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By
CivilsTap Himachal



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+91 7814622609

www.civilstaphimachal.com

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GENERAL STUDIES 1.

CULTURE

RAMANUJACHARYA

Context

- Prime Minister Narendra Modi is going to inaugurate the Statue of Equality, a gigantic statue of Ramanujacharya, on February 5 on the outskirts of Hyderabad.

About Ramanujacharya

- Born in 1017 in Sriperumbudur in Tamil Nadu, **Ramanujacharya is revered as a Vedic philosopher and social reformer.**
- He **travelled across India**, advocating **equality and social justice.**
- Ramanuja **revived the Bhakti movement**, and his preachings inspired other Bhakti schools of thought.
- He is **considered to be the inspiration for poets like Annamacharya, Bhakt Ramdas, Thyagaraja, Kabir, and Meerabai.**
- From the time he was a young budding philosopher, Ramanuja **appealed for the protection of nature and its resources like air, water, and soil.**
- He wrote **nine scriptures known as the navaratnas**, and **composed numerous commentaries on Vedic scriptures.**
- Ramanuja is also **credited with establishing the correct procedures for rituals performed in temples** throughout India, the most famous being Tirumala and Srirangam.

Why is it called the Statue of Equality?

- Ramanuja was an **advocate of social equality** among all sections of people.
- He **encouraged temples to open their doors to everyone irrespective of caste or position in society** at a time when people of many castes were forbidden from entering them.
- He took **education to those who were deprived of it.**
- His **greatest contribution** is the **propagation of the concept of “vasudhaiva kutumbakam”**, which translates as “all the universe is one family”.
- He **travelled across India for several decades**, **propagating** his ideas of **social equality and universal brotherhood** from temple podiums.
- He **embraced the socially marginalised and condemned**, and asked royal courts to treat them as equals.
- He spoke of **universal salvation through devotion to God, compassion, humility, equality, and mutual respect**, which is known as **Sri Vaishnavam Sampradaya.**
- Ramanujacharya’s social philosophy was designed to cross the boundaries of the caste system and to embrace the whole of humanity.

The Indian Express Link

<https://indianexpress.com/article/explained/ramanujacharya-statue-of-equality-explained-7754236/>

Question- Write a short note on Philosopher saint Ramanujacharya and his contribution in revival of bhakti movement and social upliftment of marginalized.

SOCIETY

ETHNOCENTRISM

Context

- **Ethnocentrism** broadly refers to ethnic self-centredness and self-importance. This attitude could lead an individual to believe that their own culture or way of life is the correct way of living. It could also result in hostility towards other cultures.
- Ethnocentrism is therefore the tendency to view **one's own group**, the '**in-group**', as the archetype and all other groups, the '**out-groups**', with reference to this ideal.
- The **in-group's boundaries** are defined by one or more **observable characteristics** such as **language, accent, physical features or religion, indicating common descent**.
- While initially used in anthropology, the term is now used widely in sociology, psychology, political science, economics and markets, among other disciplines.

Changing definitions

- Scientific interest in the term ethnocentrism started in the late 19th and early 20th century. **Charles Darwin** argued that **competition with other groups makes people more cooperative** with members of their own group, which further influences group prosperity (Boris Bizumic, 2012).
- **Herbert Spencer** argued that societies in general are characterised by **internal amity** (towards members of one's group) and **external enmity** (towards everyone else). Neither of them used the term ethnocentrism, however.
- Developing their ideas, it was the anthropologist **William Sumner** who is first said to have coined the term in 1906 in his book Folkways and also used the **concepts 'in-group' and 'out-group'**.
- However, it was the **geologist and anthropologist William John McGee** who is said to have first used the term in print. For McGee, ethnocentrism was a **particular way of thinking similar to egocentrism, but characteristic of ethnic groups**.

Characteristics of Ethnocentrism

- **Robert A. Levine**, an anthropologist, and **Donald T. Campbell**, a social psychologist, argued that ethnocentrism is a **set of 23 characteristics**, **nine** of which are **positive attitudes** towards a perceived in-group (such as perceptions about virtue and morals) and **14** of which are **negative attitudes towards a perceived out-group** (such as distrust, suspicion and blame).
- **Negative Impact:**
- Early anthropologists argued that this **feeling of superiority** about the in-group curtailed an individual's ability to understand the practices and values of other groups and to trust them.
- This feeling, they said, could lead to **prejudice, dislike, dominance, ethnic conflict, instability of democratic institutions, and even war.**
- Ethnocentrism can also **affect consumer choices and voting.**
- **But it might just be a preference choice, rather than superiority complex:**
- Later theorists argued that ethnocentrism might simply be **preference for in-groups** over out-groups. They said that the segregation of in-groups and out-groups **should not necessarily be attributed to bias.**
- In other words, they argued that you can be **indifferent towards perceived out-groups** or even like them, but less than you like your perceived in-group. Or you may **dislike** an out-group, but that attitude might not necessarily translate into some sort of discriminatory behaviour in a given situation.

Distinction with Nationalism:

- **Ethnocentrism is also quite similar to nationalism.** All the expressions of ethnocentrism, such as feelings of superiority and even hostility towards out-groups, could be easily attributed to nationalism, but while ethnocentrism is at the level of an ethnic group, nationalism is at the level of a national group.
- Nevertheless, it is also important to note that **nationalism also assumes certain factors that are not necessary for ethnocentrism.** National groups are defined by the belongingness to a group that inhabits a national state or aspires to form a national state whereas ethnic groups do not require national states to be called **ethnic groups**, and they may lack a shared public culture or even territory (Smith, 2001).
- Ethnocentric feelings and attitudes such as preference for a familiar culture and group superiority have been exploited by nationalism.

Conclusion:

- A study from India in 1970s - showed how ethnocentrism is evidenced not only in the form of generalised attitudes but also in the form of attributions for specific behaviour.

The Hindu link

<https://www.thehindu.com/society/ethnocentrism/article38369090.ece>

Question- Define ethnocentrism and how it is different from nationalism.

Context

- The Union government informed the Delhi High Court earlier this week that it was having a relook at its position spelt out over five years ago.
- In 2017, the Government had opposed the removal of the **statutory exception in Section 375 of the IPC for rape committed by a husband** on his wife, if she is not below 18 years of age.
- The remarks of the Union Minister for Women and Child Development, Smriti Irani, in Parliament also do not throw much light on the matter.
- She merely said the **Government was engaged in a process to introduce comprehensive amendments to criminal law**, indicating perhaps that the criminalising of marital rape is unlikely to be taken up in isolation.
- She observed that it would not be advisable to condemn every marriage as a violent one, and every man a rapist.
- One can only interpret this as a sign that the Government is quite wary of agreeing with the body of opinion that favours recognising rape as something that could happen within a marriage too.
- In **2016**, the Government had **rejected the concept of marital rape**, saying it **“cannot be applied to the Indian context due to various factors like level of education/illiteracy, poverty, myriad social customs and values, religious beliefs and the mindset of the society to treat marriage as a sacrament”**.
- The **Delhi government recently informed the High Court** that marital rape is already covered as a crime of **cruelty** under **section 498A** of the Indian Penal Code (IPC). It also said that the courts have no power to legislate any new offence.

