiding policy-makers and health workers to use antibiotics safely and more effectively.

Global Antimicrobial Resistance Surveillance System (GLASS) by WHO

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Launched in October 2015, the Global Antimicrobial Resistance Surveillance System (GLASS) is being developed to support the global action plan on antimicrobial resistance. The aim is to **support global surveillance and research in order to strengthen the evidence base on antimicrobial resistance (AMR)** and help informing decision-making and drive national, regional, and global actions.

GLASS objectives

- Foster national surveillance systems and harmonized global standards:
- estimate the extent and burden of AMR globally by selected indicators:
- analyse and report global data on AMR on a regular basis;
- detect emerging resistance and its international spread;
- inform implementation of targeted prevention and control programmes:
- assess the impact of interventions.

AWARE Tool by WHO

The tool, known as 'AWaRe', classifies antibiotics into three groups:

- Access — antibiotics used to treat the most common and serious infections
- Watch — antibiotics available at all times in the healthcare system
- Reserve — antibiotics to be used sparingly or preserved and used only as a last resort

Collistin

- India has been called the epicenter of the global drug resistance crisis. Chickens in numerous poultry farm are being given Colistin, to protect them against diseases or to make them gain weight faster. Doctors call Colistin the 'last hope' antibiotic.
- The World Health Organisation has called for the use of such antibiotics to be restricted to animals. These should be banned as growth promoters.
- MCR-1 is one such gene discovered recently. It could be transferred within and between species of bacteria. This means that microbes did not have to develop resistance themselves, they could become resistant just by acquiring the MCR-1 gene.
- The resistance could be passed to bugs which are already multi-drug

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resistant. This could lead to untreatable infections.

- Another such gene is New Delhi **Metallo-beta-lactamase 1 (NDM-1)**, which makes bugs resistant to carbapenem antibiotics.

Why is resistance among microbes a problem?

1. The answer lies in the intimacy shared between environmental bacteria and human pathogens
2. A pathogen, say *Klebsiella pneumoniae* (*K. pneumoniae*), that causes pneumonia, can take two routes to antibiotic resistance
3. The first is for its own genes to mutate spontaneously to help fight the drug
4. The second route, a shortcut known as horizontal gene transfer, is for the bug to borrow resistance genes from its neighbours
5. Scientists believe that many human pathogens today picked up their resistance genes from the environment through this shortcut

Phenomenon of anti-microbial resistance not new

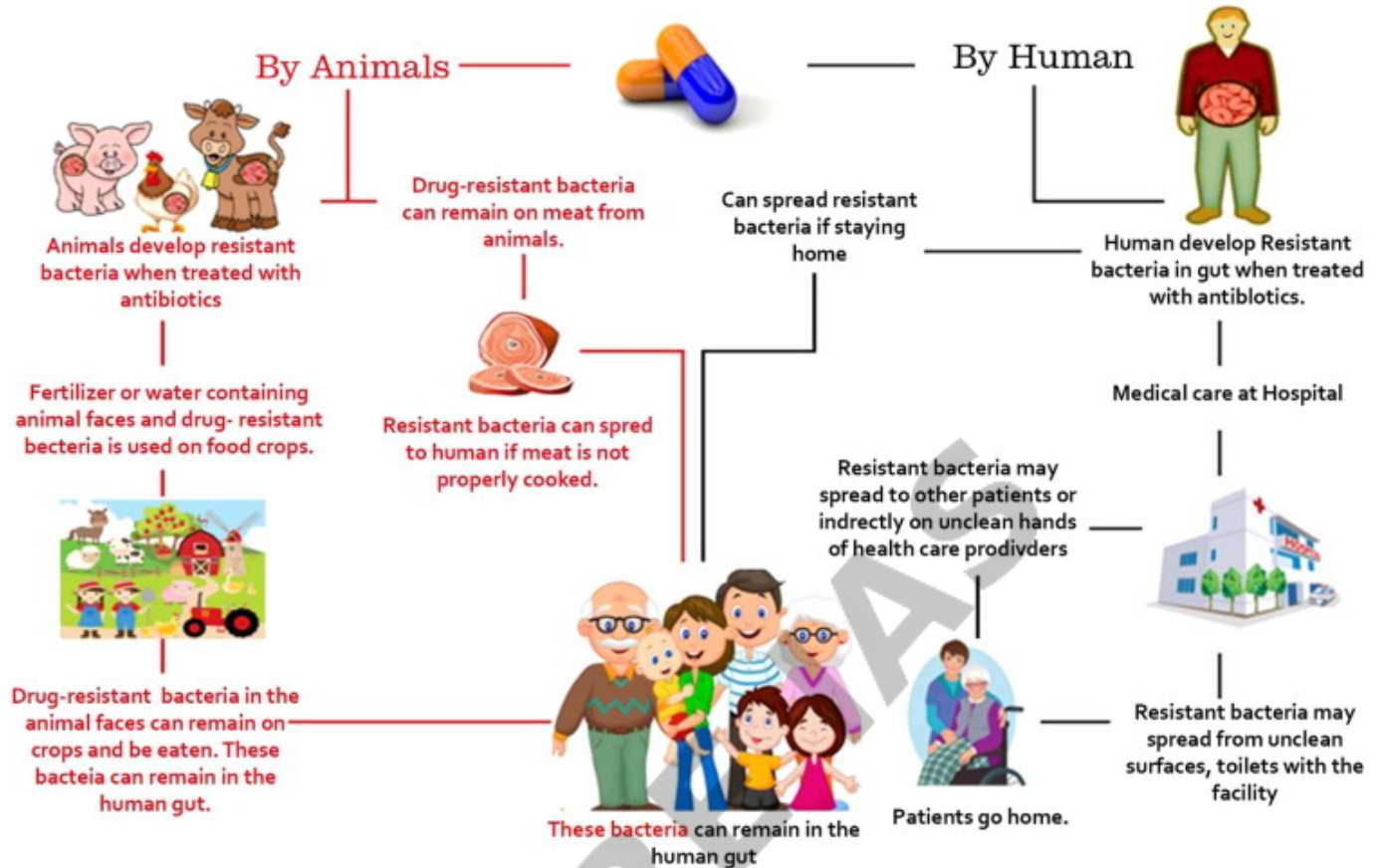
1. Phylogenetic studies suggest that the earliest antibiotic-resistance genes in nature are millions of years old
2. But when humans started manufacturing antibiotics in the 1950s, a dramatic shift occurred
3. Large doses of these drugs seeped into the environment through poultry and human excreta, and waste water from drug makers and hospitals
4. This led to an explosion of resistance genes in soil and water microbes

European project ANSWER

- It stands for 'Antibiotics and mobile resistance elements in wastewater reuse applications: risks and innovative solutions'. This project studies technologies to remove antibiotic-resistance germs from wastewater along with other research.

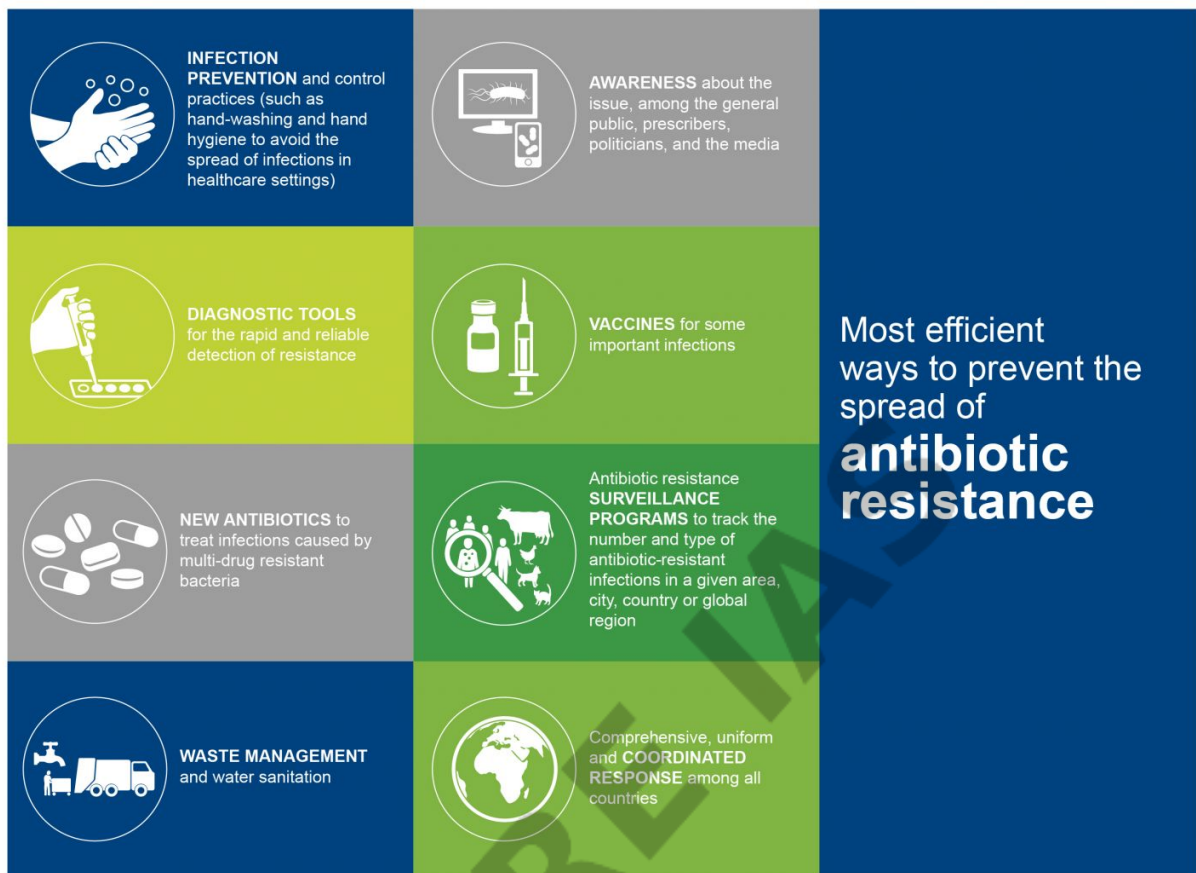
How is the Anti microbial resistance spread?

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How to stop the spread of Anti microbial resistance?

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Source: bioMérieux

India's Efforts for Anti-microbial resistance

National Action Plan on Antimicrobial Resistance, 2017

1. For the first time, the 2017 National Action Plan on Antimicrobial Resistance talks about limiting antibiotics in effluent being dumped by drug makers into the environment
2. This is because when these drugs taint soil and water, the scores of microbes that live there grow drug-resistant
3. Until now, India's fight against antibiotic-resistance was focussed on getting

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people to cut down on unnecessary antibiotic consumption

India's Red line campaign:

- It was launched in Feb 2016 and is finding recognition, and could be adopted globally. It should be considered as starting point of restriction over use of antibiotics.
- **Aim:** To decrease the use of Red line antibiotics without prescription, create awareness of danger of taking antibiotics.

Global Antimicrobial Resistance R&D Hub

- Recently, India has joined the Global Antimicrobial Resistance (AMR) Research and Development (R&D) Hub as a new member.
- Working with AMR(R&D) Hub would help India to expand existing capabilities, resources and collectively focus on new R&D intervention to address drug-resistant infections present in the country.
- Global Antimicrobial Resistance (AMR) Research and Development (R&D) Hub is a collaboration of 16 countries, the European Commission, two philanthropic foundations and four international organizations (as observers).
- It was launched in 2018 during the 71st session of the World Health Assembly, following a call from G20 Leaders in 2017.
- It is supported through a Secretariat, established in Berlin, Germany.
- It aims to further improve the coordination of international efforts and initiatives to tackle Antimicrobial Resistance while further increasing investments into R&D for AMR.
- The work of the Global AMR R&D Hub will be aligned to the priorities set by
 1. World Health Organization (WHO)
 2. Food and Agriculture Organization of the United Nations (FAO)
 3. World Organisation for Animal Health (OIE).
- It enforces the One Health Approach by including environmental aspects and veterinary medicine against antimicrobial resistance.
- It integrates human and animal health, worldwide food safety and environmental factors.

Other Steps to fight against AMR

- Infection control in healthcare facilities.
 - Creating awareness about the use and abuse of antibiotics.
 - Vaccination can combat drug resistance by reducing the cases of infection and as a result reducing the need for antibiotics.
 - Strengthening resistance tracking so that data on antimicrobial resistant infections and causes of infection can be gathered to enable formulation of
-

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specific strategies to prevent the spread of the resistant bacteria.

- Self-medication should be shunned.
- Antibiotics should be used only when prescribed by the doctor.
- Appropriate and safe use of antibiotics- taking antibiotics only when needed, choosing the right antibiotic and completing the full prescription.
- Invest in the search for new antibiotics to keep up with resistant bacteria as well as in new diagnostic tests to track the development of resistance.

Impacts of Anti-Microbial resistance

- A threat to prevention and treatment of infections - medical procedures such as organ transplantation, cancer chemotherapy, diabetes management and major surgery (for example, caesarean sections or hip replacements) become very risky.
- The failure to treat infections caused by resistant bacteria also poses a greater risk of death.
- Antimicrobial resistance increases the cost of health care with lengthier stays in hospitals, additional tests and use of more expensive drugs.
- Without effective antibiotics for prevention and treatment of infections, the achievements of modern medicine are put at a risk.
- Without urgent action, we are heading to antibiotic apocalypse – a future without antibiotics, with bacteria becoming completely resistant to treatment and when common infections and minor injuries could once again kill.
- Antimicrobial resistance is putting the gains of the Millennium Development Goals at risk and endangers achievement of the Sustainable Development Goals.

Shortcomings in fighting AMR

- A cross-cutting programme dealing with antimicrobial resistance across multiple microbes has been lacking.
- Absence of a One Health Approach in addressing AMR – which recognizes that human well-being is inextricably tied to the health of animals and the environment.
- The absence of stringently framed and implemented regulatory frameworks to limit the use of antimicrobials in livestock and food animals, especially for non-therapeutic purposes, has been one of the drivers of antibiotic overuse at the community level.
- In India, current effluent standards do not include antibiotic residues, and thus they are not monitored in the pharmaceutical industry effluents.

Way Forward

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- AMR has the potential to return the world to a pre-antibiotic era when medicines could not treat even simple infections.
- Therefore, to contain AMR, there is need for a One Health Approach through coherent, integrated, multi sectoral cooperation and actions, as human, animal and environmental health are integrated.
- Development of antibiotic resistance breakers (ARBs) to restore effectiveness of older classes of antibiotics.

Conclusion

- Antibiotic resistance is not a problem that can be solved by any one country or even one region. Since, we live in a connected world, where people, animals and food travel and microbes travel with them, a global action is essential to make progress in the long run.
- Increasing public awareness and understanding is therefore the most crucial pillar towards tackling antimicrobial resistance.
- AMR is an increasingly serious threat to the global public health that requires action across all government sectors and societies.

Source: PIB

Mobilising Electric Vehicle Financing in India

GS-II | 09 March, 2021

Mobilising Electric Vehicle Financing in India

- NITI Aayog and Rocky Mountain Institute (RMI) India released a new report 'Mobilising Electric Vehicle Financing in India', which highlights the role of finance in the India's transition to electric vehicles (EVs) and analyses that the transition will require a cumulative capital investment of USD 266 billion (Rs 19.7 lakh crore) in EVs, charging infrastructure, and batteries over the next decade.
- The report also identifies a market size of USD 50 billion (Rs 3.7 lakh crore) for the financing of EVs in 2030—about 80% of the current size of India's retail vehicle finance industry, worth USD 60 billion (Rs 4.5 lakh crore) today.
- India's EV ecosystem has thus far focused on overcoming adoption hurdles

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associated with technology cost, infrastructure availability, and consumer behaviour.

- Financing is the next critical barrier that needs to be addressed to accelerate India's electric mobility transition.
- To address these challenges, NITI Aayog and RMI have identified a toolkit of 10 solutions that financial institutions such as banks and non-banking financial companies (NBFCs), as well as the industry and government can adopt in catalysing the required capital.
- The 10 solutions recommended in the report include financial instruments such as priority-sector lending and interest-rate subvention. Others are related to creating better partnerships between OEMs and financial institutions by providing product guarantees and warranties. Furthermore, a developed and formal secondary market can improve the resale value of EVs and improve their bankability.
- Recommendations beyond finance include digital lending, business model innovation, fleet and aggregator electrification targets, and the creation of an open data repository for EVs.
- The report further determines that investment in India's transition to electric mobility has the potential to create significant economic, social, and environmental benefits for the country.
- As the economics of EVs continue to improve, new business models and financing instruments gain acceptance, and government programmes drive early adoption and promote domestic manufacturing, India's EV market is poised for growth in the coming decade.

Source: PIB

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Unlawful Activities (Prevention) Act cases rose by 72% from
2015

GS-III | 10 March, 2021

Unlawful Activities (Prevention) Act cases rose by 72% from 2015

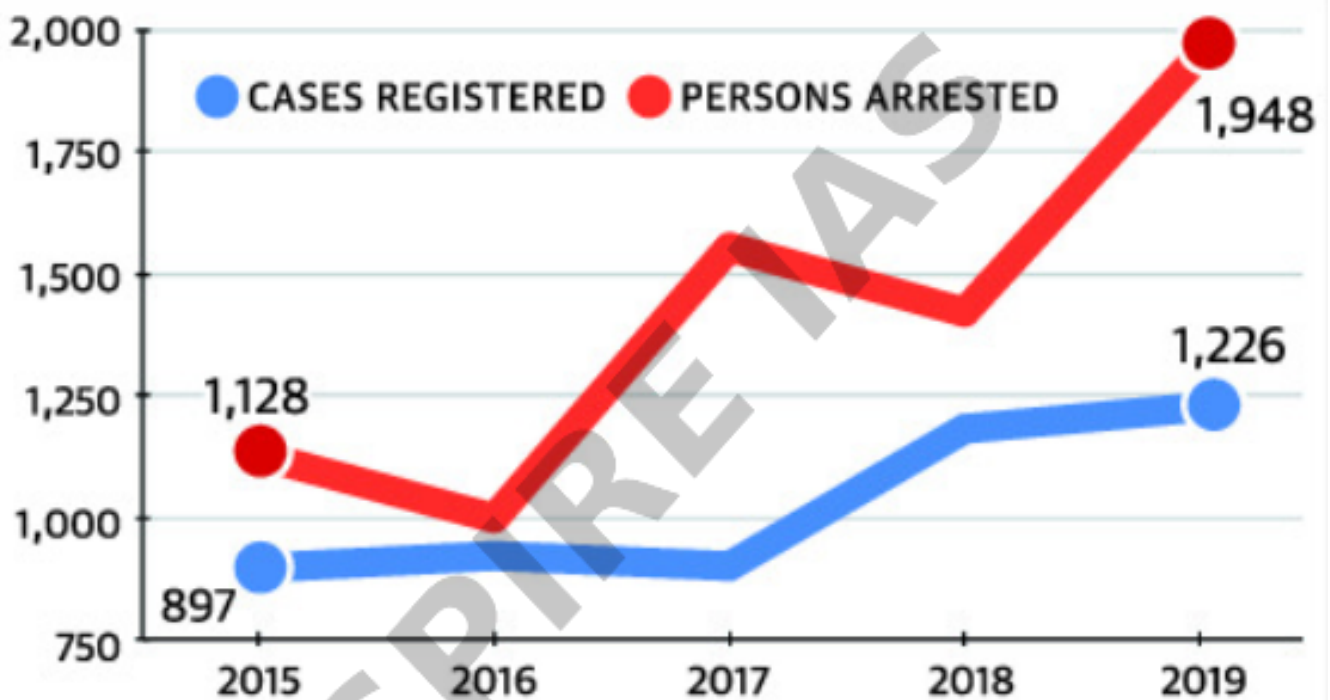
- There has been over 72% increase in the number of persons arrested under the UAPA (Unlawful Activities [Prevention] Act) in 2019 compared to year 2015, data provided by the Ministry of Home Affairs (MHA) in the Lok Sabha show.
- As many as 1,948 persons were arrested under the UAPA in 1,226 cases registered across the country in 2019.
- From 2015 till 2018, the cases registered under the Act annually stood at 897, 922, 901 and 1,182 respectively, while the number of arrests was 1,128, 999, 1,554 and 1,421.
- In 2019, the highest number of such cases were registered in **Manipur (306)**, followed by **Tamil Nadu (270)**, Jammu & Kashmir (255), Jharkhand (105) and Assam (87) cases.
- The **highest number of arrests** in the same year were made in **Uttar Pradesh (498)**, followed by Manipur (386), Tamil Nadu (308), Jammu & Kashmir (227) and Jharkhand (202).
- Cases under the UAPA are investigated by the State police and the National Investigation Agency (NIA). As far as the NIA is concerned, so far 48 special courts have been constituted across the country for the speedy trial of terror-related cases.

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Sharp rise | The number of arrests under the UAPA jumped by over 37% in 2019 as compared to 2018

1 With 306 cases, Manipur registered the most such cases in 2019

2 As many as 1,948 persons were arrested under the Act in 2019



Unlawful Activities Prevention Act, 1967

- **Unlawful Activity** refers to any action taken by individual or association whether by action/ words spoken/ written/signs to questions disrupts the territorial integrity and sovereignty of India.
- The UAPA, an upgrade on the Terrorist and Disruptive Activities (Prevention) Act TADA (lapsed in 1995) and the Prevention of Terrorism Act - POTA (repealed in 2004) was originally passed in the year 1967. It was enacted during Indira Gandhi.
- Till the year 2004, "unlawful" activities referred to actions related to

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secession and cession of territory. Following the 2004 amendment, "terrorist act" was added to the list of offences.

- The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- The **National Integration Council (headed by PM)** appointed a Committee on National Integration and Regionalisation. Pursuant to this Committee, **16th CAA, 1963** was enacted to impose, by law, reasonable **restrictions in Art 19 (Speech, Asso, Assembly)** in the interests of **integrity and sovereignty** of India. And to implement the provisions of 1963 CAA, Unlawful Activities (Prevention) Act was enacted in 1967.

Unlawful Activities (Prevention) Amendment Bill, 2019

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

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UAPA, 1967	NIA Amendment Act, 2019
<ol style="list-style-type: none">1. It aims at effective prevention of unlawful activities across India and abroad.2. Its main objective was to provide powers to Central Agencies and States to deal with terrorist activities directed against integrity and sovereignty of India.3. Center may designate an organization as a terrorist organization.4. It is applicable across the entire country.5. Any Indian or Foreign National charged under UAPA is liable for punishment under UAPA, 1967.6. It is applicable even if the crime is committed on a foreign land, outside India.7. Persons on ships and aircrafts registered in India.	<ol style="list-style-type: none">1. It amended Schedule 4 of UAPA which will allow NIA to designate Individuals as terrorist.2. It empowers DG of NIA to seize properties (which previously required permission from DGP).3. It allows NIA officers (Inspector and above) to investigate the cases. Earlier only DSP or ACP and above could investigate.4. MHA declared 4 individuals as terrorists<ol style="list-style-type: none">1. Jaish-e-Mohammed chief Masood Azhar2. Lashkar e Taiba - Hafiz Saeed, Rehman Lakhvi3. Dawood Ibrahim

- According to NCRB data, 922 cases were reported under UAPA in 2016, which was 5% less than 2014 (976 cases).
- India faces 1 of the highest threats of terrorism and hence, anti terrorism mechanism must be stringent.
- NIA is a specialized agency and cannot be dependent on state police for approval of seizure of property.
- It would quicken the delivery of justice.
- It would address the activities done by Lone Wolf who does not belong to any organization.
- It would also give impetus to India's demand to designate Masood Azhar and Hafiz Saeed as terrorists in International Org.
- But on the other hand, there are concerns of misuse of unfettered powers

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given to investigative agencies. Opposition says it could also be used against political opponents.

National Investigating Agency

- NIA is a Central agency established by NIA Act, **2008 (after Mumbai attacks)** to **combat terror in India**.
- It comes under the **Ministry of Home Affairs**.
- NIA acts as the **Central Counter Terrorism Law Enforcement Agency**.
- It is authorised to investigate any terror related matter without special permission of the States.
- The founding DG of NIA was **Radha Vinod Raju**. Currently Y C Modi is the chief.
- Functions
 1. To investigate terror related cases or to make strategy to combat terrorism.
 2. To study and analyse laws related to terrorism in other countries and evaluate and amend Indian laws.
 3. To investigate and prosecute offences affecting sovereignty, integrity, security of the State.
 4. To have friendly relations with Foreign countries and International org.
 5. To implement International treaties, agreements and conventions.
- NIA has banned JeM, LeT, PLA, SIMI, Babbar Khalsa International, ULFA, NDFB (Assam), LTTE, TNLA etc.
- **NIA (Amendment), 2019**
 1. Ambit of NIA increased to investigate **Human Trafficking, Counterfeit currency, Manufacture or sale of prohibited arms, Cyber Terrorism and Offences under Explosive Substances Act, 1998**.
 2. **Jurisdiction** of NIA increased. They can investigate offences committed **outside India**. It will be subject to international treaties and domestic laws of other countries.
 3. Center and State can designate **Session Courts as Special Courts** to conduct trials under NIA Act. This will be done in consultation with CJHC of the respective State.

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Way Forward

- It is important to set up a Review Committee to examine this process for fairness and objectivity.
- There is a greater role for judiciary to carefully examine cases of misuse. Also Judicial Review.
- There should be balance between individual freedom and state obligation to provide security.

Source: TH

National Social Assistance Programme

GS-I | 10 March, 2021

National Social Assistance Programme

- NSAP stands for National Social Assistance Programme. NSAP was launched on 15th August, 1995. It is under **Ministry of Rural Development**.
- The National Social Assistance Programme (NSAP) represents a significant step towards the fulfillment of the Directive Principles in **Article 41 and 42** of the Constitution recognizing the concurrent responsibility of the Central and the State Governments in the matter.
- In particular, Article 41 of the Constitution of India directs the State to provide public assistance to its citizens in case of unemployment, old age, sickness and disablement and in other cases of undeserved want within the limit of its economic capacity and development.

Objective of NSAP

- National Social Assistance Programme is a social security and welfare programme to provide support to aged persons, widows, disabled persons and bereaved families on death of primary bread winner, belonging to below poverty line households.

Components of NSAP

The NSAP at its inception in 1995 had three components namely

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- National Old Age Pension Scheme (NOAPS),
- National Family Benefit Scheme (NFBS) and
- National Maternity Benefit Scheme (NMBS). The National Maternity Benefit Scheme (NMBS) was subsequently transferred on 1st April, 2001 from the Ministry of Rural development to the Ministry of Health and Family Welfare.

On 1st April, 2000 a new Scheme known as Annapurna Scheme was launched. This scheme aimed at providing food security to meet the requirement of those senior citizens who, though eligible, have remained uncovered under the NOAPS.

In February 2009, two new Schemes known as Indira Gandhi National Widow Pension Scheme (IGNWPS) and Indira Gandhi National Disability Pension Scheme (IGNDPS) were introduced.

Presently NSAP comprises of five schemes, namely –

- **Indira Gandhi National Old Age Pension Scheme (IGNOAPS):** For individuals aged 60 years and above living Below the Poverty Line. They shall get Rs. 200 per month for beneficiaries aged 60-79 and Rs. 500 per month for those 80 years and above.
- **Indira Gandhi National Widow Pension Scheme (IGNWPS):** Widows aged 40 years and above living Below the Poverty Line. They shall get Rs. 300 per month and Rs. 500 for those 80 years and above.
- **Indira Gandhi National Disability Pension Scheme (IGNDPS):** Individuals aged 18 years and above with more than 80% disability and living below the poverty line. They shall get Rs. 300 per month and Rs. 500 for those 80 years and above.
- **National Family Benefit Scheme (NFBS):** In the event of the death of a bread winner, the family will receive a lumpsum assistance of Rs. 20000. The bread winner should have been between 18-60 years of age. The assistance would be provided in every case of death of a bread winner in a household.
- **Annapurna Scheme:** This scheme aims to provide food security to meet the requirement of those senior citizens who, though eligible, have remained uncovered under the IGNOAPS. Under the Annapurna Scheme, 10 kg of free rice is provided every month to each beneficiary.

Proposal to increase the pensions of NSAP

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Little support | The National Social Assistance Programme is applicable to elders, widows and the physically challenged. **Here is a low-down:**

Pension: ₹200-₹500 a month for senior citizens in BPL households

Widow Pension Scheme: ₹300-₹500 a month for widows aged over 40 in BPL households

Disability pension: ₹300 per month for persons aged **18-79** with severe or multiple disabilities in BPL households



Family benefit: ₹20,000 upon the death of a breadwinner aged 18-59 in BPL households

Annapurna Scheme: 10 kg of food grains per month for senior citizens who are not receiving any pension

- The Centre must increase the "meagre" pensions provided for poor senior citizens, widows and disabled people, said the Parliamentary Standing Committee on Rural Development in its report submitted to the Lok Sabha.
- The panel also slammed the government's "laxity in raising the amount", pointing out that recommendations to increase the sums had been made in the last two years as well.
- The panel pointed out that it had previously urged the increase of these miniscule pensions in its reports on the Department of Rural Development's (DoRD) demand for grants in 2019-20 and 2020-21.

Source: TH

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IT Rules 2021 and analysis

GS-II | 11 March, 2021

IT Rules 2021 and analysis

Bone of contention The new IT rules introduce a three-tier structure for ensuring observance and adherence to the code of ethics by digital media publishers, and addressing the grievances made in relation to the publishers



Level I - Self-regulation by the publishers

Level II - Self-regulation by the self-regulating bodies of the publishers

Level III - Oversight mechanism by the Central government

- The Kerala High Court restrained the Centre from taking coercive action against Live Law Media Private Ltd., which owns a legal news portal, for not complying with Part III of the new IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.
- The court issued notice to the Centre on a petition filed by the firm challenging the rules regulating digital news media, curated content (OTT platforms), and social media intermediaries.
- The petition said Part III of the rules imposed an unconstitutional three-tier complaints and adjudication structure on publishers.
- This administrative regulation on digital news media would make it virtually impossible for small or medium-sized publishers, such as the petitioner, to function. It would have a chilling effect on such entities, the petition said.

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- The creation of a grievance redressal mechanism, through a governmental oversight body (an inter-departmental committee constituted under Rule 14) amounted to excessive regulation, it contended.
- The petitioner pointed out that Rule 4(2), which makes it mandatory for every social media intermediary to enable tracing of originators of information on its platform, purportedly in furtherance of Section 69 of the IT Act, violated Article 19(1)(a) (freedom of speech and expression).
- It also deprived the intermediaries of their "safe-harbour protections" under Section 79 of the IT Act.
- The petition also added that the rules obligating messaging intermediaries to alter their infrastructure to "fingerprint" each message on a mass scale for every user to trace the first originator was violative of the fundamental right to privacy of Internet users.

Summary of IT Rules 2021

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SOCIAL MEDIA

- Identify 'first originator' of content that authorities consider anti-national
- Appoint grievance officer, resolve complaints in 15 days
- File monthly compliance report on complaints received, action taken

DIGITAL NEWS

- Follow Press Council of India, Cable TV Networks (Regulation) Act norms.
- Self-regulatory bodies to oversee adherence to Code of Ethics
- I&B Ministry to form panel, oversight mechanism

OTT PLATFORMS

- Self-classify content into five age-based categories: U (universal), U/A 7+ (years), U/A 13+, U/A 16+, and A.

- Parental locks for any content classified as U/A 13+ or above.
- Age verification mechanism for content classified as 'A' (adult)

- Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 have been framed under the Information Technology Act, 2000, and it supersedes the IT Rules, 2011.
- It will ensure a harmonious, soft-touch oversight mechanism in relation to social media platform, digital media and OTT platforms etc.
- Part- II of these Rules to Social Media shall be administered by Ministry of Electronics and IT.
- These Rules empower the users of digital platforms to seek redressal for their grievances on infringement of their rights.
- If due diligence is not followed by the intermediaries, including social media, safe harbour provisions will not apply to them.
- Grievance Officer, appointed by intermediaries, shall acknowledge the complaint within 24 hours and resolve it within 15 days.
- Ensures online safety and dignity of users, especially women, by

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removing or disabling the contents within 24 hours of receipt of complaints of contents.

- A distinction between social media intermediaries and significant social media intermediaries is made, based on the number of users.
- Chief Compliance Officer shall be appointed for ensuring compliance with the Act and Rules.
- Nodal Contact Person shall be appointed for 24x7 coordination with law enforcement agencies.
- Part-III on Ethics Code in relation to digital media shall be administered by the Ministry of Information and Broadcasting.
- This Code of Ethics prescribes the guidelines to be followed by OTT platforms and online news and digital media entities.
- OTT platforms would self-classify the content into 5 age based categories - U (Universal), U/A 7+, U/A 13+, U/A 16+, A (Adult).
- Publishers of digital news would observe Norms of Journalistic Conduct of the Press Council of India and the Programme Code under the Cable Television Networks Regulation Act.
- A three-level grievance redressal mechanism has been established under the rules with 3 levels of self-regulation.

Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021.

- These new rules broadly deal with social media and over-the-top (OTT) platforms.
- These rules have been framed in exercise of powers under section 87 (2) of the Information Technology (IT) Act, 2000 and in supersession of the earlier Information Technology (Intermediary Guidelines) Rules 2011.

Following are the features of the new rules

1. Categories of Social Media Intermediaries:

Based on the number of users, on the social media platform intermediaries have been divided in two groups:

1. Social media intermediaries.
2. Significant social media intermediaries.

2. Due Diligence to be Followed by Intermediaries:

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- In case, due diligence is not followed by the intermediary, safe harbour provisions will not apply to them.
- The safe harbour provisions have been defined under Section 79 of the IT Act, and protect social media intermediaries by giving them immunity from legal prosecution for any content posted on their platforms.

3. Grievance Redressal Mechanism is Mandatory:

- Intermediaries shall appoint a Grievance Officer to deal with complaints and share the name and contact details of such officers.
- Grievance Officer shall acknowledge the complaint within twenty four hours and resolve it within fifteen days from its receipt.

4. Ensuring Online Safety and Dignity of Users:

- Intermediaries shall remove or disable access within 24 hours of receipt of complaints of contents that exposes the private areas of individuals, show such individuals in full or partial nudity or in sexual act or is in the nature of impersonation including morphed images etc.
- Such a complaint can be filed either by the individual or by any other person on his/her behalf.

5. Additional Due Diligence for the Significant Social Media Intermediaries:

- Appointments: Need to appoint Chief Compliance Officer, a Nodal Contact Person and a Resident Grievance Officer, all of whom should be resident in India.
- Compliance Report: Need to publish a monthly compliance report mentioning the details of complaints received and action taken on the complaints as well as details of contents removed proactively.

6. Enabling Identity of the Originator:

- Significant social media intermediaries providing services primarily in the nature of messaging shall enable identification of the first originator of the information.
- Required only for the purposes of prevention, detection, investigation, prosecution or punishment of an offence related to sovereignty and integrity of India, the security of the State, friendly relations with foreign States, or public order,
- Or of incitement to an offence relating to the above or in relation with rape, sexually explicit material or child sexual abuse material punishable with

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imprisonment for a term of not less than five years.

7. Removal of Unlawful Information:

- An intermediary upon receiving actual knowledge in the form of an order by a court or being notified by the Appropriate Govt. or its agencies through authorized officer should not host or publish any information which is prohibited under any law in relation to the interest of the sovereignty and integrity of India, public order, friendly relations with foreign countries etc.

Rules for News Publishers and OTT Platforms and Digital Media:

For OTT:

- Self-Classification of Content: The OTT platforms, called as the publishers of online curated content in the rules, would self-classify the content into five age based categories- U (Universal), U/A 7+, U/A 13+, U/A 16+, and A (Adult).
- Parental Lock: Platforms would be required to implement parental locks for content classified as U/A 13+ or higher, and reliable age verification mechanisms for content classified as "A".
- Display Rating: Shall prominently display the classification rating specific to each content or programme together with a content descriptor informing the user about the nature of the content, and advising on viewer description (if applicable) at the beginning of every programme enabling the user to make an informed decision, prior to watching the programme.

For Publishers of News on Digital Media :

- They would be required to observe Norms of Journalistic Conduct of the Press Council of India and the Programme Code under the Cable Television Networks Regulation Act 1995 thereby providing a level playing field between the offline (Print, TV) and digital media.

Grievance Redressal Mechanism:

A three-level grievance redressal mechanism has been established under the rules with different levels of self-regulation.

1. Level-I: Self-regulation by the publishers;
2. Level-II: Self-regulation by the self-regulating bodies of the publishers;
3. Level-III: Oversight mechanism.

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Self-regulation by the Publisher:

- Publisher shall appoint a Grievance Redressal Officer based in India who shall be responsible for the redressal of grievances received by it.
- The officer shall take decision on every grievance received by it within 15 days.

Self-Regulatory Body:

- There may be one or more self-regulatory bodies of publishers.
- Such a body shall be headed by a retired judge of the SC, a High Court or independent eminent person and have not more than six members.
- Such a body will have to register with the Ministry of Information and Broadcasting.
- This body will oversee the adherence by the publisher to the Code of Ethics and address grievances that have not been resolved by the publisher within 15 days.

Oversight Mechanism:

- Ministry of Information and Broadcasting shall formulate an oversight mechanism.
- It shall publish a charter for self-regulating bodies, including Codes of Practices. It shall establish an Inter-Departmental Committee for hearing grievances.

Source: TH

Environment Regulation redux

GS-III | 11 March, 2021

Environment Regulation redux

Introduction

- The **Supreme Court's notice** to the Centre on a public interest plea to set up a **National environmental regulator** under the **Environment (Protection) Act, 1986** revives an issue that successive governments have preferred to

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ignore, in spite of specific orders passed by the same court more than nine years ago.

Lack of consensus

- There is no consensus on what a new regulator can achieve, since **official policy privileges ease of doing business**.
- The draft **Environmental Impact Assessment (EIA) Notification 2020**, which seeks to advance that goal, **makes no effort** to disguise the desire to **virtually eliminate civil society's role**.
- It **does not encourage the public to voice** its views and report violations, while independent scrutiny of proposals is weakened.
- In fact, the EIA process, especially after the notification in 2006, has been **heavily critiqued for conflicts of interest - the proponent of a project is responsible for producing the EIA report** — while **clearances under forest, wildlife, air and water quality laws** are heavily **weighted in favour of promoters**.
- Rather than reform the system, in 2011 and 2014, the Centre rebuffed the apex court on the question of forming an independent regulator, contending that its orders in the Lafarge mining case were only in the nature of a suggestion, and later sought time but decided not to act.

Steps to be taken

- **Autonomous Environmental regulator:** For a national regulator to work, the government must recognise the limits to extractive growth, respect a neutral body and preserve the integrity of the environment.
- **Credible of EIA:** A key issue raised by the PIL is the lack of credibility of the EIA process, leading to reports that are often produced with the help of dubious expertise and manipulated data.
 - In most cases, the proponents also **ignore the views of communities** that would be displaced, and are **ill-equipped to assess the loss of biodiversity and ecosystem services** such as clean air, water and farm productivity.
- **Strict control over pollution activity:** The Centre and States must acknowledge the conflict arising from pressure on scarce land and ecosystems from polluting projects, which has already created clusters of industrial locations that are doing badly on the CPCB's Comprehensive Environmental Pollution Index.
 - It is striking that this did not stop approvals for further polluting activity in

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some of these places, such as large coal-based power plants cleared in recent years in Kanpur, Cuddalore, and Angul in Odisha.

Way ahead

- The remedies lie in **administrative reform**.
- To produce a **whitelist of lands for industry**, reclaiming polluted areas.

Source: TH

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Cable Television Networks (Regulation) Act, 1995

GS-II | 12 March, 2021

Cable Television Networks (Regulation)

Act, 1995 Introduction

- It is quite regrettable that politicians are often hit by scandals arising from leaked footage purportedly showing them in intimate proximity with women.
- The latest episode involves former Karnataka Minister Ramesh Jarkiholi, who resigned in the wake of visuals allegedly showing him in such a situation.

Programme Code

- Speculation about the existence of more such compact discs that could surface in the media has resulted in a lawyer and BJP member obtaining an interim High Court order, that media organisations should abide strictly by the Programme Code prescribed under the **Cable Television Networks (Regulation) Act**.

Cable Television Networks (Regulation) Act

- Indian broadcast rules do not permit pre-censorship of TV programmes and advertisements — that is banning them before they are aired — and only films and film trailers are pre-certified by the Central Board of Film Certification (CBFC).