Laws applicable in case of Marital rape in India:

- In India, **marital rape is not defined in any law**.
- The **exception in Section 375 of IPC** says **sexual intercourse by a man with his wife aged 15 years or above is not rape even if it is without her consent**.
- In October 2017, the **Supreme Court increased it to 18 years**.

Issues with Marital Rape Exception:

- **Against Basic Rights of Women:** This exception clause violates the women’s **fundamental right to equality, freedom of speech and expression, and most of all the right to life and personal liberty**.
- It also denies the **agency over their own bodies to women**.
- **Offence under Section 498A** of the IPC, which deals with cruelty to a married woman by her husband or his relatives.
- The **domestic violence act** enables complaints against physical and sexual abuse.
- **Dismal State of Judicial System:** Some of the reasons for low rates of prosecution in the cases of marital rape in India include:
 - Low reporting of crimes due to societal conditioning and low legal awareness.
 - Inaccurate method of collection of **National Crime Records Bureau (NCRB) data**.
 - Out of court settlements due to the lengthy process of justice/lack of admissible proof.

Legal Arguments for criminalizing marital rape:

- The conventional arguments against criminalising rape within marriage — that the institution of marriage will be ruined and that it is liable to misuse — no longer hold good.

- The country has adopted a domestic violence law that enables complaints against physical and sexual abuse.
- The IPC also holds cruelty to be an offence in a domestic context.
- It is time the Union government took a categorical stand on the issue of treating marital rape as a criminal offence. Making marital rape a criminal offence is unlikely to ruin the institution of marriage any more than a complaint of domestic violence or cruelty would.

Way Forward:

- There cannot be an ambivalent position towards buying time in this context. One cannot expect the courts to delay indefinitely a ruling on the constitutionality of the existing exception in rape law.
- It is time the Union government took a categorical stand on the issue of treating marital rape as a criminal offence.
- **Justice J.S. Verma committee** noted while **recommending its removal**, to an outdated notion of marriage that treated the **wife as the husband's property**. The notion of 'implied consent' within marriage is also reflected in marriage laws that allow for "restitution of conjugal rights", a remedy that either party to a marriage may avail of.
- Looking at marriage through the anachronistic lens of 'coverture' — the view that the wife is under the husband's authority always — should not be allowed to override the autonomy of married women over their person.

The Hindu link

<https://www.thehindu.com/opinion/editorial/sex-and-violence/article38379260.ece>

Question- Legal exception to marital rape not only subdues women's right on bodily integrity but also promotes patriarchal mind-set in the society. Comment.

GENERAL STUDIES 2.

INTERNATIONAL

BEIJING OLYMPICS- DIPLOMATIC BOYCOTT

Context

- Recently, **India announced a diplomatic boycott** of the Beijing Winter Olympics.
- By doing so, India has joined a growing list of countries that will not send government delegations to the Chinese capital for the Winter Olympics.
- In December, **the United States had announced a diplomatic boycott** of the event. The United Kingdom, Australia, New Zealand, Canada, Japan, New Zealand and the Netherlands, among others, followed the US's lead and made a similar decision.
- Moreover, Doordarshan's has also decided to not telecast live the opening and closing ceremonies of the Winter Games. The announcement had come after the Indian government refused to send its envoy to the opening or closing ceremonies.

What is a diplomatic boycott?

- It simply means these countries will not send official government delegations to Beijing during the Games. Given the scale of the Olympics, high-ranking officials from a country's government often travel to the Olympics. These officials are often labeled as the 'VIP visitors'.
- There is no obligation for a head of state or high-ranking diplomats to visit the host nation.

Effect of diplomatic boycott on athletes' participation

- **Athletes and officials from all countries will continue to take part** in the Winter Olympics in Beijing unhindered.
- The Olympics are now are a **billion-dollar enterprise** and a complete boycott could cost athletes, broadcasters and the organisers a fortune. A **diplomatic boycott** is a **token protest** that has **no impact on the sporting spectacle**.
- Athletes have been warned not to indulge in acts of demonstration during the Olympics by their own governments as well as the Chinese officials.
- Some countries have also asked their athletes to leave their main devices at home and use burner phones at the Games to avoid privacy breaches.

Controversies surrounding Beijing Winter Games

- In **India's** case, the boycott was announced after a Chinese soldier involved in the Galwan incident **was made an Olympic torchbearer**.

- The Western countries, led by the US, made the diplomatic snub over **China's alleged treatment of the Uyghur Muslims and human rights issues**.
- Some countries like Austria, New Zealand, Slovenia, Sweden and the Netherlands have **cited pandemic-related risks for not sending government officials**.

China's take

- China has said it is "not bothered at all" by the boycotts.
- *Global Times*, China's state-run newspaper, dismissed Australia's decision as "immature, arrogant and stupid" while the government said the boycotting countries **will "pay a price"**.

Diplomatic boycotts impact on the Winter Olympics

- It is very unlikely that diplomatic boycott will have any impact on the Winter Olympics.
- China has said it was anyway not going to invite delegations from other countries because of the pandemic-related restrictions.
- None of the major sponsors or broadcasters have so far pulled out, apart from Prasar Bharti, who have said there will be no official broadcast.

Likely future impact

- There are fears that the **move led by the US could provoke China to do the same**.
- The US and Australia are the hosts of the Summer Olympics in 2028 (Los Angeles) and 2032 (Brisbane), respectively.

The Indian Express Link

<https://indianexpress.com/article/explained/beijing-olympics-diplomatic-boycott-explained-india-china-7756349/>

Question- What do you understand by diplomatic boycott seen in news recently? How does it impact the international sporting events and international relations on the whole?

INDIA'S 'RETURN' TO CENTRAL ASIA

Context

- The inaugural India-Central Asia Summit, the India-Central Asia Dialogue, and the Regional Security Dialogue on Afghanistan in New Delhi — all held over the past four months — collectively indicate a renewed enthusiasm in New Delhi to engage the Central Asian region.
- **India has limited economic and other stakes** in the region, primarily **due to lack of physical access**.
- And yet, the **region appears to have gained a great deal of significance** in **India's strategic thinking over the years**, particularly in the recent past.
- India's mission Central Asia today reflects, and is responsive to, the new geopolitical, if not the geo-economic, realities in the region.
- More so, India's renewed engagement of Central Asia is in the right direction for the simple reason that while the gains from an engagement of Central Asia may be minimal, the disadvantages of non-engagement could be costly in the longer run.

The driving factors of this Great power dynamics

- **The decline of American presence** and power in the broader region (due primarily to the U.S. withdrawal from Afghanistan) has led to a reassertion by China and Russia seeking to fill the power vacuum. India's engagement of Central Asia would also help it to consolidate **its post-American Afghan policy**.
- While **China dominates the geo-economic landscape**, **Russia is the dominant politico-military power** in the region.
- **Geo-economics** might gain more traction.
- A somewhat **anxious Moscow considers India to be a useful partner in the region**: it helps it to not only win back New Delhi, which is moving towards the U.S., but also to subtly checkmate the rising Chinese influence in its backyard.
- There are **growing and legitimate concerns** within the Indian strategic community that India in the region might get further hemmed in due to the **combined efforts by China, Pakistan and Taliban-led Afghanistan**. If so, it must ensure that there is no China-led strategic gang up with Pakistan and the Taliban against India in the region, which, if it becomes a reality, would severely damage Indian interests.

Focus on Afghanistan:

- **U.S. withdrawal from Afghanistan has landed India in a major dilemma** – it has very limited space to engage Taliban 2.0 despite the current relationship whose future depends on a number of variables.
- **During the Hamid Karzai and Ashraf Ghani governments**, given their proximity to India and the presence of the U.S. forces in Afghanistan, **India was able to engage Kabul** without too much hardship, despite Pakistani resistance.
- Now that the Taliban have returned to Kabul, **New Delhi is forced to devise new ways of engaging Afghanistan**. That's where the **Central Asian Republics (CARs) and Russia** could be helpful.
- For instance, given its location bordering Afghanistan as well as its close geographical proximity to Pakistan-occupied Kashmir, **Tajikistan** holds immense geopolitical significance for India (incidentally, India helps maintain an airbase in the country).

Russia's role in current scenario

- President Vladimir Putin's meeting with Prime Minister Narendra Modi and the earlier meeting between Russian National Security Adviser General Nikolai Patrushev and Mr. Modi are indications of the growing relationship.
- A cursory glance at the various issues being discussed between the two sides also indicates a **new joint thinking on regional security**.
- **By courting Russia** — its traditional partner, also close to China and getting closer to Pakistan — **to help it re-establish its presence in the Central Asian region**, India is seeking to **work with one of the region's strongest powers** and also potentially create a rift between China and Russia, to the extent possible.
- One has to wait and see how far India will innovate to engage CARs in pursuit of its interests in Afghanistan. The **announcement of a Joint Working Group on Afghanistan** during the summit between India and the CARs is surely indicative of such interest.
- The two countries recently **exchanged a 'non-paper'** on how to increase their joint engagement in Central Asia.
- **Both India and the CARs use Russian defence equipment**, and the non-paper has reportedly explored the possibility of **joint Indo-Russian defence production** in some of the existing Soviet-era defence facilities in the CARs to meet local and Indian demands.

- The non-paper also reportedly discusses **potential trilateral defence exercises among India, Russia and the CARs.**
- In any case, joint defence production by India and Russia has been on the rise and the CARs could play a key role in it. This growing India-Russia partnership also explains India's non-critical stance on the developments in Ukraine and Kazakhstan.

Challenges for India's 'return' to Central Asia:

- **China** shares a land border with the region,
- **It is already a major investor there.** China is the **region's most important economic partner**, a reality that worries Russia and sharpens India's relative irrelevance in the region.
- **Iran:** India's best shot at reaching the CARs is by using a **hybrid model – via sea to Chabahar** and then by road/rail through Iran (and Afghanistan) to the CARs. So, for New Delhi, the ongoing re-negotiations on the Joint Comprehensive Plan of Action (or the Iran nuclear deal) are of crucial importance. If there is a deal, it would bring Tehran back into the Western fold and away from China (and Russia), which will be favourable to India. While Iran getting close to the West is not preferred by Russia (but preferred by India), if and when it becomes a reality, India would be able to use it to its advantage and join Russia in engaging the CARs.
- India's ongoing outreach to Iran and the now-postponed visit of the Iranian foreign minister to New Delhi help repair some of the damage done to the relationship over the years.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/indias-return-to-central-asia/article38389346.ece>

Question- India needs to be proactive in engaging with central Asia because its strategic importance and India's economic and security concerns. Comment.

INDIA SRI LANKA TIES

Context

- Sri Lanka's Foreign Minister recently met his counterpart in New Delhi, as part of the ongoing high-level, and increasingly frequent, bilateral engagement between the neighbours.
- New Delhi's economic assistance to Colombo in recent weeks has made a "world of difference".
- There have been significant developments in the relations in recent times.

India's assistance

- Beginning January 2022, India has been providing **crucial economic support** to the **island nation in the grip of a severe dollar** crisis that, many fear, might lead to a sovereign default, and a severe shortage of essentials in the import-reliant country.
- Mr. Basil sort emergency assistance from India when **Sri Lanka's foreign reserves dropped to \$1.6 billion** in November 2021, leaving no dollars for importing essentials, or meeting debt obligations.
- The relief extended by India from the beginning of this year totals over \$1.4 billion
- **A \$400 MILLION CURRENCY SWAP,**
- **A \$500 MILLION LOAN DEFERMENT AND**
- **A \$500 MILLION LINE OF CREDIT FOR FUEL IMPORTS.**

- Sri Lanka is further negotiating **\$1 billion** assistance from India to help the near 22 million-strong country as it faces an unprecedented economic crisis.

Background of the issue

- Before the pandemic struck, and soon after, it was India that the ruling **Rajapaksas first approached with requests for a debt freeze and currency swap**. However, for about two years there was **no response from Delhi**.
- Meanwhile, **Colombo also sought and obtained financial assistance from China** through the pandemic years, by way of new loans and a currency swap.
- **China also provided about 80% of the vaccines** administered by Sri Lanka, where about 65% of the population is fully vaccinated.
- Colombo also received **some assistance** from other countries, such as **Bangladesh**.