Important rules

- **Section 20** of the Cable TV Networks (Regulation) Act, 1995, states that the **government can regulate or prohibit the transmission or retransmission of any programme** that it feels is not in conformity with the **Programme and Advertising Code**, which oversees television content in India.
- However, since there is **no body to pre-certify content for TV**, potentially problematic programmes only come to notice once they have been aired.
- The **Electronic Media Monitoring Centre (EMMC)**, under the I&B Ministry, **monitors the content telecast** on private TV channels to check if they adhere to the Programme and Advertising Code.
- Specific complaints on code violations are looked into by **an inter-**

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ministerial committee (IMC).

Rule 6 of the Cable TV Network Rules:

- It is also the **responsibility of the channel** to ensure its programmes are not violative of the programme code, laid down in Rule 6 of the Cable TV Network Rules.
- Sub-section 'c' of Rule 6 specifically mentions that programmes that contain attacks on religions or communities or visuals or words contemptuous of religious groups or which promote communal attitudes should not be carried in the cable service.

- The order is unexceptionable.
- The broadcast media are expected to conform to the Code.
- However, when such an omnibus order is passed, it could become a **tool of harassment**.
- Under the **Act, district magistrates, sub-divisional magistrates and police commissioners are the 'authorised officers' to ensure that the Programme Code is not breached.**
 - The Bengaluru Police Commissioner has also issued an order prohibiting the broadcasting of anything that breaches the Code.

Widely worded

- **Discretion of the authorised officer:** The Code, which is part of the Cable Television Network Rules, is widely worded.
 - For instance, anything that offends good taste or decency, or amounts to criticism of friendly countries, are violations.
 - It also **considers defamation, half-truths** and innuendo as potential violations.
 - In the absence of judicial orders, it may be unsafe to leave such matters to the discretion of the 'authorised officer'.
- **Public interest:** A key consideration to decide on the content of any broadcast that may be controversial is whether it touches upon any public interest.
 - In this case, it is not merely the private moment of a serving Minister, but his public conduct that is under scrutiny — for the allegation is **that he had promised a job to a woman** in exchange for sexual favours.

Is it a public or private interest?

- Of course, in the absence of any complaint from the woman, or even any

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knowledge about her. it is difficult to prove any wrongdoing.

- And not even public interest can justify a flagrant breach of privacy of anyone. or the depiction of women in a derogatory manner.
- But sections of the media may have considered that there is enough public interest to draw attention to the footage, even if they had no intention to air it.

Conclusion

- The onus is on media outlets to show discretion in dealing with such 'leaks'.
- Greater discretion may be warranted for political leaders, especially those with a record of political dishonesty, for it is difficult to blame the public if they expect the worst of them.

Source: TH

Lingaraja Temple

GS-I | 12 March, 2021

Lingaraja Temple

- Lingaraja Temple is a **Hindu temple dedicated to Shiva** and is one of the **oldest temples in Bhubaneswar**.

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- The Lingaraja temple is the largest temple in Bhubaneswar.
- The temple represents the quintessence of the **Kalinga architecture**.
- The temple is believed to be built by the kings from the **Somavamsi dynasty**, with later additions from the **Ganga rulers**.
- Lingaraj is referred to as '**Swayambhu**' – self-originated Shivling.
- Another important aspect of the temple is that it signifies the **syncretisation of Shaivism and Vaishnavism** sects in Odisha.
- Perhaps the rising cult of Lord Jagannath (considered an incarnation of Lord Vishnu) which coincided with the completion of the Lingaraja Temple had a role to play.
- The presiding deity in the Temple is known as Hari-Hara; Hari denotes Lord Vishnu and Hara meaning Lord Shiva.
- The temple is out of bounds for non-Hindus.
- The other attraction of the temple is the **Bindusagar Lake**, located in the north side of the temple.
- On the western banks of Bindusagar, lies the garden of Ekamra Van named

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after the Hindu mythological texts where Bhubaneswar the capital city of Odisha was referred as Ekamra Van or a forest of a single mango tree.

Components of Lingaraj temple

- The temple is built in the **Deula style** that has four components namely, **vimana** (structure containing the sanctum), **jagamohana** (assembly hall), **natamandira** (festival hall) and **bhoga-mandapa** (hall of offerings), each increasing in the height to its predecessor.

Other Important Monuments in Odisha

Konark Sun Temple (UNESCO World Heritage Site)
Jagannath Temple
Tara Tarini Temple
Udaygiri and Khandagiri Caves

Source: TH

National Hydrogen Energy Mission (NHEM)

GS-III | 12 March, 2021

National Hydrogen Energy Mission (NHEM)

- The Union Budget for 2021-22 has announced a National Hydrogen Energy Mission (NHEM) to draw up a road map for using hydrogen as an energy source. This initiative can transform transportation.
- NHEM initiative will capitalise on one of the most abundant elements on earth (Hydrogen) for a cleaner alternative fuel option.

About NHEM:

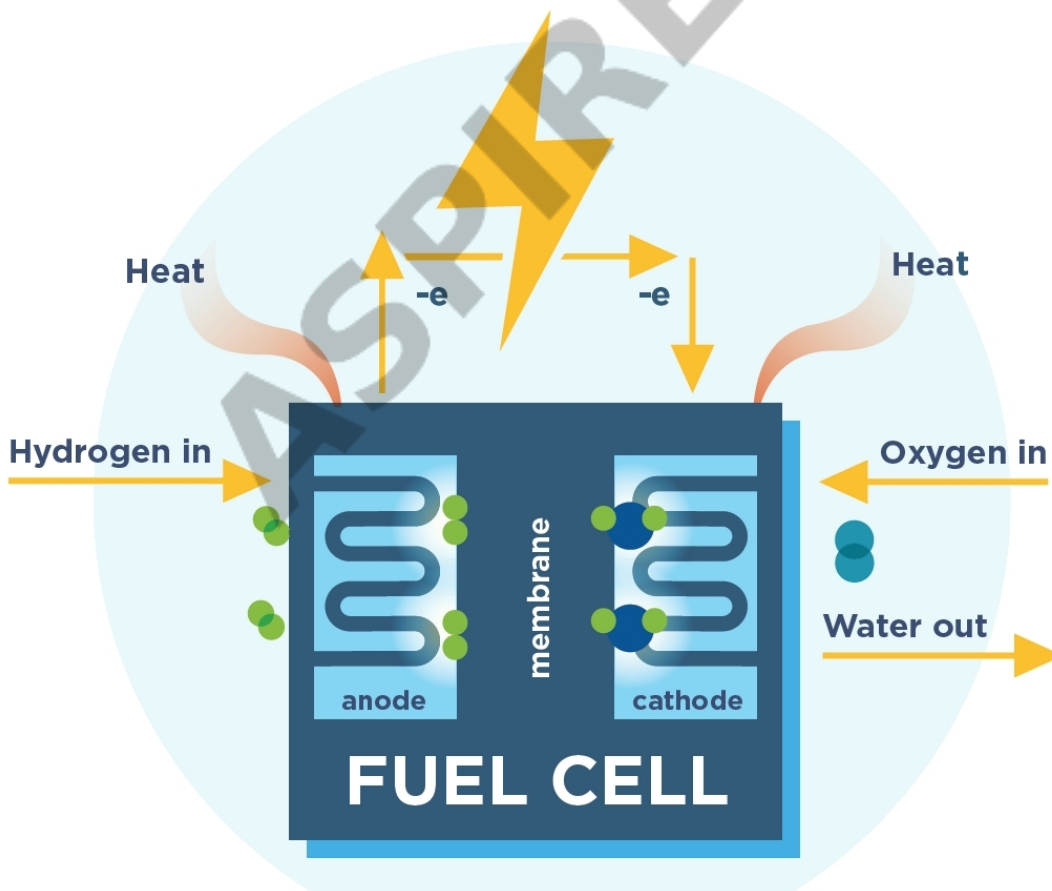
- Focus on generation of hydrogen from green power resources.
- To link India's growing renewable capacity with the hydrogen economy.
- The usage of hydrogen will not only help India in achieving its emission goals under the Paris Agreement, but will also reduce import dependency on fossil fuels.

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- India's ambitious goal of 175 GW by 2022 got an impetus in the 2021-22 budget which allocated Rs. 1500 crore for renewable energy development and NHEM.

About Hydrogen fuel:

- Hydrogen is a clean fuel that, when consumed in a fuel cell, produces only water.
- Hydrogen can be produced from a variety of domestic resources, such as natural gas, nuclear power, biomass, and renewable power like solar and wind.
- These qualities make it an attractive fuel option for transportation and electricity generation applications. It can be used in cars, in houses, for portable power, and in many more applications.
- Hydrogen is an energy carrier that can be used to store, move, and deliver energy produced from other sources.
- Today, hydrogen fuel can be produced through several methods. The most common methods today are natural gas reforming (a thermal process), and electrolysis. Other methods include solar-driven and biological processes.



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Type of Hydrogen:

Types of Hydrogen	Features
1. Grey Hydrogen	<ul style="list-style-type: none">• It constitutes India's bulk Production.• Extracted from hydrocarbons (fossil fuels, natural gas).• It's by product is CO₂
2. Blue Hydrogen	<ul style="list-style-type: none">• Sourced from fossil fuels.• It's by product is CO, CO₂• By products are Captured and Stored, so better than grey hydrogen.
3. Green Hydrogen	<ul style="list-style-type: none">• Generated from renewable energy (like Solar, Wind).• Electricity splits water into hydrogen and oxygen.• By Products : Water, Water Vapor

Source: TH

Lunar Polar Exploration mission (LUPEX)

GS-III | 12 March, 2021

Lunar Polar Exploration mission (LUPEX)

- The Lunar Polar Exploration mission (LUPEX) is a robotic lunar mission concept by Indian Space Research Organisation (ISRO) and Japan Aerospace Exploration Agency (JAXA) that would send a lunar **rover and lander** to explore the **south pole region of the Moon** in **2024**.
- JAXA is likely to provide the under-development H3 launch vehicle and the rover, while ISRO would be responsible for the lander.

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- The mission concept has not yet been formally proposed for funding and planning
- The Lunar Polar Exploration mission would demonstrate new surface exploration technologies related to vehicular transport and lunar night survival for sustainable lunar exploration in polar regions.
- For precision landing it would utilize a feature matching algorithm and navigational equipment derived from **JAXA's Smart Lander for Investigating Moon (SLIM) mission**.

Details of Rover and lander

- The lander's payload capacity would be 350 kg (770 lb) at minimum.
- The rover would carry multiple instruments by JAXA and ISRO including a drill to collect sub-surface samples from 1.5 m (4 ft 11 in) depth.
- Water prospecting and analysis are likely to be mission objectives.

Source: TH

China's dams on Brahmaputra

GS-II | 12 March, 2021

China's dams on Brahmaputra

- The 14th FYP (2021-25) of China has given the go ahead for a Chinese hydropower company to construct the first downstream hydropower project on the lower reaches of the river Brahmaputra.

About the Project:

- The state-owned hydropower company **POWERCHINA** signed a strategic cooperation agreement with the Tibet Autonomous Region (TAR) government to implement hydropower exploitation in the downstream of the Yarlung Zangbo river as part of the new Five Year Plan (2021-2025).
- This will be the **first time the downstream sections of the river will be tapped**. However, the location of the planned project has not been mentioned anywhere.

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- The Great Bend of the Brahmaputra and the Yarlung Zangbo Grand Canyon in Medog county, where the river turns sharply to flow across the border into Arunachal Pradesh could be the potential spot for the project.
- This 50 km section alone offers a potential of developing 70 million kilowatt hours (Kwh).

China's Previous dam Projects:

- In 2015, China operationalised its first hydropower project at Zangmu in Tibet, while three other dams at Dagou, Jiexu and Jiacha are being developed, all on the upper and middle reaches of the river.

Indian concerns:

- India has been expressing concerns on Brahmaputra since 2015 when China operationalised its project at Zangmu.
- A **dam at the Great Bend**, if approved, would raise fresh concerns considering its location downstream and just across the border from Arunachal Pradesh.
- For India, quantity of water is not an issue because these are run of the river dams and will not impact the Brahmaputra flow. More importantly, Brahmaputra is not entirely dependent on upstream flows and an estimated 35% of its basin is in India.
- However, India is concerned about the Chinese activities affecting the **quality of water, ecological balance and the flood management.**
- India and China **do not have a water sharing agreement.**
- Both nations share hydrological data so it becomes important to share genuine data and have continuous dialogue on issues like warning of droughts, floods and high water discharges.

Source: TH

UPSC "PT" DNA (Daily News Analysis)

Bureaucrats cannot be State Election Commissioners: SC

GS-II | 13 March, 2021

Bureaucrats cannot be State Election Commissioners: SC

- The Supreme Court on Friday held that independent persons and not bureaucrats should be appointed State Election Commissioners.
- The top court directed that the States should appoint **independent persons as Election Commissioners** all along the length and breadth of the country.

'Give up post'

- It said government employees holding the post of State Election Commissioners as additional charge should give up the post.
- The Supreme Court said its direction should be followed strictly.
- The independence of Election Commissions cannot be compromised at any cost, the Bench said, adding that it was "disturbing" to see government employees manning State Election Commissions as an **add-on job**.
- The judgment criticised the Goa government for giving its Law Secretary the additional charge of State Election Commissioner.
- **"Under the constitutional mandate, it is the duty of the State to not interfere with the functioning of the State Election Commission,"** the Bench said.

Steps To Be Taken

1. The state governments need to follow the guidelines given by the Supreme Court in **Kishan Singh Tomar vs Municipal Corporation** of Ahmedabad case:

- The provisions of Article 243K of the Constitution, which provides for setting up of SECs, are almost identical to those of Article 324 related to the ECI.
- Also, the state governments should abide by orders of the SECs during the conduct of the panchayat and municipal elections, just like they follow the instructions of the EC during Assembly and Parliament polls.

2. 2nd Administrative Reforms Commission Recommendation

- The State Election Commissioner should be **appointed by the Governor on the recommendation of a collegium**, comprising the **Chief Minister, the Speaker** of the State Legislative Assembly and the **Leader of Opposition** in the Legislative Assembly.
- An institutional mechanism should be created to bring the Election

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Commission of India and the SECs on a common platform for coordination, learning from each other's experiences and sharing of resources.

3. Law Commission 255th Report on Electoral Reforms

- It recommended, to add a **new sub-clause to Article 324** of the Constitution to provide for a **separate independent and permanent Secretariat for the ECI** along the lines of the Lok Sabha/Rajya Sabha Secretariats under Article 98 of the Constitution.
- Similar provisions can also be made for the State Election Commissions to ensure autonomy, and free and fair local body election.

Source: TH

Vapour Recovery System

GS-III | 13 March, 2021

Vapour Recovery System

Context

- **Green concern:** **Fuel stations** are a **major source of emission**, according to the National Green Tribunal.

Committee's recommendation

- A joint committee appointed by the National Green Tribunal (NGT) to study air pollution in Kerala has recommended the installation of **vapour recovery system** at fuelling stations and **retrofitting of diesel vehicles with particulate filters** to improve air quality.
- The report pointed out that **petrol refuelling stations** were a major source of **benzene emissions, volatile organic compounds, and particulate matter 2.5 concentration**.
 - Therefore, installation of vapour recovery system is an important step in improving air quality.
 - This is to be implemented in coordination with the Petroleum and Explosives Safety Organization [PESO] shortly.

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District-wise analysis

- The committee was directed to assess the ambient air quality levels in the State, especially in Thiruvananthapuram, Kollam, Kochi, Alappuzha, Kozhikode, Thrissur, Kasaragod, and Kannur.
- The panel recommended stringent action against industrial units that do not comply with emission norms.

Diesel generators

- The Pollution Control Board has already suggested retrofitting of **emission control devices** of generators and **replacing diesel generators with gas-based ones**.
- Other recommendations include **promoting battery-operated vehicles and banning old diesel vehicles** in a phased manner, **greening of open areas**, and creation of **green buffers** along traffic corridors.
- Introduction of **wet / mechanised vacuum sweeping of roads**, **controlling dust pollution at construction sites**, and ensuring **transport of construction materials in covered vehicles**.

Benzene:

- Benzene is an **organic chemical compound** with the molecular formula **C₆H₆**.
 - The benzene molecule is **composed of six carbon atoms** joined in a planar ring with one hydrogen atom attached to each.
- Benzene is a **natural constituent of crude oil** and is one of the **elementary petrochemicals**.
- Due to the cyclic continuous **pi bonds between the carbon atoms**, benzene is classed as an **aromatic hydrocarbon**.
- Benzene is a **colorless and highly flammable liquid** with a **sweet smell**, and is partially responsible for the aroma around petrol (gasoline) stations.

Health impacts of Benzene:

- Benzene works by causing cells not to work correctly.
 - For example, it can cause bone marrow not to produce enough red blood cells, which can lead to anemia.
 - Also, it can damage the immune system by changing blood levels of antibodies and causing the loss of white blood cells.
- Some women who breathed high levels of benzene for many months had **irregular menstrual periods** and a decrease in the size of their ovaries.

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- Animal studies have shown **low birth weights, delayed bone formation, and bone marrow damage** when pregnant animals breathed benzene.

What is a vapour recovery system?

- A vapour recovery system helps to collect petrol vapour released during unloading and refueling back to the petrol tanker and underground storage tank, respectively.
- A Vapor Recovery Unit (VRU) is a set-up designed to remove unwanted vapors present in crude oil or distillate tanks allowing operators to comply with prevailing emission regulations.
- VRU systems can be employed in a wide range of chemical industries with several variants available.
 - For example, a vapor recovery system for storage tanks can be used to recover vent gas from crude oil and distillate tanks at storage facilities.

Source: TH

Railway freight usage surpasses FY20 level

GS-III | 13 March, 2021

Railway freight usage surpasses FY20 level

Context

- The Railways on Friday said its freight loading for the financial year 2020-21 has already surpassed the levels achieved during the last fiscal, as of March 12, driven by transportation demand from **newer sectors such as automobiles, onion, sand and cotton**.
- In 2020-21, the Railways has till now loaded 1145.68 million tonnes (mt) of freight, marginally higher from 1145.61 mt in the previous year.

‘Emerging from deficit’

- As per the details shared by the Railways, there was a shortfall of about 50 mt in loading of coal, which comprises half of its freight, along with decline in loading of petroleum, oil and lubricants.

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- However, loading of commodities such as foodgrains, iron and steel, cement and clinker, fertilizers and other goods saw good growth.
- "The incremental loading of more than 15 mt in other goods [from 78.93 mt to over 94 mt] is indicative of **freight basket diversification**.
 - For example, in non-traditional commodities, we saw a growth of 64% in automobiles, 36% in fly ash, 57% in stone, 234% in onion, 439% in chemical salt, 274% in sand, 19% in sugar and 266% in cotton...
- With fewer passenger trains operational, Railways was able to almost double the average speed of freight trains to 44 kmph from 23.29 kmph earlier.
- A number of concessions/discounts are also being given in Indian Railways to make rail freight movement very attractive.

Source: TH

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Cyber Forensics

GS-III | 14 March, 2021

Cyber Forensics

What is Cyber Forensics or Computer Forensics?

- Computer forensics is the application of investigation and analysis techniques to gather and preserve evidence from a particular computing device in a way that is suitable for presentation in a court of law.
- Cyberforensics is an electronic discovery technique used to determine and reveal technical criminal evidence. It often involves electronic data storage extraction for legal purposes.
- Although still in its infancy, cyberforensics is gaining traction as a viable way of interpreting evidence.
- Cyberforensics is also known as computer forensics.
- The goal of computer forensics is to perform a structured investigation while maintaining a documented chain of evidence to find out exactly what happened on a computing device and who was responsible for it.

Need for Cyber Forensics

- Cyber Forensics is needed for the investigation of crime and law enforcement.
- There are cases like hacking and denial of service (DOS) attacks where the computer system is the crime scene.
- The proof of the crime will be present in the computer system.
- The proofs can be browsing history, emails, documents, etc.
- These proofs on the computer system alone can be used as evidence in the court of law to sort out allegations or to protect the innocent people from charges.

Procedures for Cyber Forensics

- Forensic investigators typically follow a **standard set of procedures**: After physically isolating the device in question to make sure it cannot be accidentally contaminated, investigators make a digital copy of the device's storage media.
- Once the original media has been copied, it is locked in a safe or other secure facility to maintain its pristine condition. All investigation is done on the digital copy.

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Here are the 7 steps about How the Cyber Forensics Experts work

1. Copying the hard drive of the system under investigation.
 2. Verification of the copied data.
 3. Ensuring the copied data is forensically sound.
 4. Deleted files recovery.
 5. Finding data in free space.
 6. Performing keyword search.
 7. The technical report.
- Investigators use a variety of techniques and proprietary software forensic applications to examine the copy, searching hidden folders and unallocated disk space for copies of deleted, encrypted, or damaged files.
 - Any evidence found on the digital copy is carefully documented in a "finding report" and verified with the original in preparation for legal proceedings that involve discovery, depositions, or actual litigation.
 - Computer forensics has become its own area of scientific expertise, with accompanying coursework and certification.

What does it cover?

- Cybercrimes cover a broad spectrum, from email scams to downloading copyrighted works for distribution, and are fueled by a desire to profit from another person's intellectual property or private information.
- Cyberforensics can readily display a digital audit trail for analysis by experts or law enforcement.
- Developers often build program applications to combat and capture online criminals; these applications are the crux of cyberforensics.

Resource Centre for Cyber Forensics (RCCF)

- Resource Centre for Cyber Forensics (RCCF) is a pioneering institute, pursuing research activities in the area of Cyber Forensics.
- The centre was dedicated to the nation by the then Honorable union minister in August 2008.

Objectives of RCCF:

- Developing indigenous Cyber Forensics tools.
- Providing training on Cyber Forensics to Law Enforcement Agencies (LEAs)
- Providing technical support to LEAs for cybercrime investigation and analysis.
- Supporting LEAs for setting up of Cyber Forensics Laboratories.

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RCCF has identified the following thrust research areas:

- Disk Forensics
- Network Forensics
- Mobile Device Forensics
- Live Forensics.
- Memory Forensics
- Multimedia Forensics
- Internet Forensics

Conclusion

People will rely on computers, for security, and there will be people who will break them. The world will need people who can stop this from happening and think as these hackers do. Therefore, the demand for security professionals will continue to rise and cyber forensics is an evergreen field.

Cyber Police in India: A Case study of Delhi

- When Inspector Vijay Gahlawat joined the Delhi Police cyber cell in 2008, it comprised a small office in Malviya Nagar with two workstations and a team of around eight officers.
- Thirteen years later, the force's cyber unit is running full throttle from its very own National Cyber Forensic Laboratory (NCFL) and catering to technical investigation requirements of cases from across the country.
- A major change came in 2011-12, when the number of workstations increased to around seven, and the office shifted to Mandir Marg, said Mr. Gahlawat.
- In 2015, Deputy Commissioner of Police (Cyber Cell) Anyesh Roy joined the unit.
- Six years ago, there was no dedicated institutional mechanism to attend to cybercrimes or even a dedicated platform to report them.
- It was still under the Economic Offences Wing of the Delhi police, Mr. Roy said, adding: "Special units like Crime Branch and Special Cell had their own cyber cells but they only concentrated on their own needs. This cyber cell was taking care of headquarter-level requirements."
- In 2019, CyPAD was inaugurated and was brought directly under the Special Cell while the Economic Offences Wing remained a separate unit.
- Mr. Roy, however, said the nature of complaints has mostly remained the same and only the platforms have changed. The **two broad categories**

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include: online harassment and online fraud. "In the last couple of years, the numbers of cases have increased under both heads, proportionally," he said.

- There are two aspects in a cybercrime investigation: **digital footprint and money trail**. The digital footprint, essentially involves investigating the platform used: the victim's device and the suspect's device.
- "When it comes to platforms like Facebook, Google, Twitter, Instagram, we have to ask them for information. The difficulty for any law enforcement agency is that most of these platforms are foreign-based private entities and it's a challenge to get information, but since 2018, the government at the highest level is following up with these platforms to ensure that they respond to these agencies," he said.
- Over the years, every district of the Capital has set up a separate cyber cell, apart from the CyPAD unit which constantly interacts with the district cyber cells.
- The police are currently using Encase, Forensic Tool Kit (FTK), Universal Forensic Extraction Device (UFED) among other tools that are able to copy, analyse, and extract deleted information from most devices.
- Citing an example, Mr. Gahlawat shared how the unit had been given a burnt and a damaged phone from a spot where a man was found murdered. "After deleted data from those phones were extracted, it turned out that the wife had killed the man," he said.
- With the current technology available with the police, data from over 40,000 types of phone can be extracted, he said. Earlier, there was no way to extract deleted information, Mr. Roy said. "The FTK existed in 2008 as well but in a very primitive form," Mr. Gahlawat said.
- Another technology the department is proud of is malware and spyware-detection tools such as FireEye, which enables them to detect if a system is being attacked for spying.
- "Previously, we did not have any technology to detect an infected or hacked system. This particular technology enables us to analyse the type of attack and where the information is being sent," Mr. Roy said.
- Since 2020, a technology that is widely being used during investigations is video and photograph enhancement.
- It has proved to be a boon in probes related to last year's communal riots. Currently, the force is using programmes called Amped Five and Kanescence for the purpose.
- Giving an example, Mr. Gahlawat said that while investigating a kidnapping case, they managed to enhance a video grab from grainy CCTV footage to

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ascertain the number plate of a motorbike. "This helped the police trace the accused and rescue the child," he said.

- At present, the Delhi police have 10 dedicated labs, including memory forensics, mobile forensics, cloud forensics, network forensics, crypto forensics, malware forensics, image and video enhancement, damaged device labs for mobile and laptops, and audio forensics where not only officials from the Information Technology cadre are working but also domain experts have been hired from outside the force.
- While the city police have come a long way from the "dark ages", they still face some challenges, including retrieving encrypted data from locked devices and issue of privacy, which "enables service providers to wash their hands off when information is asked for".
- Another major challenge is the increased use of Virtual Private Network, which makes it tough to track online activities.

Source: TH

Gregarious bamboo flowering in India

GS-III | 14 March, 2021

Gregarious bamboo flowering in India

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What is Gregarious flowering of bamboo?

- Gregarious bamboo flowering refers to the phenomenon when all populations of a particular species flower roughly at the same time.
- The bamboo plants die after flowering and setting seeds.
- Such synchronised flowering, sometimes at intervals as long as 50 to 120 years, may bring in its wake a swarm of rats, subsequent famine and loss of lives and livelihoods.

National Bamboo Mission is a subscheme of MIDH

- India has the highest area (14 million ha) under bamboo and is the 2nd richest country in diversity, after China, with 136 species (125 indigenous). Still India is a net importer of bamboo.
- Till recently, it has remained confined to the forests (12.8% of forest cover); 2/3rd located in North-Eastern States.
- In India around 16 million hectares (160,000 square km) is estimated to be under bamboo.
- As many as 125 indigenous and 11 exotic bamboo species are

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found in India. More than 50 percent of the bamboo species occur in eastern India including eight states in the northeast region.

- **Ministry:** Ministry of Agriculture & Farmers Welfare
- **Funding:** Centrally **Sponsored** with 60:40 for all States; 90:10 for NE and Hilly States and 100% for UTs.

Components:

1. Adopting area-based, regionally differentiated strategy.
2. To increase the area under bamboo cultivation. It proposes to bring about 1 lakh hectares under plantation.
3. For marketing of bamboo and bamboo products especially of handicraft items.
4. Setting up of new nurseries and strengthening of existing ones.
5. Pest management and disease management will be a major part.
6. The scheme would help in cutting down on the import of bamboo products.

Gregarious Flowering of Bamboo in Wayanad

- The "gregarious flowering of bamboo" inside the **Wayanad** Wildlife Sanctuary (WWS) and the nearby **Mudumalai** Tiger Reserve and Gudalur forest division in Tamil Nadu this year may pose a threat to wildlife in the Nilgiri biosphere, a major tiger and elephant habitat.
- The bamboo groves in the Wayanad forest are the mainstay of herbivores in the Nilgiri biosphere during summer.
- With the advent of the season, migration of wild animals starts from the adjacent sanctuaries in Karnataka and Tamil Nadu to Wayanad due to shortage of fodder and water.
- "The gregarious flowering **may adversely affect migration**, especially by elephants, wild gaur, and other lower herbivores owing to the mass destruction of bamboo groves after the flowering.
- Bamboo groves, which grow in more than 500 hectares of the 344.44 sq km of the sanctuary, have fully bloomed, a phenomenon said to occur once in the life cycle of bamboo plants.
- Moreover, pointing to a threat to wildlife as well as the ecology of the Nilgiri biosphere, it is reported that over 25% of bamboo groves in the WWS and nearby sanctuaries have bloomed since 2010, and the phenomenon is continuing.
- Thorny bamboo (*Bamboosa bambos*) is a monocarpic (flowering only once)

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plant belonging to the Poaceae family (grass family), and its flowering cycle varies from 40 to 60 years.

- Profuse natural regeneration occurs from seeds after gregarious flowering. Seeds have no dormancy, and it helps germination under favourable conditions soon after seed fall, Mr. Babu said.
- But protection from fire and grazing is essential for proper establishment of seedlings, he observed.
- Fire incidents have been comparatively low in the sanctuary for the past five years owing to summer rain and conservation measures implemented by the Forest Department.

Gregarious Flowering of Bamboo in the Northeast

- Gregarious bamboo flowering is notorious for causing famine in Mizoram and Arunachal Pradesh. A saying goes in the northeast states, "when bamboo flowers, death and destruction will follow."
- In Mizoram, which has about 31 percent of its geographical area under bamboo, the famine associated with the flowering of the bamboo species *Melocanna baccifera* (locally called 'mautak') is referred to as 'mautam' or 'bamboo death'.
- Of the over twenty species of bamboo in the state, *Melocanna baccifera* is the dominant forest resource. It is a unique bamboo that produces the largest fruits among all bamboos. It flowers once every half a century, signalling death and destruction to the locals.
- The mautak bamboo grows naturally in northeast India, as also in Nepal, Myanmar and Bangladesh and is cultivated in several gardens world over.
- There are two major reasons for the fear surrounding mautam in Mizoram, observed Shyamal Biswas of the National Centre for Disease Control, Plague Surveillance Unit, Bengaluru.
- "The bamboo clumps die after flowering after every 48 years and it takes a few years before bamboo plants produce seeds again, leaving the soil bare and exposed which is disastrous in mountainous regions. This would lead to food scarcity, since several animals depend on this plant," Biswas said.
- As the flowers bloom in synchronicity across vast swathes, hungry rats descend on them like a plague and feed on the flowers and seeds of the dying bamboo tree. Most outbreaks are usually due to rats (*Rattus* spp).
- "Because of the high nutritive value of bamboo fruits, there is a spontaneous increase in rat population. In addition, there is a drop in cannibalism [among rats] due to the availability of plenty of food during bamboo flowering.
- This leads to a multiplication in rat numbers and they feed on agricultural

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crops in the fields and granaries, leading to famine," Biswas told Mongabay-India.

- The rats not only devastate the naturally regenerating seeds and seedlings, they also reduce the regeneration rate of bamboo.

Source: TH

Sri Lanka Civil War

GS-II | 14 March, 2021

Sri Lanka Civil War

Background

- The majority of Sri Lankans are ethnic Sinhalese, a group of Indo-European peoples that had migrated to the island from northern India in the BC 500s (during Mauryan Empire).
- The Sinhalese had contacts with the Tamils who were settled in the southern part of the Indian subcontinent.
- A major migration of the Tamils occurred between the 7th and the 11th centuries CE especially during Cholas (Rajaraja Chola and Rajendra Chola).

Britishers is the historical reason for Sri Lanka Civil War?

- When the British started ruling the country in 1815, the approximate population of the Sinhalese was roughly 3 million and the Tamils numbered up to 300,000.
- Apart from the ethnicities, the two groups also differed in their religious affiliations.
- The Sinhalese were predominantly Buddhist and the Tamils were mostly Hindu.
- The British ruled over Sri Lanka from 1815 to 1948.
- During this time, they brought nearly a million Tamils to work in the coffee, tea and rubber plantations to the island-nation.
- The British also set up good educational and other infrastructure in the northern part of the country, which was where the Tamils were in a majority.
- They also favoured the Tamils in the civil service.

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- All this naturally fostered ill-feeling among the Sinhalese.

What happened after Independence?

- Sri Lanka attained independence from British on 4 February 1948.
- After attaining independence, the new government initiated many laws that discriminated against the Tamils.
- Sinhalese was declared the sole official language which effectively eliminated the Tamils from government service.
- A law was also passed which simply barred Indian Tamils from getting citizenship.
- The Tamils started demanding equal rights in their homeland. Their demands were just and their methods peaceful.
- However, ethnic tension was rising in the country and the successive Sinhalese governments did nothing to provide equal rights and opportunities to the Tamil people. They were even targets of sectarian violence.
- In 1972, the Sinhalese changed the country's name from Ceylon to Sri Lanka and made Buddhism the nation's primary religion.

Liberation Tigers of Tamil Eelam

- The LTTE (Liberation Tigers of Tamil Eelam) was formed in 1976 by Prabhakaran with the intention of acquiring a homeland for the Tamils in Sri Lanka in the north and east parts of the island.
- As ethnic tension grew, in 1976, the LTTE was formed under the leadership of Velupillai Prabhakaran, and it began to campaign for a Tamil homeland in northern and eastern Sri Lanka, where most of the island's Tamils reside.
- In 1983, the LTTE ambushed an army convoy, killing thirteen soldiers and triggering riots in which 2,500 Tamils died.
- The group first struck in July 1983 when they attacked an army patrol at Tirunelveli in Jaffna.
- 13 army men were killed which prompted violence on civilian Tamils by the majority community.
- The initial days of the LTTE were focused on fighting other Tamil factions and consolidating power as the sole representative of the Sri Lankan Tamils.
- This was achieved by 1986, the same year it captured Jaffna.
- There were many skirmishes between the government and the insurgents in which civilians were also affected. Many Tamils left their homes for the eastern part of the country.

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What happened after Independence?

- As Ethnic ties have bound southern India and Sri Lanka for more than two millennia. India is a home to more than 60 million of the world's 77 million Tamils, while about 4 million live in Sri Lanka.
- The Palk Strait, about 40 km (25 miles) wide at its narrowest point, separates the southern Indian state of Tamil Nadu and northern Sri Lanka, traditionally the main Tamil area of the Indian Ocean island.
- When war between Sri Lankan Tamils and the Sinhalese majority erupted in 1983, India took an active role.
- Indo-Sri Lankan Accord was signed in 1987 to provide a political solution to Sri Lanka's conflict.
- It proposed the establishment of provincial council system and devolution of power for nine provinces in Sri Lanka (also known as The Thirteenth Amendment).

Indian Intervention in the Sri Lankan Civil War

- Indian Peacekeeping Force (IPKF) was sent to the island in the hope of bringing about peace.
 - India deployed Indian Peace Keeping Force (IPKF) in Sri Lanka under Operation Pawan to disarm the different militant group.
 - IPKF was later withdrawn after three years amidst escalating violence.
 - In 1987, Rajiv Gandhi decided to intervene in the situation mainly because of separatism issues in Tamil Nadu and also to avoid the potential swarm of refugees from Sri Lanka to Indian shores, setting a new stage for the India-Sri Lanka relations.
 - This move proved to be a terrible disaster. Instead of negotiating a settlement between both parties, the Indian troops ended up fighting the Eelam group. About 1200 Indian men died in the war.
 - Rajiv Gandhi was also a victim of the LTTE when in 1991, he was assassinated by a human bomb at an election rally in Sriperumbudur in Tamil Nadu.
 - After the IPKF had withdrawn in 1990, the fighting continued more intensely. Sri Lankan President Premadasa was also killed by the LTTE in 1993 in a human bomb.
 - The LTTE, at its height, was a full-fledged militia with even an air force of its own. It employed women and even children in their activities.
 - The war went on with numerous counts of atrocities and brutalities perpetrated by both sides. The civilians also suffered terribly. Lakhs of people were displaced in the protracted war.
-

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- A ceasefire was declared a few times by the LTTE, only to resume fighting later. Peace talks were also held with the intervention of international actors, particularly Norway. Nothing came to any avail.

Results of the Sri Lankan Civil War

- Finally, the Rajapaksa government decided to come hard on the LTTE in an extreme offensive starting in 2007.
- There was intense fighting between the government forces and the LTTE in which thousands of civilians were caught in the line of fire.
- The government was also accused of targeting civilians and destroying entire villages.
- The violent conflict was ended in 2009 and at that point of India has agreed to reconstruct the war-torn areas and started many rehabilitation programs.
- India voted against Sri Lanka in 2009, 2012 and 2013 at the US-sponsored UNHRC resolution to investigate alleged human rights violations in Sri Lanka.
- International and United Nations observers describe the events that led to the defeat of the LTTE in 2009 as a 'bloodbath'.
- On 19th May, the president of the country declared to the parliament that the LTTE leader Prabhakaran was killed and that the war had been won by the government forces.
- Many heaved a sigh of relief as the bloody war had proved far too costly. However, there have been speculations that the army had killed many Tamil leaders after they had surrendered.
- It is suggested that in the final days of the war, about 40,000 people had lost lives. The Sri Lankan government faced a huge task of providing relief and aid to the displaced and injured. The total cost of the 26-year war is estimated to be USD 200 billion.

Source: TH

eCommerce rules in India

GS-III | 14 March, 2021

e-commerce rules in India

Definition

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- Electronic commerce or e-commerce is a business model that lets firms and individuals buy and sell things over the Internet.
- The Indian e-commerce industry has been on an upward growth trajectory and is expected to surpass the US to become the second-largest e-commerce market in the world by 2034.
- It is a type of business model, or segment of a larger business model, that enables a firm or individual to conduct business over an electronic network, typically the internet.
- e-Commerce matters were transferred to DPIIT, Ministry of Commerce and Industries in 2018. DPIIT also provides FDI rules in e-commerce.
- According to DPIIT e-Commerce means buying and selling goods and services over digital networks based on internet.
- India's e-commerce retail market is seen growing to \$200 billion a year by 2026, from \$30 billion in 2019, investment promotion agency Invest India estimates.
- They are governed by many Acts like Shop and Establishment Act, Sales of Goods Act, Companies Act, Income Tax Laws, IT Act, Competition Act, Consumer Protection Act, etc.

Types of e-Commerce in India

In India, there are three types of e-commerce business model:

- Inventory base model of e-commerce
- Marketplace base model of e-commerce
- The hybrid model of inventory based and marketplace model.

Marketplace and Inventory-Based Model

- Marketplace based model of e-commerce means providing an information technology platform by an e-commerce entity on a digital & electronic network to act as a facilitator between the buyer and seller. In a marketplace model, the e-commerce firm is not allowed to directly or indirectly influence the sale price of goods or services and is required to offer a level playing field to all vendors. Ex. Amazon, OYO etc.
- Inventory based model of e-commerce means an e-commerce activity where the inventory of goods and services is owned by e-commerce entity and is sold to the consumers directly. Ex. Big basket.

Advantages of e-Commerce

- The process of e-commerce enables sellers to come closer to customers that

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lead to increased productivity and perfect competition.

- The customer can also choose between different sellers and buy the most relevant products as per requirements, preferences, and budget. Moreover, customers now have access to virtual stores 24/7.
- e-Commerce also leads to significant transaction cost reduction for consumers.
- It provides a wider reach and reception across the global market, with minimum investments. It enables sellers to sell to a global audience and also customers to make a global choice. Geographical boundaries and challenges are eradicated/drastically reduced.
- Through direct interaction with final customers, this e-commerce process cuts the product distribution chain to a significant extent.
- A direct and transparent channel between the producer or service provider and the final customer is made.
- This way products and services that are created to cater to the individual preferences of the target audience.
- Customers can easily locate products since e-commerce can be one store set up for all the customers' business needs
- Ease of doing business: It makes starting, managing business easy and simple.
- The growth in the e-commerce sector can boost employment, increase revenues from export, increase tax collection by ex-chequers, and provide better products and services to customers in the long-term.
- The e-commerce industry has been directly impacting the micro, small & medium enterprises (MSME) in India by providing means of financing, technology and training and has a favourable cascading effect on other industries as well.