Shift in bilateral relations

- The last year saw a dramatic turn in Indo-Lanka relations, beginning with Colombo's sudden decision in February 2021, to **unilaterally cancel a 2019 agreement to jointly develop a strategic port** (East Container) terminal in Colombo with India and Japan. New Delhi and Tokyo were shocked. They expressed their displeasure at the Rajapaksa government's decision unambiguously.
- However, Colombo soon offered what it called a **"compromise deal"** to India, **roping in the Adani Group** as the main investor in a neighbouring, **West Container Terminal**.
- India quickly took the offer but its concerns over a **long-pending agreement on the joint development of the World War II-era oil tanks** in the strategically located, eastern Trincomalee district remained.
- It was a key talking point during Sri Lankan Finance Minister Basil Rajapaksa's visit to New Delhi end of last year, when he discussed a **"four-pronged" approach** with India to address Sri Lanka's food and energy security.
- New Delhi's assistance, diplomatic sources indicated, was **contingent on Colombo firming up the Trincomalee project agreement**. Sure enough, Sri Lanka soon announced that it would sign the Trincomalee oil tank farm deal with India.
- On January 6, 2022, **the two sides inked the agreement**, marking a major milestone in the long-dragging project.
- A week later, India confirmed a \$400 million currency swap for Sri Lanka, while deferring another \$500 million due for settlement to the Asian Clearing Union (ACU).
- On February 2, 2022, the Export Import Bank (EXIM) of India and the Government of Sri Lanka signed a \$500- million Line of Credit agreement to ease Sri Lanka's fuel imports.

Pending issues

- **The Palk Bay fisheries conflict**, involving fishermen of Tamil Nadu and their counterparts in war-affected northern Sri Lanka has escalated in recent weeks, following mid-sea clashes between fishermen from both sides.
- **Two fishermen from Sri Lanka's northern Jaffna district** were found dead after one such clash, triggering massive protests.

- The **Sri Lankan fishermen protested Indian fishermen's use of the destructive bottom trawling** fishing method along their coast, despite their voicing concern over its impact on marine resources and their post-war livelihoods for years now.
- **Bilateral talks between governments and fisher leaders have proved unsuccessful** so far, with Tamil Nadu fishermen reluctant to move away from the practice of bottom trawling that yields high profits.
- **Pending political solution to Sri Lanka's Tamil question.**
- Arguably, India's emphasis on the rights of Tamils has come down in recent years, with a growing China pre-occupation dominating its Sri Lanka policy.
- Prominent Tamil leaders recently wrote to the Indian Prime Minister, seeking India's intervention in ensuring a durable political solution to Sri Lanka's historic ethnic question. However, it remains to be seen if India has the leverage to influence the Rajapaksa administration to decisively address the Tamils' long-pending concerns, in the new Constitution promised by President Gotabaya Rajapaksa.

The Hindu link

<https://www.thehindu.com/news/international/renewing-indo-lanka-relations-after-a-period-of-strain/article38400468.ece>

Question- India Sri Lanka ties have seen improvement in the recent times. However, many issues still remain unresolved among the two countries. Elucidate.

ANGER IN DIPLOMACY: ON INDIAN REACTION TO MNC KASHMIR TWEETS

Context

- The advent of **social media** has no doubt **changed how diplomacy is conducted between countries**.
- Recently several Multinational consumer brands – particularly Korean carmaker Hyundai and Kia, and American food chain KFC – faced a big social-media backlash over tweets and Instagram/Facebook post sent out by their dealers and outlets in Pakistan, talking about “Kashmir Solidarity Day” and “right to freedom”.
- The posts, that appeared to be part of a coordinated exercise sponsored by the Pakistani establishment, were put out on February 5 — marked in Pakistan as “**Kashmir Solidarity Day**” — and contained what New Delhi termed as highly offensive messages calling for “**Kashmiri liberation**”.
- The Government's outrage was valid, given that these companies, including **Hyundai, Toyota, KFC, Pizza Hut**, and pharma major **Schwabe**, also have flourishing businesses in India, and it was strange that private MNCs would post such politically charged messaging at all.

Grading India's response:

- However, it was surprising that the **MEA and the Commerce Ministry** put as **much energy** as they did into ensuring that **several multinational companies retracted social media posts** their Pakistani distributors had put out last week.
- The Government's outrage was valid, the Indian government decided to go the whole distance:
- Even **summoning the Korean Ambassador** while ensuring that Indian embassies took up the issue with other governments.

- External Affairs Minister S. Jaishankar also raised the matter with his **Korean counterpart**, who apologised to the Indian people.
- Commerce Minister Piyush Goyal added in Parliament that the original **apology by Hyundai India was not adequately “forceful or unequivocal”**, even as social media consumers in India threatened to boycott products made by the companies concerned.

The larger issues:

- While the Government might feel it has achieved its purpose by ensuring the companies and governments involved were contrite about the posts, it must also consider the big picture of how its actions, that appear to be at some variance with those of a secure and powerful global player, are viewed in the rest of the world. **India’s claims over Jammu and Kashmir are strong, and widely acknowledged, and not so fragile that a few social media posts** that appeared only in Pakistan can dent in any way.
- Holding foreign governments in democratic countries to account for the actions of the local distributors of their private companies could have unforeseen repercussions.
- It is also worth considering whether the **Foreign Ministry’s resources are better spent in furthering India’s interests** than on expending diplomatic capital on short-lived controversies such as the MEA’s objection to pop star Rihanna’s posts on the farmer protests last year.
- The apologies and statements thus extracted may prove to be a pyrrhic victory, if one considers that the intentions of those behind the obnoxious posts in Pakistan, aimed at drawing attention to their propaganda on Kashmir, were also met. A quiet word with the MNCs might have worked better than a public display of diplomatic opposition.

The Hindu link

<https://www.thehindu.com/opinion/editorial/anger-in-diplomacy-the-hindu-editorial-on-indian-reaction-to-korean-mnc-kashmir-tweets/article38403860.ece>

Question- Diplomacy in times of social media needs prioritizing issues and their resolution. Explain in context of recent posts by many multinational companies on Kashmir issue.

FOR SOMETHING: ON THE QUAD

Context

- The Quad Ministerial meeting in Melbourne, meant to set the stage for a meeting by the leaders of Australia, India, Japan and the U.S. later this year in Tokyo, ended with outcomes that showcased its “positive agenda” in the Indo-Pacific region.

Positive Outcomes of Ministerial Meeting

- From plans to deliver more than a billion vaccine doses — India-made with U.S. funding and distributed through Japanese and Australian networks — and donate another 1.3 billion doses around the world;
- To prepare for an Indo-Pacific Clean Energy Supply Chain Forum to tackle climate change;
- To further a “Quad vision” for technology governances and safe and transparent 5G systems,
- And to launch humanitarian assistance and disaster relief operations, the Quad is, in the words of the joint statement issued, “more effective in delivering practical support to the region”.
- India was also able to insert a reference to fighting “cross-border” terrorism, and condemnation of the 26/11 attack and Pathankot attacks.

QUAD- a success

- The **bonhomie between the Ministers** shows a **growing level of comfort** with the **principles behind the grouping of democratic countries, to support regional countries' efforts** to advance a **“free and open Indo-Pacific”**.
- **Not militarizing** the group is also an achievement of the grouping.
- In addition, despite Beijing's sharp criticism of the grouping, **Quad members chose not to name China directly** as the joint statement spoke of ensuring a rules-based order and respect for sovereignty and building a region “free from coercion”.

Differences among members

- However, while the grouping is strong on all these precepts, there are obvious differences in the practice of their vision for the Indo-Pacific region and the world in general.
- The **situation in Myanmar was mentioned**, but External Affairs Minister S. Jaishankar made it clear that while India supports a restoration of democracy, it does not support western “national” sanctions.
- The meeting took place in the shadow of the growing **Russia-NATO tensions** over Ukraine, but it seemed evident that Mr. Jaishankar did not share U.S. Secretary of State Antony Blinken's assessment of an imminent “invasion”.
- New Delhi chose not to join the decision by the U.S., Japan and Australia to tell their citizens to evacuate immediately from Ukraine; nor was any mention of the situation allowed into the joint statement. Mr. Jaishankar's strong tone the next day at a press conference (dominated by questions on Russia), on **China's amassing of troops at the border with India** was also a subtle reminder to Quad partners that while they may have similar concerns and share many core values, they do not have an identical world view, and the Quad remains very much a grouping that is “for something, not against somebody”.

The Hindu link

<https://www.thehindu.com/opinion/editorial/for-something-the-hindu-editorial-on-the-quad/article65046009.ece>

Question- The QUAD grouping members have both converging and diverging issues among them that need to be resolved jointly. Comment.

THE COMPREHENSIVE ECONOMIC PARTNERSHIP AGREEMENT BETWEEN INDIA AND THE UAE

Context

- After a fast tracked three month negotiation between India and UAE, both countries on February 18 signed an FTA pact, during a virtual summit.
- India and the United Arab Emirates (UAE) inked a trade pact, Comprehensive Economic Partnership Agreement (CEPA) during a virtual summit led by Prime Minister Narendra Modi and Crown Prince of Abu Dhabi Sheikh Mohamed bin Zayed Al Nahyan.
- India has been part of global trade organisations like the WTO but this latest trade pact is unique and has broader implications.

Details of pact

- The Comprehensive Economic Partnership Agreement is a bilateral trade pact that **will cover over a period of time 90% of India's exports.**
- This will include leather, processed agriculture and dairy products, handicrafts, gems and jewellery, furniture, pharmaceuticals, food and beverages, engineering products and nearly the entire spectrum of items produced by the Indian economy.
- Apart from the goods sector, it **will also include the services sector.** Indian officials said that they expect the services sector to boom by \$15 billion in the coming five years.
- The deal has **strong anti-dumping measures integrated** into it which will prevent any country from dumping its products into the Indian market by using the route of the UAE.
- The document has very **strong rules of origin clauses** that will disallow any country to export goods to India taking advantage of relaxed tariff on the Indian side.
- India wants **40% value addition into a product from a third country before it could be exported to India through UAE.**

Likely Impact

- India-UAE economic ties are marked by the flow of remittances from the oil rich Gulf country to India. The **country hosts at least 3 million Indians** who work in diverse sectors of the economy of the Emirates and provides it with vital manpower support at all levels.
- According to a study, **82% of India's total remittances originated from seven countries that included Gulf countries like the UAE, Saudi Arabia, Oman and Kuwait.**
- In 2019, India received \$83 billion from the Gulf region.
- The **India-UAE economic relation at present is shaped by the remittances** that remain much greater than the \$60 billion bilateral trade. The remittances are expected to rise with full economic recovery of the UAE's post-pandemic economy.
- The **FTA will also increase remittances as Indian investments in UAE will bring Indian employees into the Gulf country.**

Reference to western Quad

- The western Quad consisting of **Israel, India, UAE and the United States** has been a regional factor ever since it was convened last October which was followed by a ministerial meeting of the four countries.
- USA and the UAE are among the biggest trading partners of India, and Israel is among the top technology support providers for India. All four are connected by currents of security and trade.

Immediate outputs of the FTA

- The FTA will allow goods from UAE, especially the famed dates of UAE to enter India.
- Most of the Indian exports similarly will benefit from the "zero tariff" that UAE is expected to grant.
- This move **will allow increased visibility of Indian products in the UAE.**
- The **reduction in tariff for Indian jewellery and gems** will allow it to enter the UAE in greater volume.
- **Difference between UAE and India CEPA and other trade agreements India is negotiating with countries like Australia**
- Most of the other agreements are expected to be "**early harvest agreements**" or interim agreements till both sides conclude the final agreement in a comprehensive manner.
- The **India-UAE FTA however is comprehensive in nature**, with vast scope of items that will come under it.

- Early harvest agreements are expected to include goods and products. But the CEPA will have a greater spread of both goods as well as services.

When will the agreement come into effect?

- The agreement is not likely to come into force immediately as the United Arab Emirates has not yet completed the necessary official procedures on its end.
- This **process will take 60 days** at least and India has expressed hope that CEPA will be in the phase of implementation after May 1.
- India, on the other hand, has completed the entire official requirement.

The Hindu link

<https://www.thehindu.com/news/national/the-comprehensive-economic-partnership-agreement-between-india-and-the-uae/article65068502.ece?homepage=true>

Question- How the recently signed Comprehensive Economic Partnership Agreement between India and the UAE will boost bilateral trade ties? Elucidate.

ORGANISATION OF THE ISLAMIC COOPERATION

Context

- Recently, India criticised the Organisation of the Islamic Cooperation (OIC) for being “communal minded” and “hijacked by vested interests” – a reference to Pakistan – after the grouping called on the UN Human Rights Council to take necessary measures on the issue of Muslim girl students being told not to wear the hijab in Karnataka schools.
- The OIC also urged India to “ensure the safety, security and well being of the Muslim community while protecting their way of life”.
- India’s response to the OIC statement was that India is a democracy, and issues within the country are resolved in accordance with our Constitutional framework and mechanism, as well as democratic ethos and polity.

About Organisation of the Islamic Cooperation (OIC)

- The Organisation of the Islamic Cooperation is the **world’s second largest multilateral body after the UN**. It counts **57 members, all of which are Islamic countries or Muslim majority members**.
- The OIC’s **stated objective is to safeguard and protect the interests of the Muslim world** in the spirit of promoting international peace and harmony among various people of the world.
- OIC was **established by the First Islamic Summit Conference held in Morocco in September 1969**.
- It was known as the **Organisation of Islamic Conference until 2011**.