Disadvantages of e-Commerce

- There is lesser accountability on part of e-commerce companies and the product quality may or may not meet the expectations of the customers.
- It depends strongly on network connectivity and information technology. Mechanical failures can cause unpredictable effects on total processes.
- Definite legislations both domestically and internationally to regulate e-commerce transactions are still to be framed leading to lack of regulation of the sector.
- At times, there is a loss of privacy, culture or economic identity of the customer.
- There is a chance of fraudulent financial transactions and loss of sensitive financial information.

UPSC "PT" DNA (Daily News Analysis)

- The Internet is borderless with minimum regulation, and therefore protecting intellectual property rights (IPR) on the Internet is a growing concern. There are currently several significant IPR issues including misuse of trademark rights.

Government Initiatives Regarding e-Commerce in India

1) Draft National e-Commerce Policy, 2019

- In February 2019, a draft National e-Commerce policy has been prepared and placed in the public domain, which addresses six broad issues of the e-commerce ecosystem viz. e-commerce marketplaces; regulatory issues; infrastructure development; data; stimulating domestic digital economy and export promotion through e-commerce.

Data

- An Individual owns the right to his data. Therefore, data of an individual is must be used with his/ her express consent.
- Indian Control Over Data: There should be a restriction on cross-border data flow. The policy bats for data localization and states that the data generated within India must be stored within India.
- If a business entity that collects or processes any sensitive data in India and stores it abroad, should not share data with business entities outside India, for any purpose, even with customer consent.
- A request from Indian authorities to have access to all such data stored abroad shall be complied with immediately.
- All e-Commerce websites, apps available for download in India should have a registered business entity here. Non-compliant e-Commerce app/website to be denied access here.

Infrastructure development

- It stressed on developing physical infrastructure for a robust digital economy and suggested steps for developing the capacity for data storage in India.
- Incentives will be provided to companies for establishing data localization location facilities like data centers, server farms within India.
- Firms to get 3 years to comply with local data storage requirements and data storage facilities should be given 'infrastructure status'.
- Domestic alternatives to foreign-based clouds and email facilities should be promoted through budgetary support.

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e-Commerce marketplaces

- The policy mentions that foreign direct investment (FDI) is allowed only in the marketplace model, not in inventory based model.
- This is in line with the e-Commerce guidelines given by the government in December.
- The policy also takes into account the interests of domestic manufacturers and Micro, Small and medium enterprises and seeks to create a level playing field for them in online retail.
- To curbs on Chinese e-commerce exports the Gifting route (where goods are shipped as gifts), often used by Chinese apps, websites should be banned for all parcels except life-saving drugs.
- To prevent fake products, Seller details should be made available on the website for all products and sellers must provide an undertaking to the platform about the genuineness of products.

Stimulating the domestic digital economy

- There is a need to formulate domestic industrial standards for smart devices and IoT devices to meet the goals of the country like consumer protection.
- Online custom clearance will eliminate the need for manual processes and will help in ease of doing business.
- Continued focus on Digital India initiatives by the Government will help in the development of the e-Commerce sector.

Export promotion

- e-Commerce startups may get 'infant industry' status raising the limit for courier shipments from Rs 25,000 to boost e-Commerce export.
- To promote export it is necessary to lower the cost of transport, reducing paperwork, reducing delays at ports and airports etc.
- Integrating Customs, RBI and India Post to improve tracking of imports through e-Commerce.

2) New FDI rules for e-commerce

The government has issued new rules regarding Foreign Direct Investment (FDI) in e-commerce. The Department of Industrial Policy & Promotion (DIPP) issued a clarification to the existing rules pertaining to FDI in e-commerce companies.

Why New Rules?

- Large e-commerce companies such as Amazon and Flipkart, while

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not owning inventory themselves, have been providing a platform for their group companies such as CloudTail and WS Retail respectively.

- E-commerce companies with foreign investments can only operate under the marketplace model, and not under the inventory model, which has allowed them to sell products much cheaper than independent sellers.
- Some see this as skewing the playing field, especially as these vendors enjoyed special incentives from the e-commerce firm, over others.

- In India 100% FDI is permitted in B2B e-commerce, however, No FDI is permitted in B2C e-commerce. 100% FDI under automatic route is permitted in the marketplace model of e-commerce, while FDI is not permitted in inventory based model of e-commerce.
- The vendors that have any stake owned by an e-commerce company (equity stake) cannot sell their products on that e-commerce company's portal.
- Any vendor who purchases 25% or more of its inventory from an e-commerce group company will be considered to be controlled by that e-commerce company, and thereby barred from selling on its portal.
- The policy mandates that no seller can sell its products exclusively on any marketplace platform and that all vendors on the e-commerce platform should be provided services in a "fair and non-discriminatory manner".
- Services include fulfillment, logistics, warehousing, advertisement, payments, and financing among others.

Impact of DIPP Norms

- The DIPP policy is directed at protecting small vendors on e-commerce websites. It seeks to ensure small players selling on the portals are not discriminated against in favor of vendors in which e-commerce companies have a stake.
- Smaller marketplaces that do not have a stake in any vendors will also be able to now compete with the big firms. It can also boost the Start-Up India initiative of the government.

3) Other efforts by Government

- The Department of Commerce initiated an exercise and established a Think

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Tank on 'Framework for National Policy on e-Commerce' and a Task Force under it to deliberate on the challenges confronting India in the arena of the digital economy and electronic commerce (e-commerce).

- The Reserve Bank of India (RBI) has decided to allow "interoperability" among Prepaid Payment Instruments (PPIs) such as digital wallets, prepaid cash coupons and prepaid telephone top-up cards. RBI has also instructed banks and companies to make all know-your-customer (KYC)-compliant prepaid payment instruments (PPIs), like mobile wallets, interoperable amongst themselves via Unified Payments Interface (UPI).
- Government e-Marketplace (GeM) signed a Memorandum of Understanding (MoU) with Union Bank of India to facilitate a cashless, paperless and transparent payment system for an array of services in October 2019.
- The heavy investment of Government of India in rolling out the fibre network for 5G will help boost e-commerce in India
- In the Union Budget of 2018-19, the government has allocated Rs 8,000 crore (US\$ 1.24 billion) to BharatNet Project, to provide broadband services to 150,000-gram panchayats.

Conclusion

e-Commerce has become an important part of many multilateral negotiations such as Regional Comprehensive Economic Partnership (RCEP), WTO, BRICS etc. e-Commerce still faces various issues like international trade, domestic trade, competition policy, consumer protection, information technology etc. As a growing sector with huge interest from both domestic and international players, it becomes pertinent to regulate it keeping in mind the interest of both entrepreneurs and consumers. A conducive environment and a level playing field should be encouraged.

Source: TH

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Quad Virtual Summit-2021

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Quad Virtual Summit-2021

Introduction

- The virtual summit that brought together leaders of the Quadrilateral Security Dialogue, or Quad has countered the popular perception that the Quad is merely a "talk-shop".

Details of the summit

The outcomes include a **vaccine initiative** and joint working groups to cooperate on **critical technology** as well as **climate change**.

- **Vaccine Initiative:** The **vaccine initiative** comes with an ambitious deadline: **a billion vaccines by the end of 2022**, made in India with U.S. technology, **Japanese funding and Australian distribution networks** to reach as many Indo-Pacific countries as possible.
 - **Emission reduction:** The four Quad countries will ensure **emissions reduction based on the Paris accord** as well as cooperate on technology supply chains, 5G networks, and biotechnology.
 - **Open Indo-Pacific region:** Mr. Biden, who hosted the summit, managed some powerful atmospherics, by coordinating a joint statement — and a first — called "**The Spirit of the Quad**", and a joint article by the four leaders that committed to an open Indo-Pacific "**free from coercion**".
 - **Views of USA:** For Mr. Biden, the early push for the Quad engagement is part of his promise that "**America is back**" in terms of **global leadership, reaffirming regional alliances**, and taking on the growing challenge from China.
 - **Views of Australia and Japan:** For similar reasons, and due to **maritime tensions with China**, trade and telecommunication issues, Australia and Japan are keen on taking the Quad partnership to deeper levels of cooperation.
 - **Views of India:** For India, the new terms of the Quad will mean more **strategic support after a tense year at the LAC**, as also a **boost for its pharmaceutical prowess, opportunities for technology** partnerships, and more avenues for **regional cooperation** on development projects and financing infrastructure, especially in South Asia, where China has taken the
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lead.

China and the Quad nations

- It would be a mistake, however, to portray the Quad summit as a "throwing down of the gauntlet" to China.
- The new **U.S. government** is still exploring its own relationship with China; its first engagement with **Beijing's top diplomats** is in Alaska, on Thursday.
- For **Japan and Australia**, **China remains the biggest trading partner**, a relationship that will only grow once the 15-nation RCEP kicks in.
- **India**, given its own ties with China, sensitivities over ongoing LAC disengagement talks, and its other multilateral commitments at the **BRICS and SCO groupings**, also displayed caution in the Quad engagement, keeping the conversation focused on what Mr. Modi called making the **Quad a "force for global good"** rather than pushing plans for a militaristic coalition.
- In that sense, the Quad's new "summit avatar" has given India yet another string to its bow, broadening India's interests on its geopolitical horizons even further.

Source: TH

Prime Minister Atmanirbhar Swasth Bharat Yojana (PMASBY)

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Prime Minister Atmanirbhar Swasth Bharat Yojana (PMASBY)

In the Budget speech of FY 21-22, 'Prime Minister Atmanirbhar Swasth Bharat Yojana' (PMASBY) scheme has been announced on 1st February, 2021, with an outlay of about Rs.64,180 Cr over six years (till FY 25-26). This will be **in addition to the National Health Mission**.

The main interventions under the scheme to be achieved by FY 25-26 are:

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- Support for 17,788 rural Health and Wellness Centres in 10 High Focus States
- Establishing 11,024 urban Health and Wellness Centres in all the States.
- Setting up of Integrated Public Health Labs in all districts and 3382 Block Public Health Units in 11 High Focus states;
- Establishing Critical Care Hospital Blocks in 602 districts and 12 Central Institutions;
- Strengthening of the National Centre for Disease Control (NCDC), its 5 regional branches and 20 metropolitan health surveillance units;
- Expansion of the Integrated Health Information Portal to all States/UTs to connect all public health labs;
- vii. Operationalisation of 17 new Public Health Units and strengthening of 33 existing Public Health Units at Points of Entry, that is at 32 Airports, 11 Seaports and 7 landcrossings;
- Setting up of 15 Health Emergency Operation Centres and 2 mobile hospitals; and
- Setting up of a national institution for One Health, a Regional Research Platform for WHO South East Asia Region, 9 Bio-Safety Level III laboratories and 4 regional National Institutes for Virology.
- The measures under the scheme focus on developing capacities of health systems and institutions across the continuum of care at all levels viz. primary, secondary and tertiary and on preparing health systems in responding effectively to the current and future pandemics/disasters.
- The PMASBY targets to build an IT enabled disease surveillance system by developing a network of surveillance laboratories at block, district, regional and national levels, in Metropolitan areas & strengthening health units at the Points of Entry, for effectively detecting, investigating, preventing and combating Public Health Emergencies and Disease Outbreaks.
- Increased investments are also targeted to support research on COVID-19 and other infectious diseases, including biomedical research to generate evidence to inform short-term and medium-term response to COVID-19 like pandemics and to develop core capacity to deliver the One Health Approach to prevent, detect, and respond to infectious disease outbreaks in animals and humans.
- National Health Policy (NHP), 2017 envisages raising public health expenditure from the existing 1.15% to 2.5% of GDP by 2025 in a time bound manner.

Source: PIB

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State Election Commission-recent Supreme Court ruling on its autonomy

GS-II | 16 March, 2021

State Election Commission-recent Supreme Court ruling on its autonomy

Introduction

- This article discusses about the inadequate devolution of powers to urban and rural local bodies as a self-contained third tier of governance.

Poor conduction of fair elections at the local level

- The manner in which their representatives are elected is often beset by **controversies**.
- **Local polls** are often marred by **violence**, and **charges of arbitrary delimitation and reservation of wards**.

Need for an independent and autonomous State Election Commission (SEC)

- A key factor in any local body polls being conducted in a free and fair manner is the extent to which the **State Election Commissioner**, the authority that supervises the elections, **is independent and autonomous**.

Decline in the confidence on State Election Commissioner

- Unfortunately, **most regimes in the States appoint senior bureaucrats** from among their favourites to this office.
- In practice, SECs frequently face charges of being partisan.
- Routine exercises such as **delimiting wards**, **rotating the wards** reserved for women and Scheduled Castes and fixing dates for the elections become mired in controversy as a result, as the Opposition tends to believe that the exercise is being done with the ruling party's interest in mind.
- Even though this cannot be generalised in respect of all States and all those manning the position, it is **undeniable that SECs** do not seem to **enjoy the confidence of political parties** and the public to the same extent as the Election Commission of India as far as their independence is concerned.

Supreme Court's judgement

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- It is in this backdrop that the Supreme Court's judgment declaring that a State Election Commissioner should be someone completely independent of the State government acquires salience.
- It has described the **Goa government's** action in asking its Law Secretary to hold additional charge as SEC as a "mockery of the Constitutional mandate".
- By invoking its extraordinary power under **Article 142** of the Constitution, the Court has asked **all SECs** who are under the direct **control of the respective State governments to step down from their posts.**

In Practice

- In practice, most States **appoint retired bureaucrats as SECs.**
- Whether the apex court's decision would have a bearing on those who are no more serving State governments remains to be seen.
- More significantly, the Court has boosted the power of the election watchdog by holding that it is open to the SECs to countermand any infractions of the law made by the State government in the course of preparing for local body polls.

Way forward

- However, it is clear that these governments will now have to find a way to appoint to the office only those who are truly independent and not beholden to it in any manner.
- The verdict will help secure the independence of SECs in the future.

Source: TH

Stages of Communalism

GS-I | 16 March, 2021

Stages of Communalism

What is communalism?

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- Bipan Chandra, in his book, "Communalism in Modern India", defines as ***"Communalism is an ideology based on the belief that Indian society is divided into religious communities, whose economic, political, social and cultural interests diverge and are even hostile to each other because of their religious differences."***

3 stages of communalism

- In this context, it is important to be aware of the three important phrases which the great historian, Bipan Chandra, mentioned in his book, "Communalism in Modern India".

1. First Stage-Communal Consciousness

- The 1st stage of communalism, according to Bipan Chandra, originated mainly in the second half of the 19th Century, due to the social religious reform movement.
- If we closely look at the social religious reform movement- this was not aimed against a particular community.
- Most of these reform movements were brought about to bring certain positive changes in their respective communities.
- This '**communal consciousness**' can be explained through the basis of the below example. When a Hindu begins to think of himself as 'Hindu' and a Christian begins to think of himself as 'Christian'.
- When a peasant for example starts recognizing himself as a 'peasant', or a worker in a mill starts recognizing himself as a 'mill-worker', then this is referred to as the beginning of a '**class consciousness**'.

2. Second Stage-Liberal Communalism

- This stage is marked by the development where a particular group of people or community starts **believing that their political, economical, social and religious interests are different** from the other community.

3. Third Stage- Extreme Communalism

- The third stage of communalism is when a group of people, start believing that their interests are not only divergent but also begin to clash, or are contradictory.
- It is this that **leads to violence**.

Thus the 2nd stage is the result of the 1st stage of communalism, and the 3rd, the

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result of the 2nd stage of communalism, according to Bipan Chandra.

Source: TH

National Capital Territory of Delhi Bill, 2021

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National Capital Territory of Delhi Bill, 2021

New rules of the game

Salient provisions in the Government of National Capital Territory of Delhi (Amendment) Bill, 2021

- The expression "Government" referred to in any law to be made by the Legislative Assembly shall mean the Lieutenant-Governor

- The Assembly shall not make any rule to enable itself or its committees to consider the matters of day-to-day administration of the Capital or conduct inquiries in relation to administrative decisions



Arvind Kejriwal and Anil Bajjal



GOVERNOR

- Before taking any executive action in pursuance of the decision of the Council of Ministers or a Minister, to exercise powers of government, State government, appropriate government, Lieutenant-Governor, administrator or Chief Commissioner, as the case may be, under any law in force in the Capital, the opinion of the Lieutenant-Governor in term of proviso to Clause (4) of Article 239AA of the Constitution shall be obtained on all such matters as may be specified, by a general or special order, by the Lieutenant-Governor

- When a Bill is passed by the Assembly, it shall be presented to the Lieutenant-Governor for his assent. He shall either approve the Bill or withhold it or he may reserve the Bill for the President's consideration

- All executive action of the Lieutenant-Governor whether taken on the advice of his Ministers or otherwise shall be expressed to be taken in the name of the Lieutenant Governor.

SOURCE: THE GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI (AMENDMENT) BILL, 2021

UPSC "PT" DNA (Daily News Analysis)

- The Ministry of Home Affairs (MHA) moved a Bill in the Lok Sabha on Monday in which it proposed that the **"government" in the National Capital Territory of Delhi meant the Lieutenant-Governor of Delhi.**
- The Bill proposes to amend Sections 21, 24, 33 and 44 of the 1991 Act.
- The Bill gives **discretionary powers to the L-G** even in matters where the Legislative Assembly of Delhi is empowered to make laws.
- The proposed legislation also seeks to ensure that the L-G is **"necessarily granted an opportunity" to give her or his opinion** before any decision taken by the Council of Ministers (or the Delhi Cabinet) is implemented.
- **Section 44 of the 1991 Act** says that all executive actions of the L-G, whether taken on the advice of his Ministers or otherwise, shall be expressed to be taken in the name of the L-G.
- The MHA's statement on "objects and reasons" of the Bill stated that Section 44 of the 1991 Act deals with conduct of business and there is no structural mechanism for effective time-bound implementation of the said section. "Further, there is no clarity as to what proposal or matters are required to be submitted to Lieutenant-Governor before issuing order thereon," the statement said.

What is there in Constitution of India?

- Delhi is a Union Territory with a legislature and it came into being in 1991 under Article 239AA of the Constitution inserted by the Constitution (Sixty-ninth Amendment) Act, 1991.
- As per the existing Act, the Legislative Assembly has the power to make laws in all matters except public order, police and land.
- Three decades after it was enacted, significant amendments have been proposed to the Government of National Capital Territory of Delhi Act, 1991, bringing contradictions between the Central and Delhi governments to the fore once again.
- The Aam Aadmi Party-led Delhi government has on many occasions challenged the BJP-ruled Centre regarding administrative matters in the National Capital.

Analysis of NCT (Amendment) Bill, 2021

- While some were of the opinion that the new Bill will seek to render the office of the Chief Minister a vestigial organ in the name of simplifying

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administration, others argued that the amendments will iron out "needless" issues arising out of politics in a city where the Lieutenant-Governor had "always been the government".

- Senior advocate at the Supreme Court Rebecca John said the Bill would snatch away from the residents of Delhi the accountability and answerability they sought from the elected representatives and hand them to a nominated official.
- Professor Pradip Kumar Datta, an independent academic formerly associated with JNU, said the Bill seemed to go against the federal principles and was a setback for popular representation. "Centralisation has been increasing in both formal and informal ways after this government came to power at the Centre. This [Bill] will seemingly just speed up the pace of centralisation of power," he said.
- S.K. Sharma, a constitutional expert said the two governments — the Centre and the Delhi government — were not concurrent. The first one is the actual government while the other falls under the definition of what B.R. Ambedkar called local administration.

Source: TH

Paramparagat Krishi Vikas Yojana

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Paramparagat Krishi Vikas Yojana

1. It was started in 2015 under Ministry of Agriculture and Farmers Welfare. It is a sub component of Soil Health Management under National Mission on Sustainable Agriculture.
2. MP has largest area under Organic certification followed by Rajasthan, Maharashtra and UP.

Features of PKVY

3. Produce Agri products free from chemicals and pesticides.
4. Cluster approach in img production, quality assurance and value addition.
 - For more than 50 farmers. Total area = 50 acre (20 ha).
 - It is for 3 years.

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- Farmers will get Rs. 20000 per acre.
- The amount covers all expenses.
- 5. Out of total farmers in clusters
 - 65% should be Small and Marginal Farmers.
 - Atleast 30% Budget to women
- 6. It includes Direct Marketing through innovative means.
- 7. Participatory Guarantee Systems provides certification to organic products.

Bhartiya Prakritik Krishi Padhati (BPKP),

- Bhartiya Prakritik Krishi Padhati (BPKP), is introduced as a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 for the promotion of traditional indigenous practices including natural farming.
- The scheme mainly emphasises on
 1. exclusion of all synthetic chemical imgs and promotes on-farm biomass recycling with major stress on biomass mulching;
 2. use of cow dung-urine formulations;
 3. plant based preparations and
 4. time to time working of soil for aeration.
- Under BPKP, financial assistance of Rs 12200/ha for 3 years is provided for cluster formation, capacity building and continuous handholding by trained personnel, certification and residue analysis.

Source: PIB

AstraZeneca- Reports of blood clots

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AstraZeneca- Reports of blood clots

Data of global Covid-19 vaccination

- A little over 392 million doses of vaccine have been administered globally, according to the **Bloomberg Vaccine Tracker**, with **India accounting for around 9%** of them.

Reports of blood clot

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- In the last week, there have been a flurry of **reports from Europe**, of blood clots developing in a very small fraction of those vaccinated and leading to a cascade of European countries announcing a **temporary halt** to their **vaccination programmes involving the AstraZeneca (AZ) vaccine**.
- WHO and the European Medicines Agency have underlined that there is no causal link between vaccines and the occurrence of such clots.
- In fact, there are less than 40 such occurrences reported so far, and that is much below the background of about 1,000 to 2,000 blood clots every single day in the general population, say studies based on the U.S. population.

Note:

- By far the largest user of the AstraZeneca vaccine is India. India is using two vaccines -- the **AstraZeneca (a.k.a COVISHIELD)** shot made by Serum Institute of India, and another one by Indian vaccine maker Bharat Biotech (**COVAXIN/PFIZER**) -- to immunize its vast population

- These organisations advocate that the ongoing vaccination drives continue, even accelerate, as the rate of vaccination is not keeping pace with what is required to control the pandemic.

Issues with the approved Covid vaccines

- The AZ, Pfizer and Moderna vaccines have been released under emergency use authorisations, meaning that the entire profile of risks associated with them have not been thoroughly studied.
- History is replete with instances of vaccines that have been taken off even years after approval after a slight increase in untoward complications.
- As of now, the risk of dying from serious COVID-19 far outweighs that from vaccine reactions and it is such a calculation that weighs on the minds of regulators before approving vaccines.
- Unlike drugs administered to the sick, vaccines have a higher bar of proving themselves safe as they are given to the healthy.
- Regulators of all countries rely on the experiences of others, as exemplified in India alone where it was AZ trials in the United Kingdom that paved the way for approval in India.
- Therefore, a warning in one country must immediately activate the sensors in another.
- India has a long experience with vaccinations as well as expertise in

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evaluating risk; however, transparency and prompt data sharing, thereby building public trust, is not one of its strong suits.

- This was evidenced by the approval of vaccines in spite of scant efficacy data.
- There is almost no information by the **National Committee on Adverse Events Following Immunisation** on the nature of serious adverse events following immunisation.
 - This is in contrast to the frequent analyses shared by organisations such as the U.S. Centre for Disease Control and Prevention on adverse events.

Way ahead

- Public trust is a key ingredient to successful vaccination programmes and this can be only earned by the government's zealous attention to allaying concerns.

What is Vaccination hesitancy ?

- Refers to delay in acceptance or refusal of vaccines despite availability of vaccine services.
- Is complex and context specific varying across time, place and vaccines.
- Is influenced by factors such as **complacency, convenience and confidence.**

Source: TH

Project RE-HAB-National Honey Mission

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Project RE-HAB-National Honey Mission

- An initiative of the **Khadi and Village Industries Commission (KVIC)**,

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Project RE-HAB (Reducing Elephant-Human Attacks using Bees) intends to create "bee fences" to thwart elephant attacks in human habitations using honeybees.



- Project RE-HAB is a sub-mission of **KVIC's National Honey Mission**.
- That is how the authorities intend to **mitigate human-elephant conflict** that seems to continue unabated in **Kodagu** and other parts of south Karnataka region.
- A pilot project launched in Kodagu entails installing bee boxes along the periphery of the forest and the villages with the belief that the elephants will not venture anywhere close to the bees and thus avoid transgressing into human landscape.
- This idea stems from the **elephants' proven fear of the bees**.
- These spots are located on the periphery of Nagarahole National Park and Tiger Reserve, known conflict zones.
- The **boxes are connected with a string** so that when elephants attempt to pass through, a tug causes the bees to swarm the elephant herds and dissuade them from progressing further.
- Bee boxes have been placed on the **ground as well as hung from the**

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trees.

- High resolution, night vision cameras have been installed at strategic points to record the impact of bees on elephants and their behaviour in these zones.

Data of human fatalities

- Between 2015 and 2020, nearly 2,500 people have lost their lives in elephant attacks across India out of which about 170 human fatalities have been reported in Karnataka alone, according to KVIC.

Source: TH

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Medical Termination of Pregnancy Bill 2020 passed in Rajya Sabha

GS-I | 17 March, 2021

Medical Termination of Pregnancy Bill 2020

What is the news?

- The Rajya Sabha on Tuesday passed the Medical Termination of Pregnancy (Amendment) Bill, 2020 that increases the time period within which an abortion may be carried out.
- Opposition MPs said the Bill still did not give women the freedom to decide, since they would need a nod from a medical board in the case of pregnancies beyond 24 weeks.
- Currently, abortion requires the opinion of one doctor if it is done within 12 weeks of conception, and two doctors if it is done between 12 and 20 weeks. The Bill allows abortion to be done on the advice of one doctor up to 20 weeks, and two doctors in the case of certain categories of women, between 20 and 24 weeks.
- For a pregnancy to be terminated after 24 weeks in case of substantial foetal abnormalities, the opinion of the State-level medical board is essential.

Medical Termination of Pregnancy Bill 2020 or Abortion Law

- It is related to abortion, procedures and conditions of abortion.
- India does not allow free abortions, only when there is a risk of life or substantial abnormalities of child. Hence certification of Medical practitioner.

Amendments to MTP Act, 1971

- It seeks to enhance the upper gestation period from 20 to 24 weeks for special categories of women that will be defined. Extension is important as in 1st 5 months of pregnancy, some women realise the need to abort very late.
- Usually foetal anatomy scan is done during 20-21st week of pregnancy.
- It will include vulnerable women including survivor of rape, victims of incest.

Difference between 1971 Act and 2020 Bill

- 1971 Act allowed termination of pregnancy for 20 weeks. But 2020 Bill says 24 weeks.
- If substantial physical and mental injury to child, or if pregnancy risks or is a

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grave injury to life of mother, then she can abort.

- If the termination is for < 12 weeks then 1 Medical practitioner's permission is required. If it is in between 12 to 24 weeks, 2 Medical practitioners. If > 24 weeks then Medical Board's permission is needed.
- According to Section 3(2); Abortion extended to only failure of married women or husband. This is replaced by "A woman and her partner".
- Her identity should not be disclose except to a person who is authorised by the law. If it is breached then penalty of 1 year or fine or both.
- MTP Act divides the regulatory framework for allowing abortions into categories, according to Gestational age of foetus.

Issues in 1971 Act:

- Reports show that > 10 women die everyday due to unsafe abortions in India and backward abortion laws only contribute to weomen seeking illegal and unsafe options.
- In 2008, a petition was filed by Haresh and Niketa.= Mehta to abort in 22 week.
- High Court does not provide women in final say unlike 67 countries where women can get an abortion on request with or without a specific gestation limit (usually 12 weeks).
- Prejudice against unmarried women - According to Section 3 (2) pregnancy because of failure of any birth control device
- Issue is that some child's abnormalities is found > 20 weeks.

Still there are issues in 2020 Bill

- It does not allow abortion on request at any point after pregnancy.
- It does not take a step towards removing the prejudice against unmarried women.
- It enhances the gestation limit from 20 to only 24 weeks in certain cases of women like rape survivors, victims of incest and minors.
- The question of abortion needs to be decided on the basis of human rights. In the landmark, US SC judgement Roe vs Wade, the judges held that US constitution protects a women's right to terminate her pregnancy. Ultimately nations will have to decide the outer limit also based on the capacity of their health systems to deliver based on the capacity of their health systems to deliver care without danger to life of mother, there is no uniform gestation viability for abortion.

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Source: TH

U.K. turns to Indo – Pacific in post-Brexit foreign policy

GS-II | 17 March, 2021

U.K. turns to Indo – Pacific in post-Brexit foreign policy

What is Indo Pacific?

- The term Indo Pacific was first time used by Shinzo Abe Japan 2007.
- The "Indo-Pacific" idea was originally conceived in 2006- 07.
- One of the reasons behind the popularity of this term is an understanding that the Indian Ocean and the Pacific are a linked strategic theater.
- Also, the centre of gravity has shifted to Asia. The reason being maritime routes, the Indian Ocean and the Pacific provide the sea lanes. Majority of the world's trade passes through these oceans.
- There was a time before the cold war when the centre of gravity of the universe was across the Atlantic i.e. trade was actually transiting from the Atlantic but now it has shifted.
- The earlier term used to be Asia-Pacific, from which India was excluded.
- This term was prevalent during the cold war time.
- The shift to the term 'Indo-Pacific' shows the salience of India in the new construct.
- Terrorism and the fear of assertion by a particular country in the region are major threats to the Indo-Pacific region.

What are the regions under Indo-Pacific region?

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- The term 'Indo-Pacific' combines the Indian Ocean Region (IOR) and the Western Pacific Region (WP) – inclusive of the contiguous seas off East Asia and Southeast Asia – into a singular regional construct.
- The Indo-Pacific region includes world's four big economies: USA, China, Japan and India.
- The term 'Indo-Pacific' is interpreted differently by different stakeholders.
- India considers the region as an inclusive, open, integrated and balanced space.
- India continuously emphasises on strategic inter-connections, common challenges and opportunities between the Indian Ocean and the Pacific.
- The U.S. considers it to be a free and open Indo-Pacific, highlighting the importance of rules or norms of conduct in the region, thus trying to contain the role of China in the region.
- The ASEAN countries look at Indo-Pacific as a consociational model, thus bringing in China not only for the sake of giving it some stakeholdership but

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- looking for ways to cooperate with it in the region.
- Britain wants to expand its influence among countries in the Indo-Pacific region to try to moderate China's global dominance, a document laying out post-Brexit foreign and defence policy priorities said on Tuesday.
 - The document sets out a planned increase of Britain's nuclear warhead stockpile by more than 40% to weigh against evolving global security threats, and underlines the importance of strong ties with the U.S. while naming Russia as the top regional threat.
 - Britain's biggest foreign and defence policy review since the end of the Cold War sets out how Prime Minister Boris Johnson wants to be at the forefront of a reinvigorated, rules-based international order based on cooperation and free trade.
 - Calling the Indo-Pacific "increasingly the geopolitical centre of the world", the government highlighted a planned British aircraft carrier deployment to the region.
 - "China and the U.K. both benefit from bilateral trade and investment, but China also presents the biggest state-based threat to the U.K.'s economic security," the report said.
 - Britain, the world's sixth-largest economy, is dwarfed economically and militarily by China, but believes through soft power and strategic alliances it can help persuade Beijing to play by the rules of a new, more dynamic international system.
 - Foreign Secretary Dominic Raab said U.K.'s attempts to influence Beijing had been marginal so far, saying it was better acting "in concert with clusters of like-minded countries... to have the maximum and moderating impact on China."

Significance of Indo-Pacific for India

1. Natural resources, Market potential, Northeast States, Blue Economy aspirations, Freedom of navigation, counter China.
2. It will provide a role of Net security provider and security architecture.
3. Help in Act East Asia Policy, multilateral groupings, role of ports.
4. This is a shift from Asia-Pacific (including Northeast Asia, Southeast Asia and Oceania) where India was included as in APEC. India is still outside APEC.

India's Vision for Indo-Pacific in the Shangri La Dialogue

1. India embraced the concept of Indo-Pacific and said India stands for a free, open, inclusive region.
2. It includes all nations in this geography as also others beyond who have a

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stake in it.

3. Southeast Asia is at its Centre. And ASEAN is central to its future.
4. Evolve, through dialogue, a common rules-based order for the region. These rules and norms should be based on the consent of all, not on the power of the few.
5. Rather than growing protectionism, India seeks for a level playing field for all. India stands for open and stable international trade regime.
6. Connectivity is vital and India is doing its part, by itself and in partnership with others like Japan – in South Asia and Southeast Asia, in the Indian Ocean, Africa, West Asia and beyond.
7. India's view can be summarized into five S in Hindi: Samman (respect); Samvad (dialogue); Sahyog (cooperation), Shanti (peace), and Samridhi (prosperity).

India's role in Indo Pacific: India's goal is to

1. Seek a climate of trust and transparency.
2. Respect for international maritime rules and norms by all the countries.
3. Sensitivity to each other's interests.
4. Peaceful resolution of maritime security issues.
5. Increase in maritime cooperation.

India's Initiatives

1. Defence Exercises, Strategic Partnership with countries.
2. Forum of India-Pacific Islands Cooperation.
3. Asia- Africa Growth Corridor.
4. SAGAR Approach and Project MAUSAM.
5. Quad-plus- where India, Japan, Australia, U.S. and countries of ASEAN are collaborating.

Source: TH

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The Coalition for Disaster Resilient Infrastructure (CDRI)

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The Coalition for Disaster Resilient Infrastructure (CDRI)

Background

- The idea behind the CDRI was announced by Mr Modi in 2016 at the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR).
- The CDRI was launched by Prime Minister Modi in September **2019** at the UN Climate Action Summit.
- There, he declared India's intention to work with partner countries and important stakeholders to create a coalition to work towards the ambition of improving the disaster resilience of infrastructure.

What is CDRI?

- The Coalition for Disaster Resilient Infrastructure (CDRI) is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions.
- Its Secretariat is in New Delhi.
- It is a platform for knowledge generation and exchange and will also develop country-specific as well as global plans.
- CDRI will give member countries technical support and capacity development, research and knowledge management, and advocacy and partnerships to enable and boost investment in disaster-resilient infrastructure systems.
- It aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development.
- CDRI promotes rapid development of resilient infrastructure to respond to the Sustainable Development Goals' imperatives of expanding universal access to basic services, enabling prosperity and decent work.

The following are CDRI's strategic priorities:

- Technical Support and Capacity-building: This includes disaster response and recovery support; innovation, institutional and community capacity-building assistance; and standards and certification.
- Research and Knowledge Management: This includes collaborative research; global flagship reports; and a global database of infrastructure and sector

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resilience.

- Advocacy and Partnerships: This includes global events and initiatives; marketplace of knowledge financing and implementation agencies; and dissemination of knowledge products.

CDRI Funding

- A major part of the funding required to cover costs for the first five years has been provided by India.
- The members are not obliged to make any financial contributions to the coalition.
- However, they can voluntarily contribute financially or in other ways such as assigning experts to the CDRI Secretariat, hosting meetings and workshops and travel support.

Members of CDRI

- Afghanistan, Australia, Argentina, Bhutan, Chili, Fiji, France, Germany, India, Italy, Jamaica, Japan, Maldives, Mauritius, Mongolia, Nepal, Netherlands, Peru, Sri Lanka, Turkey, United Kingdom and United States of America.
- **Partner organisations of the CDRI:** Asian Development Bank (ADB), World Bank Group, United Nations Development Programme (UNDP), United Nations Office for Disaster Risk Reduction (UNDRR), ARISE, The Private Sector Alliance for Disaster Resilient Societies and Coalition for Climate Resilient Investment.

Source: PIB

What is Agro Forestry?

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What is Agro Forestry?

Agroforestry is a collective name for land-use systems involving trees combined with crops and/or animals on the same unit of land. It combines

1. Production of multiple outputs with protection of the resource base;

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2. Places emphasis on the use of multiple indigenous trees and shrubs;
3. Particularly suitable for low-irrigation conditions and fragile environments;
4. It involves the interplay of socio-cultural values more than in most other land-use systems; and
5. It is structurally and functionally more complex than monoculture.

Definition

1. Agroforestry is any sustainable land-use system that maintains or increases total yields by combining food crops (annuals) with tree crops (perennials) and/or livestock on the same unit of land, either alternately or at the same time, using management practices that suit the social and cultural characteristics of the local people and the economic and ecological conditions of the area.
2. Agroforestry is a collective name for a land-use system and technology whereby woody perennials are deliberately used on the same land management unit as agricultural crops and/or animals in some form of spatial arrangement or temporal sequence. In an agroforestry system there are both ecological and economical interactions between the various components.

Difference with Social Forestry

- Social forestry is defined as "Forestry outside the conventional forests which primarily aim at providing continuous flow of goods and services for the benefit of people. This definition implies that the production of forest goods for the needs of the local people is Social forestry. Thus, social forestry aims at growing forests of the choice of the local population.
- Shah (1985) stated that Conceptually Social forestry deals with poor people to produce goods such as fuel, fodder etc. to meet the needs of the local community particularly underprivileged section.

BENEFITS OF AGROFORESTRY SYSTEM

A) Environmental benefits

- i. Reduction of pressure on natural forests.
1. ii More efficient recycling of nutrients by deep rooted trees on the site
 - ii. Better protection of ecological systems
 - iii. Reduction of surface run-off, nutrient leaching and soil erosion through impeding effect of tree roots and stems on these processes
 - iv. Improvement of microclimate, such as lowering of soil surface temperature and reduction of evaporation of soil moisture through a

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- combination of mulching and shading
- v. Increment in soil nutrients through addition and decomposition of litterfall.
 - vi. Improvement of soil structure through the constant addition of organic matter from decomposed litter.

B) Economic benefits

- Increment in an outputs of food, fuel wood , fodder, fertiliser and timber;
- Reduction in incidence of total crop failure, which is common to single cropping or monoculture systems
- Increase in levels of farm income due to improved and sustained productivity

C) Social benefits

- Improvement in rural living standards from sustained employment and higher income
- Improvement in nutrition and health due to increased quality and diversity of food outputs
- Stabilization and improvement of communities through elimination of the need to shift sites of farm activities.

Sub Mission on Agroforestry (Har Medh Par Ped) Scheme

- Sub-Mission on Agroforestry (Har Medh Par Ped) Scheme was launched in 2016-17 to encourage tree plantation on farm land along with crops/ cropping system to help the farmers get additional income and make their farming systems more climate resilient and adaptive.
- The scheme is being implemented in 20 States viz. Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, M.P., Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, U.P., Mizoram, Meghalaya, Nagaland and 2 UTs viz. J&K and Ladakh with funding pattern of 60:40 between Centre and State Govt. for all States excepting NE & Hilly states, where it is 90:10 and 100% in case of UTs & National Level Agencies.
- Under the scheme, assistance to farmers is given through State Govt. for nursery development, boundary plantation and block plantation of prominent tree species to promote, inter-alia, fruits bearing tree borne oilseeds, medicinal & aromatic plants, silk & lac rearing host plants, in addition to timber species, so that farmers get early returns.
- In case of promotion of horticulture and orchards, the Mission for Integrated Development of Horticulture (MIDH), a Centrally **Sponsored** Scheme is

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being implemented w.e.f. 2014-15, for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. All States and UTs are covered under MIDH.

Source: PIB

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Interlinking of River Projects

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Interlinking of River Projects

- The project of inter-linking of rivers was first proposed in the 1970s.
- The **National Perspective Plan (NPP)** was prepared by the then Ministry of Irrigation (now Ministry of Jal Shakti) in **August 1980** for water resources development through inter basin transfer of water, for transferring water from water surplus basins to water-deficit basins.
- Under the NPP, the National Water Development Agency (NWDA) has identified **30 links (16 under Peninsular Component and 14 under Himalayan Component)** for preparation of Feasibility Reports (FRs).
- The concept has been envisaged on the fact that Indo-Gangetic rivers are perennial and are fed from rain waters and other glacial sources of southwest monsoon.
- On the other hand, peninsular rivers are rain fed and are heavily dependent on southwest monsoon.
- Hence, Indo-Gangetic plains witness devastating floods whereas peninsular states suffer from severe droughts.
- If this excess water is transported to the peninsular rivers, the issues of floods and droughts can be resolved.
- Therefore the interlinking of rivers will provide for equitable distribution of river waters.

What is the National River Linking Project?

- The project proposes to transfer water from 'water surplus' basin to 'water deficit' basin by interlinking of 37 rivers across the country through a network of nearly 3000 storage dams to form a gigantic South Asian Water Grid.
- **National Water Development Agency (NWDA)** is responsible for the formulation of proposals of the linking of rivers.
- The project has two components – 1) Himalayan Component & 2) Peninsular Component.

Himalayan Component:

- Under this, 14 projects have been identified to link different rivers of the Himalayan Region.
- It involves the construction of storage reservoirs on the Ganga and Brahmaputra rivers as well as their tributaries.
- In addition, interlinking of Ganga and Yamuna has also been proposed.

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- It is expected to benefit the drought-prone areas of Haryana, Rajasthan, Gujarat. etc.
- Further, it will moderate flood in the Ganga Brahmaputra river system.
- It has 2 sub-component linkages:

1. Ganga and Brahmaputra basins to Mahanadi basin.
2. Eastern Ganga tributaries and Chambal and Sabarmati river basins.

Below is the diagram of the proposed & completed links under the Himalayan component:

Peninsular Component:

- Under this, 16 projects have been proposed to link the rivers of South India.
- Surplus waters of Mahanadi and Godavari will be transferred to Krishna, Pennar, Cauvery, and Vaigai.
- It has 4 sub-component linkages
- Mahanadi and Godavari basins to Krishna, Cauvery, and Vaigai rivers
- West-flowing rivers south of Tapi to the north of Bombay
- Ken River to Betwa River and Parbati, Kalisindh rivers to Chambal rivers
- Some West flowing rivers to the East flowing rivers.

Below is the diagram of the proposed & completed links under Peninsular component:

Sr.	Name	Rivers Connected			
	<u>PENINSULAR COMPONENT</u>				
1	Mahanadi (Manibhadra) - Godavari (Dowlaiswaram) link	Mahanadi Godavari			
2	Godavari (Inchampalli) - Krishna (Pulichintala) link	Godavari Krishna			
3	Godavari (Inchampalli) - Krishna (Nagarjunasagar) link	Godavari Krishna			

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		Godavari Krishna	& -do-	
5	Krishna (Almatti) – Pennar link	Krishna &		
6	Krishna (Srisaillam) – Pennar link	Krishna &		
7	Krishna (Nagarjunasagar) - Pennar (Somasila) link	Krishna &		
8	Pennar (Somasila) - Cauvery (Grand Anicut) link	Pennar& C		
9	Cauvery (Kattalai) - Vaigai -Gundar link	Cauvery,V &Gundar		
10	Ken-Betwa link	Ken & Betw		
11	Parbati -Kalisindh- (i) Chambal link	Parbati, Ka Chambal		
(ii)	Parbati-Kuno-Sindh link	Parbati, Ku Sindh		
12	Par-Tapi-Narmada link	Par, Narmada		
13	Damanganga - Pinjal link	Damangan al		
14	Bedti - Varda link	Bedti&Vard		
15	Netravati – Hemavati link	Netravati& Hemavati		
16	Pamba - Achankovil - Vaippar link	Pamba, Achankovil Vaippar		

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	<u>HIMALAYAN COMPONENT</u>		
1.	Manas-Sankosh-Tista-Ganga (M-S-T-G) link	Manas, Sankosh, Tista and Ganga	Assam, West Bengal, Bihar & Bhutan
2.	Kosi-Ghaghra link	Kosi & Ghaghra	Bihar, Uttar Pradesh & Nepal
3.	Gandak-Ganga link	Gandak & Ganga	-do-
4.	Ghaghra-Yamuna link	Ghaghra & Yamuna	-do-
5.	Sarda-Yamuna link	Sarda & Yamuna	Bihar, Uttar Pradesh, Haryana, Rajasthan, Uttarakhand & Nepal
6.	Yamuna-Rajasthan link	Yamuna & Sukri	Uttar Pradesh, Gujarat, Haryana & Rajasthan
7.	Rajasthan-Sabarmati link	Sabarmati	-do-
8.	Chunar-Sone Barrage link	Ganga & Sone	Bihar & Uttar Pradesh
9.	Sone Dam – Southern Tributaries of Ganga link	Sone & Badua	Bihar & Jharkhand
10.	Ganga (Farakka)-Damodar-Subernarekha link	Ganga, Damodar & Subernarekha	West Bengal, Odisha & Jharkhand
11.	Subernarekha-Mahanadi link	Subernarekha & Mahanadi	West Bengal & Odisha
12.	Kosi-Mechi link	Kosi & Mechi	Bihar, West Bengal & Nepal
13.	Ganga (Farakka)-Sunderbans link	Ganga & Ichhamati	West Bengal
14.	Jogighopa-Tista-Farakka link (Alternative to M-S-T-G)	Manas, Tista & Ganga	-do-

What are the significances of rivers interlinking?

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- **Control floods and droughts:** India receives the majority of its rainfall in only 3 months of a year i.e., from June to September. Most of such rainfall occurs in northern and eastern India whereas southern India remains water deficit. Thus linking will provide a two-way advantage, that is, controlling of floods as well as droughts.
- **Solve the water crisis:** The project envisages the supply of clean drinking water and water for industrial use amounting to 90 and 64.8 billion cu.m respectively with a view to satisfying the demand by 2050.
- **Hydropower generation:** The building of dams and reservoirs are key components of the interlinking project = About 34,000 MW of total power could be generated if the whole project is implemented. Thus river interlinking has the potential to resolve the electricity issues of the industrial, agricultural as well as rural households.
- **Dry Weather Flow Augmentation:** Transfer of surplus water stored in reservoirs during monsoon and releasing it during the dry season will facilitate a minimum amount of dry weather flow in the rivers. This would help in pollution control, navigation, fisheries, growth of forests, protection of wildlife, etc.
- **Irrigation benefits:** Indian agriculture is primarily dependent on monsoons which is not reliable = failure of crops due to water scarcity as we have witnessed in the Vidharba region of Maharashtra. The project claims to provide additional irrigation facilities of about 35 million hectares in the water deficit western and peninsular regions.
- **Commercial benefits:** In the long run, interlinking of rivers will have commercial benefits. Canals can be utilised as inland waterways which will help in faster movement of goods from one place to another. Moreover, rural areas will develop with diverse income sources such as fish farming, etc.
- **Defense:** The Project is expected to strengthen the security of the country by an additional waterline of defense.

What are the concerns with the implementation of the project?

Feasibility of the project:

- The total cost of the project is expected to be around 5,60,000 crore at the 2002 price level.
- Besides, the total cost with respect to the usage is expected to be 1,35,000 crore for power generation and 4,25,000 crore for irrigation and water supply.
- In addition to the huge costs involved, the project would require huge engineering structures which also need constant monitoring.

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- Furthermore, Interlinking of rivers will require more power to lift the water than what it is likely to produce (hydropower).

Environmental impacts:

- The project will alter the entire ecosystem of the rivers = affect fisheries, flora and fauna, wetlands and other ecosystems.
- In addition to this, forest reserves and national parks will also be affected due to the construction of various links. For example, Ket-Betwa link is expected to put in danger 4000 hectares of the Panna National park which is also an important tiger reserve.
- Seismic implications on the Himalayas due to the weight of millions of liters' of water.
- The concerns about sediment management, particularly on the Himalayan system has been rising.
- When the idea is to transfer water from the 'surplus' Himalayan river systems to 'deficit' basins of the southern part of India, the differential sediment regime defining the flow regimes need to be considered.
- This will lead to changes in ecosystem structures in both parts.
- More importantly, the project will lead to a decrease in the flow of fresh water into the sea = affect marine life.

Societal impacts:

- The building of dams and reservoirs will result in a displacement of a lot of people which cannot even be estimated currently.
- For example, Tehri Dam in Uttarakhand resulted in the submergence of more than 40 villages along with the partial submergence of 72 villages = caused displacement of around 1 lakh people.
- Moreover, there is also a question arises – Where could we rehabilitate these displaced people when there is increased pressure on land due to the rising population?

Inter-state disputes

- Water is a state subject in the Indian constitution.
- Many states including Kerala, Andhra Pradesh, Assam, and Sikkim have already opposed ILR projects.
- There has been a dispute between Karnataka and Tamil Nadu over the sharing of water from river Cauvery.

International disputes:

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- Interlinking of rivers will likely to increase the number of conflicts not only at the state level but also of the international level.
- Some of the inter-linking of rivers schemes has international implications, with a possible impact on countries such as Bhutan, Nepal, and Bangladesh
- Bangladesh strongly opposes the move to transfer the Brahmaputra water to the Ganga.
- Therefore, Water transfer in the Himalayan component needs to consider the effects on the neighbouring countries.

Cannot control floods:

- It is doubtful whether interlinking projects can provide flood proofing. Theoretically, a large reservoir can help moderate floods in the downstream areas. However, in the case of India experiences have been different.
- Big dams such as the Ranganadi dam, the Damodar dams, the Farakka and Bansagar dams, and the Hirakud dam have brought avoidable flood disasters to Assam, West Bengal, Bihar, and Odisha, respectively.

National Interlinking of Rivers Authority (NIRA)

The Central government is working on the establishment of an exclusive body to implement projects for linking rivers.

Background

- The proposal for an apex body on river linking has been under discussion for the past 2 years.
- As of now, no specific timeline has been determined for the constitution of the Authority. Also, the earlier idea of framing a Bill, envisaging the creation of the NIRA, is not being pursued now.

About the NIRA

- To be called the National Interlinking of Rivers Authority (NIRA), the proposed body is expected to take up both inter-State and intra-State projects.
- It will also make arrangements for generating up funds, internally and externally.
- The subject of establishment of the Authority was discussed at the last meeting of the Special Committee on Inter-Linking of Rivers (ILR) in New Delhi. Headed by Union Minister of Jal Shakti, the panel includes Irrigation or Water Resources Ministers and Secretaries of States. Since its formation, the

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Committee has held 17 meetings.

- It is being assisted by a Task Force for ILR, which is a committee of experts essentially drawn from the Jal Shakti Ministry, Central Water Commission and the National Water Development Agency (NWDA).

Way Forward

- Local solutions (like better irrigation practice) and watershed management, should be focused on.
- The government should alternatively consider the National Waterways Project (NWP) which "eliminates" friction between states over the sharing of river waters since it uses only the excess flood water that goes into the sea unutilized
- The necessity and feasibility of river-interlinking should be seen on case to case basis, with adequate emphasis on easing out federal issues.

Source: PIB

Aadhar issues

GS-II | 19 March, 2021

Aadhar issues

Supreme Court judgement on Aadhar

- The Court's judgment in 2018, upholding the **Aadhaar programme** as a **reasonable restriction on individual privacy (Article 21)** to fulfil welfare requirements and dignity.

Issues with Aadhar

1. Inefficiencies in **biometric authentication** and **updating, linking of Aadhaar with bank accounts**, and the use of the Aadhaar payment bridge.
2. **Failures in authentication** having led to delays in the disbursement of benefits.
3. Denial of benefits due to **cancellation of legitimate beneficiary names**.
4. Despite being designed to store finger and iris scans of most users, doubts about the success rates of authentication and the generation of "**false**

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- negatives**" have always persisted, more so for labourers and tribal people.
5. Those engaged in **manual and hard labour**, for example, are susceptible to **fingerprint changes** over time.

Way forward

- Given the scale of the problem, the central and State governments would do well to allow **alternative identification** so that genuine beneficiaries are not denied due subsidies.
- The question of fraud can still be addressed by the use of other verification cards and by decentralised disbursement of services at the panchayat level.

Source: TH

Alaska meet (U.S-China summit)

GS-II | 19 March, 2021

Alaska meet (U.S-China summit)

Introduction

- This news talks about the Alaska meet to be held between USA and China, the areas of contention between them and its impact on the world economy.

Areas of contention between USA and China

- The meeting comes on the back of tensions that spiralled during the Trump administration around **trade tariffs, 5G telecommunication, tech espionage, Chinese maritime actions and U.S. sanctions on China**, and further exacerbated over the pandemic, which Mr. Trump called the "**China virus**".
- Biden administration officials have said that they will bring up **China's crackdown in Xinjiang and Hong Kong, Chinese aggression against U.S. allies and partners, in particular pressure on Australia over trade bans, aggression against Japan in the Senkaku islands** and even the

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PLA's incursions over the LAC, which China considers bilateral issues.

- The recent summit-level Quad led to the establishment of **a free Indo-Pacific region**.

Demands of China

- China is seeking a **reversal of Trump-era policies**, and **structured dialogue** to take **forward ties** from the point they have reached, arguably their lowest since the Nixon era.
- **In particular, China wants an end to the U.S.'s trade sanctions, restrictions on American firms manufacturing in China and visa bans, and a reopening of its consulate in Houston.**

Significance of the Alaska meeting

- The fact that the meeting is happening at all sends the signal that both sides are prepared to engage each other.
- Mr. Blinken's formulation that the U.S. will be "competitive when it should be, collaborative when it can be and adversarial when it must be" with China, chalks up climate change, the COVID-19 challenge and global economic recovery as areas of possible discussion.
- Research quoted by the **World Economic Forum** predicted that the **U.S.-China tariff war** itself could cost the world **\$600 billion**.
- **Afghanistan** is another area where the U.S. and China have held three meetings last year as part of the "**Troika**" with **Russia**, and a **common peace strategy** could be another helpful conversation.

For India

- While New Delhi has a litany of its own grievances with Beijing, it too would benefit if a "Cold War" between the U.S. and China is averted, much like the rest of the world that has found itself akin to the proverbial grass when two elephants fight.

Source: TH

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Vehicle Scrapping Policy

GS-II | 19 March, 2021

Vehicle Scrapping Policy

Background

- It is also known as Voluntary Vehicle-Fleet Modernization Program.
- India has 51 lakh Light Motor Vehicles which are older than 20 years and 34 lakh Light Motor Vehicles which are older than 15 years.
- Around 17 lakh Medium and Heavy Commercial Vehicles are older than 15 years without valid fitness certificate.
- Older vehicles pollute the environment 10 to 12 times more than fit vehicles and pose a risk to road safety.
- The policy is aimed at creating an Eco-System for phasing out of Unfit and Polluting Vehicles.
- The **objectives** of the policy are to reduce population of old and defective vehicles, achieve reduction in vehicular air pollutants to fulfil India's climate commitments, improve road and vehicular safety, achieve better fuel efficiency, formalize the currently informal vehicle scrapping industry and boost availability of low-cost raw materials for automotive, steel and electronics industry.
- The ecosystem is expected to attract additional investments of around Rs. 10,000 Crore and 35,000 job opportunities.
- The criteria for a vehicle to be scrapped is primarily based on the fitness of vehicles through Automated Fitness Centres in case of commercial vehicles and Non-Renewal of Registration in case of private vehicles.
- The criteria has been adapted from international best practices after a comparative study of standards from various countries like Germany, UK, USA and Japan.
- A Vehicle failing the fitness test or failing to get a renewal of its registration certificate may be declared as End of Life Vehicle.
- Criteria to determine vehicle fitness will be primarily emission tests, braking, safety equipment among many other tests which are as per the Central Motor Vehicle Rules, 1989.

Features of the Policy

- It is proposed that commercial vehicles be de-registered after 15 years in case of failure to get the fitness certificate.
- As a disincentive measure, increased fees for fitness certificate and fitness

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test may be applicable for commercial vehicles 15 year onwards from the date of initial registration.

- It is proposed that Private Vehicles be de-registered after 20 years if found unfit or in case of a failure to renew registration certificate.
- As a disincentive measure, increased re-registration fees will be applicable for private vehicles 15 year onwards from the date of initial registration.
- It is being proposed that all vehicles of the Central Government, State Government, Municipal Corporation, Panchayats, State Transport Undertakings, Public Sector Undertakings and autonomous bodies with the Union and State Governments may be de-registered and scrapped after 15 years from the date of registration.
- The scheme shall provide strong incentives to owners of old vehicles to scrap old and unfit vehicles through registered scrapping centres, which shall provide the owners with a scrapping certificate. Some of these incentives include:
 1. Scrap Value for the old vehicle given by the scrapping centre, which is approximately 4-6% of ex-showroom price of a new vehicle.
 2. The state governments may be advised to offer a road- tax rebate of up to 25% for personal vehicles and up to 15% for commercial vehicles.
 3. The vehicle manufacturers are also advised for providing a discount of 5% on purchase of new vehicle against the scrapping certificate.
 4. In addition, the registration fees may also be waived for purchase of new vehicle against the scrapping certificate.
- The Ministry of Road Transport and Highways will promote setting up of **Registered Vehicle Scrapping Facility (RVSF)** across India and will encourage public and private participation for opening up of such centres.
- Efforts are also being made to set up **Integrated Scrapping Facilities** across India. Some of the identified places include Alang in Gujarat, where it is being planned to develop a highly specialized centre for scrapping among many other potential centres, where different scrapping technologies can be synergized together.
- With a simplified registration process through single window, the scrapping facility shall have to **comply with environmental and pollution norms** and with all applicable acts of law.
- It shall be ensured that the scrapping centres have adequate parking facility, de-pollution equipments for air, water and sound pollution and adequate facilities for hazardous waste management and disposal.
- Similarly, the Ministry shall promote setting up of **Automated Fitness Centres on a PPP model** by state government, private sector, automobile companies etc

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- These centres may have adequate space for test-lane, IT servers, parking and free movement of vehicles.
- To avoid conflict of interest, operators of fitness centres shall only provide testing facility and shall not provide repair/sale of spare services.
- Appointment for fitness centres may be booked online and tests reports shall also be generated in an electronic mode.

Analysis

- When the scrappage policy was on the drawing board last year, Road Transport Minister Nitin Gadkari envisioned a reduction in automobile prices of 20% to 30%, driven by recovery of scrap steel, aluminium and plastic, all of which would be recycled.
- Now that he has a better-scoped plan, the focus must be on building capacities in the organised sector to manage the task of efficient materials recovery.
- Provisions will have to be built in to see that the sudden demand stimulus available to the auto industry does not disadvantage consumers, particularly those selling junk vehicles.
- The vehicle registration database for all States also requires updating, to reflect true numbers of old vehicles on the road, eliminating those scrapped; a significant number, more than 15 years old, still run. Such data will help target scrappage policy benefits better.
- Moreover, many transport vehicles are operated by small entrepreneurs who lack the resources to transition to newer ones and need help as loans and grants.
- India's policy to eliminate polluting fuel guzzlers has had a long gestation, and States should see the value of operationalising it as planned.
- New vehicles and cleaner fuels should help clear the toxic air in cities and towns and make roads safer

Source: PIB

Artificial Intelligence in India

GS-III | 19 March, 2021

Artificial Intelligence in India

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Industrial Revolution 4.0

1. It includes AI, Robotics, Blockchain AR, VR, IoT, Supercomputing, Machine Learning, Deep Learning, 3D printing.
2. IoT (Internet of Things): is defined by ICT as a dynamic global network infrastructure with self configuring capabilities.
3. Deep Learning or Hierarchical Learning is part of machine learning methods based on learning data representations. In deep learning, each level learns to transform its img data into a slightly more abstract and composite representation.
4. Applications like speech recognition, facial recognition, bioinformatics and drug discovery, financial fraud detection, AI in healthcare etc.

What is Artificial Intelligence (AI)?

- The term was coined in 1956 by John McCarthy.
- AI is a way of making a computer, a computer-controlled robot, or software performing humanlike tasks.
- It refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making. It describes the action of machines accomplishing tasks that have historically required human intelligence. It includes technologies like machine learning, pattern recognition, big data, neural networks, self algorithms etc.
- AI involves complex things such as feeding a particular data into the machine and making it react as per the different situations. It is basically about creating self-learning patterns where the machine can give answers to the never answered questions like a human would ever do.
- There are two subsets under the umbrella term AI: Machine learning and Deep learning.

Machine Learning	Deep Learning/ Deep Neural Learning
<ul style="list-style-type: none">• Machine Learning involves the use of algorithms to parse data and learn from it.• It provides systems the ability to automatically learn and improve from experience	<ul style="list-style-type: none">• Deep learning is a subset of machine learning in AI that has networks capable of learning unsupervised from data that is unstructured or unlabeled.• Deep learning is technique for

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without being explicitly programmed. <ul style="list-style-type: none">• This enables making a determination or prediction.	implementing machine learning. <ul style="list-style-type: none">• Deep learning is an AI function that imitates the workings of the human brain in processing data and creating patterns for use in decision making.
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India and Artificial Intelligence

- **G20 Osaka Summit:** PM underscored the significance of Digital Economy & Artificial Intelligence. He emphasised the government's reliance on the 5 'I's that stand for Inclusiveness, Indigenization, Innovation, Investment in infrastructure & International cooperation in developing these two areas.
- According to Global AI Report 2019, India is at 9th in terms of number of AI specialists working in the field. US, China and UK topped.
- CBSE has AI as an elective subject for its 9th Class.
- IIT Hyderabad is the 1st Indian Educational Institute starting B Tech in AI. It is 3rd in the World after Carnegie University and MIT.
- IIIT Hyderabad has also introduced popular executive programmes on AI, Machine Learning and Blockchain.
- Defense, IBM's Blue Project, many startups are now foraying into AI.
- It is estimated that AI will add 957 billion \$ to India's GDP by 2035 boosting India's annual growth by 1.3% points.

Steps taken by the Government to promote AI

- In 2018-19 Budget, Govt mandated NITI to established National Program on AI.
- Budget 2018 announced funds for AI, machine learning, robotics and IoT sector.

NITI Aayog's National Strategy for AI, 2018

- This strategy was being recommended by the Artificial Intelligence task force headed by V. Kamakoti.
- 5 Core areas for application of AI = Agriculture, Education, Health, Smart cities/ infrastructure; Transport with AI.
- India has the potential to become AI garage or solution provider for 40% of

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the World.

- Application of AI = Cancer report, Reroute traffic, Telling Farmers where to store, Dropout.
- It doesn't talk about funding. Institutional structure with CERN like multinational lab.
- Challenges = Only 4% AI professionals trained in Emerging technologies; low H Index (citation) and Data sets.

Kamakoti Committee

- Set up digital data banks, marketplaces and exchanges to ensure availability of cross-industry information.
- Data ombudsman: to address data-related issues and grievances.
- Ensure availability of funds for R&D
- Setting up National Artificial Intelligence Mission (N-AIM)
- The Commerce and Industry Ministry has also set up task forces to explore the use of AI and Big Data technologies.

In 2019, NITI Aayog circulated the cabinet note to establish a cloud computing platform called AIRAWAT

- AIRAWAT stands for Artificial Intelligence Research, Analytics and Knowledge Assimilation Platform.
- It is a part of Govt's goal of making India a pioneer amongst emerging economies wrt AI and transform sectors like education, health, agriculture, urbanization and mobility.

National Strategy for Artificial Intelligence 2015-20

- NITI Aayog has published the National Strategy for Artificial Intelligence wherein it has identified five core areas for the application of Artificial Intelligence.

Application of AI in 5 Core Areas

Healthcare:

1. AI based Radiomics focuses on comprehensive quantification of tumor phenotypes.
2. A joint venture between Microsoft and Indian start-up 'Forus Health' has developed a portable device named "3Nethra" that can screen for common eye problems as well as complicated conditions like diabetic retinopathy.

Agriculture:

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1. AI is being used for soil care, sowing, herbicide optimization, precision farming.
2. Intello Labs, Trithi Robotics are startups in Agri sector.
3. Coffee Board of India started using AI in activities.
4. Assam Tea growers may take AI route to recovery.

Education:

1. AI can be used for developing tools for customised learning, interactive and intelligent tutoring systems.
2. For automated teacher posting and transfer systems, using analytics based on demand – supply gaps across schools.

Smart Cities and Infrastructure:

1. Service delivery, crowd management, cyber security, public safety and water and waste management.
2. Bandicoot robot have been developed for sewer cleaning to put an end to manual scavenging.

Smart Mobility and Transportation: AI-based traffic management system including sensors, CCTV cameras, automatic number plate recognition cameras, speed detection cameras, signalised pedestrian crossings.

Significance of AI for India

- India can become an AI powerhouse.
- A study by Google Neural Network correctly identified cancerous skin lesions more often than Dermatologists did. India's shortage of specialist Doctors in rural areas can benefit.
- Compete with the aspirations of USA, China and Japan.
- If used in Agri, it will bring revolution in Farming practices.
- Use in Renewable Energy. Eg. Delhi based firm Climate Connect predicts the amount that a solar plant will generate every 15 mins. It will help in completing the Solar target of 100 GW by 2022.
- ANYA: Chatbot for patient queries. Information is medically verified. 1st of its kind. For disease awareness.
- Social media sites were told to filter content using AI.

Challenges for adoption of AI

- Norman = Data is fed by a person only. He can be biased. Psychopath AI.
- Lack of enabling data ecosystems.
- Low intensity of AI research.

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- Inadequate availability of AI expertise, manpower and skilling opportunities.
- High resource cost and low awareness for adopting AI in business processes.
- Unclear privacy, security and ethical regulations.
- Unattractive Intellectual Property regime to incentivise research and adoption of AI.
- Only 4% AI professionals trained in Emerging technologies; low H Index (citation) and Data sets.

US India Artificial Intelligence (USIAI) Initiative

- It is an initiative by **Indo-U.S. Science and Technology Forum (IUSSTF)**, a bilateral organization funded by the Department of Science & Technology (DST), Governments of India, and the U.S. Department of States.
- IUSSTF's USIAI Initiative focuses on AI cooperation in critical areas that are priorities for both countries. USIAI will serve as a platform to discuss opportunities, challenges, and barriers for bilateral AI R&D collaboration, enable AI innovation, help share ideas for developing an AI workforce, and recommend modes and mechanisms for catalyzing partnerships.

Features of USIAI

- The ambitious flagship initiative, USIAI, leverages IUSSTF's unique ability to bring together key stakeholders from India and the United States to create synergies that address challenges and opportunities at the interface of science, technology, and society.
- Over the next year, IUSSTF will conduct a series of roundtables and workshops to gather input from different stakeholder communities and prepare White Papers that identify technical, research, infrastructure, and workforce opportunities and challenges, and domain-specific opportunities for R&D in healthcare, smart cities, materials, agriculture, energy, and manufacturing.

Benefits of USIAI

- "The AI Initiative is another example of IUSSTF's critical role in catalyzing collaborations between India and the U.S. in cutting-edge areas of science and technology.
- The U.S.-India AI Initiative will provide an opportunity for key stakeholder groups to share experiences, identify new R&D areas and opportunities that would benefit from synergistic activities, discuss the emerging AI landscape, and address the challenges of developing an AI workforce.

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Other AI Initiatives by India

- Artificial Intelligence is being promoted and implemented in the country through a network of 25 technology hubs working as a triple helix set up under the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)**.

National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)

- NM-ICPS is to be implemented by Department of Science & Technology for a period of five years.
- NM-ICPS covers entire India which includes Central Ministries, State Governments, Industry and Academia.

Cyber-Physical Systems

- Cyber-physical systems integrate sensing, computation, control and networking into physical objects and infrastructure, connecting them to the Internet and to each other.
- Few Potential applications: Driverless cars that communicate securely with each other on smart roads, Sensors in the home to detect changing health conditions, improving agricultural practices and enabling scientists to address issues arising out of climate change, etc.
- Advances in cyber-physical systems will enable capability, adaptability, scalability, resiliency, safety, security and usability that will far exceed the simple embedded systems of today.

Objective

- The NM-ICPS is a comprehensive Mission which would address technology development, application development, human resource development & skill enhancement, entrepreneurship and start-up development in Cyber Physical System (CPS) and associated technologies.
- The Mission aims at establishment of 15 Technology Innovation

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Hubs (TIH), six Application Innovation Hubs (AIH) and four Technology Translation Research Parks (TTRP).

- These Hubs & TTRPs will connect to Academics, Industry, Central Ministries and State Government in developing solutions at reputed academic, R&D and other organizations across the country in a hub and spoke model.
- The Hubs & TTRPs have four focused areas along which the Mission implementation would proceed, namely:

Technology Development,
HRD & Skill Development,
Innovation, Entrepreneurship & Start-ups
Ecosystem Development, and
International Collaborations.

- **PM-STIAC identified 9 National S&T Missions:** In one of those mission 1 mission is National Mission on Artificial Intelligence:
- By NITI Aayog, Dept of S&T, Ministry of Electronics and Information Technology, Dept of Bio technology.
- It will address societal needs like healthcare, education, agriculture, smart cities and infrastructure, including smart mobility and transportation.

Source: PIB

Innovations for Defence Excellence (iDEX)

GS-III | 19 March, 2021

Innovations for Defence Excellence (iDEX)

The Government is working on Second 'Positive Indigenisation List' as part of Aatmanirbhar Bharat Abhiyan on domestic procurements.

Innovations for Defence Excellence (iDEX) framework was launched in April, 2018 with an aim to achieve self-reliance and to foster innovation and technology

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development in defence and aerospace by engaging industries including MSMEs, Start-ups, individual innovators, R&D institutes and academia.

iDEX provides grants for prototype development and promotes innovation and entrepreneurship among the Defence Start-ups.

Various initiatives being undertaken under iDEX are as follows:-

Defence India Startup Challenge (DISC): iDEX is emerging as a front runner & has gained substantial traction in the Defence Startup Community. Various MSMEs/Startups have been funded so far, to evolve services related research towards challenges/Problem Statement of Indian Forces. DISC IV was launched on 29 September, 2020 by the Hon'ble RM.

iDEX Open Challenges: As part of the iDEX Open Challenges, the received proposals are reviewed for approval by the High Powered Selection Committee (HPSC).

iDEX 4 FAUJI: iDEX 4 FAUJI was launched, along with Defence India Startup Challenge IV to support innovations identified by grass root service personnel serving in the field conditions. This would incorporate the first-hand experience for improving and bringing operational and maintenance improvements in existing platforms, as also generate futuristic ideas for innovations in defence manufacturing. These would then be issued as challenges under iDEX with the shortlisted start-ups being assisted by the applicant servicemen.

As part of iDEX initiative, OFB has taken up in-house R&D projects for development of Armament, Ammunition & Equipment items of Land Systems pertaining to i.e. Artillery & Air Defence Gun Systems, Small Arms Weapons Systems, Armored Fighting Vehicles and futuristic smart ammunition systems.

DRDO through Technology development scheme (TDF) scheme aims to fund private sector industry especially MSMEs including Start-ups. Total 25 Projects have been awarded to various private industries including MSMEs and start-ups under TDF scheme so far. The DRDO has also launched a pan India contest' to bring innovators, entrepreneurs, individual and start-ups for innovative ideas in the field of Defence and Aerospace.

There are 11 projects of Indian Army as part of DISC and Open Challenges of iDEX which involves hand holding of 23 start-ups. Indian Navy has leveraged

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iDEX scheme and is presently engaging 21 start-ups in design and development for 09 projects. IAF, as part of these initiatives, is progressing 11 cases and is engaged with 17 start-ups/individual innovators/MSMEs for design and development of innovative equipment through iDEX.

Source: PIB

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Mines and Minerals of India

GS-I | 20 March, 2021

MINING and MINERALS

- **Geological Survey of India:** For all minerals except Uranium (AMD). It is the largest and most comprehensive provider of basic earth science information or **database**.
- **Indian Bureau of Mines, 1948:**
 1. It is under **Ministry of Mines** with responsibilities for **conservation and systematic exploitation** of mineral resources **other than coal, petroleum and natural gas, atomic minerals and minor minerals**.
 2. IBM performs **regulatory** functions under MMDRA, 1957.
- **NALCO is a Navratna company** under Ministry of Mines. Refinery is located at **Damanjodi** in Koraput district, **Odisha**.

Mines and Minerals (Development and Regulation) Act, 1957

- It **regulates overall mining sector in India** and specifies the **requirement** for obtaining and granting **mining leases**.
- **"Minerals"** includes all minerals except mineral oils- natural gas and **petroleum**).
- A person could acquire **1 mining lease** for a maximum area of **10 sq km**. Center can permit >1 leases.
- A mining **lease** was granted for a **minimum 20 to max 30 years** and could be **renewed** for a period not exceeding **20 years**.
- In India, the minerals are **classified** as minor minerals and major minerals under MMDRA, 1957. Classification is **not related to quantum/ availability/ level of production/ mechanization/ EXIM** of these minerals but **related to relative value and end use of these minerals**.

Minor Minerals	Major Minerals
1. According to MMDR Act, 1957 "Minor Minerals" means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes, and any other Central Govt notified	1. Major minerals are those specified in the first schedule appended in the MMDR Act 1957 and the common major minerals are Lignite, Coal, Uranium, iron ore, gold etc. 2. There is no official definition for

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<p>mineral.</p> <p>2. Center has the power to notify "minor minerals" under MMDR Act, 1957. India has 86 minor minerals out of which 31 added in 2015.</p> <p>3. Power to frame law for minor minerals is entirely delegated to State Govts. Thus, the administrative and regulatory jurisdiction of minor minerals falls under State govts.</p> <p>4. AP tops in the value of minor minerals produced in India followed by Gujarat, Maharashtra, Rajasthan and UP.</p>	<p>"major minerals" in the MMDR Act. Hence, whatever is not declared as a "minor mineral" may be treated as the major mineral.</p> <p>3. Power to frame law for major minerals are dealt by Ministry of Mines under Center.</p>
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MMDRA (Amendment) Act, 2015

- **Center can increase the area limits for mining**, instead of providing **additional leases.**
- The Bill creates a new category of mining license i.e. the **prospecting license-cum-mining lease. State govt shall grant prospecting license-cum-mining leases for both notified and other minerals.** Prospecting license-cum-mining lease **for notified minerals** (like bauxite, iron ore, limestone and manganese ore) shall be granted with the **approval of Centre.** Holder of this licence **may transfer the lease** to any eligible person, with the **approval of the state govt.**
- **Center shall prescribe the terms and conditions**, and **procedure** for auction, including **parameters** for the selection of bidders.
- **Center may reserve particular mines for a specific end use and allow only eligible end users.**
- Bill provides for the creation of a **District Mineral Foundation (DMF)** and a **National Mineral Exploration Trust (NMET).**

DMF (District Mineral

PM Khanij Kshetriya Kalyan

National Mineral Ex

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Foundation), 2015	Yojana, 2015	Trust (NMET), 2004
<p>1. Trust. Non Profit Body. In those districts affected by mining. It should be in every district mandated by MMRDA, 2015. Operated by State Govt.</p> <p>2. Funded through contribution from miners.</p> <ol style="list-style-type: none"> For all mining leases executed before 12 Jan 2015, miners will have to contribute 30% of the royalty payable by them to DMFs and If leases are granted after 12 Jan 2015 then pay 10%. <p>3. DMF contribution would be < 1/3rd of royalty and Center retains the power to prescribe rates of contribution, though DMF is operated by State Govt. DMF funds are treated as Extra Budgetary resources.</p> <p>4. It implements PMKKKY for welfare of mining areas.</p> <p>5. DMFs are also directed to maintain utmost transparency in their functioning and provide periodic reports on various projects and schemes.</p>	<p>1. To provide for welfare of areas & people affected by mining areas. Implemented by DMF. Affected persons include "affected family" and "displaced family".</p> <p>2. Objectives:</p> <ol style="list-style-type: none"> To implement developmental & welfare projects in mining affected areas. To reduce adverse impact on Environment & Health and Long term sustainable livelihoods. <p>3. Both directly & indirectly affected areas covered.</p> <ol style="list-style-type: none"> Directly affected areas include areas of direct mining related operations like excavation, mining, blasting, etc. Indirectly affected areas include areas of deterioration of water, soil and air quality. <p>4. Utilization of Funds</p> <ol style="list-style-type: none"> 60 % Funds to be used for High priority areas = Water, Health, Education, Vulnerable section, skills and sanitation. 	<p>1. For regional & exploration of n</p> <p>2. Under MMRDA,</p> <p>3. Holder of mining MET = 2% of ro</p> <p>4. Under Central C</p> <p>Difference from DM</p> <ol style="list-style-type: none"> Different rate of 2% in NMET; 10% in DMF. NMET works rel Exploration and in welfare. MET is under Ce and DMF is unde Govt. <p>Mining Surveillance</p> <ul style="list-style-type: none"> by MoMines (IB MEITY and BISA (Bhaskaracharya of Space App & To curb illegal a satellite based monitoring syst <p>Mining Tenetment S (MTS): For accounti minerals.</p>

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	<ol style="list-style-type: none">2. 40% Funds to be used for Infrastructure projects = Physical Infra, irrigation, Energy, Watershed development.3. <5% to be used for Admin expenses.5. Monitoring is done by DISHA, District Development Coordination and Monitoring Committee of MoRD.	
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Mines and Minerals (Development and Regulation) Amendment Bill, 2021

The Mines and Minerals (Development and Regulation) Amendment Bill, 2021 was introduced in Lok Sabha on March 15, 2021. The Bill amends the Mines and Minerals (Development and Regulation) Act, 1957. The Act regulates the mining sector in India.

- **Removal of restriction on end-use of minerals:**

1. The Act empowers the central government to reserve any mine (other than coal, lignite, and atomic minerals) to be leased through an auction for a particular end-use (such as iron ore mine for a steel plant). Such mines are known as **captive mines**.
2. The Bill provides that **no mine will be reserved for particular end-use**.

6. **Sale of minerals by captive mines:**

1. The Bill provides that captive mines (**other than atomic minerals**) may **sell up to 50%** of their annual mineral production in the open market after meeting their own needs.
2. The central government may **increase this threshold** through a notification.
3. The lessee will have to pay additional charges for mineral sold in the open market.

7. **Auction by the central government in certain cases:**

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1. Under the Act, states conduct the auction of mineral concessions (other than coal, lignite, and atomic minerals).
2. Mineral concessions include mining lease and prospecting license-cum-mining lease.
3. The Bill empowers the central government to specify a time period for completion of the auction process in consultation with the state government.
4. If the state government is unable to complete the auction process within this period, the auctions may be conducted by the central government.

8. Transfer of statutory clearances:

1. Upon expiry of a mining lease (other than coal, lignite, and atomic minerals), mines are leased to new persons through auction.
2. The statutory clearances issued to the previous lessee are transferred to the new lessee for a period of two years.
3. The new lessee is required to obtain fresh clearances within these two years.
4. The Bill replaces this provision and instead provides that transferred statutory clearances will be valid throughout the lease period of the new lessee.

9. Allocation of mines with expired leases:

1. The Bill adds that mines (other than coal, lignite, and atomic minerals), whose lease has expired, may be allocated to a government company in certain cases.
2. This will be applicable if the auction process for granting a new lease has not been completed, or the new lease has been terminated within a year of the auction.
3. The state government may grant a lease for such a mine to a government company for a period of up to 10 years or until the selection of a new lessee, whichever is earlier.

10. Rights of certain existing concession holders:

1. In 2015, the Act was amended to provide that mines will be leased through an auction process.
2. Existing concession holders and applicants have been provided with certain rights including:
 - i. Right to obtain prospecting licence or mining lease to a holder of reconnaissance permit or prospecting licence (issued before commencement of the 2015 Amendment Act), and
 - ii. right for grant of mining lease where the central government had given its approval or letter of intent was issued by the state government before the commencement of the 2015 Amendment Act.

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3. The Bill provides that the right to obtain a prospecting license or a mining lease will lapse on the date of commencement of the 2021 Amendment Act.
4. Such persons will be reimbursed for any expenditure incurred towards reconnaissance or prospecting operations.

11. Extension of leases to government companies:

1. The Act provides that the period of mining leases granted to government companies will be prescribed by the central government.
2. The Bill provides that the period of mining leases of government companies (other than leases granted through auction) may be extended on payment of additional amount prescribed in the Bill.

12. Conditions for lapse of mining lease:

1. The Act provides that a mining lease will lapse if the lessee:
 - i. is not able to start mining operations within two years of the grant of a lease, or
 - ii. has discontinued mining operations for a period of two years.
2. However, the lease will not lapse at the end of this period if a concession is provided by the state government upon an application by the lessee.
3. The Bill adds that the threshold period for lapse of the lease may be extended by the state government only once and up to one year.

13. Non-exclusive reconnaissance permit:

1. The Act provides for a non-exclusive reconnaissance permit (for minerals other than coal, lignite, and atomic minerals).
2. Reconnaissance means preliminary prospecting of a mineral through certain surveys.
3. The Bill removes the provision for this permit.