India & OIC

- As a country with the **world’s second largest Muslim community**, India had been invited to the founding conference in Morocco in 1969, but was humiliatingly ejected at Pakistan’s behest. Then Agriculture Minister Fakhruddin Ali Ahmed was dis-invited upon arrival in Morocco.
- In 2006, as India turned the economic corner and improved ties with the US, Saudi Arabia invited Delhi to **join as an observer**.
- But **India stayed away** because of a multiplicity of reasons, which includes that as a secular country, it did not want to join an organisation founded on religion. Plus there was the risk that improving

bilateral relations with individual member states would come under pressure in a grouping, especially on issues such as Kashmir.

- The OIC is mainly controlled by Saudi Arabia, but Pakistan, as the only Islamic country with nuclear weapons, has had a large say since its inception. As a result, over the years, the organisation has issued several statements on Kashmir that have been supportive of Pakistan.

Changing terms

- After building close ties with powerful members such as UAE and Saudi Arabia, India has been confident of riding over any statement by the grouping. India has consistently underlined that J&K is an “**integral part of India and is a matter strictly internal to India**”, and that the OIC has no locus standi on the issue.
- In 2019, India made its maiden appearance at the OIC Foreign Ministers’ meeting, as a “guest of honour”.
- This first-time invitation was seen as a diplomatic victory for New Delhi, especially at a time of heightened tensions with Pakistan following the Pulwama attack.

The Indian Express link

<https://indianexpress.com/article/explained/explained-what-is-oic-and-why-did-india-slam-the-grouping-7776472/>

Question- Write a short note on evolution of India’s relationship with Organisation of the Islamic Cooperation.

THE RUSSIAN AGGRESSION ON UKRAINE AND INTERNATIONAL LAW

Context

- A full-scale invasion of Ukraine was initiated by Russian forces. The Russian activities have been extensively denounced, and they pose a number of issues about whether or not they violated international law.
- **Background-** The annexation of Crimea by Russia in 2014, following the overthrow of Victor Yanukovich from his position as President, marked the beginning of a massive military escalation in the ties between Russia and Ukraine. The annexation of Crimea by Russia was greeted with the implementation of sanctions by the international community. Russia, on the other hand, is still in control of Crimea, and its operations since 2014 have been focused on fomenting separatists in Ukraine's eastern regions.
- In January 2021, Ukrainian President Volodymyr Zelensky **appealed to the United States to let the country to become a member of NATO, prompting Russia to begin mobilising soldiers along the country's eastern border**. Tensions grew rapidly after Russia asked that NATO cease its military activity in eastern Europe and Ukraine in December 2021, which was followed by a Russian hack on the Ukrainian government website.
- It was on February 22nd that **Russia recognised the self-proclaimed Donetsk and Luhansk republics in eastern Ukraine's Donbass area**, and it dispatched Russian soldiers to these regions. Finally, Russia started a full-scale invasion of Ukraine.

- The Russian activities have been extensively denounced, and they pose a number of issues about whether international law has been violated.

How is Russia violating the UN Charter?

- On the concept of non-interference in domestic matters is founded the present international order, which is a fundamental tenet of international relations.
- According to **article 2(4) of the United Nations Charter**, governments are prohibited from using or threatening to use force against the territorial integrity or political independence of any other state, and they must refrain from doing so. Forcible trespassing on the territory of another state is prohibited under any circumstances, even if it is for a brief or limited purpose such as a 'in and out' operation, according to the Convention. In international law, the Russian war on Ukraine is a violation of the norm of non-intervention, and it constitutes aggression against the country.
- Aggression is defined by the **United Nations General Assembly Resolution 3314 (1974)** as the use of military force by one state against the sovereignty, territorial integrity, or political independence of another.
- Also considered an act of aggression is permitting one's territory to be utilised by another state for the purpose of aggression against a third state while on one's territory.
- As a result, **Belarus can also be held liable** for aggression because it has permitted Russia to utilise its territory to launch an attack on Ukraine.
- **Aggression is also regarded a criminal act under customary international law** and the Rome Statute of the International Criminal Court, which established the International Criminal Court.
- One of the primary motivations for Russia's use of force against Ukraine is the country's aim to keep Ukraine out of the NATO alliance. This is a violation of Ukraine's political independence under **Article 2(4) of the Constitution**, because Ukraine, as a sovereign state, has the right to choose which organisations it wishes to associate with.
- Furthermore, by resorting to the use of force, **Russia has violated article 2(3) of the UN Charter**, which mandates that nations settle their differences via peaceful methods in order to maintain international peace and security.

What about the principle of self-defence?

- In the event that Russia employs force against Ukraine, Ukraine has the right to defend itself under international law.
- **Article 51 of the United Nations Charter grants a state the right to use individual or collective self-defence until the Security Council takes action to restore international peace and security to the situation.**
- In this particular instance, it appears improbable that the UN Security Council would reach a conclusion because Russia is a permanent member with veto power.
- Ukraine, on the other hand, has the right, under international law, to request aid from other countries in the form of military support, weapons supply, and so on.
- The Russian government, on the other side, has asserted that it is acting in self-defence. This argument is problematic because Ukraine has made no use of force or issued any similar threats against Russia during this time period.
- The Russian government has asserted that Ukraine may be able to acquire nuclear weapons with the assistance of western friends. However, in the case of the Legality of Nuclear Weapons Threat, the **International Court of Justice (ICJ) ruled that the mere existence of nuclear weapons does not necessarily represent a threat to national security.**

- As a result, even if Ukraine had, or were to acquire, nuclear weapons in the future, this does not provide a basis for Russia to use the doctrine of self-defense.
- Furthermore, simply being a member of a defence organisation such as NATO does not automatically imply a threat of attack towards the country that is a member. As a result, Russia is unable to claim self-defense in this situation as well.
- Russia is also unable to invoke anticipatory self-defense because, according to the Caroline test, such an invocation would need that the requirement of self-defense was immediate and overwhelming, allowing no choice of methods and no time for contemplation to be exercised. This is not the case, however, in the case of Russia.

Conclusion:

- The globe is already suffering from a variety of natural disasters, which necessitates the concerted efforts of the HUMAN SOCIETY as a whole. War cannot be the solution; instead, peace must be established in world.
- The resumption of the Minsk peace process would be a viable answer to the current situation. Consequently, the West (including the United States and other western countries) should encourage both parties to begin discussions and to honour their promises under the Minsk accord in order to restore relative calm along the border.
- When it comes to solving the ever-escalating war and conflict between Russia and Ukraine, **international Cooperation** is required.

The Hindu link

<https://www.thehindu.com/news/international/the-russian-aggression-on-ukraine-and-international-law/article65081513.ece?homepage=true>

Question- Russian attack on Ukraine is direct violation of international law. Describe.