Source: TH

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Essential Medicines

GS-III | 21 March, 2021

Essential Medicines

1. India has adopted this concept from **WHO**.
2. Essential medicines do not mean that they are only life saving drugs.
3. In fact, the word life saving drugs is not defined in any of the domestic legislations.
4. These are the medicines that are required to be available with the health system all the time adequately.
5. When WHO published the **1st Model List of Essential Drugs in 1977**, it identified 208 individual medicines which together could provide safe, effective treatment for majority of Communicable diseases and NCDs.
6. In India, National List of Essential medicines (NLEM) specified 348 drugs which formed the basis of DPCO.

Drug Prices and Control Order (DPCO), 2013

1. DPCO are issued under Section 3 of **Essential Commodities Act, 1955**.
2. It gives powers to Govt to declare a **ceiling price for essential and life saving medicines**.
3. Price controls are applicable to "**Scheduled drugs**" i.e. those medicines which are listed in **Schedule I** of DPCO.
4. National List of Essential Medicines (NLEM), 2011 issued by MoHFW forms the basis Schedule I of DPCO.
5. Since 2013, all essential medicines (as defined under NLEM) are treated as Scheduled formulations (under DPCO 2013). It **does not include any AYUSH** medicine.
6. **However, it does not mean that all drugs brought under price control are essential medicines.**
7. Price controls are applicable irrespective of whether the drug is generic or branded.
8. **National Pharma Pricing Policy (NPPP), 2012** is the policy governing price control and DPCO is the order by which price control is enforced.
9. Drug prices are monitored and controlled by **National Pharma Pricing Authority (NPPA)**. All the powers of Govt relating to ECA are delegated to it.
 1. NPPA is an **independent** body of experts under Ministry of Chemicals and Fertilizers.
 2. It was formed in **1997** to implement and enforce provisions of DPCO for

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regulating **prices** of medicines.

3. Functions:

1. Fixing the prices of Scheduled drugs and Monitoring prices of decontrolled drugs.
 2. Monitor the **availability** of drugs, identify shortages, take remedial steps etc.
 3. Implement and enforce the provisions of DPCO.
10. It is important to note that **Drugs and Cosmetics Act, 1940 under MoHFW do not contain provisions for pricing of drugs**. Blood is a drug under Drugs and Cosmetics Act.
11. DPCOs are issued under Essential Commodities Act, 1955 by **Ministry of Chemical and Fertilizers** which is also the nodal agency for pharma companies. It now includes **376 medicines**.
12. Under DPCO, 2013, the prices of **376 drugs** have been brought under price control.
13. Generic medicine is the bioequivalent of the original drug, but cheaper.

The Central Drugs Standard Control Organisation (CDSCO)

1. CDSCO under Directorate General of Health Services, **MoHFW** is the **National Regulatory Authority (NRA) of India**.
2. **Functions:** Under the **Drugs and Cosmetics Act**, CDSCO is responsible for **approval of New Drugs, Conduct of Clinical Trials, laying down the standards for Drugs**, control over the **quality of imported Drugs** in the country and **coordination** of the activities of State Drug Control Organizations by providing expert advice.
3. CDSCO along with state regulators, is **jointly responsible for grant of licenses** of certain specialized categories of critical Drugs such as **blood and blood products, I. V. Fluids, Vaccine and Sera**.

Source: PIB

NITI Aayog vision for Great Nicobar

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NITI Aayog vision for Great Nicobar

- Great Nicobar Island is the southernmost island in the Andaman and Nicobar

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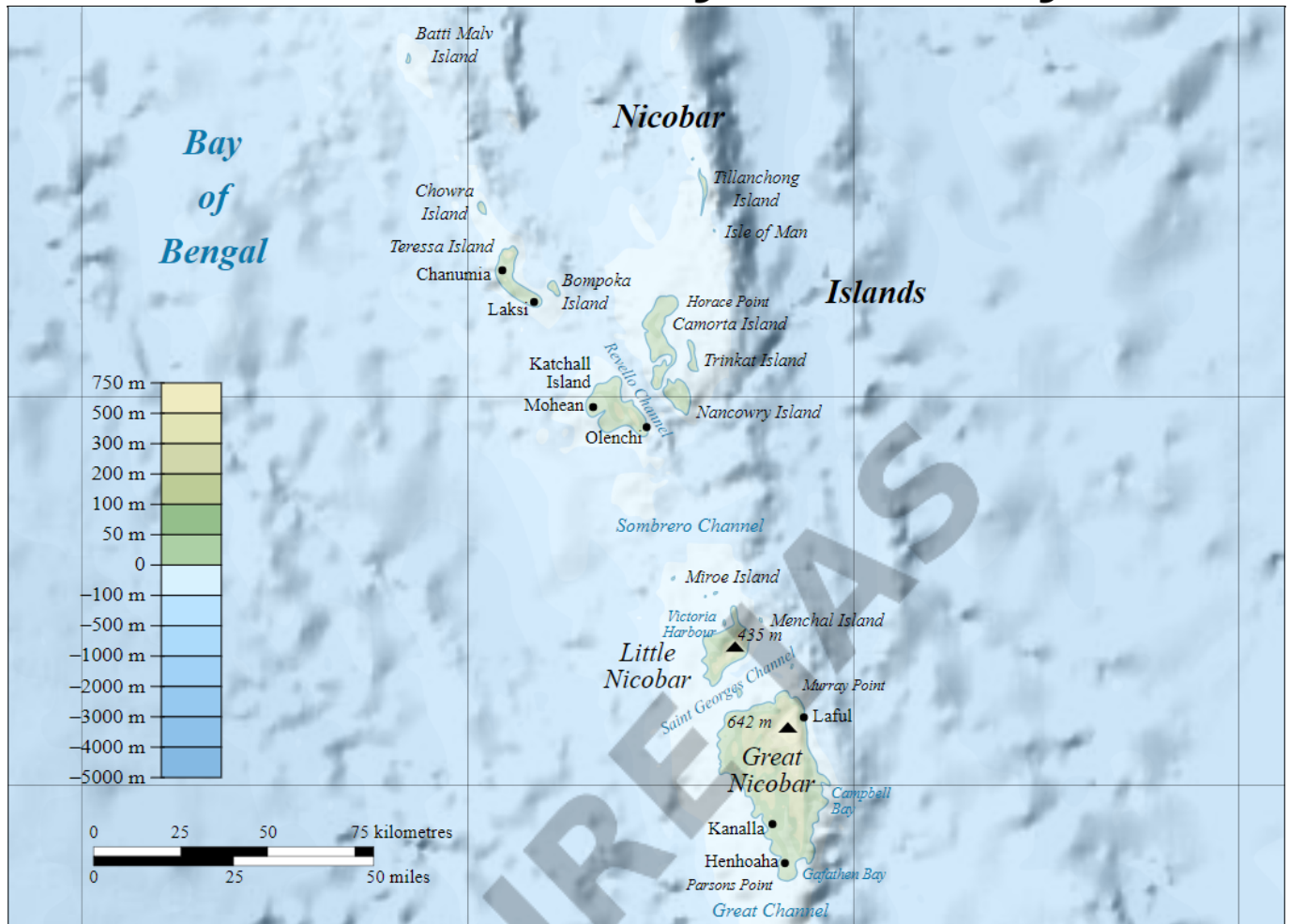
group.



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- More than 150 sq. km. of land is being made available for this. This amounts to nearly 18% of the 910 sq. km. island, and will cover nearly a quarter of its coastline.
- The overall plan envisages the use of about 244 sq. km. — a major portion being pristine forest and coastal systems.
- Projects to be executed in Phase I include a 22 sq. km. **airport complex, a transshipment port (TSP) at South Bay** at an estimated cost of ₹12,000 crore, a parallel-to-the-coast mass rapid transport system and a free trade zone and warehousing complex on the south western coast.
- What stands out prominently in the whole process, starting with the designation in mid-2020 of the **Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO)** as the nodal agency, is the speed and co-ordination with which it has all unfolded.

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- The other is the centrality of the NITI Aayog.
- First, on September 4, 2020, the Director, Tribal Welfare, A&N Islands, constituted an empowered committee to examine NITI Aayog's proposals for various projects in Little Andaman and Great Nicobar Islands.
- A copy of the 2015 'Policy on Shompen Tribe of Great Nicobar Island' was part of the communication sent out, giving an indication of the aims of the committee.
- Significant changes have also been effected to the legal regimes for wildlife and forest conservation.

Role of National Board for Wildlife

Indian Board for Wildlife or National Board for Wildlife

- It is a Statutory organization under WPA, 1972.
- Aim: To promote the conservation and development of Wildlife and Forests.
- It is an apex body to review all wildlife-related matters and approves projects in and around national parks and sanctuaries.
- No alteration of boundaries in NP & WS can be done without the approval of NBWL.
- **Composition:** NBWL is chaired by the Prime Minister, MoEF is the vice chairman and members include 150 Non govt members, 19 ex- officio members and 10 government officials such as secretaries.

- In its meeting on January 5, 2021, the Standing Committee of the **National Board for Wildlife (NBWL)** denotified the entire **Galathea Bay Wildlife Sanctuary to allow for the port there.**
- The NBWL committee seemed unaware that **India's National Marine Turtle Action Plan** that was under preparation then (it was released on February 1, 2021) had listed Galathea Bay as one of the 'Important Coastal and Marine Biodiversity Areas' and 'Important Marine Turtle Habitats' in the country. It is included in Coastal Regulation Zone (CRZ)-I, the zone with maximum protection.

National Marine Turtle Action Plan

- The documents contain ways and means to guide improved

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coordination amongst the government, civil society, and all relevant stakeholders on the response to cases of stranding, entanglement, injury or mortality of marine mammals, and also conservation of marine turtles.

These two documents highlight:

- actions to be taken for handling stranded animals on the shore, stranded or entangled animals in the sea or on a boat,
- management actions for improved coordination,
- reducing threats to marine species and their habitats,
- rehabilitation of degraded habitats,
- enhancing people's participation,
- advance scientific research and exchange of information on marine mammals and marine turtles and their habitats.

Five species of Indian turtles along with their IUCN status are as follows:

1. Olive Ridley – Vulnerable
 2. Green turtle – Endangered
 3. Loggerhead – Vulnerable
 4. Hawksbill – Critically Endangered
 5. Leather back – Vulnerable
- They are protected in Indian Wildlife Protection Act of 1972, under Schedule I.
 - They are also protected under the Biodiversity Conservation and Ganga Rejuvenation programme.

- Then, on January 18, another Environment Ministry expert committee approved a "zero extent" Ecologically Sensitive Zone (ESZ) for the Galathea NP to allow use of land in the south-eastern and south-western part of the island for the NITI Aayog plan.
- The October 2020 draft notification for this zero extent ESZ had ironically listed out in great detail the park's ecological uniqueness — that it is part of a UNESCO World Heritage Site, houses a range of forest types, has one of the best preserved tropical rainforests in the world, is home to 648 species of flora and hosts 330 species of fauna including rare and endemic ones such as the Nicobar wild pig, Nicobar tree shrew, the Great Nicobar crested

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- serpent eagle, Nicobar paradise flycatcher and the Nicobar megapode.
- It also notes that the park is home to the indigenous Shompen community.
 - The notification says that an ESZ is needed to protect the park from an ecological, environmental and biodiversity point of view, but goes on in the very next para to propose a zero extent ESZ for nearly 70% of the periphery of the park.

Eco-Sensitive Zones (ESZ) or Areas (ESAs)

1. EPA, 1986 doesn't mention the word ESZ. **Section 3 of EPA, 1986** says that Central Government can restrict areas in which industries, shall not be carried out or carried out subject to safeguards. ESZ is also identified as per **Rules 5 (1) of Environment Protection Rules**.
2. The purpose of ESZ was to provide more protection to parks by acting as a shock absorber or transition zone.
3. MoEF has approved a **criteria** to declare ESA
 1. **Species Based** (endemism, rarity etc.)
 2. **Ecosystem Based** (sacred groves, frontier forests etc.)
 3. **Geomorphological feature based** (uninhabited islands, origin of rivers etc.)
4. It is an additional tool to strengthen buffer and corridors around the protected areas network, to check the negative impact of industrialization.
5. In this background the **National Board for Wildlife in 2002** under PM adopted a "Wildlife Conservation Strategy 2002" in which 1 action was to notify lands falling within 5 km of the boundaries of National Parks and Sanctuaries as **Eco fragile zones** under EPA, 1986. **SC in Dec 2018, has directed MoEF to declare 10 km area around NP and WS as ESZ.**
6. Woodfelling, setting up sawmills, hotels or resorts; and night traffic in the zone would be restricted.
7. **Forest and Wildlife Department will demarcate ESZ.**

Madhav Gadgil Report, 2011	Kasturirangan Committee Report
<ol style="list-style-type: none">1. It defined the boundaries of the Western Ghats for the purposes of ecological management.2. It proposed that this entire area be designated as ecologically sensitive area (ESA).3. Within this area, smaller regions were to be identified as ESZ I, II or III based on their existing condition	<ol style="list-style-type: none">1. It was set up to examine the Gadgil Committee report in a holistic and multidisciplinary fashion in the light of responses received.2. It brought just 37% of Western Ghats under ESA (unlike 64% suggested by Gadgil).3. The villages falling under ESA

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<p>and nature of threat.</p> <p>4. Hence 64% area would fall under ESZ I or II or under already existing protected areas such as wildlife sanctuaries or natural parks. 3 indicators for ESZ1 are elevation, slope and natural vegetation. Nothing was permitted in ESZ I.</p> <p>5. The committee proposed a Western Ghats Ecology Authority to regulate these activities in the area.</p> <p>6. But none of the 6 States accepted the recommendations.</p> <p>7. Plachimada Panchayat vs Coca Cola case</p>	<p>will be involved in decision making on the future projects.</p> <p>4. All projects will require prior informed consent and no objection from Gram Sabha.</p> <p>5. A ban on mining, quarrying and sand mining and new polluting industries. No new thermal power projects, but hydro power projects allowed with restrictions.</p> <p>6. Forest diversion could be allowed with extra safeguards.</p> <p>7. Building and construction projects up to 20,000 sq m was to be allowed but townships were to be banned.</p>
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Source: TH

India and USA Relations

GS-II | 21 March, 2021

India and USA Relations

Introduction

- India-U.S. bilateral relations have developed into a "global strategic partnership", based on shared democratic values and increasing convergence of interests on bilateral, regional and global issues.
- The emphasis placed by the Government in India on development and good governance has created opportunity to reinvigorate bilateral ties and enhance cooperation under the motto --- "ChaleinSaathSaath: Forward Together We Go", and "SanjhaPrayas, Sab ka Vikas" (Shared Effort, Progress for All) adopted during the first two summits of Prime Minister Modi and President Obama in September 2014 and January 2015 respectively.
- The summit level joint statement issued in June 2016 called the India-U.S.

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- relationship an "Enduring Global Partners in the 21st Century".
- Regular exchange of high-level political visits has provided sustained momentum to bilateral cooperation, while the wide-ranging and ever-expanding dialogue architecture has established a long-term framework for India-U.S. engagement.
 - Today, the India-U.S. bilateral cooperation is broad-based and multi-sectoral, covering trade and investment, defence and security, education, science and technology, cyber security, high-technology, civil nuclear energy, space technology and applications, clean energy, environment, agriculture and health.
 - Vibrant people-to-people interaction and support across the political spectrum in both countries nurture our bilateral relationship.

India-U.S. Dialogue Architecture:

There are more than 50 bilateral dialogue mechanisms between the two governments.

- The first two meetings of the Strategic and Commercial Dialogue at the level of EAM and MoS (Commerce & Industry) were held in Washington DC in September 2015 and New Delhi in August 2016.
- This apex-level dialogue has added a commercial component to the **five traditional pillars of bilateral relations** on which the erstwhile Strategic Dialogue of Foreign Ministers had focussed, namely:
 1. Strategic Cooperation;
 2. Energy and Climate Change,
 3. Education and Development;
 4. Economy, Trade and Agriculture; Science and Technology; and
 5. Health and Innovation.
- The second meeting of the Strategic and Commercial Dialogue took place on 30 August 2016 in New Delhi.
- In addition, there are Ministerial-level dialogues involving
 1. home (Homeland Security Dialogue),
 2. finance (Financial and Economic Partnership),
 3. commerce (Trade Policy Forum),
 4. HRD (Higher Education Dialogue),
 5. Science & Technology (Joint Commission Meeting on S&T) and
 6. energy (Energy Dialogue).

Defence Cooperation:

- Defence relationship has emerged as a major pillar of India-U.S. strategic

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partnership with the signing of 'New Framework for India-U.S. Defense Relations' in 2005 and the resulting intensification in defence trade, joint exercises, personnel exchanges, collaboration and cooperation in maritime security and counter-piracy, and exchanges between each of the three services.

- The Defence Framework Agreement was updated and renewed for another 10 years in June 2015.
- The two countries now conduct more bilateral exercises with each other than they do with any other country.

India – USA Defense foundational agreements

- The General Security Of Military Information Agreement (GSOMIA), relating to the security of each other's military information was signed in 2002.
- In 2016, Logistics Exchange Memorandum of Agreement (LEMOA) relating to the exchange of logistics support had been concluded, followed by Communications Compatibility and Security Agreement (COMCASA) in 2018 permitting encryption standards of communication systems.
- The recent signing of the Basic Exchange and Cooperation Agreement (BECA) providing for the sharing of geospatial data is the last of the foundational agreements.

The United States enters into what are called 'foundational or enabling agreements' with its defence partners.

- These agreements govern the nature and scope of U.S. defence partnerships.
- Partners enhance the capabilities of the U.S. military in distant places through sharing information, platforms and logistics.
- The competitive advantage of the U.S. military is maintained primarily by the advanced technologies that the country develops continuously.
- The U.S. sells military equipment to other countries with strict control over their deployment and use.
- For instance, consider the B777-300ER aircraft that India bought from Boeing recently for the use of VVIPs.
- The sale of advanced communication and security systems on the aircraft — which are not commercially available — is made seamless by foundational agreements.
- The U.S. is also eager to advance 'interoperability' with defence forces of the countries that are its defence partners.
- Interoperability involves real-time coordination of forces.
- The U.S. has signed these foundational agreements with at least 100

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countries, which mostly follow a standard text.

- Country-specific changes were made in India's case in all four foundational agreements.

What do these agreements do?

- The **General Security of Military Information Agreement or GSOMIA**, and its extension, the **Information Security Annex (ISA)** signed in 2019, allow military technology cooperation for the sharing of classified information between governments and companies in both countries.
- ISA will provide a framework for exchange and protection General Security Of Military Information Agreement (GSOMIA) of classified military information between the U.S. and Indian defence industries.
 1. Currently, under GSOMIA, such information is exchanged between the Government authorities of the two countries but not between private parties.
 2. This will further promote "Make in India" in the defence sector.
 3. In accordance with the budget announcement (2018-19), the government has already decided to set up two Defence Industrial Corridors in the country, one in Uttar Pradesh and another in Tamil Nadu.
- The **LEMOA** enables logistics support, say refuelling of planes or ships, supply of spare parts or maintenance to each other.
- For instance, U.S. Navy's P8 aircraft landed in Port Blair last month for refuelling, under LEMOA.
- The **COMCASA** allows Indian forces to procure advanced, secure communication equipment from the U.S.
- Such equipment was earlier denied for U.S. origin platforms such as C-17, C-130, and commercial systems were used in their place.
- Only after **COMCASA** was signed were the encrypted systems provided to India.
- The **BECA** enables exchange of geospatial information. Akin to a GPS that enables navigation, such exchange of geospatial information enhances the accuracy of a missile or the utility of a drone.

What is the strategic importance of these agreements?

- Since the Civil Nuclear Agreement of 2005, the India-U.S. defence cooperation has been advancing at a rapid pace.
- The U.S. has relaxed restrictions on technology trade in India's favour considerably, and India is designated a 'Major Defence Partner'.
- Foundational agreements deepen defence cooperation, in trade and

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operation.

- India and the U.S. are also part of a broader shared vision for the Indo-Pacific region, where both countries, along with Japan and Australia, are increasing their military cooperation.
- U.S.-built platforms used by partner countries can talk to one another and share operational information.

Are there any concerns?

- Critics worry that tying itself too closely with the U.S. may limit India's choices.
- The evolution of technology makes it inevitable that all military platforms will be integrated and networked in the future.
- The U.S. is very particular about the integrity of its networks, and pressure could mount on India to remain firmly in its camp.
- The U.S. is particularly irked by India's continuing defence cooperation with Russia.
- India will be taking the delivery of Russian S-400 missile defence system next year, ignoring American objections.
- The U.S. could respond with sanctions. At any rate, it will not be possible to integrate Russian and American platforms, and this could throw up new challenges of military planning for India.

Defence contracts:

- From less than \$400 million of defence acquisitions till 2005, the U.S. has since signed defence contracts worth \$18 billion with India.
- This marks a major shift given that India had been traditionally almost completely dependent on Russia for defence products.
- As per reports published by the Stockholm International Peace Research Institute (SIPRI), India was the world's second-largest arms importer during the period 2015-19, with Russia being the largest supplier though Russia's share of the Indian weapons market declined from 72% to 56%.
- Israel, the U.S. and France have substantial arms exports to India.
- India has imported Apache, Chinook and MH 60 'Romeo' helicopters and P8I maritime aircraft from the US.
- The US could also sell Predator, Reaper Armed Drones to India amid rising tensions with China.
- In 2018, India was placed in Category I of the Strategic Trade Authorisation, easing exports of sensitive technologies.
- India and the US have also decided to deepen defence and security cooperation by collaborating on the co-development and production of

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advanced military systems along with other aspects like defence technology transfer.

- The Defence Trade and Technology Initiative (DTTI) was formed in 2012 between the US and India, to enhance the bilateral relations in defence by venturing into the field of advanced defence research and development and manufacturing.
- The aim was to strengthen the US and India's defence industrial base by moving away from the traditional "buyer-seller" dynamic toward a more collaborative approach.

Joint defence exercises:

- Joint military exercises with the U.S. have expanded, both in scale and complexity over the years.
- Ex Yudhabhaya and Ex Vajra Prahar are joint military exercises.
- Ex Cope India is a joint Airforce exercise.
- Ex Malabar is a joint navy exercise which also involves Japan (Australia has been invited for Malabar 2020).
- Tiger Triumph is a bilateral tri-service amphibious military exercise involving the armed forces of India and the United States. It is the first tri-service military exercise between the two countries.
- India has previously only held tri-service exercises with Russia.

India – USA Relationship Dynamics

- It can be elaborated into three main categories-
 1. Good Phase- It is linked to the historic terms like the U.S. civil nuclear deal, the ongoing defence cooperation and the signing of "Foundational Defence Agreements" which are the Communications Compatibility and Security Agreement (COMCASA), the Logistics Exchange Memorandum of Agreement (LEMOA) and the Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation (BECA) etc.
 2. Bad Phase- It is linked with the current trade challenges, the U.S.'s hyphenation of India with China in its trade war and its call for the removal of the 'developing country' tag assigned by the WTO.
 3. Ugly Phase- It was when the U.S. sent its fleet towards India to assist Pakistan during the 1971 war.
- The good outweighs the other two but a sense of scepticism remains because of India's multilateral outreach, especially with respect to the procurement of defence material from Russia and Indian military's presence in Afghanistan.
- India also needs to remain mindful of the unpredictability and inherent

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contradictions in U.S. foreign policy and, at the same time, capitalise on U.S. 'isolationism and retrenchment' by maintaining its time-tested policy of non-alignment and strategic autonomy.

India – USA cooperation

- **2+2 dialogue:** India and the US have recently concluded second 2+2 ministerial dialogue in Washington. Several landmark agreements in both defence and Civilian sectors were signed.

What is 2+2 dialogue?

- It is a format of dialogue where the defense and foreign ministers or secretaries meet with their counterparts from another country. 2+2 Ministerial is the highest-level institutional mechanism between the two countries.
- India holds such talks with Australia, at the foreign secretary and defense secretary level but with Japan and the US at the ministerial level.
- With the US this was the second 2+2 meeting (Washington), first was held in New Delhi in September 2018.
- US holds such ministerial dialogues with Australia and Japan also.

- **Peacekeeping for Indo-Pacific:** Cooperation in capacity-building of UN peacekeepers from Indo-Pacific countries, based on demands from the countries concerned. Counter-terrorism efforts were also discussed including dangers of cross border terrorism.
- **Tiger Triumph Exercise:** To hold the India-U.S. joint tri-services 'Tiger Triumph' on an annual basis. The first edition was held in November 2019 as a Humanitarian Assistance and Disaster Relief (HADR) exercise.
- **Coalition for Disaster Resilient Infrastructure (CDRI):** The CDRI was launched at the UN Climate Action Summit in New York, USA in September 2019. It is headquartered in New Delhi, India. The US is now part of it.
- **Water Resource Management:** Memorandum of understanding (MoU) was signed between Ministry of Jal Shakti and the U.S. Geological Survey to promote technical cooperation in water resources management and water technology.

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- **Space Situational Awareness (SSA):** Cooperation for exchange of information including space debris and space traffic management. It ensures navigational safety of our space assets.
- **Cooperation in multilateral forums:**
 1. India and the US are part of the Quad grouping along with Australia and Japan.
 2. India has been invited for the first time to attend the Five Eyes (a signals intelligence grouping set up in 1941 consisting of Australia, Canada, New Zealand, the United Kingdom and the U.S.) meeting.
 3. The U.S. has aided India's entry into export control regimes (Australia Group, Missile Technology Control Regime and Wassenaar Arrangement).

Way forward:

- The defence ties between the two countries have come of age.
- Even though there continues to be a certain divergence of interests in some areas, there seem to be higher potential benefits of cooperation and collaboration between the two countries.
- Working together would require mutual respect and trust while accepting differences.
- The policy debate in India should not get driven by ideologies but by India's immediate as well as long term national interest. The policy objective has to enhance India's strategic space and capability.

Source: TH

Assisted Reproductive Technology Regulation Bill, 2020

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Assisted Reproductive Technology Regulation Bill, 2020

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Regulating ART



Illustration of in vitro fertilisation

regulate and supervise Assisted Reproductive Technology (ART) clinics. It establishes ART banks to promote ethical practices

- It proposes stringent punishment for those who attempt to control the offspring's sex, sell embryos or gametes

- As of Feb. 20, there are 517 ART clinics under the National Registry of ART clinics and banks in India, according to the ICMR

- The Bill establishes the National Board, the State Boards, and the National Registry to

- India has one of the highest growths in the number ART centres and ART cycles performed every year.
- India has become one of the major centres of this global fertility industry, with reproductive medical tourism becoming a significant activity.
- This has also introduced a plethora of legal, ethical and social issues; yet, there is no standardisation of protocols and reporting is still very inadequate.

Key features of the Bill

- The Bill provides for a national Board which will lay down a code of conduct to be observed by those operating clinics.
- It will also formulate minimum standards for laboratory and diagnostic equipment and practices to be followed by human resources employed by clinics and banks.
- The States and Union Territories will also have to form State Boards and State authorities within three months of the notification of the proposed legislation.
- Under the proposed law, a national registry and registration authority will maintain a database to assist the national Board to perform its functions.
- The Bill also proposes stringent punishment for those who practise sex

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selection, indulge in sale of human embryos or gametes and those who operate rackets.

- The Bill will also ensure confidentiality of intending couples and protect the rights of the child.

‘ART not appropriate for live-in or same-sex couples’

- Given the Indian family structure, social milieu and norms, it will not be very easy to accept a child whose parents are together but not legally married, says the 129-page report of the Parliamentary Standing Committee on Health and Family Welfare on the Assisted Reproductive Technology (ART) (Regulation) Bill, 2020, submitted in Parliament earlier this week.
- The committee, in its report, said that keeping the best interest of the child born through ART services and other parentage issues in case of their separation, it would not be appropriate to allow live-in couples and same sex couples to avail themselves of ART.
- “The rights of people in same-sex relationship and live-in relationships frequently keep getting redefined; however, the ART Bill endorsed the recommendations of the Select Committee on Surrogacy (Regulation) Bill, 2019, wherein the definition of “couple” has been retained and live-in couples and same-sex couples have been excluded from availing surrogacy services,” the Committee said in its report.
- In its observation, the committee expressed anguish over the fact there were only six IVF (in vitro fertilisation) clinics in the government sector, while the remaining thousands of IVF centres were in the private sector.
- “The committee, therefore, recommends that the government should ensure that each medical college or premier Government Hospital/ Institute must have IVF/ART facilities so as to enable the common poor masses to avail the services of ART,” it said.
- Stating the India had become one of the major centres for ART, the committee noted that “there are only guidelines of ART, and no law still exists.”

Source: TH

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Rising poverty post COVID-19

GS-III | 22 March, 2021

Rising poverty post COVID-19

Poverty levels in India and China

- A new study by the **Pew Research Center** estimates that the COVID-19 pandemic has had a disproportionately deleterious impact on living standards in India and China in 2020, with the sharp economic contraction in the former pushing as many as **7.5 crore people into the ranks of the poor** (those who earn \$2 or less a day).
- In contrast, the figure is about 10 lakh in China, whose economy slowed but continued to post growth.
- In absolute terms, the **number of poor in India** is posited to have **swelled to 13.4 crore**, reversing the gains made in the preceding nine years when the country cut the number of poor by more than three-fourths to an estimated **7.8 crore in 2019**.
- In China, the population of the **poor likely inched up to 40 lakh**, matching the 2019 level.

Contraction of middle class

- Similarly, the numbers of **India's middle class** — those with a daily income of **\$10.01–\$20** — are projected to have **shrunk by 3.2 crore to about 6.6 crore**, compared with the number this income cohort would have reached absent the pandemic.
- Here again, China likely experienced just one-third the level of contraction, with the population of those deemed as middle income set to have narrowed to 49.3 crore compared with the pre-pandemic projection of 50.4 crore.

Pew assessment

- **The Pew assessment**, which is based on an analysis of the **World Bank's PovcalNet database**, does, however, acknowledge the multiple assumptions that inform the study.
- These include varying base years for income/consumption figures — with India's from 2011 and 2016 for China.
- Still, the study serves as a stark reminder of the economic disparities, both within India and at a comparative level with its northern neighbour.
- The latest report once again spotlights the **widening inequality** in India,

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exacerbated by the pandemic, as the lower income populations have disproportionately borne the brunt of job and income losses in the wake of the multiple lockdowns.

Conclusion

- The **National Rural Employment Guarantee scheme** has been seeing record levels of demand is testimony to the struggles those in the rural hinterland have been facing in finding gainful employment since the onset of the pandemic.

Source: TH

Vehicle scrappage policy

GS-III | 22 March, 2021

Vehicle scrappage policy

Introduction

- Scrappage policy can work if incentives are confined to fuel-efficient vehicle replacements

Road map for scrappage policy

- The much-awaited vehicle scrappage policy announced by the Transport Ministry, coming after the move for a **green tax on ageing and polluting automobiles**, promises economic benefits, a cleaner environment and thousands of jobs.
- Although it will take until **April 1, 2022** for **vehicles belonging to the government and the public sector to be scrapped**, another year thereafter to identify **junk heavy commercial vehicles** through **mandatory fitness checks**, and **finally other vehicles by 2024**, it is a constructive road map.

Challenge for vehicle fitness checking centre

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- It will be no easy task, however, to put in place a credible system of **automated fitness checking centres** with help from States to assess **whether commercial and private vehicles are roadworthy after 15 and 20 years, respectively**, as the policy envisages.
 - Equally important, enforcement will be key to get them scrapped once they are found unfit for use and to stop them from moving to smaller towns.
- Transport Minister Nitin Gadkari, who has had limited success with enforcement of the amended Motor Vehicles Act of 2019 because States are not entirely on board, has the difficult task of ensuring that the scrappage plan gets their support, and the backing of manufacturers who stand to benefit from a spurt in demand.
- **Heavy commercial vehicles**, which contribute disproportionately to pollution — 1.7 million lack fitness certificates — pose the biggest challenge.

Conclusion

- Vehicle scrappage and replacement is seen internationally as a **route to rejuvenate COVID-19-affected economies** by privileging **green technologies, notably electric vehicles (EVs)**, and also as an initiative to **achieve net zero emissions** by mid-century under Paris Agreement commitments.
- India's automobile ecosystem is complex, with dominant, legacy motors spanning fossil-fuel driven vehicles and a nascent EV segment.
- The industry's share pre-COVID-19 was about **7.5% of GDP** with significant downstream employment, **but it also imposes a fuel import burden**.
- The Centre has to arrive at a balance and have incentives that reward manufacturers of vehicles that are the most fuel-efficient.
- Failure to prioritise fuel efficiency and mandate even higher standards and enhance taxes on fuel guzzlers will only repeat the mistakes of vehicle exchange programmes abroad, where full environmental benefits could not be realised, and taxpayers ended up subsidising inefficiency.

Way forward

- **States must also come on board** to provide **road tax and registration concessions**, while the **automobile industry** is expected to sweeten the deal with **genuine discounts on new vehicles**.
- **Ecological scrapping**, as a concept, must lead to **high rates of materials recovery, reduce air pollution, mining and pressure on the environment**.

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Source: TH

South China Sea Dispute

GS-II | 22 March, 2021

South China Sea Dispute

About South China Sea



- The South China Sea is an arm of western Pacific Ocean in Southeast

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Asia.

- It is south of China, **east & south of Vietnam**, **west of the Philippines** and **north of the island of Borneo**.
- **Bordering states & territories** (clockwise from north): the People's Republic of China, the Republic of China (Taiwan), the Philippines, Malaysia, Brunei. Indonesia. Singapore and Vietnam.
- It is connected by **Taiwan Strait with the East China Sea** and by **Luzon Strait with the Philippine Sea**.
- It contains numerous shoals, reefs, atolls and islands. The **Paracel Islands**, **the Spratly Islands** and the **Scarborough Shoal** are the most important.

Importance of South China Sea

- This sea holds tremendous strategic importance for its location as it is the connecting link between the **Indian Ocean and the Pacific Ocean**. (Strait of Malacca)
- According to the **United Nations Conference on Trade And Development (UNCTAD)** one-third of the global shipping passes through it, carrying trillions of trade which makes it a significant geopolitical water body.
- According to the **Department of Environment and Natural Resources, Philippines**, this sea has one-third of the entire world's marine biodiversity and contains lucrative fisheries providing food security to the Southeast Asian nations.
- The South China Sea is believed to have **huge oil and gas reserves** beneath its seabed.

In News: The Chinese fishing fleets have been seen raiding the rich waters of the South China Sea that are internationally recognised as exclusively Indonesia's to fish. The fishermen in Natuna Islands (Indonesia) are worried.

The Chinese steel trawlers scrape the bottom of the sea and **destroy other marine life**. Chinese trawling also **breaches the maritime borders**. Since China is its **largest trading partner**, it has been argued that the **Indonesian government has not taken any steps** to deal with the incursions by Chinese fishing boats.

China's illegal fishing near the Natuna islands carries global consequence, reminding regional governments of Beijing's expanding claims to the South China Sea through which **one-third of the world's maritime trade flows**. China wants to claim the resources such as **oil, natural gas, and fish** in the South China Sea. The presence of Chinese fishers also helps to **embody China's maritime**

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claims. The nine dash line (rejected by an international tribunal) asserted by China violates the principle of **Exclusive Economic Zones (EEZ)**.



History of Dispute

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- In the first half of the 20th century, the Sea remained almost quiet. In fact, at the end of World War II, no claimant occupied a single island in the entire South China Sea.
- China laid claim to the South China Sea in 1947. It demarcated its claims with a U-shaped line made up of **eleven dashes** on a map, covering most of the area.
- But two "dashes" were removed in the early 1950s to bypass the Gulf of Tonkin as a gesture to communist comrades in North Vietnam.
- The remaining '**nine-dash line**' stretches hundreds of kilometers south and east of its southerly Hainan Island, covering almost 90% of South China Sea.
- After 1960's when the huge reserve of oil and natural gas were discovered in the region, the territorial claims started growing in an unprecedented manner.
- **The United Nations Convention on the Law of the Sea (UNCLOS)**, which came into force in 1994, established a legal framework intended to balance the economic and security interests of coastal states with those of seafaring nations.
- While UNCLOS has been signed and ratified by nearly all the coastal countries in the South China Sea, based on their own interpretation of the UNCLOS, claimant countries started to legitimize their claims.
- In 2002, ASEAN and China came together to sign the Declaration on the Code of Conduct of Parties in the South China Sea to keep disputes away. However, it didn't achieve the desired outcomes.
- In 2009, Malaysia and Vietnam sent a joint submission to the Commission on the Limits of the Continental Shelf (CLCS) for setting out some of their claims. In response to this China submitted a map containing the infamous "nine-dash" line and due to which, there was no headway in the dispute resolution.

Why in the news?

- The **Permanent Court of Arbitration** (, based in The Hague, Netherlands, recently ruled that China's claims of historical rights over the South China Sea (SCS) has no legal basis. The case against China was initiated by the Philippines.
- The Permanent Court of Arbitration (PCA) has ruled that China's claims to the waters within the "nine-dash line", was in breach of the **UN Convention on the Law of the Sea** (UNCLOS). The court also observed that China has caused "severe harm to the coral reef environment" by building artificial islands.

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- The Philippines had lodged the suit against China in 2013 and has welcomed the ruling, but China has reacted furiously, saying that it "does not accept and does not recognise" the decision.
- China had even refused to participate in the case, saying that the tribunal had "no jurisdiction" over the issue.
- It is important to note that this ruling, comes at a critical juncture, as China bolsters its global economic status. China has a long-standing ambition to be accorded recognition as a market economy under the World Trade Organization (WTO).
- With reference to the current ruling by the tribunal, the U.S. can't exert much moral pressure as it has not even ratified the United Nations Convention on the Law of the Sea (UNCLOS). Conversely, since both China and the Philippines have ratified the UNCLOS, there is more pressure on China to comply.

Geopolitics and Activities undertaken in the region:

- Between China and the Philippines, the conflict centers around the **Scarborough Shoal**. The Scarborough Shoal, is essentially a triangle-shaped chain of reefs and rocks with a total area of 150 square kilometers.
 - In 1995, China took control of the disputed **Mischief**, constructing octagonal huts on stilts- Chinese officials said at the time that these would serve as shelters for fishermen. The Philippines registered a protest through the Association of Southeast Asian Nations.
 - In fact, the current round of tension between the two countries began in 2008-2009 after a tense but bloodless stand-off over the Scarborough Shoal, led to China gaining de facto control of it in 2012.
 - Also recently, China has constructed and installed military-capable infrastructure in the **Spratly Islands**.
 - China's state-owned **China National Offshore Oil Corporation (CNOOC)** has accelerated oil exploration, especially in the western region of the South China Sea. China's rising energy demands appears to be a factor fuelling its assertion in South China Sea, and sharpening its disputes with littoral states, especially Vietnam and the Philippines, along with Taiwan, Malaysia and Brunei.
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- Recently, Chinese and Russian naval forces carried out joint air defense and anti-submarine drills in the South China Sea (SCS)- this was part of an eight-day naval war game, **Joint Sea-2016**, which is the largest naval military exercise ever between the two countries.

Reasons for the stalemate on a possible solution

- ASEAN member nations, namely, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, often show signs of anxiety whenever claimants over the South China Sea, most often China, escalate the conflict.
- In fact, one of the fundamental principles of the Association of Southeast Asian Nations (ASEAN) has been to resolve disputes by peaceful means and to reach agreement by a consensus.
- But on the issue of the South China Sea, ASEAN has been unable to formulate a consensus policy. Reasons for this can be attributed partly to the fact that not all 10 ASEAN members are claimants to the South China Sea. While another reason is that members of ASEAN have overlapping claims among themselves. Moreover, bilateral relations between China and some smaller ASEAN members, such as Laos and Cambodia, are also a factor. Because of its economic and military power, China has been able to win over some ASEAN members.
- In fact, when China insisted on talks among the parties concerned, the claimants in ASEAN wanted to pursue it through multilateralism or the Court of Arbitration. Thus, the existence of two opposing approaches was, and continues to be a major challenge for bringing a mutually acceptable solution to the South China Sea disputes.

Strategic Importance of South China Sea:

- It is important to note that the South China Sea (SCS) contains one of the world's busiest international sea lanes and is also home to many of the world's busiest shipping ports. The South China Sea also connects the Pacific and Indian Oceans and thus is of a unique strategic importance to the littorals of these two oceans which are important naval powers in the region- such as India, Japan, etc.
 - The SCS, is one of the main arteries of the global economy and trade. More
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than \$5 trillion of world trade ships pass through the SCS each year. The SCS is rich in resources, with numerous offshore oil and gas blocks. The natural resources in the region are yet to be explored.