POLITY AND GOVERNANCE

LIMITS OF POWER: ON MAHARASHTRA MLAS SUSPENSION CASE

Context

- The Supreme Court has recently declared the suspension of 12 BJP legislators for one year by the Maharashtra Assembly for disorderly conduct, as **grossly illegal and irrational**.
- In doing so, the Supreme Court has **set the limits of the legislature's power to deal with disorderly conduct** in the House.
- Brushing aside objections that the judiciary should not examine the validity of the proceedings of the House, **a three-judge Bench**, comprising Justice A.M. Khanwilkar, Justice Dinesh Maheshwari and Justice C.T. Ravikumar, **ruled that the suspension beyond the term of the particular session in which it was imposed was a nullity in the eyes of the law.**

More about the incident

- **July 2021:** when the Maharashtra government **introduced a resolution seeking empirical data on OBCs** from the Union government there was ruckus in the house. The **House was adjourned briefly** for a few times before the resolution was passed, as **BJP members** rushed to the well of the House and were **accused of damaging the presiding officer's microphone and grabbing the mace.**
- **Suspension: Later the Chair**, during the incidents, said that when he was in the Deputy Speaker's chamber, **some members rushed inside and abused him.** A resolution moved by the Parliamentary Affairs Minister was subsequently adopted by the House suspending 12 MLAs. They were **barred** from entering the legislative premises **for 12 months.**
- The members challenged their suspension in the Supreme Court.

Maharashtra government's stand on suspension

- There is **no limitation on the power of the legislature** to punish for breach of privilege or disorderly conduct in the course of its proceedings.
- **No judicial review** of the manner in which it is exercised.
- **Under Rule 53 of the Maharashtra Assembly Rules**, the Speaker could **direct a Member to withdraw** from the Assembly for disorderly conduct for the day, or the remainder of the Session.
- However, there is no such limitation when the whole House decides to impose suspension. In this context, counsel contended that **when the power to expel a member is available, the power to suspend, being a lesser punishment, is also available** to the House at all times.

Suspension beyond 60 days:

- The Bench had raised a question as to how any suspension can go beyond 60 days. The **Article 190(4) of the Constitution**, allows **declare a seat vacant if a member is absent for 60 days.**

- **The State governments argued that it is the House that declares the seat vacant**, and it is not an automatic consequence of a member's absence for 60 days on which the House met.
- The Government also pointed out that in **Raja Ram Pal (2007) case**, the Supreme Court had upheld the expulsion of 12 MP's in the cash-for-questions scandal. When expulsion, the greater punishment was allowed, suspension, being a lesser penalty, cannot be questioned.

Court's Decision-

- **Against constitutional mandate** In the light of **Article 190(4) of the Constitution**, which says the House could declare a seat vacant if a member is absent for **60 days**.
- **Rule 53 showed a 'graded approach'** to the issue of disorderly behaviour, an initial suspension for a day, and then for the remainder of the session, but nothing beyond it.
- **The power to be exercised only for the protection of the proceedings.** However, in the present case, there was no separate provision for the House to impose a lengthy suspension for what happens in private chamber.
- **Once the length of the suspension went beyond the session, it ceased to be a disciplinary measure**, but partook the character of a **punitive action**.
- Citing Privy Council cases and Indian precedents, the Bench said **anything that went beyond the session was irrational and grossly illegal**.
- **Representation of the People Act, 1951**, says that any vacancy in the House has to be filled up through a by-election within **six months** of its occurrence.
- **Deprivation of Representation of the constituency:** It ruled that a one-year suspension meant that the constituency concerned would go without representation in the Assembly for a whole year.
- **Any absence beyond 6-month is led by mandatory filling of seat:** The suspension seemed to have worse consequences than outright expulsion from the legislature, as a by-election will be held within six months; whereas, a one-year suspension does not entail mandatory filling up of the vacancy.

Conclusion

- The court has reiterated the principle that even though the **judicature will not interfere** with the functioning of the legislature, a coordinate body, it is not deprived of the power of judicial review if there is a violation of the Constitution.
- Even though there were **no prescribed limits** to the privileges of the House, there is no doubt that **these are subject to the provisions of the Constitution**.
- **A lengthy suspension**, apart from the **deprivation of representation for the constituents**, may also be detrimental to democracy, as it could be used to manipulate numbers in the legislature and deny the opposition the opportunity to participate effectively in debates.

The Hindu link

<https://www.thehindu.com/opinion/editorial/limits-of-power-the-hindu-editorial-on-maharashtra-mlas-suspension-case/article38350726.ece>

Question- Speaker's power in suspension of members of the house cannot be discretionary and beyond judicial review. Explain the statement citing the recent Supreme Court ruling regarding suspension of Maharashtra MLAs.

BUDGET'S MISSED HEALTHCARE OPPORTUNITY

Context

- The Covid pandemic has amply demonstrated the health sector's direct and indirect intersectoral impacts and its devastating power in creating disruption. It was, therefore, not surprising to see its imprint on the Economic Survey.
- Given the learnings of the pandemic, it was reasonable to expect a "health-centered" budget.
- Instead, the budget's **main focus is on increasing capital expenditures for expanding the economic infrastructure** under the PM Gati Shakti scheme. Growth numbers no meaning for the millions who have been impoverished by the pandemic-induced income losses, hunger, sickness and trauma.

Covid impact

- **Inequalities have widened.** An estimated **Rs 70,000 crore** have been spent by the people out-of-pocket in this short time for medical treatment that the government ought to have provided.
- Spending at a time when earnings were down, **pushed millions below the poverty line and hunger** has emerged as a major issue placing India low on the malnutrition and hunger index rankings.

Budgetary provisions

- The **budget allocation** for the post-Covid year is a princely amount of Rs 83,000 crore, up by 16.4 per cent over last year's Rs 71,268 crore.
- The **budget for the flagship National Health Mission** that funds all health initiatives in partnership with the states **has been increased by 7.4 per cent** from Rs 36,576 crore to Rs 37,000 crore.
- It is under the NHM that all disease control programmes and reproductive and child health programmes including immunisations — they pertain to ailments that cost little to treat, but are life and death for the large masses of the poor — are implemented.
- Covid resulted in an over **30 per cent shortfall of coverage** under all these programmes giving rise to fears of **drug-resistant HIV and tuberculosis** and left lakhs of children unprotected from vaccine-preventable diseases.
- These **programmes required a much bigger boost** alongside strategies to ensure they are insulated from another viral outbreak.