- The United States Energy Information Agency estimates that there are 11 billion barrels of oil and 190 trillion cubic feet of natural gas in deposits under the South China Sea (SCS).
- The waters of the South China Sea (SCS), contain lucrative fisheries that, according to some estimates, account for 10% of the global total.

The Indian Context

- It is important to note that in July 2014, an Arbitration Tribunal, set up under the Permanent Court of Arbitration, delivered its ruling, in the matter of the Bay of Bengal Maritime Boundary Delimitation between India and Bangladesh. The maritime boundary so delimited covered the territorial sea, the exclusive economic zone (EEZ) and the continental shelf.
- The United Nations tribunal awarded Bangladesh 19,467 sq. km of the 25,602 sq. km sea area of the Bay of Bengal.
- India has been widely credited, with her acceptance of the decision and the manner in which she has abided by it. This is an example which China should be encouraged to emulate. In fact, it is interesting to note that the US has asked China to learn from India's handling of its maritime disputes with its neighbours- referring to the maturity with which India has agreed to the settlement on the maritime boundary with Bangladesh.
- Under the 'Act East' policy, India has been taking a higher position at the global high table- this was reflected in the joint statement issued in September 2014, by the Governments of U.S. and India when Indian PM Narendra Modi, travelled to U.S. The joint statement "urged the concerned parties to pursue resolution of their territorial and maritime disputes through all peaceful means, in accordance with universally recognized principles of international law, including the United Nations Convention on the Law of the Sea." The joint statement also, "affirmed the importance of safeguarding maritime security and ensuring freedom of navigation and over flight throughout the region, especially in the South China Sea."
- In the wake of the recent judgement by the Permanent Court of Arbitration, it

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is a good time for India to assert that it believes in global commons, and in freedom of navigation. India has rightfully not come out in 'open' support of the verdict from the tribunal, as any overt support to this verdict might run against India's ambitions of securing membership into the NSG- where China's support is needed.

- India has legitimate commercial interest in the South China Sea (SCS) region. But India follows the policy of not involving itself in the disputes between sovereign nations.
- India has been concerned about the security of its trade-flows and energy interests in the South China Sea. Vietnam has offered India seven oil blocks in its territory of the SCS- this move didn't get down well with China. India has signed energy deals with Brunei too.
- India has been a strong advocate of the idea of freedom of navigation. This belief is strongly echoed by most other major powers, including the U.S.

Possible Way Forward

China operates from a position of strength in the South China Sea, wherein it has physical control over critical islands in the region, coupled with this, her policy of gradual militarization of the disputed islands in the South China Sea, would impact freedom of navigation- making China the main arbiter of the accepted range of 'legitimate' operations in the South China Sea.

Also, although the ruling is historic, the tribunal lacks powers to enforce its rulings, it is important that the claimant nations do not escalate the issue, but work on arriving at a consensus through effective diplomacy.

Judicial verdicts on issues of contested sovereignty have had historical precedents of triggering a nationalist backlash. It is thus important to consider possible solutions to this dispute. Some measures are as under:

- To resolve the disputes peacefully, the claimants in the region should be willing to abandon their confrontational attitude, and instead agree to find a middle path- even if this requires sacrificing certain portions of their claims.
- All claimants can perhaps limit their claim to the areas of 200 nautical miles of the Exclusive Economic Zone in accordance with the United Nations Convention on the Law of the Sea (UNCLOS). Thus, by agreeing to such a

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proposal, the claimants can also reach an agreement to leave international waters for free navigation.

- Another possible solution would be for the parties concerned to establish a common ownership of the disputed areas whereby all the revenues from the South China Sea are equitably shared among the littoral countries.
- Perhaps another possibility would be for the disputing countries to specifically lay out their claims and allow a neutral party to adjudicate on the basis of the UNCLOS or any other relevant international laws.

Source: TH

Tuberculosis

GS-III | 22 March, 2021

Tuberculosis (TB)

What is Tuberculosis? How is it caused?

- TB is caused by bacteria (**Mycobacterium tuberculosis**) that most often affect the lungs but not just lungs but **also other parts. BCG Vaccine.** 90:90:90 target for 2035 for TB. **Moscow declaration** to end TB.
- TB is a contagious infection that usually attacks your lungs.
- It can spread to other parts of your body, like your brain and spine.
- Bacteria called Mycobacterium tuberculosis causes it.
- TB is the top infectious killer in the world claiming 4000 lives a day
- India has the largest number of TB patients. and largest deaths due to TB. BCG Vaccine is given for TB.

Transmission:

- TB is spread from person to person through the air.
- When people with lung TB cough, sneeze or spit, they propel the TB germs into the air.
- WHO said the spread of TB is due to 1) Low Immunity 2) High density and Closed space. 3) No health and hygiene (spitting).

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Efforts of Indian Government to eradicate TB

- In 1962, the National TB Programme (NTP) was launched in the form of District TB Centre model, with Bacillus Calmette–Guérin (BCG) vaccination. Although BCG immunisation does prevent severe multi-organ TB disease in young children, it does not control TB.
- In 1978, the Expanded Programme on Immunisation (EPI) began, giving BCG to all babies soon after birth and achieving more than 90% coverage. However, the NTP and the EPI had not reduced India's TB burden.
- In 1993, the Revised National TB Control Programme (RNTCP) was launched, offering free diagnosis and treatment for patients rescuing them from otherwise sure death. It brought down TB incidence in India at an annual rate of 1.7%.
- **RNTCP, 1993**
 1. DOTS (Directly Observed Treatment Short course): Daily medicine. Hence Simple DOTS, Alternative DOTS and DOTS +.
 2. 1 problem is MDR - TB. Hence we are targeting through RNTCP.
 3. We change the testing methods = Serum to Sputum to Expert Gene Technology.
 4. **NIKSHAY Poshan Abhiyan** = 500 Rs. per month to TB patients. It is under NHM as a DBT scheme.
 5. Public and Private Doctors to add cases in **NIKSHAY portal**.
 6. Bedaquiline and Delamanide.
 7. Role modelling through Amitabh Bacchan.
 8. For AIDS, TB is an opportunistic disease.
 9. Red Ribbon Express is a Train for awareness.
- **National Strategic Plan for TB Elimination 2017-2025**
 1. 4 strategic pillars of "Detect – Treat – Prevent – Build" (DTPB).
 2. Key targets: TB-HIV, Diabetes, Tobacco use, Alcohol; Poor undernourished, EWS, Prison inmates etc.
 3. Early diagnosis of all the TB patients, prompt treatment with quality assured drugs and treatment regimens along with suitable patient support systems to promote adherence.
 4. Engaging with the patients seeking care in the private sector.
 5. Prevention strategies including active case finding and contact tracing in high risk / vulnerable population
 6. Airborne infection control.
 7. Multi-sectoral response for addressing social determinants.
- In 2018, India has pledged to eradicate TB by the year 2025, 5 years ahead of the global deadline set for 2030.

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- The Ministry of Health and Family Welfare has launched a National Prevalence Survey to estimate prevalence of tuberculosis at national and sub-national levels.
- **Truenat - a molecular TB Diagnostic Test**: is made indigenously in India by Goa based Molbio Diagnostics. ICMR has assessed and validated the diagnostic tool. WHO says it has high accuracy. Truenat can be used as an initial tool for diagnosing TB at primary, community health centers.
- **New cure for TB**: US Food and Drugs administration approves it. **BPai Regime = Bedaquiline, Pretomanid and Linezolid.**
- **Combination therapy using Malaria drug (Chloroquin + Isoniazid) quickly clears TB.**
- India has the target to **eliminate TB by 2025**. World target is 2030.
- MoHFW launched '**TB Harega Desh Jeetega Campaign**', along with **National TB Prevalence Survey**.
- Saharia tribe miners in Madhya Pradesh have appealed to the government to treat them for silicosis rather than Tuberculosis. They speak the Munda language.
- **WHO released Global TB Report 2019**
 1. Geographically, most TB cases in 2018 were in the WHO regions of South-East Asia (44%), Africa (24%) and the Western Pacific (18%).
 2. 8 countries accounted for 2/3rd of global total include India (27%), China (9%) and Indonesia (8%).
- India has announced a contribution of \$22 million to the **Global Fund for AIDS, TB and Malaria (GFTAM)** for the 6th replenishment cycle (2020-22).
- **Kerala on track to eliminate TB by 2025**
 1. Joint Monitoring Mission (JMM 2019) by Center and WHO is assessing the RNTCP (Revised National Tuberculosis Control Programme) and India's National Strategic Plan for TB elimination, 2017-2025.
 2. Kerala lauded for
 1. Commitment, Implementation and Administration.
 2. Integrating RNTCP into health system.
 3. Patient centric programme, involvement of Community, leadership of local bodies.
 4. Partnership with Private sector.
 3. They can improve on CBNAAT/Genexpert machines which are molecular diagnostics services.
- Smokers are twice likely to develop active TB and die from it than non smokers and smoking also makes TB Treatment less effective. In 2018, 9 lakh TB cases were attributed to smoking, according to Global TB report. Tobacco control is TB control. World Lung Conference is held in Hyderabad.
- **SeeTB**: is a new diagnostic tool for detecting TB. It is a battery operated device.

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- **India** and the **World Bank** have signed a loan agreement of \$400 million for the Program Towards Elimination of Tuberculosis (TB).
- Lancet has published a report 'Building a Tuberculosis-free World'. Lancet is a British journal. It is among the World's oldest, most prestigious medical journal.

Dangers of TB transmission during CoVID

- India has the **highest burden of tuberculosis (TB)** in the world.
- Even as the government was pushing to **end TB by 2025**, the COVID-19 pandemic has caused a **massive disruption in TB services**.
- **TB case notifications** across India have **dropped by over 50%** since March, with an estimated **3,00,000 missed case notifications** (until May 30).
- This is worrisome, since **undiagnosed TB can worsen patient outcomes** and increase **transmission in the community**.
- As the **lockdown ends**, we will see a **big surge in people seeking care** with **TB and COVID-19 symptoms**.
- However, people will struggle to get care because the **public sector is still dealing** with the pandemic, while the **private sector is not functioning at normal capacity** or is **reluctant to manage people with fever and cough**.
- To find the missed TB patients, we will need to find ways to **rapidly resume public TB services, integrate TB and Covid-19 testing** and be creative about engaging the private health sector to **augment public TB services**.
- It is critical for the **National TB Elimination Programme** to resume routine TB services, which **include diagnostic services**, such as **microscopy and rapid molecular testing**, as well as **drug-susceptibility testing**.

Dual testing

- Since **fever and cough** are symptoms of both **TB and COVID-19**, simultaneous **screening and testing** can be encouraged. Thankfully, India has access to **three existing technologies that permit dual testing** for both infections.
- The first is the **digital chest x-ray (CXR)**, which could be deployed along with artificial intelligence (**AI**) based tools for **both TB and COVID-19**.
- AI-based algorithms are now available that obviate the need for trained radiologists to read the x-rays. If a CXR is suggestive for TB on the AI algorithm, then a confirmatory test such as **GeneXpert** can be done to confirm TB and also detect drug-resistance.

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- One such **AI-enabled screening tool** is called **qXR**, developed by Qure.ai, an **Indian company**. Several studies show accuracy that is comparable or better than human radiologists.
- The **screening tool, qXR**, has now added the capability of **detecting signs of COVID-19** from the x-rays images.
- Based on an estimated **3,00,000 missed cases** during the national lockdown, around **10,50,000 CXR** (assuming 70% of these are pulmonary TB cases and 5 CXRs are needed to detect one patient with pulmonary TB) **will be required for detecting TB cases**.
- This is an overwhelming figure for any health system especially during a pandemic. However, a **dynamic partnership with 80,000 licensed diagnostic radiology** facilities will help combat this.
- CXR screening will require confirmatory testing for both diseases, and **molecular testing** is the most accurate and rapid option. There are two technologies already in use in India that could be leveraged for simultaneous testing of **sputum samples** for both infections.
- One is called **GeneXpert**. India has over 1,100 of these systems in use. A large number of private labs, too, have this technology. On this platform, TB can be detected using a **cartridge** called **Xpert MTB/RIF** and COVID-19 by using the **Xpress SARS-CoV2 cartridge**.
- The second molecular platform is called **TrueLab**, developed by an **Indian company – Molbio Diagnostics**.
- This technology is already being used in some states and in private labs to test for TB using a chip called **Truenat MTB**.
- Molbio now has a chip called **Truenat Beta CoV** that can be **used for COVID-19**. This chip, along with Xpress **SARS-CoV2 cartridge**, has been approved by ICMR for emergency use for COVID-19 testing.
- Typically, TB testing requires sputum sample. Now, SARS-CoV-2 testing is done using nasopharyngeal swabs, but there is no reason why sputum samples cannot be used, since sputum is generated deeper in the lungs. However, it is important to validate both test molecular platforms for simultaneous testing using the same sputum sample.

Source: TH

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Myanmar coup-The way forward

GS-II | 23 March, 2021

Myanmar coup-The way forward

Introduction

- The Myanmar junta should heed the people and respect the election results

Background of the coup

- Ever since the military captured power in Myanmar seven weeks ago, the country has steadily descended into political and economic chaos.
- When the Generals toppled the democratically elected government, detained its leaders, including **State Counsellor Aung San Suu Kyi and President Win Myint**, and declared a **state of emergency** with prohibitory orders, they may have thought that they could quickly consolidate power through force.
- But they were proved wrong as **tens of thousands of people** stood up against the junta.
- Faced with strong challenges in their path towards absolute power, the Generals responded with brutal force.
- At least **247 people have been killed** since the February 1 coup, according to the Assistance Association for Political Prisoners, a non-profit.

History of Democracy in Myanmar

- The military, which controlled the country through direct rule for almost 50 years until former **junta ruler Than Shwe** initiated the transition into **partial democracy in 2010**, is one of the most consistent enemies of democracy and human rights.
- In **1988 and 2007**, the **Generals unleashed violence** to quell protests (Saffron Revolution). But in the past, they managed to restore order quickly through fear and violence.

The public remains defiant

- Now, neither the junta's bloody track record nor the actual use of force is dissuading the protesters who, after experiencing limited liberties for 10 years, refuse to recognise the junta.
- Mostly youngsters, they use VPN and encrypted messenger apps to organise protests, and are joined by thousands, including bank employees, port

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workers and medics, bringing the battered economy to a halt.

- As protests and violence continue, international pressure is also mounting on the Generals. In the past, the Myanmar military paid little attention to international opinion or targeted sanctions.
- They are unlikely to be different now. But the Generals now find it increasingly difficult to consolidate power and restore order.
- How long will the Generals continue to kill their own people? And even if they quelled the protests through more bloodshed, what kind of a Myanmar would they be left with?

Impact on India

- The crisis had its spillover impacts on the borders as well.
- **At least 300 Myanmar, including police officers, are estimated to have since crossed into India.**
- **Mizoram Chief Minister Zoramthanga** took up the issue with the Foreign Minister and India has shut the border for now, but it would be difficult for New Delhi to turn a blind eye to the border if the situation in Myanmar turns worse.

Way ahead

- Surely, no one wants an extremely poor, isolated country with a broken society and a shattered economy.
- The Myanmar Generals should, without further bloodshed, heed the public's demands, end the coup, respect the election results and restore the country's democracy. That is the only way forward.

Source: TH

Difference between Petroleum, Natural Gas, LNG, LPG and H-CNG

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Difference between Petroleum, Natural Gas, LNG, LPG and

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H-CNG

Petroleum / Mineral oil	Natural Gas
<ol style="list-style-type: none">1. Found in sedimentary rocks of marine origin2. Formed by decomposition of tiny marine creatures, plants & vegetation under mud, silt & sand. Over the years, it undergoes chemical changes to form crude oil & natural gas under the action of heat & pressure.3. 20 % of India's crude oil & gas demand is produced domestically & 80 % is imported from (UAE, Saudi, Iran, Russia).4. Jamnagar Refineries of Reliance industries is world largest refinery complex.5. HPCL is a Navratna company. It has 2 refineries - Mumbai and Vishakhapatnam.	<ol style="list-style-type: none">1. NG is odorless, colorless gas made of variety of compounds but methane is the most imp. It is found in association with mineral oil (75% is in Bombay High and Bassein).2. NG gas 70-90% Methane, Ethane, Propane and Butane (0-20% combined), CO₂, Oxygen, Nitrogen, H₂S and Trace gases like (A, He, Ne, Xe).3. 40% Goes to Chemical fertilizers, 30% (Power generation) and 10% LPG.

Compressed Natural Gas	Liquefied Natural Gas
<ul style="list-style-type: none">• CNG is obtained by compressing NG under high pressure. Reduces its volume.• Advantages<ul style="list-style-type: none">◦ Viable alternative fuel (Storage cylinders)◦ Cheaper and reduce emissions.◦ Versatile and low storage costs.◦ Cleaner solution from diesel	<ul style="list-style-type: none">• LNG is produced by cooling NG to - 162 degree C in Cryogenic stage through Liquifaction. Kept in liquid form to increase quantities of NG that can be stored in tanks.• Advantages<ol style="list-style-type: none">1. Easy to transport.

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- **Disadvantages**
 - Explosion ka risk.
 - Infra support needed.
- **Applications:** Buses, Trucks.
- **>90% is Methane and 3-4% is Ethane.**
- CNG is also **very light**, so if there is a leak, it will **dissipate rapidly into air but LPG will settle on ground**. This makes CNG a safer choice over LNG. **CNG releases less GHGs.**

Hydrogen Enriched Compressed Natural Gas (H-CNG)

- The **blending of hydrogen with CNG** provides a blended gas termed as HCNG. HCNG combines the advantages of both hydrogen and methane.
- **Delhi will be the first city** in the country to roll out **HCNG buses** for public transport from November 2020.
- This is a step towards combating air pollution.

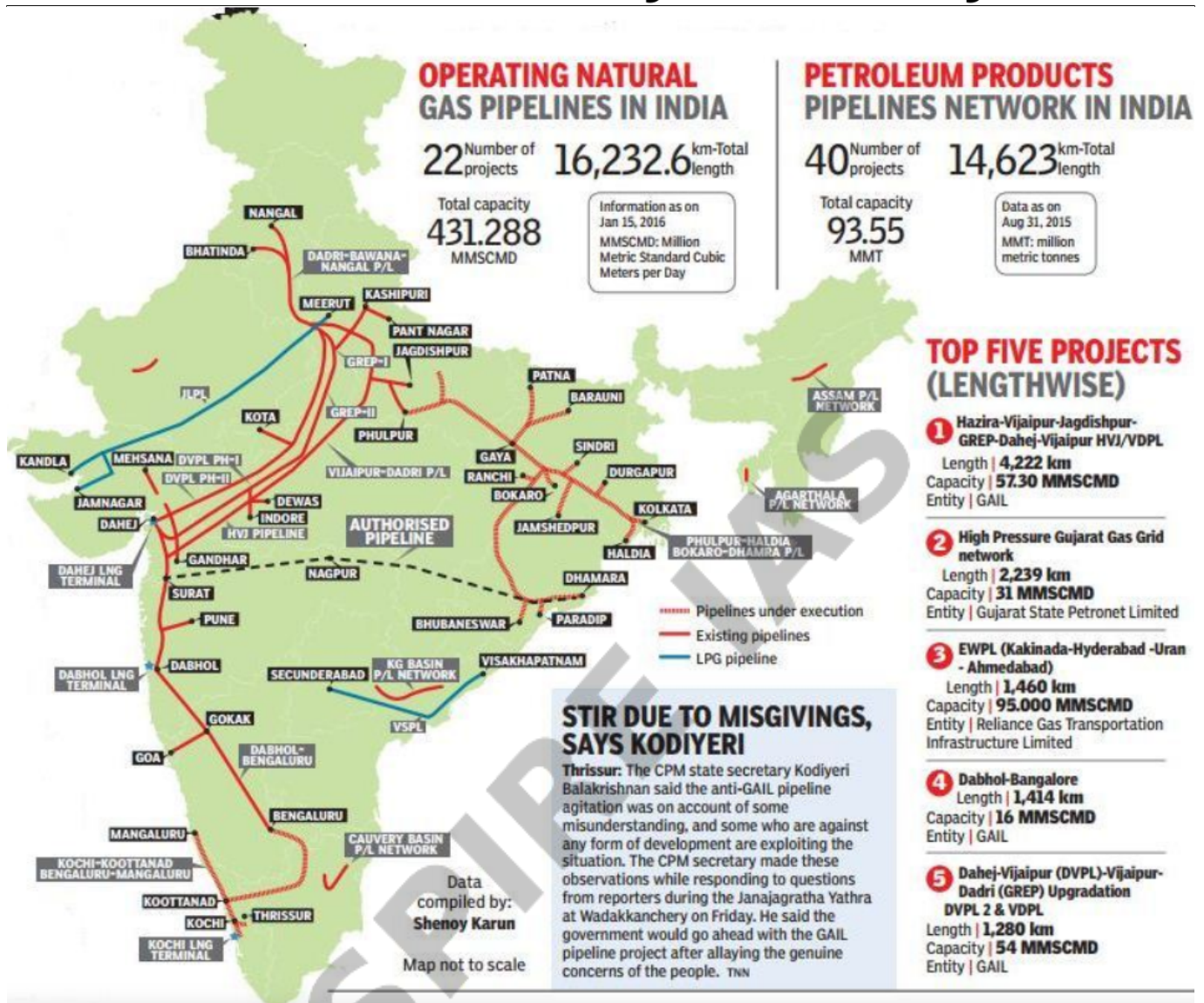
2. Helps in electrification.
3. Clean burning fuel, **smoke free**, less CO₂ than Coal, **no black carbon**.

- **Disadvantages:** Explosion and Infra.
- **Application:** Business, Industry, Power generation, Cooking.
- LNG takes less storage space than CNG.

LPG

- **is a byproduct derived while extracting crude petroleum**. It has **Propane and Butane**. It produces **CO₂, NO_x and CO** and is much cleaner than Gasoline. Heavier than air hence it will settle down on leakage.

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The Petroleum and Natural Gas Regulatory Board (PNGRB)

- The Petroleum and Natural Gas Regulatory Board (PNGRB) was constituted under the Petroleum and Natural Gas Regulatory Board Act, 2006 .
- The **objective** of PNGRB is to protect the interests of consumers and entities engaged in specified activities relating to petroleum, petroleum products and natural gas and to promote competitive markets and for matters connected therewith or incidental thereto.
- PNGRB authorises the CGD networks, natural gas and petroleum product pipelines, determines tariff, lays down the technical and safety standards etc.

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Source: PIB

Defence Production & Export Promotion Policy (DPEPP) 2020

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'Defence Production & Export Promotion Policy (DPEPP)' 2020

- This draft policy is positioned as Ministry of Defence's overarching guiding document to provide a focused, structured and significant thrust to defence production capabilities of the country for self-reliance and exports.
- It envisions to make India amongst the top countries of the world in Defence sector, including Aerospace and Naval Shipbuilding sectors, from design to production, with active participation of public and private sector.
- This policy, inter alia, aims to create an environment that encourages R&D, rewards innovation, creates Indian Intellectual Property (IP) ownership and promotes a robust and self-reliant defence industry.
- It aims to further 'Self Reliance' of the country in the defence sector by promoting indigenization and bring 'Ease of Doing Business' with emphasis on Simplification, Delegation, Reduced Timelines and make the process as Industry friendly.

Goals and Objectives:

- To achieve a turnover of Rs. 1,75,000 crore including export of Rs. 35,000 crore in Aerospace and Defence goods and services by 2025.
- To develop a dynamic, robust and competitive Defence industry, including Aerospace and Naval Shipbuilding industry to cater to the needs of Armed forces with quality products.
- To reduce dependence on imports and take forward "Make in India" initiatives through domestic design and development.
- To promote the export of defence products and become part of the global defence value chains.
- To create an environment that encourages research and development (R&D), rewards innovation, create Indian Intellectual Property (IP) ownership and promotes a robust and self-reliant defence industry.

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Outlined Strategies:

ASPIRE IAS

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Indian Defence Sector At a Glance



**2nd
Largest**

armed force in
the world



**2nd
Largest**

importer of equipment
globally (2014-2018)



**INR 4,71,378
Crore**

defence budget
2020-2021



**9.37
Per cent**

increase in
Defence Budget



**INR 1.7
Trillion**

turnover target
by 2025



**INR 350
Billion**

export target in
defence goods &
services by 2025

Overall defence production in India has
increased from **USD 6.4 billion** in 2013-2014
to **USD 11.4 billion** in 2018-2019

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Procurement Reforms:

- A Project Management Unit (PMU) will be set up for the development and production of technologies involved, life cycle costs and maintenance requirements of platforms, equipment and weapon systems.
- It also aims to move away from licensed production to design, develop and produce indigenously.
- It also aims to own the design rights and IP of the systems projected in the Long Term Integrated Perspective Plan (LTIPP) and a Technology Assessment Cell (TAC) would be created.
- The TAC would also assess the industrial capability for design, development and production, including re-engineering for production of major systems such as armoured vehicles, submarines, fighter aircraft, helicopters and radars with the major industries in the country.

Indigenisation And Support to MSMEs/Startups:

- The indigenisation policy aims to create an industry ecosystem to indigenise the imported components (including alloys and special materials) and sub-assemblies for defence equipment and platforms manufactured in India. 5,000 such items are proposed to be indigenised by 2025.
- More than 50 startups are currently developing new 'fit-for-military-use' technologies/products.

Optimise Resource Allocation:

- The share of domestic procurement in overall Defence procurement is about 60%.
- To enhance procurement from domestic industry, the procurement needs to be doubled from the current Rs. 70,000 crore to Rs. 1,40,000 crore by 2025.

Investment Promotion and Ease of Doing Business:

- India is already a large aerospace market with rising passenger traffic and increasing military expenditure, as a result of which the demand for aircraft (fixed and rotary wings) is rising.
- The opportunities in the aerospace industry have been identified in the following segments - aircraft build work, aircraft Maintenance, Repair and Overhaul (MRO), helicopters, engine manufacturing and MRO work, line replaceable units, Unmanned Aerial Vehicles (UAVs) and upgrades and retrofits.

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- The improvement in market size, demographic dividend and availability of diverse skill sets are evident from India's ranking in the World Bank's 'Ease of Doing Business' (EoDB) report.
- The investments in the defence sector need to regularly sustain the steady supply of orders.

Innovation and R&D:

- [Innovations for Defence Excellence \(iDEX\)](#) has been operationalised to provide necessary incubation and infrastructure support to the startups in the defence area.
- iDEX would be further scaled up to engage with 300 more startups and develop 60 new technologies/products during the next five years.
- Mission Raksha Gyan Shakti was launched to promote a greater culture of innovation and technology development and file a higher number of patents in Defence Public Sector Undertakings (DPSUs), Ordnance Factory Board (OFB). It would be scaled up for promoting the creation of Intellectual Property in the sector and its commercial utilisation.

Other Related Initiatives:

- Recently, the Ministry of Defence has formulated a new [Defense Acquisition Procedure \(DAP\), 2020](#).
- [Innovations for Defence Excellence \(iDEX\)](#) has been operationalised to provide necessary incubation and infrastructure support to the startups in the defence area.
- iDEX would be further scaled up to engage with 300 more startups and develop 60 new technologies/products during the next five years.
- **Mission Raksha Gyan Shakti** was launched to promote a greater culture of innovation and technology development and file a higher number of patents in Defence Public Sector Undertakings (DPSUs), Ordnance Factory Board (OFB).
- It would be scaled up for promoting the creation of Intellectual Property in the sector and its commercial utilisation.

Way Forward

- Self-reliance in defence manufacturing is a crucial component of effective defence capability and to maintain national sovereignty and achieve military superiority.

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- The attainment of this will ensure strategic independence, cost-effective defence equipment and may lead to saving on defence import bill, which can subsequently finance the physical and social infrastructure.

Source: PIB

Defence Acquisition Procedure (DAP) 2020

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Defence Acquisition Procedure (DAP) 2020

- Recently, a new Defence Acquisition Procedure (DAP) (**erstwhile Defence Procurement Procedure or DPP**), 2020 was released by the Ministry of Defence (MoD).
- Defence Acquisition Procedure (DAP)-2020 envisages the basic tenets of 'Aatmanirbhar Bharat Abhiyan' and encourages indigenous designing and manufacturing of defence items.
- The proposals for indigenous design and manufacturing are considered under '**Make**' Procedure of DAP-2020.
- The 'Make' Procedure aims to achieve the objective of self-reliance by involving greater participation of Indian industries including private sector through following mechanisms:
 - 1. Make-I (Government Funded):** This involves design and development of equipment, systems, major platforms or upgrades thereof by the industry. Ministry provides financial support upto 70% of prototype development cost or maximum Rs. 250 crores per Development Agency (DA).
 - 2. Make-II (Industry Funded):** This includes design & development and innovative solutions by Indian vendor, for which no Government funding is provided, but it has assurance of procurement on successful prototype development.

Ongoing Defense Acquisition Procedures:

- As on date, there are 4 ongoing projects under Make-I category.
- Further, 56 proposals have been accorded 'Approval in Principal' under

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Make-II category out of which 23 proposals have been accorded Acceptance of Necessity (AoN).

- In addition, Defence Research and Development Organisation (DRDO) has also undertaken 233 projects during the past three years since 2018.
- The projects include new defence equipment such as Cruise missile, Hypersonic missile, Anti-Ship missile, Extended Range Anti-Submarine Rocket, Mounted Gun System, Ammunitions, Electronic Warfare system, Radars, Torpedos, High Endurance Autonomous Underwater Vehicles, etc.
- Further, in order to promote indigenous design and development of defence equipment 'Buy {Indian-IDDM (Indigenously Designed, Developed and Manufactured))' category under DAP is accorded top most priority for procurement of capital equipment.
- Ministry of Defence has notified a 'Negative list' of 101 identified items for which there would be an embargo on the import beyond the timeline indicated against them. This is a big step towards self-reliance in defence.
- This offers a great opportunity to the Indian defence industry to manufacture these items indigenously and develop capabilities to meet the requirements of the Armed Forces.
- This list includes some high technology weapon systems like artillery guns, assault rifles, corvettes, sonar systems, transport aircrafts, light combat helicopters (LCHs), radars etc. to fulfil the needs of our Defence Services.
- Further, an indigenization portal namely **SRIJAN** has also been launched in August, 2020 for Defence Public Sector Undertakings (DPSUs)/Ordnance Factory Board (OFB)/Services with an industry interface to provide development support to MSMEs/Startups/Industry for import substitution.

Key Points of DAP 2020

The DAP contains policies and procedures for procurement and acquisition from the capital budget of the MoD in order to modernise the Armed Forces including the Coast Guard.

Evolution of DAP

- The first Defence Procurement Procedure (DPP) was promulgated in 2002.
- A committee under the chairmanship of Director General (Acquisition) was constituted to review the Defence Procurement Procedure (DPP) 2016.
- DPP 2016 was released replacing the DPP 2013 based on the recommendations of Dhirendra Singh committee.
- It focussed on indigenously designed, developed and manufactured weapon systems.

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- It was facing several issues like lack of transparency (leading to Rafale Scam), inconvenient offset regulations etc.

Objective

- Turning India into a global manufacturing hub.
- Aligned with the vision of the Government of Atmanirbhar Bharat and empowering Indian domestic industry through Make in India initiative.

Salient Features

For Ease of Doing Business:

- Time Bound Defence Procurement Process and Faster Decision Making: By setting up a Project Management Unit to support contract management and to streamline the Acquisition process.
- Revised Offset Guidelines: Preference will be given to manufacture of complete defence products over components and various multipliers have been added to give incentivisation in discharge of offsets.
- Further, there will be no offset clause in government-to-government, single vendor and Intergovernmental Agreements (IGA).
- Offsets are a portion of a contracted price with a foreign supplier that must be re-invested in the Indian defence sector, or against which the government can purchase technology.
- Multipliers are credit values earned on offset transactions. A multiplier of 3 means a foreign company can claim credits upto three times of its actual offset investment.
- The offset policy for defence deals was adopted in 2005 for all defence capital imports above Rs. 300 crore under which the foreign vendor is required to invest at least 30% of the value of the contract in India.
- Offset clause was hindering the transfer of technology, according to a recent CAG report.
- Rationalization of Procedures for Trials and Testing: Scope of trials will be restricted to physical evaluation of core operational parameters.

To Develop India into Global Manufacturing Hub:

- FDI in Defence Manufacturing: Provisions have been incorporated like a new category 'Buy (Global – Manufacture in India)', to encourage foreign companies to set up manufacturing through its subsidiary in India.
- To promote Make in India and Atmanirbhar Bharat initiatives:
- Reservation in Categories for Indian Vendors: Some categories like Buy

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(Indian Indigenously Designed Developed and Manufactured -IDDM), Production Agency in Design & Development etc. will be exclusively reserved for Indian Vendors and FDI of more than 49% is not allowed.

- Ban on Import of Certain Items: With a view to promote domestic and indigenous industry, the MoD will notify a list of weapons/platforms banned for import.
- Indigenisation of Imported Spares: Steps to promote manufacturing of parts in India have been taken. This includes establishment of co-production facilities through Intergovernmental Agreements (IGA) achieving 'Import Substitution' and reducing Life Cycle Cost.
- Overall Enhancement in Indigenous Content (IC): This has been done in all the categories, for products like softwares etc, as follows:

Other Features

- Cost Cutting : Leasing has been introduced as a new category for acquisition in addition to the existing 'Buy' and 'Make' categories so that periodical rental payments are made instead of huge capital investment.
- This will be useful for military equipment not used in actual warfare like transport fleets, trainers, simulators, among others.

Other Related Initiatives:

- Recently, the Ministry of Defence has formulated a [Draft Defence Production and Export Promotion Policy 2020 \(DPEPP 2020\)](#).
- [Innovations for Defence Excellence \(iDEX\)](#) has been operationalised to provide necessary incubation and infrastructure support to the startups in the defence area.
- iDEX would be further scaled up to engage with 300 more startups and develop 60 new technologies/products during the next five years.
- **Mission Raksha Gyan Shakti** was launched to promote a greater culture of innovation and technology development and file a higher number of patents in Defence Public Sector Undertakings (DPSUs), Ordnance Factory Board (OFB).
- It would be scaled up for promoting the creation of Intellectual Property in the sector and its commercial utilisation.

Way Forward

- Self-reliance in defence manufacturing is a crucial component of effective defence capability and to maintain national sovereignty and achieve military

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superiority. The DAP 2020 not only protects the interests of domestic manufacturers by indigenization of technology, but also provides impetus to foreign investment in the country.

- Given the key geostrategic challenges, emanating from the threat of two-front war (against China and Pakistan combinedly), India needs to carry out much-needed defence reforms. DAP 2020 is the one of the many needed defence reforms.

Source: PIB

Russia-China relations

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Russia-China relations

- Russia's relations with China were currently at "the best in their entire history", Foreign Minister Sergei Lavrov said as he began a key visit to China on Monday.
- The visit comes shortly after the **China-U.S. dialogue in Alaska** and follows the first leaders' summit of the Quad — India, Australia, Japan and the U.S. — held virtually.
- "In response, Russia and China are promoting a constructive and unifying agenda and hope that the international governance system would be fair and democratic, run smoothly and be based on extensive interaction between countries and their integration initiatives," the official Xinhua news agency quoted him as saying, adding that the "mutually trusting and respectful dialogue should serve as an example to other countries".
- 'Best in history'
- "Current Russia-China relations are assessed both by our national leaders and citizens as the best in their entire history," he said. "This is a well-deserved and fair assessment."
- This year marks the 20th anniversary of the **Treaty of Good-neighbourliness and Friendly Cooperation signed in July 2001**, which Mr. Lavrov credited for deepening strategic relations and creating "a model

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of interaction between Russia and China that is absolutely free from any ideological constraints... of an intrinsic nature, not subject to any opportunistic factors nor against any third country."

- Both countries are expected to discuss deepening coordination against the threat of sanctions from the West.
- Only recently, the EU imposed sanctions on four Chinese officials for human rights violations in Xinjiang, the first sanctions since the 1989 arms embargo.
- Mr. Lavrov called on both countries — permanent members of the UN Security Council — to work "under the UN framework on the immediate end to unilateral coercive measures" and to "take the opportunity to enhance their scientific and technological innovation and improve their national strength in response to the sanctions".
- Trade ties are also on the agenda, with bilateral trade last year reaching \$107 billion. China is Russia's biggest trade partner.
- Li Yonghui, a Russia expert at the official Chinese Academy of Social Sciences, wrote in an article on Monday in the Communist Party-run Global Times that the China-Russia relationship could "counterbalance" the Quad.
- "Russia should not be ignored regarding its capabilities to offset the influence of Quad," the commentary said, noting in particular Russia's continuing close relations with India as a potential "destabilising factor" for the Quad's potential. "India will not destroy its relations with Russia just because it wants to seek courtship with the U.S. to deal with China," it said. "From this perspective, if Russia-India relations continue in a stable way, they will to some extent restrain India-US ties from further deepening."
- Ms. Li, in the commentary, noted that "as early as December 1998, then Russian Prime Minister Yevgeny Primakov expressed hope that Russia, China and India could establish a 'strategic triangle' that would be in the interests of peace and security".
- "Currently, though China and India have undergone twists and turns in their relations due to border tensions, Russia still hopes that Beijing and New Delhi won't engage in bigger problems," she said. "Russia has actually played an active role between China and India. In other words, Russia has maintained relatively close ties with India, which has thereupon become a counterbalance to the so-called Quad group of the US, Japan, India and Australia."

Source: TH

Yemen Crisis: Saudi presented a peace initiative

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Yemen Crisis: Saudi presented a peace initiative

- In the aftermath of [Yemen crisis](#), now Saudi Arabia presented a new peace initiative to end the war in Yemen, which would include a nationwide ceasefire under UN supervision and the reopening of air and sea links, the kingdom's Foreign Minister said.
- The initiative includes the reopening of Sana'a airport, and would allow fuel and food imports through Hodeidah port, both of which are controlled by Riyadh's enemies, the Iran-aligned Houthi movement. Political negotiations between the Saudi-backed government and the Houthis would be restarted, said Prince Faisal bin Farhan Al Saud.
- "The initiative will take effect as soon as the Houthis agree to it," Prince Faisal said, calling on the group and the government to accept the offer.
- The Houthis have demanded the lifting of an air and sea blockade, which has contributed to the world's worst humanitarian crisis in Yemen, as their main pre-condition before any deal.
- The Saudi-led coalition has said the port and airport must be restricted to prevent weapons from reaching the Houthis, who control the capital and most populous areas.
- The announcement did not specify which routes would be permitted for aircraft flying to Sana'a, or whether food or fuel imports through Hodeidah port would be subject to additional pre-authorisations.

Source: TH

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Bangkok General Guidance for Judges in Applying a Gender Perspective

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Bangkok General Guidance for Judges in Applying a Gender Perspective

Background

- The Bangkok General Guidance for Judges in Applying a Gender Perspective was discussed and adopted by judges from Philippines in 24 to 25 June 2016, hosted by the **ICJ and UN Women**.
- The idea to initiate the development of the Bangkok General Guidance emerged from the ASEAN Regional Dialogue on Judging with a Gender Perspective, which was held in Jakarta, Indonesia in 2015.

General Guidance

- The Bangkok General Guidance can make a **powerful contribution towards achieving gender equality** under the **law in Southeast Asia**.
- It is crucial that judges now work to implement this General Guidance in their home countries.
- Women have a right to equal treatment and equal protection and non-discrimination under the law.
- It is our responsibility as judges to ensure that women receive equal treatment in law and in practice.
- The Bangkok General Guidance will make judges aware of means to consider evidence without resorting to gender stereotypes and decide cases based on the **principle of equality** recognized under **international human rights standards**, including the **Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)**.

Source: TH

One District One Product (ODOP) approach under PM FME

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Scheme

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One District One Product (ODOP) approach under PM FME Scheme

- The Ministry of Food Processing Industries (MoFPI) under Centrally Sponsored Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme (PM FME Scheme), provides financial, technical and business support for upgradation of existing micro food processing enterprises.
- The scheme adopts **One District One Product (ODOP) approach** to reap the benefits of scale in terms of procurement of inputs, availing common services and marketing of products.
- The objectives of the scheme are to build capacity of two lakh micro enterprises through increased access to credit, integration with organized supply chain by strengthening branding and marketing, increased access to common services, strengthening of institutions, research & training in the food processing sector.
- ODOP for the scheme has framework for value chain development and alignment of support infrastructure.
- This scheme is being implemented for a period of five years from 2020-21 to 2024-25 with an outlay of Rs. 10,000 crores.
- ODOP for 707 districts of 35 State/UTs have been approved by the MoFPI.
- The Ministry of Agriculture and Farmers Welfare through One District One Focus Produce (ODOFP) for 728 districts of 36 States/UTs converge resources towards ODOP from ongoing centrally sponsored schemes such as Mission for Integrated Development of Horticulture (MIDH), National Food Security Mission (NFSM), Rashtriya Krishi Vikas Yojana (RKVY), Paramparagat Krishi Vikas Yojana (PKVY), schemes of Ministry of Fisheries, Animal Husbandry and Dairying.
- State Level Up-gradation Plan (SLUP) by all States/UTs is based on Agriculture production of ODOPs, industrial scenario, market availability etc. It enables the States to identify its product clusters, market linkages, stakeholders, requirement of skill development for beneficiaries, infrastructure support, financial linkages etc.
- The scheme envisages strengthening backward and forward linkages, provision of common facilities, incubation centres, training, research and development (R&D), marketing and branding.

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- The enhanced capacity of processing and value addition in agriculture and allied sector products will lead to a better price realization for the farmers.
- The identified products have potential for both domestic demand and export and will be promoted in a cluster approach through the converged resources of the Government of India.

Benefits of District Specific products

Identifying district specific products would lead to the following benefits to the micro food processing entrepreneurs:

- Increased access to credit by existing Micro Food Processing entrepreneurs, FPOs, Self Help Groups and Co-operatives.
- Integration with organized supply chain by strengthening branding & marketing;
- Support for transition of existing 2,00,000 enterprises into formal framework;
- Increased access to common services like common processing facility, laboratories, storage, packaging, marketing and incubation services;
- Strengthening of institutions, research and training in the food processing sector; and
- Empowers SC, ST and Women Entrepreneurs as the scheme lays special focus on SC, ST and women entrepreneurs.
- Increased access for the enterprises, to professional and technical support.

Salient Features

1. **Support to Individual Micro Enterprises:** Credit-linked capital subsidy @35% of the eligible project cost, maximum ceiling Rs.10 lakh per unit;
2. **Support to FPOs/ SHGs/ Producer Cooperatives:** Credit linked Grant @35% to support clusters and groups such as FPOs/ SHGs/ Producer Cooperatives along their entire value chain for sorting, grading, storage, common processing, packaging, marketing, testing etc.
3. **Support to SHGs for seed capital:** Seed capital @ Rs. 40,000/- per member of SHG engaged in food processing for working capital and purchase of small tools.
4. **Support for Common Infrastructure:** Credit linked grant @ 35% to support FPOs, SHGs, Cooperatives, any Government agency or private enterprises for Common infrastructure. The common infrastructure will also be available for other units and public to utilize on hiring basis for substantial part of the capacity.
5. **Branding and Marketing Support:** Grant upto 50% for Branding and

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Marketing to groups of FPOs/ SHGs/ Cooperatives or an SPV of micro food processing enterprises.

6. **Capacity Building:** The scheme envisages training for Entrepreneurship Development Skilling (EDP+): program modified to meet the requirement of food processing industry and product specific skilling.

Source: PIB

Process of Setting up Cold Storage

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Process of Setting up Cold Storage

- Government does not setup cold storage of its own. However, Government is implementing various schemes under which financial assistance is provided for setting up of cold storages for storage of agriculture produce including perishable horticulture produce throughout the country.

1) Mission for Integrated Development of Horticulture (MIDH)

- Department of Agriculture Cooperation and Farmers Welfare (DAC&FW) is implementing **Mission for Integrated Development of Horticulture (MIDH)** under which financial assistance is provided for various horticulture activities including setting up of cold storages.
- The component is demand/entrepreneur driven for which Government assistance in the form of credit linked back ended subsidy is available at the rate of 35% of the project cost in general areas and at the rate of 50% of the project cost in hilly and scheduled areas.
- Under MIDH, cold storages are sanctioned by State and Central level Committees constituted for this purpose under operational guidelines of MIDH.
- The cold storages upto a capacity of 5000 MT are eligible for assistance under MIDH.
- The powers for sanction of projects up to project cost of Rs.500 lakh including setting up of cold storage have been delegated to State Level Executive Committee (SLEC).
- Projects with a project cost of more than Rs. 500 lakh and upto a capacity of

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5000 MT are approved by the Empowered Monitoring Committee (EMC) of DAC&FW on recommendation of SLEC.

- For seeking assistance for setting up of cold storage under MIDH, promoter is required to submit the proposal to the concerned State Horticulture Mission.

2) Capital Investment Subsidy for Construction /Expansion /Modernization of Cold Storages and Storages for Horticulture Products

- Besides, National Horticulture Board (NHB) is implementing a scheme namely "**Capital Investment Subsidy for Construction/Expansion/Modernization of Cold Storages and Storages for Horticulture Products**".
1. Under the scheme, credit linked back-ended subsidy at the rate of 35% of the capital cost of the project in general areas and 50% in case of North East, Hilly States & Scheduled areas for construction/expansion/modernization of cold storage and CA storage of capacity above 5000 MT and up to 10000 MT is available.
 2. In case of North East region, the units with capacity above 1000 MT are also eligible for assistance.
 3. The Scheme is demand/ entrepreneur-driven.

3) Scheme for Integrated Cold Chain, Value Addition and Preservation Infrastructure

- Further, **Ministry of Food Processing Industries (MOFPI)** is implementing a Scheme for Integrated Cold Chain, Value Addition and Preservation Infrastructure as one of the component of **Pradhan Mantri Kisan Sampada Yojana** with the objective of reducing post-harvest losses of horticulture and non-horticulture produce and providing remunerative price to farmers for their produce.
- Under the scheme, Ministry provides financial assistance in the form of grant-in-aid at the rate of 35% for general areas and 50% for North East States, Himalayan States, ITDP areas and Islands for storage and transport infrastructure and at the rate of 50% and 75% respectively for value addition and processing infrastructure subject to a maximum grant-in-aid of Rs. 10 crore per project for setting up integrated cold chain projects including irradiation facility without any break from the farm gate to the consumer.

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- The integrated cold chain and preservation infrastructure can be set up by individuals, groups of entrepreneurs, cooperative societies, Self Help Groups (SHGs), Farmer Producer Organizations (FPOs), NGOs, Central/State PSUs, etc.
- Standalone cold storages are not covered under the Scheme.
- The organization desiring to set up a cold chain project has to apply against EOI issued from time to time.

Source: PIB

Delivery of Seeds in India

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Delivery of Seeds in India

- The States are primarily responsible to ensure production, availability and distribution/ supply of quality seeds to the farmers through its Department of Agriculture, state farms, State Seeds Corporation, State Agricultural Universities (SAUs), Cooperatives and Private Seed Companies etc.
- The Government of India supplements the efforts of the State Governments by providing breeder seeds for seed chain and coordinating seeds requirement and availability through the mechanism of Zonal Seeds Review Meetings prior to each sowing season and weekly video conferences.
- As reported by States, 483.66 lakh qtls. of certified / quality seed is available against the requirement 443.16 lakh qtls. during current year 2020-21.

The steps taken/being taken for making available quality seeds to the farmers are as under:

- The Government of India is providing financial assistance for production and distribution of seeds of High Yielding Varieties (HYVs) of different crops to the States and implementing agencies through various ongoing crop development programmes/ schemes viz. National Food Security Mission (NFSM), Bringing Green Revolution in Eastern India (BGREI), Rashtriya Krishi Vikas Yojana (RKVY), Sub-Mission on Seeds & Planting Material (SMSP) etc.
- The states are encouraged by the Department of Agriculture, Cooperation &

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Farmers' Welfare (DAC&FW) to develop a **Seed Rolling Plan** in advance as per the estimated requirement of seeds in their state, so that the seeds of required variety could be made available at right time to the farmers. DAC&FW also ensures fixation of uniform breeder seeds price in consultation with Indian Council of Agricultural Research (ICAR) for minimization of foundation and certified seed costs.

- **Indian Institute of Seed Science, ICAR** is also coordinating the production of quality seed in the country through the network of 63 cooperating centres under National Seed Project of ICAR. Single window system for effective planning and implementation of seed production programme and computerized seed sale outlets has been established to guarantee ease in accessibility of quality seeds to farmers at all centres.

In some states quality seed is being made available at every village within the reach of farmers and farmer is facilitated to purchase seed of choice from the desired outlets. Similarly, procurements centres at villages have been established to facilitate procurement by the marketing department. Moreover, some states have well established mandis and generally the seed dealers and other agri-ing dealers also have shops in these mandis avoiding involvement of middlemen

Source: PIB

Bringing Green Revolution to Eastern India (BGREI)

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Bringing Green Revolution to Eastern India (BGREI)

- Bringing Green Revolution to Eastern India (BGREI), a sub scheme of Rashtriya Krishi Vikas Yojana (RKVY), launched in 2010-11, is being implemented in seven eastern states namely Assam, Bihar, Chhattisgarh, Jharkhand, Odisha, Eastern Uttar Pradesh and West Bengal.
- Under the programme, assistance is being provided to the farmers for organizing cluster demonstrations on rice and wheat, seed production and distribution, nutrient management and soil ameliorants, integrated pest management, cropping system-based training, asset-building such as farm

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machineries & implements, irrigation devices, site specific activities and post harvest & marketing support, etc.

- Under the programme, Government of India allocates fund to the State and further allocation to district is made by the respective State Government.
- BGREI programme is intended to address the constraints limiting the productivity of "rice based cropping systems" in eastern India. Under these systems, the other crops like wheat, coarse-cum-nutri cereals, pulses & oilseeds are already covered.

Rashtriya Krishi Vikas Yojana

- The Rashtriya Krishi Vikas Yojana was introduced with an aim to provide support to the agricultural sector in achieving 4% annual agriculture growth.
- RKVY scheme was launched in the year 2007 which was later rebranded as Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RAFTAAR) to be implemented for three years till 2019-20 with a budget allocation of Rs 15,722 crore.
- In a meeting held on 29th May 2007, the National Development Council (NDC), resolved the idea of launching a Central Assistance Scheme (RKVY) concerned by the slow growth in the Agriculture and allied sectors.
- The NDC also aimed at the reorientation of the agricultural development strategies in order to meet the needs of farmers.
- The scheme provided considerable flexibility and autonomy to States in planning and executing programmes for incentivising investment in agriculture and allied sectors.
- The scheme facilitated decentralized planning in the agricultural sector through the initiation of the State Agriculture Plan (SAP) and District Agriculture Plans (DAPs).
- The scheme was based on the agro-climatic conditions ensuring the availability of appropriate technology and natural resources thus providing accommodation for the local needs.

Objectives of RKVY RAFTAAR

- Risk mitigation, strengthening the efforts of the farmers along with promoting agri-business entrepreneurship through the creation of agri-infrastructure.
- Providing all the states with autonomy and flexibility in making plans as per their local needs.
- Helping farmers in increasing their income by encouraging productivity and promoting value chain addition linked production models.
- To reduce the risk of farmers by focusing on increasing the income

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- generation through mushroom cultivation, integrated farming, floriculture, etc.
- Empowering the youth through various skill development, innovation, and agri-business models.

RKVY – RAFTAAR

- A component, the Innovation and Agri-entrepreneurship Development programme has been launched under Rashtriya Krishi Vikas Yojana in order to promote innovation and agri-entrepreneurship by providing financial support and nurturing the incubation ecosystem.
- These start-ups are in various categories such as agro-processing, artificial intelligence, digital agriculture, farm mechanisation, waste to wealth, dairy, fisheries etc.
- The following are the components of this scheme:
 1. Agripreneurship Orientation – 2 months duration with a monthly stipend of Rs. 10,000/- per month. Mentorship is provided on financial, technical, IP issues etc.
 2. Seed Stage Funding of R-ABI Incubatees – Funding upto Rs. 25 lakhs (85% grant & 15% contribution from the incubatee).
 3. Idea/Pre-Seed Stage Funding of Agripreneurs – Funding up to Rs. 5 lakhs (90% grant and 10% contribution from the incubatee).

Source: PIB

Project Mausam: Maritime Routes and Cultural Landscapes

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Project Mausam: Maritime Routes and Cultural Landscapes

- Mausam' is the initiative of **Ministry of Culture** to be implemented by the Archaeological Survey of India (ASI) as the nodal agency with research support of the Indira Gandhi National Centre for the Arts (IGNCA) and National Museum.
- This project aims to explore the multi-faceted Indian Ocean 'world' – collating archaeological and historical research in order to document the diversity of cultural, commercial and religious interactions in the Indian

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Ocean.

- The main objective of the project is to inscribe places and sites identified under Project Mausam as trans-national nomination for inscription on UNESCO's World Heritage List.
- **Mausam has now been extended up to 31st March, 2023.**
- The unique idea of this project to showcase a Transnational Mixed Route (including Natural and Cultural Heritage) on the World Heritage List has been well appreciated during the Project Launch by India at the 38th World Heritage Session at Doha, Qatar on 20th June, 2014.
- The Director General UNESCO appreciated India's initiative in launching this unique project and ambassadors of several countries including China, UAE, Qatar, Iran, Myanmar, and Vietnam expressed great interest in this multifaceted cultural project.

About the Project

- Focusing on monsoon patterns, cultural routes and maritime landscapes, Project 'Mausam' is examining key processes and phenomena that link different parts of the Indian Ocean littoral as well as those that connect the coastal centres to their hinterlands.
- Broadly, Project 'Mausam' aims to understand how the knowledge and manipulation of the monsoon winds has shaped interactions across the Indian Ocean and led to the spread of shared knowledge systems, traditions, technologies and ideas along maritime routes.
- These exchanges were facilitated by different coastal centres and their surrounding environs in their respective chronological and spatial contexts, and simultaneously had an effect on them.
- The endeavour of Project 'Mausam' is to position itself at two levels:
 1. At the macro level, it aims to re-connect and re-establish communications between countries of the Indian Ocean world, which would lead to an enhanced understanding of cultural values and concerns;
 2. At the micro level, the focus is on understanding national cultures in their regional maritime milieu.

Source: PIB

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National Biopharma Mission

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National Biopharma Mission

- Towards strengthening the emerging biotechnology enterprise in India, Department of Biotechnology (DBT), has initiated the Cabinet approved National Biopharma Mission entitled: "Industry-Academia Collaborative Mission for Accelerating Discovery Research to Early Development for Biopharmaceuticals – Innovate in India Empowering biotech entrepreneurs & accelerating inclusive innovation".

The approved objectives of the Mission are enlisted below :

1. Development of products from leads that are at advanced stages in the product development lifecycle and relevant to the public health.
2. Strengthening and establishing shared infrastructure facilities for both product discovery validation and manufacturing
3. Developing human capital by providing specific training to address the critical skills gaps in researchers, nascent biotech companies across the product development value chain, including in business plan development and market penetration.
4. Creating and enhancing technology transfer and intellectual property management capacities and capabilities in public and private sector.

In alignment with the approved objectives the **specific targets for the Mission**, over a period of five years, include:

- Development of 5 biopharma products – Vaccines, biotherapeutics, medical devices and diagnostics;
- establishment of shared infrastructure and facilities such as GLP Validation and Reference Lab, CMC facilities;
- Med-Tech validation facility;
- Consortia for translational and interdisciplinary research, process development, development of cell lines and expression systems;
- Clinical trial networks;
- Setting up and establishment of technology transfer offices in public and private sector; and imparting trainings for technical and non-technical skill development.

Other Features

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- The Mission is supporting small and medium enterprises so that they can overcome the risks involved in early stages of product development.
- To promote entrepreneurship, the Mission is supporting enhanced industry-academia inter-linkages and providing mentoring and training for academia, innovators and entrepreneurs to translate knowledge into products/technologies.
- The domestic manufacturing is being promoted through the supported shared national facilities such as GLP Analytical Facilities; CMC facilities for Clinical Trial Lot Manufacturing; Cell Line Repositories; Setting up of Clinical Trial Networks and supporting translational research consortia.

To promote innovation for inclusiveness, the Mission is strengthening the ecosystem for affordable product development through the following:

- Development of vaccine candidates for Cholera, Influenza, Dengue, Chikungunya and Pneumococcal disease, Rabies and COVID-19;
- Biosimilar products for Diabetes, Psoriasis, Cancer;
- Diagnostic kits; Med Tech Devices for Imaging, Pumps for dialysis and MRI scanners;
- Supporting shared facilities for Biopharmaceutical development (10), Med Tech device development (9) and Vaccine Development (2);
- Establishment of hospital based and field site based Clinical Trial Networks for clinical trials of vaccines and bio-therapeutics;
- Supporting Translational Research Consortia (TRC) for infectious diseases to accelerate vaccine development efforts;
- Support for 7 Technology Transfer Offices for promoting entrepreneurship;
- Imparting trainings to address the critical skill gaps among the nascent biotech companies in areas such as Product development, intellectual property registration, technology transfer and regulatory standards

Source: PIB

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Dedicated Freight Corridors (DFC):GS-III | 25 March, 2021

Dedicated Freight Corridors (DFC):

- Ministry of Railways is executing the work of construction of two dedicated freight corridors namely Eastern and Western Dedicated Freight Corridors (EDFC & WDFC) to augment the rail transport capacity along above routes to meet the growing need of the economy and facilitate faster evacuation of freight traffic.

What is Dedicated Freight Corridor?

- It is a high speed and high capacity railway corridor that is exclusively meant for the transportation of freight. or in other words. goods and commodities.
- DFC involves the seamless integration of better infrastructure and state of the art technology.

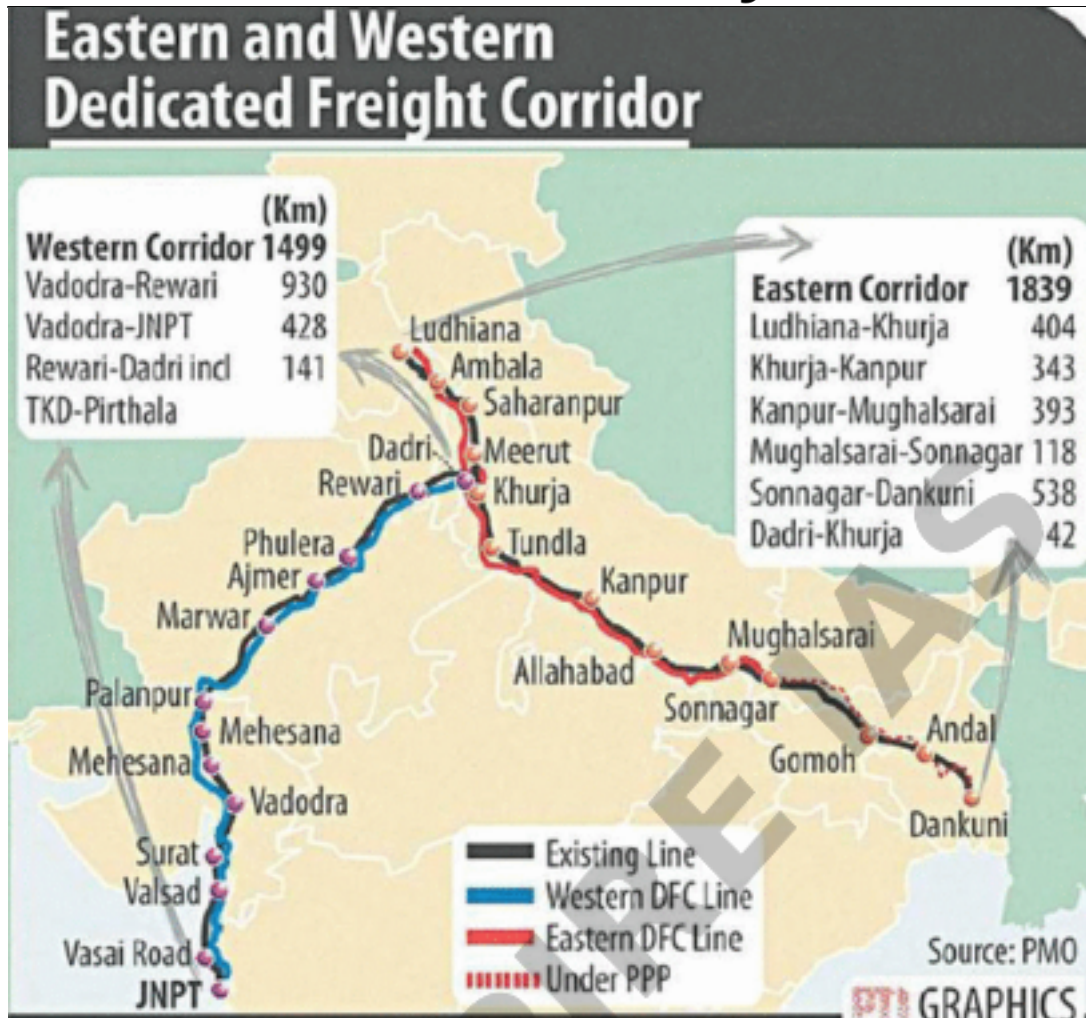
The salient features of DFC are as under:

- Maximum permissible Speed - 100Kmph
- Long haul and Higher Trailing load - upto 13000 tonnes per train
- Double stack trains on WDFC
- Efficient handling and value added services at freight terminals of DFC.
- Enhanced axle load of 25 tonnes
- Higher maximum moving dimension of Wagons
- Automatic Signalling with Mobile Train Radio communication
- Overall enhanced throughput

DFC consists of two arms:

- Eastern Dedicated Freight Corridor (EDFC)
- Western Dedicated Freight Corridor (WDFC)

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Eastern Dedicated Freight Corridor (EDFC):

- It starts at Sahnewal (Ludhiana) in Punjab and ends at Dankuni in West Bengal.
- The EDFC route has coal mines, thermal power plants and industrial cities. Feeder routes are also being made for these.
- The EDFC route covers Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand and West Bengal.
- The World Bank is funding a majority of the EDFC.
- The 351-km-long 'New Bhaupur-New Khurja section' will decongest the existing Kanpur-Delhi main line and double the speed of freight trains from 25 kmph to 75 kmph.

Western Dedicated Freight Corridor (WDFC):

- The other arm is the around 1,500-km WDFC from Dadri in Uttar Pradesh to

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Jawaharlal Nehru Port Trust in Mumbai, touching all major ports along the way.

- The WDFC covers Haryana, Rajasthan, Gujarat, Maharashtra and Uttar Pradesh.
- It is being funded by the Japan International Cooperation Agency.
- Connecting Link for Eastern and Western Arm: It is under construction between Dadri and Khurja.
- The industrial corridor of Delhi-Mumbai and Amritsar-Kolkata are also being developed around both these DFCs.

Dedicated Freight Corridor Corporation of India Ltd.

- DFCCIL under the Ministry of Railways is a special purpose vehicle tasked with planning and completion of 3,306 kms of DFCs.
- It is headquartered in New Delhi and is a Public Sector Undertaking (PSU).
- It engages in the planning and development, deployment of monetary resources, building, upkeep, and the operation of the DFCs.

Benefits of Dedicated Freight Corridors:

- Dedicated Freight Corridors will offer higher transport output with faster transit of freight trains. Running of planned double stack container trains and heavy haul will also add to the carrying capacity.
- The unit cost of freight transport will substantially be reduced and there will be significant savings in the Logistics cost as well.
- This would improve the supply chain for the industries/logistics players etc. in DFC's catchment areas leading to additional freight volumes and growth of EXIM traffic as well.
- The above advantages of DFC will promote Industrial activities in the region by leveraging the Industrial corridors/townships being implemented along the DFC route.
- Development of New Freight terminals, Multimodal Logistics parks and Inland Container Depots along both Eastern and Western DFC are in different stages of implementation.

Recent News: New Freight Corridor

- Prime Minister Narendra Modi inaugurated the New **Rewari-New Madar section** of the **Western** Dedicated Freight Corridor and flagged off the world's first 1.5-km-long electrified double stack long haul container train.
- Mr. Modi said the project was part of the mission to modernise the country's infrastructure and was being seen as a game changer for the India of 21st

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century.

- The section, which became operational after a hard work of five to six years, would be beneficial to farmers, industrialists and businessmen in the National Capital Region, Haryana and Rajasthan.

Significance

- The corridor would lead to the development of growth centres and points in several cities, creation of job opportunities and conditions attracting more investments.
- It would give a new fillip to the local industries and manufacturing units by providing them faster and cheaper access to the national and international markets.
- They would get easy access to the ports in Gujarat and Maharashtra.
- In all, 133 railway stations in nine States would be impacted by the Dedicated Freight Corridor.
- New multi-modal logistic parks, freight terminals, container depots/terminals and parcel hubs would be developed at these places.
- It would not only benefit villages, farmers, the poor and the small businesses, but also attract big manufacturers, he said.
- With the launch of the double stack long haul container train between New Ateli in Haryana and New Kishanganj in Rajasthan, India had also entered the club of nations with such high capabilities.

Northeast link

- Given the rapid infrastructural expansion, all the Northeast State capitals would soon be linked to the national rail network. The work of indigenously developing high-speed tracks was also under way.
- Earlier, Mr. Modi listed several initiatives, including a digital payment of Rs.18,000 crore to farmers under the direct benefit transfer scheme, taken by the government in the past couple of weeks, to highlight the speed with which important projects were being implemented despite the COVID-19 induced crisis.

Source: PIB

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National Rail Plan (NRP) for India 2030

GS-II | 25 March, 2021

National Rail Plan (NRP) for India 2030

- Indian Railways have prepared a National Rail Plan (NRP) for India – 2030.
- The Plan is to create a **'future ready' Railway system by 2030**.
- The NRP is aimed to formulate strategies based on both operational capacities and commercial policy initiatives to increase modal share of the Railways in freight.
- The NRP is for the entire Indian Railways network and not only for districts connected to the existing rail network but also districts indirectly impacted by rail transportation. In effect virtually all the districts of the country get linked to the plan.
- The **objective** of the Plan is
 1. To create capacity ahead of demand, which in turn would also cater to future growth in demand right up to 2050 and
 2. Increase the modal share of Railways to 45% in freight traffic and to continue to sustain it.
- To achieve this objective all possible financial models including Public Private Partnership (PPP) are being considered.

Features of the National Rail Plan

- Formulate strategies based on both operational capacities and commercial policy initiatives to increase modal share of the Railways in freight to 45%.
- Reduce transit time of freight substantially by increasing average speed of freight trains to 50Kmph.
- As part of the National Rail Plan, **Vision 2024** has been launched for accelerated implementation of certain critical projects by 2024 such as 100% electrification, multi-tracking of congested routes, upgradation of speed to 160 kmph on Delhi-Howrah and Delhi-Mumbai routes, upgradation of speed to 130kmph on all other Golden Quadrilateral-Golden Diagonal (GQ/GD) routes and elimination of all Level Crossings on all GQ/GD route.
- Identify new Dedicated Freight Corridors.
- Identify new High Speed Rail Corridors.
- Assess rolling stock requirement for passenger traffic as well as wagon requirement for freight.
- Assess Locomotive requirement to meet twin objectives of 100% electrification (Green Energy) and increasing freight modal share.
- Assess the total investment in capital that would be required along with a

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periodical break up.

- Sustained involvement of the Private Sector in areas like operations and ownership of rolling stock, development of freight and passenger terminals, development/operations of track infrastructure etc.

Source: PIB

Champion Services Sectors

GS-II | 25 March, 2021

Champion Services Sectors

- Champion Services Sectors refers to the **12 identified sectors** where the Government wants to give focused attention for promoting their development, and realizing their potential.
- These include
 1. Information Technology & Information Technology enabled Services (IT& ITeS),
 2. Tourism and Hospitality Services,
 3. Medical Value Travel,
 4. Transport and Logistics Services,
 5. Accounting and Finance Services,
 6. Audio Visual Services,
 7. Legal Services,
 8. Communication Services,
 9. Construction and Related Engineering Services,
 10. Environmental Services,
 11. Financial Services and
 12. Education Services.
- A dedicated fund of Rs. 5000 crores has been proposed to be established to support initiatives for sectoral Action Plans of the Champion Sectors.

Background

- The Group of Secretaries in their recommendations to the Prime Minister, had identified ten Champion Sectors, including seven (7) manufacturing related sectors and three (3) services sectors, for promoting their development and achieving their potential.

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- It was subsequently decided that Department of Industrial Policy and Promotion (DIPP), the nodal department for 'Make in India', would spearhead the initiative for the Champion Sectors in manufacturing and Department of Commerce would coordinate the proposed initiative for the Champion Sectors in Services.
- Accordingly, Department of Commerce, with wide stakeholder consultation coordinated the preparation of draft initial sectoral reform plans for several services sectors and, subsequently the action plan.

Rationale and Objective

- The idea was launched and accepted on 28 February 2018.
- This initiative is expected to enhance the competitiveness of India's service sectors thereby creating more jobs in India, contributing to a higher GDP and export of services to global markets.

Targets

- The share of India's services sector in global services exports was 3.3% in 2015.
- Based on this initiative, a goal of 4.2% has been envisaged for 2022.
- The share of services in Gross Value Added (GVA) was about 53% for India in 2015-16 (61% including construction services).
- This initiative is expected to raise the share of services in GVA to 60% (67% including construction services) by the year 2022.

Champion Services Sector Scheme

- It is a Central Sector Scheme of Department of Commerce.
- The main objectives of Champion Services Sector Scheme are as follows:
 1. Sectoral and cross cutting issues including domestic regulatory reforms, skill development, data protection regime etc.
 2. New initiatives to prevent India's service sector from losing its competitive position in the global market.
 3. Increased productivity and competitiveness of the Champion Service Sectors will enhance services gross value added contributed by domestic services sectors.
 4. It will boost India's service sector's exports.
 5. Skill training and Employment creation.
- Under the Champion Services Sector Scheme (CSSS) a total amount of Rs.3369.75 Cr for 3-5 years (2019-20 to 2023-24) has been approved by the Expenditure Finance Committee based on the proposals submitted by the

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concerned Ministry/Department, details of which are at Annexure.

- As per the guidelines of the Scheme, there is a three-tier monitoring mechanism, namely
 - the concerned Ministry/Department,
 - the Department of Commerce and
 - the Committee of Secretaries chaired by the Cabinet Secretary

Following is the structure of the Umbrella scheme:

	Title of Sectoral Scheme under the Umbrella Scheme	Nodal Ministry/Department
1.	CSSS-Information Technology & Information Technology enabled Services	Ministry of Electronics & Information Technology
2.	CSSS -Tourism and Hospitality Services	Ministry of Tourism
3.	CSSS -Medical Value Travel Services	Ministry of Health & Family Welfare and Ministry of AYUSH
4.	CSSS -Transport and Logistics Services	Department of Commerce
5.	CSSS -Accounting and Finance Services	Ministry of Corporate Affairs
6.	CSSS -Audio - Visual Services	Ministry of Information & Broadcasting
7.	CSSS -Legal Services	Ministry of Law & Justice
8.	CSSS -Communication Services	Ministry of Communications
9.	CSSS-Construction and Related Engineering Services	Ministry of Housing and Urban Affairs
10.	CSSS -Environmental Services	Ministry of Environment, Forest and Climate Change
11.	CSSS -Financial Services	Department of Economic Affairs, Department of Financial Services, Ministry of Finance
12.	CSSS -Education Services	Ministry of Human Resource Development

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Source: PIB

Make in India initiative

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Make in India initiative

- Make in India initiative was launched on September 25, 2014 with the objective of facilitating investment, fostering innovation, building best in class manufacturing infrastructure, making it easy to do business and enhancing skill development.
- The initiative is further aimed at creating a conducive environment for investment, modern and efficient infrastructure, opening up new sectors for foreign investment and forging a partnership between government and industry through positive mindset.
- Since its launch, Make in India initiative has made significant achievements and presently focuses on 27 sectors under Make in India 2.0.
- Department for Promotion of Industry and Internal Trade is coordinating action plans for manufacturing sectors, while Department of Commerce is coordinating service sectors.

The list of sectors under Make in India 2.0 is given below:

Manufacturing Sectors

1. Aerospace and Defence
2. Automotive and Auto Components
3. Pharmaceuticals and Medical Devices
4. Bio-Technology
5. Capital Goods
6. Textile and Apparels
7. Chemicals and Petro chemicals
8. Electronics System Design and Manufacturing (ESDM)
9. Leather & Footwear
10. Food Processing
11. Gems and Jewellery
12. Shipping
13. Railways
14. Construction
15. New and Renewable Energy

Service Sectors

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1. Information Technology & Information Technology enabled Services (IT & ITeS)
 2. Tourism and Hospitality Services
 3. Medical Value Travel
 4. Transport and Logistics Services
 5. Accounting and Finance Services
 6. Audio Visual Services
 7. Legal Services
 8. Communication Services
 9. Construction and Related Engineering Services
 10. Environmental Services
 11. Financial Services
 12. Education Services
- The Government of India is making continuous efforts under Investment Facilitation for implementation of Make in India action plans to identify potential investors.
 - Support is being provided to Indian Missions abroad and State Governments for organising events, summits, road-shows and other promotional activities to attract investment in the country under the Make in India banner.
 - Investment Outreach activities are being carried out for enhancing International co-operation for promoting FDI and improve Ease of Doing Business in the country.
 - India has registered its highest ever annual FDI Inflow of US \$74.39 billion (provisional figure) during the last financial year 2019-20 as compared to US \$ 45.15 billion in 2014-2015.
 - In the last six financial years (2014-20), India has received FDI inflow worth US\$ 358.30 billion which is 53 percent of the FDI reported in the last 20 years (US\$ 681.87 billion).
 - Steps taken to improve Ease of Doing Business include simplification and rationalisation of existing processes. As a result of the measures taken to improve the country's investment climate, India jumped to 63rd place in World Bank's Ease of Doing Business ranking as per World Bank's Doing Business Report (DBR) 2020.
 - This is driven by reforms in the areas of Starting a Business, Paying Taxes, Trading Across Borders, and Resolving Insolvency.
 - Recently, Government has taken various steps in addition to ongoing schemes to boost domestic and foreign investments in India.

These include the National Infrastructure Pipeline, Reduction in Corporate Tax, easing liquidity problems of NBFCs and Banks, policy measures to boost domestic manufacturing. Government of India has also promoted domestic

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manufacturing of goods through public procurement orders, Phased Manufacturing Programme (PMP), Schemes for Production Linked Incentives of various Ministries.

Source: PIB

Atal Bimit Vyakti Kalyan Yojana

GS-III | 25 March, 2021

Atal Bimit Vyakti Kalyan Yojana

- The scheme Atal Beemit Vyakti Kalyan Yojana was introduced by the Employees' State Insurance Corporation (ESIC) on pilot basis for a **period of 2 years w.e.f. 01.07.2018** for providing relief to the Insured Persons (IPs) who have become unemployed.
- Under this scheme relief in the form of cash compensation to the extent of 25 per cent of the average per day earning was paid upto a maximum of 90 days of unemployment subject to conditions that the employee should have completed two years of Insurable employment and has contributed not less than Seventy-Eight (78) days in each of the four consecutive contribution periods immediately preceding to the claim of the relief.
- Since its inception till 18.03.2021, a total of 43299 beneficiaries have availed relief under the scheme and an amount of Rs.57.18 crore has been disbursed.

The scheme has been extended for the period from 01.07.2020 to 30.06.2021.

- The rate of relief has been doubled from 25 per cent to 50 per cent average per day earning of employee.
- The Insured Person should have been in insurable employment for a minimum period of two years immediately before his/ her unemployment and should have contributed for not less than 78 days in the contribution period immediately preceding the unemployment and minimum 78 days in one of the remaining three contribution periods in two years prior to unemployment. Earlier this condition was a minimum contribution of 78 days in four contribution periods prior to unemployment with minimum two years insurable

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employment.

- Claim shall become due 30 days after date of unemployment. Earlier this period was 90 days.
- The claim of the IP need not be forwarded by the employer. The claim may be submitted by an IP in the prescribed claim form duly completed online or directly to the branch office.

Source: PIB

Social Security Schemes for Organised and Unorganised sector

GS-II | 25 March, 2021

Social Security Schemes for Organised and Unorganised

- As per the Periodic Labour Force Survey (PLFS) carried out by the National Sample Survey Organisation of the Ministry of Statistics & Programme Implementation, in the year 2017-18, the total employment in both organized and unorganised sector in the country was around 47 crores.
- Out of this, around 9 crores are engaged in the organized sector and the balance of 38 crores are in the unorganized sector.

The categories of the workers have been divided into three categories i.e.

- Establishments with 10 or more workers;
- Establishments with 20 or more workers;
- Workers engaged in unorganised sector

Employees State Insurance Act, 1948

- The ESI Act, 1948 is Social Security legislation applicable to all factories & notified establishments employing ten or more persons, which are located in ESI notified areas and as such it does not apply to the unorganised sector.
- Employees earning wages up to Rs 21,000 per month (Rs 25,000/- in the case of persons with disability) are coverable under ESI Scheme and are entitled to all benefits available under ESI Act, 1948.
- At present the ESI Scheme stands extended to 575 districts in 35 States/

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Union territories.

- The total number of Insured Persons covered under ESI Scheme as on 31.03.2020 are 3.41 crore and the total beneficiaries are 13.24 crore.
- ESI contributions @ 4% are paid by employers, of which the employees or workers contribute to the extent of 0.75% of their wages and the employers contribute to the extent of 3.25% of their wages.
- Such contributions entitle them to all benefits available under the ESI Act.

Organised Sector: EPFO

The benefits of social security to the workers employed in **organised sector establishments with 20 or more workers** under the Employees' Provident Fund and Miscellaneous Provisions Act, 1952 are extended through following three schemes:

1. The Employees' Provident Funds Scheme, 1952;
2. The Employees' Pension Scheme, 1995;
3. The Employees' Deposit Linked Insurance Scheme, 1976.

The Employer and Employee both contribute @ 12% of wages towards provident fund. Out of this, 8.33% is diverted towards pension Fund. Employer also contributes to EDLI Scheme @ 0.5 % of wages. During the year 2019-20, 4.89 crores members contributed under the Scheme.

Unorganised Sector: Unorganised Workers' Social Security Act, 2008

- For the workers engaged in the Unorganised sector, social security benefits are being addressed through the Unorganised Workers' Social Security Act, 2008 **now subsumed in the Code on Social Security, 2020**.
- The Act empowers the Central Government to provide Social Security benefits to unorganised sector workers by formulating suitable welfare schemes on matters relating to
 1. Life and disability cover,
 2. Health and maternity benefits,
 3. Old age protection and
 4. Any other benefit as may be determined by the Central Government.
- The State Governments are also empowered to formulate suitable welfare schemes on the matters regarding housing, provident funds, educational schemes, skill upgradation, old age homes etc.

Life and Disability cover: Unorganised Sector

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- Life and disability cover is provided through Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY) and Pradhan Mantri Surksha Bima Yojana (PMSBY).
- Benefits under the schemes are for Rs.2 lakh on death due to any cause & permanent disability, Rs.1.0 Lakh on partial disability and Rs.4 lakh on death due to accident to the unorganised workers at the annual premium of Rs.342/- (Rs.330/- for PMJJBY + Rs.12/- for PMSBY) depending upon their eligibility.
- The eligible Unorganised Workers can avail the scheme from their respective banks at annual premium of Rs. 342/-. As on 30.12.2020, 9.70 and 21.87 crore people have been enrolled under PMJJBY and PMSBY respectively.

Health and Maternity Benefits: Unorganised Sector

- The health and maternity benefits are addressed through Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) which is a universal health scheme administered by the National Health Authority.
- The number of eligible beneficiaries under Social Economic Caste Census (SECC) of 2011 on the basis of select deprivation and occupational criteria across rural and urban areas is 10.74 Crore families (50 crore people).
- The Scheme gives flexibility to States/UTs to run their own health protection scheme in alliance with AB-PMJAY. The States/UTs implementing AB-PMJAY have further expanded the coverage of the scheme to include 13.13 crore families (65 crore people).

Old Age Protection: Unorganised Sector

- For old age protection to unorganised sector workers including traders, shopkeepers and self-employed persons, the Government has launched two flagship schemes namely Pradhan Mantri Shram Yogi Maan-Dhan Yojana (PM-SYM) and National Pension Scheme for Traders, Shopkeeper and Self-Employed Persons (NPS- Traders).
- Under the schemes, beneficiaries are entitled to receive minimum monthly assured pension of Rs.3000/- after attaining the age of 60 years.
- The workers in the age group of 18-40 years whose monthly income is below Rs.15000/- can join the PM-SYM scheme and Traders, shopkeepers and self-employed persons whose annual turnover is not exceeding Rs.1.5 crore can join NPS – Traders scheme.
- These are voluntary and contributory pension schemes and monthly contribution ranges from Rs.55 to Rs.200 depending upon the entry age of the beneficiary.
- Under both the schemes, 50% monthly contribution is payable by the

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beneficiary and equal matching contribution is paid by the Central Government. Both the schemes are being implemented in all the States/UTs of India.

- The details of numbers of beneficiaries as on 28.02.2021 under PMSYM and NPS Traders, 44.90 Lakh and 43,700 respectively.

Health Insurance for Domestic Workers

- The number of Domestic workers as per Census 2011 is 47.81 lakhs.
- The Central Government had enacted the Unorganized Workers' Social Security Act, 2008, now subsumed in the Code on Social Security, 2020, for providing social security to all unorganized workers including domestic workers.
- The Act provides formulation of social security schemes viz. life and disability cover, health and maternity benefits & old age protection by the central Government.
- The state Government are mandated under the Act to formulate suitable welfare schemes for unorganized sector workers including domestic workers relating to provident fund, employment injury benefits housing, education schemes for children, skill up gradation of workers, financial assistance & old age homes.
- Central Sector Schemes like PMJJBY, PMSBY, PM-SYM provide social security cover to all the unorganised workers including domestic workers in respect of life & disability cover, insurance and pension.
- Ayushman Bharat PMJAY provides secondary and tertiary health benefits to all unorganized workers including domestic workers who are covered as eligible beneficiaries as per Socio Economic Caste census Data, 2011.
- Ministry of Labour & Employment is in the process of developing a comprehensive National Data base of the Unorganized workers (NDUW) to collect relevant information of unorganized workers including domestic workers and inter-alia help in delivery of various social security and welfare schemes being implemented for them.

Source: PIB

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Modified tax system

GS-III | 26 March, 2021

Modified tax system

Introduction

- This article analyses the amendments brought to the Finance Bill 2021 regarding taxation matters
- Finance Minister has steered through Parliament the Finance Bill of 2021, which includes 127 amendments.

Issues with the Rs.2.5 lac per year limit

- Responding to MPs' concerns on the tax, she said that nearly **93% PF account holders will be covered by the ₹2.5 lakh per year limit**, while a mere **1% were abusing the system**.
- Yet, she introduced an amendment doubling the threshold for annual PF contributions to **₹5 lakh, only for employees whose employers do not remit any contribution to their retirement fund account**.
- For the crores of Employees' PF account holders in the private sector, this ₹5 lakh threshold is a non-starter as an **employer-employee relationship is an implicit requirement to open an EPF account**.
- While employees may voluntarily enhance contributions beyond the **statutory wage limit of ₹15,000 a month** and employers are not bound to match enhanced contributions, a **'zero employer contribution'** scenario is **not possible for EPF members**.
- This suggests that only some senior government staff who joined service **before 2004 and are not part of the NPS** will benefit from this concession, as they contribute to the GPF account and **get a defined benefit pension separately**.
- In a country with a large informal workforce and sparse social security systems, reasonable savings for retirement should not be penalised.

Increasing the cap can be a solution

- The least the government could have done was to **offer the same cap of ₹5 lakh to EPF members**, by including their employer contributions during the year.
- As things stand now, annual investments into the PPF that anyone can open, are **capped at ₹1.5 lakh**.

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- Similarly, employee PF contributions beyond ₹1.5 lakh are not tax-deductible under **Section 80C of the I-T Act**, but income on such contributions beyond ₹2.5 lakh will be taxable and employer contributions into the EPF, NPS or any superannuation pension fund **are capped at ₹7.5 lakh**.
- And the income on **GPF contributions up to ₹5 lakh would be tax-free**.

Way ahead

- To top this off, **the new Wages Code** will compel employers to pay **higher EPF contributions** by linking them to at least half of their total pay on a cost to company basis, rather than 24% of basic pay presently.
- This will virtually force many EPF members into contributing over ₹2.5 lakh a year.
- This either reflects a lack of system-wide thinking, with two arms of the government working at cross purposes, or an ingenious ploy to stir up tax collections.
- With doubts on the implementation of this new tax yet to be addressed, the government must consider putting it on hold and think through its implications.

Source: TH

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National Bank for Financing Infrastructure and Development Bill, 2021

GS-III | 27 March, 2021

National Bank for Financing Infrastructure and Development Bill, 2021

Introduction

- The Bill seeks to establish the **National Bank for Financing Infrastructure and Development (NBFID)** as the **principal Development Financial Institution (DFIs)** for infrastructure financing.
- It was announced in the Budget 2021.

About NBFID:

- NBFID will be set up as a **corporate body** with authorised share capital of **one lakh crore rupees**.

Objectives of NBFID:

- To directly or indirectly lend, invest, or attract investments for infrastructure projects located entirely or partly in India.
- Includes facilitating the **development of the market for bonds, loans, and derivatives** for infrastructure financing.

Functions of NBFID:

- Extending loans and advances for infrastructure projects.
- Taking over or refinancing such existing loans.
- Attracting investment from private sector investors and institutional investors for infrastructure projects.
- Organising and facilitating foreign participation in infrastructure projects.
- Facilitating negotiations with various government authorities for dispute resolution in the field of infrastructure financing.
- Providing consultancy services in infrastructure financing.

Funds for NBFID:

- It may raise money in the form of **loans** or otherwise **both in Indian rupees and foreign currencies**, or secure money by the issue and sale of various financial instruments including **bonds and debentures**.
- It may **borrow money from the central government, Reserve Bank of**

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India (RBI), scheduled commercial banks, mutual funds, and multilateral institutions such as the World Bank and Asian Development Bank.

- Initially, the central government will own 100% shares of the institution which may subsequently be reduced up to 26%.

Management structure of NBFID:

- NBFID will be governed by a **Board of Directors**.
 - The **Chairperson will be appointed by the central government in consultation with RBI**.
- A body constituted by the central government will recommend candidates for the post of the Managing Director and Deputy Managing Directors.
- The Board will appoint independent directors based on the recommendation of an internal committee.

Role of Central Government:

- The central government will provide grants **worth Rs. 5,000 crore** to NBFID by the end of the first financial year.
- The government will also provide **guarantee at a concessional rate of up to 0.1%** for borrowing from multilateral institutions, sovereign wealth funds, and other foreign funds.
- Costs towards insulation from fluctuations in foreign exchange (in connection with borrowing in foreign currency) may be reimbursed by the government in part or full.
- Upon request by NBFID, the government may guarantee the bonds, debentures, and loans issued by NBFID.

Investigation And Prosecution:

- No investigation can be initiated against employees of NBFID without the prior sanction of the central government in case of the chairperson or other directors, and the managing director in case of other employees.
- Courts will also require prior sanction for taking cognisance of offences in matters involving employees of NBFID.

Other Provisions

- The Bill also provides for any person to set up a DFI by applying to RBI.
- RBI may grant a licence for DFI in consultation with the central government.
- RBI will also prescribe regulations for these DFIs.

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Source: TH

Minerals (Development and Regulation) Amendment Bill, 2021

GS-III | 27 March, 2021

Minerals (Development and Regulation) Amendment Bill, 2021

- This bill was introduced to streamline the renewal of the auction process for minerals and coal mining rights.

What are the key changes?

- The amendment proposes to **allow captive miners of both coal and other minerals to sell up to 50 per cent of their production** after meeting the requirements of the end-use plant and on paying additional royalty to the state government.
 - Operators are currently only allowed to use coal and minerals extracted from captive mines for their own industrial use.
 - Experts note that this increased flexibility would allow miners to maximise output from captive mines as they would be able to sell output in excess of their own requirements.
- The amendment also proposes to **fix additional royalty payments to states** for the extension of mining leases for central public sector enterprises.
 - Disagreements over the additional royalty to be paid by state-owned NMDC to the Karnataka government for the extension of mining rights at the **Donimalai mine** had led to NMDC suspending operations at the mine for over two years.
 - NMDC recently resumed operations after an interim agreement on the additional royalty to be paid to the Karnataka government.
- Experts noted that **state governments may object** to the fixing of an **additional royalty** to be paid by CPSEs for such extensions as this may lead to lower revenues compared to a transparent auction process.
- Another key change the Bill proposes is to **empower the central government to conduct auctions or re-auction processes** for the grant of a mining lease if a state government fails to complete the auction process in a specified period, decided after consultations between the Centre and state.

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- Experts noted that industry players may welcome the move as it would likely lead to **greater transparency** in the **auction process** as there is a perception that state governments may in some cases prefer some bidders, and try to delay or cancel mining rights if their preferred bidders do not win mining rights.

Could the amendment face legal challenges?

- Experts said the amendment, if passed, was likely to face legal challenges particularly from state governments where the BJP and its allies are not in power.
- "If an act is passed in which any state government's discretionary power is taken away or their rights or benefits are infringed."

Source: IE

The Insurance (Amendment) Bill, 2021

GS-III | 27 March, 2021

The Insurance (Amendment) Bill, 2021

Introduction

- The Bill amends the **Insurance Act, 1938**.
- The Act provides the framework for functioning of insurance businesses and **regulates the relationship between an insurer, its policyholders, its shareholders, and the regulator** (the Insurance Regulatory and Development Authority of India).
- The Bill seeks to **increase the maximum foreign investment** allowed in an Indian insurance company.

Features of the Bill:

Foreign investment:

- The Act allows **foreign investors to hold up to 49%** of the capital in an **Indian insurance company**, which must be owned and controlled by an

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Indian entity.

- The Bill increases the limit on foreign investment in an Indian insurance company from 49% to 74%, and removes restrictions on ownership and control.
- However, such foreign investment may be subject to additional conditions as prescribed by the central government.

Investment of assets:

- The Act requires **insurers to hold a minimum investment** in assets which would be sufficient to clear their insurance claim liabilities.
- If the insurer is incorporated or domiciled outside India, such assets must be held in India in a trust and vested with trustees who must be residents of India.
- The Act specifies in an explanation that this will also apply to an insurer incorporated in India, in which at least:
 - (i) 33% capital is owned by investors domiciled outside India,
 - or
 - (ii) 33% of the members of the governing body are domiciled outside India.
- The Bill removes this explanation.

Source: TH/PRS

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Particle physics- Large Hadron Collider experiment

GS-III | 28 March, 2021

Particle physics- Large Hadron Collider experiment

Introduction

- On March 23, a wave of excitement propagated through the particle physics community when researchers from the **LHCb experiment at CERN**, situated in the **Franco-Swiss border**, announced the results of their **latest analysis of data**.

Verge of discovery

- While the findings were not sufficiently strong to be counted as a discovery, CERN scientists were excited enough to reveal that if the anomaly they had detected was confirmed, "It would require a new physical process, such as the existence of new fundamental particles or interactions."

What was this excitement all about? It is necessary to delve into the world of elementary particles to understand this.

- Elementary particles:** Broadly speaking, **elementary particles** are classified into the particles called baryons – which include:
 - protons,
 - neutrons and
 - their antiparticles the antiprotons etc.
- Middle class particles:** The "middle mass" particles, roughly speaking, are called the **mesons** and they include members such as the **K and B particles**.
- Leptons:** Leptons include:
 - electron** and
 - its cousins the **muon and tau particles** and
 - the anti-particles.
- Quarks and gluons:** At a still smaller scale, there are tiny particles called quarks and gluons.
 - There are **six flavours of quarks: up, down, truth, beauty, charm and strange**.
 - They too have antiquarks associated with them.

Note: While the **baryons** are made up of combinations of three quarks, the **mesons** contain two quarks, more accurately a quark and antiquark pair, and

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the leptons are truly fundamental and are thought to be indivisible.

Do you know?

- Until now it is believed that the electron, muon and tauon and their antiparticles, though they differ in mass, behave similarly in particle interactions.

Lepton universality principle.

- The muons are not essentially different from the electrons as per the Standard Model, the presently accepted theoretical model of all elementary particle interactions.
- This is called the lepton universality principle.

Source: TH

Waste management- Taiwan's Circular Economy

GS-III | 28 March, 2021

Waste management- Taiwan's Circular Economy

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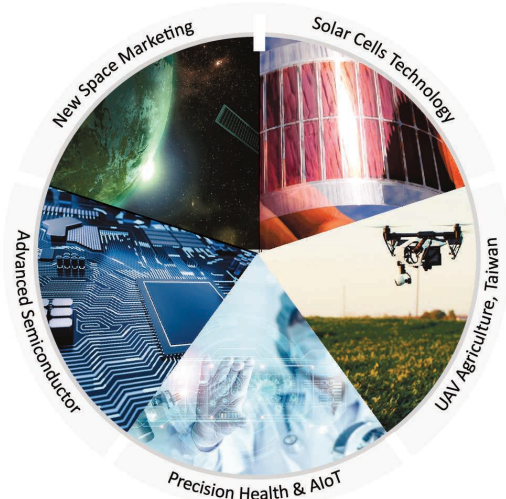
A Space Marketing Initiative

Converting waste to greenery : The Taiwan experience

By Baushuan Ger, Representative of Taipei Economic and Cultural Center in India (TECC),
Chin-Tsan Wang, Director of Science & Technology Division, TECC



A Strategic Vision for Taiwan-India Cooperation on Science and technology



Preventing greenhouse gas (GHG) emissions by converting agricultural wastes into environment value addition seems to be a feasible solution to fight air pollution globally. A circular economy converting agricultural wastes into value-added and eco-friendly products, such

as bioethanol or bioplastics is possible. Besides increasing farmers' income, it can also fundamentally solve the environmental pollution caused by the burning of agricultural wastes. In Taiwan, a win-win circular economy framework has been implemented

effectively on solving environmental pollution and creating economic value which is different from the "take-make-waste" traditional linear model. On the contrary, an advanced circular economy model has been adopted by systematic design to keep products with recyclable features, enhance resource utilization, eliminate waste, avoid pollution of the natural environment, and achieve the principles of 3Rs (Reduce, Recycle and Reuse). Among them, the cycle in a circular economy, uses agricultural wastes as biomass raw materials, which are converted into value-added and environmentally beneficial renewable energy or bio-chemicals through biorefinery technologies. Those related technologies are gradually entering the phase of mature development and a sustainable approach for moving towards an organic circular economy as is shown.

For its sizable rice fields in the eastern part of the country, including a "Demo Site of Sustainable Economy and Energy" located in Hualien County, Taiwan owns its potential for lignocellulose-rich biomass resources, revealing in the framework of an organic circular economy. Here, Taiwan-India cooperation can create a prospective win-win situation in the future. Taking rice straw as an example, alternative fuels such as bio-ethanol or briquette are used to generate bio-power as a syngas instead of natural gas. They do not produce air pollutants like PM2.5 and simultaneously solve the problems of agricultural wastes and air pollution. As for the final remaining residue and slurry from biogas production, those natural organic fertilizers can also be returned to farmland to solve the problem of soil acidification caused by the use of chemical fertilizers.

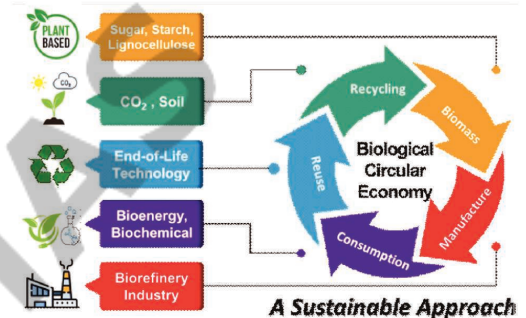
The development of bioplastics is a manifestation of low carbon footprint in the age of bio-recycling economy. As micro-plastics pose a health risk, a growing number of governments have

started to limit and reduce the use of plastics. Therefore, using biomass to produce bioplastics will create new industries and output values. This will lead to a reduction in the dependence on petrochemical plastics as well as indirectly reduce carbon emissions. In addition to being reused, bioplastics based on biomass can also be converted into renewable energy like briquette and organic fertilizers, making recycling and utilization of bioplastics more diversified.

Looking at post-COVID-19 pandemic, politicians, experts, and scholars in many countries have proposed this idea of developing an organic circular economy

pollution. Now the "5+2 industrial innovation program" of regional links will be implemented under the government's promotion of the New Southbound Policy (NSP) through Taiwan-India bilateral scientific and technological cooperation.

The Taipei Economic and Cultural Center (TECC) in India is willing to work with India in promoting green energy, organic circular economy industry, and create a bridge between India and Taiwan's technology. A closer and diversified connection can be greatly strengthened between Taiwan and India, agricultural waste can be reduced,



to expand emerging green industries and drive the growth of the green economy. At present, Taiwan has benefited from many years of technical green energy and promotional experiences in organic circular economic projects such as biomass energy, bioplastics, and various green technologies to fight air

farmers' income will increase, air quality will improve and organic circular economy business will create and meet diversified demand goals for the Indian government, by way of the opportunities and channels fostering bilateral technological exchange.



Taipei Economic and Cultural Center in India
駐印度台北經濟文化中心

Source: TH

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P2P rally in Sri Lanka

GS-II | 30 March, 2021

P2P rally in Sri Lanka

Introduction

- After months of restricted movement due to the pandemic, it was the first instance of several thousand people taking to the streets to assert their rights.

Details of the March

- The 'Pothuvil to Polikandy' rally or 'P2P', began in the **eastern Ampara district and ended in Jaffna in the Northern Province**, covering several towns en route.
- Prominent **Tamil and Muslim politicians**, activists, students, and residents took part in the march.
- This march was headed by Rasamanickam, a legislator from the Tamil National Alliance (TNA), from the eastern Batticaloa district.

Key concerns of the rally:

- Departing from past struggles in the north and east that focussed on grievances specific to **war-affected Tamils**, the rally included key concerns of the **Muslim community and Malaiyaha [Hill Country] Tamils working in the tea estates**, in the list of **ten demands put together by civil society groups**.

Issues in North and Eastern Sri Lanka

- It highlighted **land grab in Tamil areas**,
- **Government-sponsored Sinhalese settlements**,
- Enforced disappearances,
- Persisting **militarisation**,
- Intimidation of activists and journalists,
- The continuing use of the **Prevention of Terrorism Act** and
- The **detention of political prisoners without trial**.
- The activists also demanded that the government reverse its **enforced cremations policy affecting Muslims**, and
- Ensure a fair wage to plantation labourers.

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Source: TH/WEB

20th Amendment of Sri Lankan Parliament

GS-II | 30 March, 2021

20th Amendment of Sri Lankan Parliament

Key points

- It envisages **expansive powers and greater immunity** for the Executive President.
- The Amendment **rolls back Sri Lanka's 19th Amendment**, a 2015 legislation that **sought to clip presidential powers**, while strengthening Parliament.
- The new legislation in turn **reduces the Prime Minister's role to a ceremonial one**.

19th Amendment Act

- The reduction in the terms of President and Parliament **from six years to five years**.
- Re-introduction of a two-term limit that a person can have as President.
- The power of President to **dissolve Parliament** only after four and a half years.
- The revival of **Constitutional Council** and the establishment of **independent commissions**.
- The **President remains the head of Cabinet** and he can appoint Ministers on the advice of Prime Minister

18th Amendment Act

- It mainly sought to weaken the power of the presidency which the 18th amendment had greatly expanded.
- The 18th amendment allowed four basic changes:
 - The President can seek re-election **any number of times**;
 - The **ten-member Constitutional Council** has been replaced with a **five-member Parliamentary Council**;
 - Independent commissions are brought under the authority of the President; and,

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- It enables the President to attend Parliament once in three months and entitles him to all the privileges, immunities, and powers of a Member of Parliament other than the entitlement to vote.

Source: TH

Antigenic escape

GS-III | 30 March, 2021

Antigenic escape

- Antigenic escape (alternatively called **immune escape** or immune evasion) occurs when the immune system of a human being ("host") is unable to respond to an infectious agent, or in other words that the host's immune system is no longer able to recognize and eliminate a virus or pathogen.
- This process can occur in a number of different ways of both a **genetic and an environmental nature**.
- Such mechanisms include homologous recombination, and manipulation and resistance of the host's immune responses.

Source: TH

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Heart of Asia Conference: Afghanistan crisisGS-II | 31 March, 2021

Heart of Asia Conference: Afghanistan crisis

Part of: GS Prelims and GS-II- IR**Historical Background**

The **Saur Revolution** had taken place in Afghanistan in **1978** which installed a communist party in power. **Nur Muhammad Taraki** became the head of the state replacing the previous president Daoud Khan. Taraki's government introduced many modernisation reforms that were considered too radical and left them unpopular, especially in the rural areas and with the traditional power structures. The communist government also had a policy of brutally suppressing all opposition. Even unarmed civilians opposing the government were not spared. This led to the rise of various anti-government armed groups in the country. The government itself was divided and Taraki was killed by a rival, Hafizullah Amin, who became the president. The Soviet Union, which at that time, wanted a communist ally in the country, decided to intervene.

Soviet army was deployed on 24th December 1979 in Kabul. They staged a coup and killed Amin, installing Babrak Karmal as the president. Karmal was a Soviet ally. This intervention was seen as an invasion by the USA and other western nations. While the Soviet army had control of the cities and towns, the insurgency groups called the Mujahideen had the rural parts of Afghanistan under their control. A bitter war was fought between both groups. The Soviet Union, which had planned to stay for 6 months to a year in Afghanistan found themselves stuck in a war that was proving to be too costly.

The Mujahideen did not relent in their pursuit to 'drive out' the Soviets. They had the support of many countries like the USA, Pakistan, China, Iran, Egypt and Saudi Arabia. They were given assistance like arms and training needed to fight the soviets. The soviets followed a policy of wiping out the rural regions in order to defeat the Mujahideen. Millions of land mines were planted and important irrigation systems were destroyed. As a result, millions of Afghan refugees took

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refugee in Pakistan and Iran. Some came to India as well. It is estimated that in the Soviet-Afghan war, about 20 lakh Afghan civilians were killed.

In 1987, after the reformist **Mikhail Gorbachev** came to power in the Soviet Union, he announced that his government would start withdrawing troops. The **final soviet troops were withdrawn on 15 February 1989**. Now, the government of Afghanistan was left alone to fight the Mujahideen. Finally, they succeeded in taking control of Kabul in 1992. Again, the Mujahideen had different factions within and they could not agree on power sharing. The country collapsed into a bloody civil war.

The Taliban

In 1994, a group of fundamentalist students, wrought control of the city of Kandahar and started a campaign to seize power in the country. They were called the Taliban. Many of them were trained in Pakistan when they were in refugee camps. By 1998, almost entire Afghanistan was under the control of the Taliban. Many of the Mujahideen warlords fled to the north of the country and joined the Northern Alliance who were fighting the Taliban. This time, Russia lent support to the Northern Alliance, though they were fighting against them earlier. The Taliban ruled the country under strict interpretation of the Sharia law and many of the progress with regard to women and education which the country had seen earlier, were reversed. Girls were forbidden from attending schools and women banned from working. The Taliban-ruled country also became a safe haven for international terrorists. Only Pakistan, the UAE and Saudi Arabia recognised the Taliban government.

In 2001, a US-led coalition defeated the Taliban and established another government in place. However, Afghanistan still sees resistance from the Taliban in certain pockets.

US fighting a war in Afghanistan and why has it lasted so long?

1. On 11 September 2001, attacks in America killed nearly 3,000 people. Osama Bin Laden, the head of Islamist terror group al-Qaeda, was quickly identified as the man responsible.
2. The Taliban, radical Islamists who ran Afghanistan and protected Bin Laden, refused to hand him over. So, a month after 9/11, the US launched air strikes against Afghanistan.
3. As other countries joined the war (ISAF), the Taliban were quickly removed

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from power. But they didn't just disappear - their influence grew back and they dug in.

4. Since then, the US and its allies have struggled to stop Afghanistan's government collapsing and to end deadly attacks by the Taliban.
5. The mission, he said, was "to disrupt the use of Afghanistan as a terrorist base of operations and to attack the military capability of the Taliban regime".
6. The first targets were military sites belonging to the hardline Taliban group who ruled the country. Training camps for al-Qaeda, the terror group run by 9/11 plotter Osama Bin Laden, were also hit.
7. But 18 years on, it's hard to argue the US mission has been fulfilled - the Taliban may play a part in ruling Afghanistan again if peace talks do eventually succeed.

The Taliban first took control of the capital Kabul in 1996, and ruled most of the country within two years. They followed a radical form of Islam and enforced punishments like public executions. Within two months of the US and its international and Afghan allies launching their attacks, the Taliban regime collapsed and its fighters melted away into Pakistan.

A new US-backed government took over in 2004, but the Taliban still had a lot of support in areas around the Pakistani border, and made hundreds of millions of dollars a year from the drug trade, mining and taxes. As the Taliban carried out more and more suicide attacks, international forces working with Afghan troops struggled to counter the threat the re-energised group posed.

In 2014, at the end of what was the bloodiest year in Afghanistan since 2001, Nato's international forces - wary of staying in Afghanistan indefinitely - ended their combat mission, leaving it to the Afghan army to fight the Taliban. But that gave the Taliban momentum, as they seized territory and detonated bombs against government and civilian targets. In 2018, Taliban was openly active across 70% of Afghanistan.

Where did the Taliban come from?

- Afghanistan had been in a state of almost constant war for 20 years even before the US invaded.
- In **1979**, a year after a coup, the Soviet army invaded Afghanistan to support its communist government. It fought a resistance movement - known as the mujahideen - that was supported by the US, Pakistan, China and Saudi Arabia, among other countries.

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- In **1989**, Soviet troops withdrew but the civil war continued. In the chaos that followed, the Taliban (which means "students" in the Pashto language) sprang up.
- They first rose to prominence in the border area of northern Pakistan and south-west Afghanistan in **1994**. They promised to fight corruption and improve security and, at that time, many Afghans were tired of the excesses and infighting of the mujahideen during the civil war.
- It's thought the Taliban first appeared in religious schools, mostly funded by Saudi Arabia, which preached a hardline form of Islam.
- They enforced their own austere version of Sharia, or Islamic law, and introduced brutal punishments. Men were made to grow beards and women had to wear the all-covering burka.
- The Taliban banned television, music and cinema and disapproved of girls' education.
- And because the Taliban gave shelter to militants from the al-Qaeda group, it made them an immediate target for an attack by US, Afghan and international forces in the wake of 9/11.

Why has the war lasted so long?

- There are many reasons for this. But they include a combination of fierce Taliban resistance, the limitations of Afghan forces and governance, and other countries' reluctance to keep their troops for longer in Afghanistan.
- At times over the past 18 years, the Taliban have been on the back foot. In late 2009, US President Barack Obama announced a troop "surge" that saw the number of American soldiers in Afghanistan top 100,000.
- The surge helped drive the Taliban out of parts of southern Afghanistan, but it was never destined to last for years.
- As a result, the Taliban were able to regroup. When international forces withdrew from fighting, Afghan forces left to lead the charge were easily overwhelmed. To make matters worse, Afghanistan's government, that is full of tribal division, is often hamstrung.

5 Main reasons why war is still going on:

- a lack of political clarity since the invasion began, and questions about the effectiveness of the US strategy over the past 18 years:
- the fact each side is trying to break what has become a stalemate - and that the Taliban have been trying to maximise their leverage during peace negotiations
- an increase in violence by Islamic State militants in Afghanistan - they've

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been behind some of the bloodiest attacks recently

- There's also the role played by Afghanistan's neighbour, Pakistan.
- There's no question the Taliban have their roots in Pakistan, and that they were able to regroup there during the US invasion. But Pakistan has denied helping or protecting them - even as the US demanded it do more to fight militants.

How have the Taliban managed to stay so strong?

The group could be making as much as \$1.5bn (£1.2bn) a year, a huge increase even within the past decade. Some of this is through drugs - Afghanistan is the world's largest opium producer, and most opium poppies - used for heroin - are grown in Taliban-held areas.

But the Taliban also make money by taxing people who travel through their territory, and through businesses like telecommunications, electricity and minerals.

Foreign countries, including Pakistan and Iran, have denied funding them, but private citizens from the region are thought to have done so.

The figures for Afghan civilians are more difficult to quantify. A UN report in February 2019 said more than **32,000** civilians had died. The Watson Institute at Brown University says **42,000** opposition fighters have died. The same institute says conflicts in Iraq, Syria, Afghanistan and Pakistan have cost the US **\$5.9 trillion** since 2001. The US is still conducting air strikes against the Taliban, instigated by the third president to oversee the war, Donald Trump. But he is keen to reduce troop numbers before he faces another election in November 2020. The Taliban now control much more territory than they did when international troops left Afghanistan in 2014. Many in Washington and elsewhere fear that a full US troop pull-out would leave a vacuum that could be filled by militant groups seeking to plot attacks in the West. The Afghan people, meanwhile, continue to bear the brunt of the long and bloody conflict.

What do the Taliban and the United States want?

The negotiations appear to be focused on four elements:

- **Withdrawal of Foreign Forces** Both sides agree on the full withdrawal of the fourteen thousand U.S. troops currently in Afghanistan, as well as of

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additional foreign forces, but they disagree on the timeline. The United States is reportedly offering a two-and-a-half-year deadline, while the Taliban insists on nine months.

- **Counterterrorism Assurances** The Taliban has agreed to prevent Afghanistan from being used by terrorist groups, but negotiators disagree over how to define the terms "terrorism" and "terrorist."
- **Intra-Afghan Dialogue** Washington has urged Afghan government and Taliban leaders to begin official talks on how Afghanistan will be governed after the war, but the Taliban refuses to negotiate with the government until after it has reached a deal with the United States.
- **Comprehensive Cease-fire:** U.S. negotiators seek a permanent cease-fire among U.S., Taliban, and Afghan government forces prior to a peace deal, but the Taliban insists on putting off a cease-fire until U.S. troops have withdrawn.

Reasons for India to be part of reconciliation process with the Taliban:

- **Regional Stability** Security and Stability are foundations over which development can be built on. Peaceful neighbourhood and trouble free regional climate will provide space for the regimes to focus more on development as threats of violence by Taliban's in the region will be minimized.
- **Counter China and Pakistan's vested interest:** India should play a considerable role through Quadrilateral group plus 2 talks to thwart the efforts of china to place puppet regimes which can play according to their own vested interests. This can be counterproductive for India's aspirations and concerns.
- **Connectivity with Central Asia:** India's trade with Central Asia and reaping benefits from the enhanced connectivity will be largely dependent on Afghanistan's domestic environment. A peaceful and cooperative Afghanistan will be a key pin in India's central Asia policy. The latest trilateral transit agreement between India, Iran and Afghanistan is a significant step in this direction.
- **TAPI for Energy security** Violence free Afghanistan is desideratum for finishing the project of TAPI and sustaining the benefits from it through energy supplies from Turkmenistan.
- **Gateway to "Link west" policy:** Afghanistan will act as a gateway to India's increasing rigour on its west Asia policy.
- **Minerals of Afghanistan:** The cost of access to minerals will be minimum and helpful in expanding the production of Indian Industries.

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US- Taliban Deal

Recently, the U.S. **signed a deal (at Qatar's capital-Doha) with the Taliban** that could pave the way towards a **full withdrawal of foreign soldiers** from Afghanistan over the next 14 months and **represent a step towards ending the 18-year-war in Afghanistan**. Along with this, a **separate joint declaration** was also signed between the Afghan government and the US at Kabul.

The peace deal is expected to kick-off two processes- **a phased withdrawal of US troops and an 'intra-Afghan' dialogue**. The deal is a **fundamental step to deliver a comprehensive and permanent ceasefire and the future political roadmap for Afghanistan peace process and the Central region**.

Background of the Deal

- **On 11 September 2001**, terrorist attacks in America killed nearly 3,000 people. **Osama Bin Laden**, the head of Islamist terror group al-Qaeda, was quickly identified as the man responsible.
- **The Taliban**, radical Islamists who ran Afghanistan at that time, protected Bin Laden, refused to hand him over. So, a month after 9/11, the US launched airstrikes against Afghanistan.
- The US was joined by an **international coalition** and the Taliban were quickly removed from power. However, they turned into an insurgent force and continued deadly attacks, destabilising subsequent Afghan governments.
- **Since then, the US is fighting a war against the Taliban.**
- **Donald Trump's 2017 policy on Afghanistan**, was based on breaking the military stalemate in Afghanistan by authorising an additional 5,000 soldiers, giving US forces a freer hand to go after the Taliban, putting Pakistan on notice, and strengthening Afghan capabilities.
- However, **the US realised that the Taliban insurgency could not be defeated as long as it enjoyed safe havens and secure sanctuaries in Pakistan**, the US changed track and sought Pakistan's help to get the Taliban to the negotiating table.
- **The negotiations began in September 2018** with the appointment of Ambassador Zalmay Khalilzad to initiate direct talks with the Taliban. After nine rounds of US-Taliban talks in Qatar, the two sides seemed close to an agreement.

Salient Features of the Deal

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- **Troops Withdrawal:** The US will draw down to **8,600 troops in 135 days** and the NATO or coalition troop numbers will also be brought down, proportionately and simultaneously. And all troops will be out within 14 months.
- **Taliban Commitment:** The main counter-terrorism commitment by the Taliban is that Taliban will not allow any of its members, other individuals or groups, including al-Qaeda, to use the soil of Afghanistan to threaten the **security of the United States and its allies**.
- **Sanctions Removal:** UN sanctions on Taliban leaders to be removed by three months and US sanctions by August 27. The sanctions will be out before much progress is expected in the intra-Afghan dialogue.
- **Prisoner Release:** The US-Taliban pact says up to 5,000 imprisoned Taliban and up to 1,000 prisoners from "the other side" held by Taliban "will be released" by March 10.

Challenges in the Deal

- **One-Sided Deal:** The fundamental issue with the U.S.'s Taliban engagement is that it **deliberately excluded the Afghan government** because the Taliban do not see the government as legitimate rulers. Also, there is **no reference** to the Constitution, rule of law, democracy and elections in the deal.
 - Taliban is **known for strict religious law** banishing women from public life, shutting down schools and unleashing systemic discrimination on religious and ethnic minorities, has not made any promises on whether it would respect civil liberties or accept the Afghan Constitution.
 - Therefore, **Shariat-based system** (political system based on fundamental Islamic values) with the existing constitution is not easy.
- **Issues with Intra-Afghan Dialogue:**
 - President Ashraf Ghani faces a **political crisis following claims of fraud** in his recent re-election.
 - The political tussle is between **Ashraf Ghani** (who belongs to the largest ethnic group in Afghanistan- the Pashtun) and **Abdullah Abdullah** (whose base is among his fellow Tajiks, the second largest group in Afghanistan).
 - If there are any concessions made by Mr Ghani's government to the **Taliban (predominantly Pashtun)** will likely be interpreted by Mr Abdullah's supporters as **an intra-Pashtun deal** reached at the cost of other ethnic groups, especially the Tajiks and the Uzbeks.

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- Consequently, **these ethnic fissures may descend into open conflict and can start the next round of civil war.**
- Thus, the lifting of the US military footprint and the return of a unilateral Taliban could set the stage for the **next round of civil war** that has hobbled the nation since the late 1970s.
- **Problem with Prisoner's Swap:** The US-Taliban agreement and the joint declaration differ:
 - The US-Taliban pact says up to 5,000 imprisoned Taliban and up to 1,000 prisoners from "the other side" held by Taliban "will be released" by March 10.
 - However, the joint declaration **lays down no numbers or deadlines for the prisoner's swap.** Afghanistan President held that there is no commitment to releasing 5,000 prisoners. He also held that such prisoners' swap is not in the authority of the US, but in the authority of the Afghan government.
- Also, the Taliban is fragmented or divided internally. It is composed of various regional and tribal groups **acting semi-autonomously.**
 - Therefore, it is possible that some of them may continue to engage in assaults on government troops and even American forces during the withdrawal process.
 - It is unclear if there is a date for the complete withdrawal of US troops or for concluding the intra-Afghan dialogue, or how long the truce will hold.

Impact of the Deal on Other Stakeholders

- **US:** The promise to **end America's "endless wars"** in the greater Middle East region was one of the central themes of US President Donald Trump's election campaign in 2016. This deal may demonstrate progress on that front in his **bid for re-election** later this year.
 - Though, the US doesn't recognise Taliban as a state under the name of Islamic Emirate of Afghanistan (key demand of Taliban), though many experts are of the view that this deal is a little more than a dressed-up U.S. surrender that will ultimately see the Taliban return to power.
- **Pakistan:** The deal provides the strategic advantage to Pakistan, who is a long-time **benefactor of the Taliban.**
- **China:** After the launch of the **China-Pakistan Economic Corridor (CPEC)**, Pakistan is seen as more of a **protectorate state of China.** Thus, China may leverage Pakistan's influence on the Taliban, to propel its

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strategic projects like the Belt and Road Initiative.

Impact of this Deal on India

This deal alters the **balance of power in favour of the Taliban**, which will have strategic, security and political implications for India. The deal may **jeopardise the key stakes of India in Afghanistan**:

- India has a major stake in the stability of Afghanistan. India has invested **considerable resources in Afghanistan's development**.
- India has a major stake in the continuation of the current **Afghanistan government** in power, which it considers a **strategic asset vis-à-vis Pakistan**.
 - An increased political and military role for the Taliban and the expansion of its territorial control should be of great concern to India since the Taliban is widely believed to be a protégé of Islamabad.
- As Afghanistan is the gateway to Central Asia, the deal might dampen India's interest in Central Asia.
- Withdrawal of US troops could result in the breeding of the fertile ground for various anti-India terrorist outfits like Lashkar-e-Taiba or Jaish-e-Mohammed.

Way Forward

An independent, sovereign, democratic, pluralistic and inclusive Afghanistan is crucial for peace and stability in the region. In order to ensure this:

- The Afghan peace process should be Afghan-led, **Afghan-owned and Afghan-controlled**.
- Also, there is a need for the global community to fight against the global concern of terrorism. In this context, it high time to adopt the Comprehensive Convention on International Terrorism (**proposed by India at UN in 1996**).

Though the deal is a good step, the road ahead would not be easy. Achieving lasting peace in Afghanistan will require patience and compromise among all parties.

India - Afghanistan: Heart of Asia Conference

- Calling for a "double peace" both inside Afghanistan and in the region, External Affairs Minister S. Jaishankar said India supports the Intra-Afghan Negotiations (IAN), in a rare direct reference to the Taliban at the 9th Heart of

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Asia conference in Tajikistan.

- Mr. Jaishankar attended the meet along with Foreign Ministers of 15 countries, including Afghanistan, Pakistan, Turkey, Iran, China, Russia, Saudi Arabia and Central Asian states.
- "India has been supportive of all the efforts being made to accelerate the dialogue between the Afghan government and the Taliban, including intra-Afghan negotiations," the Minister said and referred to his participation in the inaugural virtual session of the Doha talks in September 2020.

'Engage in good faith'

- "If the peace process is to be successful, then it is necessary to ensure that the negotiating parties continue to engage in good faith, with a serious commitment towards reaching a political solution," he added. India has not in the past referred directly to the Taliban, and the government has not opened any public engagement with the militant group.
- Mr. Jaishankar said India views the escalation in violence against civilians in and the "continued involvement of foreign fighters" in Afghanistan with "grave concern" and pushed for Heart of Asia members to ensure a permanent ceasefire.
- Speaking at the same conference, Pakistan's Foreign Minister Shah Mehmood Qureshi said Pakistan "fears that any space gained by ISIS and Al-Qaeda could accentuate the threat of terrorism," and cautioned against the role of "spoilers", both "within and outside Afghanistan".
- In a departure from the recent past, however, Mr. Jaishankar and Mr. Qureshi were present for each other's speeches during the conference, unlike previous boycotts by the two sides at a number of conferences since 2019.
- However, despite speculation over an ongoing India-Pakistan peace process and a back-channel dialogue, Mr. Jaishankar and Mr. Qureshi did not make any public contact during the day-long conference, and were seen avoiding eye contact during the joint photo opportunity they both participated in.
- Speaking at the conference in Dushanbe, Afghanistan President Ashraf Ghani, who spoke to both foreign ministers in separate meetings, thanked neighbouring countries for their support.
- He also lauded a number of regional connectivity initiatives including India's air corridor programme and Chabahar port project, as well as the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline.

Source: TH

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