On Mental Health

- Another announcement by the FM was establishing **23 telehealth centres of excellence for mental health.**
- Why a special mention in the speech when the **mental health budgetary allocation was increased only nominally** — from Rs 597 crore to Rs 610 crore?
- **Mental health impacts over 6-8 per cent of our population** and is a **major unaddressed epidemic**, estimated to cost the economy \$1.03 trillion and accounting for 2,443 disability-adjusted life years per 1 lakh population — equal to cardiovascular diseases and more than stroke or COPD.
- Addressing this **requires the implementation of the Mental Health Act through an infusion of substantial money, ideas and imagination.**
- We have a **severe shortage of trained human resources, drugs are expensive and services are scarce and unavailable** in most parts of the country.

Other provisions

- The budget outlays for public hospitals has increased by 30 per cent — from Rs 7,000 crore to Rs 10,000 crore — though the much-needed investment for strengthening the surveillance system has a **nominal 16.4 per cent increase**.
- The **flagship Ayushman Bharat health insurance scheme (PMJAY) continues to be grossly underfunded** at Rs 6,412 crore — the same as last year.
- **Health research**- has seen a miserable 3.92 per cent increase from Rs 2,663 crore to Rs 3,200 crore.
- It is out of this **inadequate budget** that the **network of laboratories are expected to be built till** such time additional money is mobilised from the World Bank or ADB.

Conclusion

- Despite all the evidence and data, year after year, health budgets that have been stuck at about 1.5 per cent of the GDP.
- What India's health system requires are strong policies that enhance the availability of doctors and nurses and access to drugs and diagnostics.
- Given that India too needs a massive building up of its economy to ensure a minimum quality of life for all its people, we need to envision a transformative change by attacking inequality, disease and ignorance by investing in health, education, nutrition and employment to ensure equal opportunities.

The Indian Express link

<https://indianexpress.com/article/opinion/columns/the-missing-focus-on-health-union-budget-7752130/>

Question- Adequate budgetary support on healthcare expenditure is needed to ensure availability of affordable healthcare to all citizens. Comment

UNDERSTANDING THE NEW CENTRAL MEDIA ACCREDITATION GUIDELINES

Context

- The Government has issued a slew of rules for the media under a new policy on accreditation for journalists. The **Central Media Accreditation Guidelines-2022** have outlined the conditions for withdrawal of accreditation if a journalist acts in a manner prejudicial to the country's security, sovereignty and integrity, friendly relations with foreign states, public order or is charged with a serious cognisable offence.
- Most of the provisions are drawn from **Article 19(2)** of the Constitution which prescribes the restrictions to free speech guaranteed to every citizen of the country and are understood to serve as guidelines for the press and media.

How is this different from the past?

- The **guidelines prepared by the Ministry of Information and Broadcasting** are more in the nature of proscriptions rather than prescriptions.
- In laying down the conditions for withdrawal of accreditation, they serve more as censorship rules rather than guidelines.

- **Previous guidelines were more general** in nature and **did mention that accreditation** would be withdrawn if found to be misused. In the new guidelines, there are 10 provisions under which accreditation to a journalist can be withdrawn.
- **Accreditation of Journalists, to the PIB, a process that is completed after a mandatory security check from the Ministry of Home Affairs:**
- A journalist with a **minimum of five years as a full-time working journalist** can apply for accreditation to the PIB.
- Any **journalist working with a newspaper** which has a **daily circulation of 10,000;**
- **News agencies with at least 100 subscribers** and **digital news platforms with 10 lakh unique visitors** can apply.
- Accreditation helps in access to government offices and to special events and functions organised by the Government of India. Some Ministries like Home and Defence and Finance allow access only to accredited journalists.

About the Guidelines:

- **Implementation of the guidelines:**
- As per the guidelines, the Government of India shall constitute a committee called the **Central Media Accreditation Committee.**
- It would be **chaired by the Principal DG, Press Information Bureau (PIB),** and comprising up to **25 members nominated by the Government** to interpret the guidelines for withdrawal of accreditation.

A matter of Concern

- In 2020, the Paris-based Reporters without Borders (RSF) ranked India 142nd among 180 countries on the **World Press Freedom Index 2020.**
- Though **freedom of the press is not explicitly stated in the Constitution,** the **ambit of freedom of expression under Article 19 of the Constitution** has been generally interpreted as having laid down the template for a free press in the country with subsequent pronouncements of courts ensuring it.

The Threat by these rules:

- These guidelines, point out experts, carry the **threat of coming in the way of the functioning of a free media.**
- Besides, they carry the **risk of delegitimising reports,** especially of an investigative nature.
- **Any report critical of the Government could now be seen as prejudicial to the interests of the country** and it will be left to the interpretation and discretion of the Central Media Accreditation Committee to read the guidelines and decide what is defamatory while denying accreditation to a journalist.
- **Past attempts to regulate media** - Several attempts have been made by successive governments to keep the media in check by proposing guidelines more in the nature of censorship.
- **In 2018, the PIB, which functions under the I&B Ministry,** had proposed a **Fake News Guidelines** under which accreditation could be cancelled if the journalist was seen as peddling content that was fake.
- This was seen as a **move by the Government to counter other independent media outlets** who had called out the Government and the political leadership for putting out fake content.
- The order was withdrawn under pressure.
- More recently the Government proposed a series of rules under the **IT Act to check digital news content.**

- **State Governments like Kerala and Rajasthan** had come out with their own versions of proposed rules which were withdrawn under pressure and criticism.
- The most infamous move to control the press before the advent of private news channels was by former Prime Minister Rajiv Gandhi when he proposed the **Defamation Bill in 1988**. Under pressure from a unified media and several sections of the public, the Bill was withdrawn.

The Hindu link

<https://www.thehindu.com/news/national/understanding-the-new-central-media-accreditation-guidelines/article38406099.ece>

Question- The Central Media Accreditation Guidelines-2022 are a threat to free media and freedom of press. Comment.

IAS SHORTFALL AT THE CENTRE: INCORRECT DIAGNOSIS, WRONG REMEDY

Context

- The amendments proposed to Rule 6(1) of the Indian Administrative Service (IAS) (Cadre) Rules of 1954, which **seek to empower the Central government to unilaterally order the Central deputation of IAS officers without the consent of the State** governments or the officers concerned, have provoked controversy.
- The **Centre has justified** them on the ground that the **States are not meeting their Central Deputation Reserve (CDR) obligations**.
- As a result, Centre is suffering from an acute shortage of mid-level IAS officers, especially Deputy Secretaries and Directors.
- However all the States, including the BJP-ruled ones, not meeting CDR obligations indicates that their **reluctance to forward names to the Centre is not the real problem**.
- There can be **simpler, more effective and less contentious solutions** to the shortage than the proposed amendments.
- In fact, once the root causes of the shortage are identified, the solutions suggest themselves.

Causes of shortage

- The **first cause** of the shortage was the **drastic reduction in the annual recruitment of IAS officers after 1991** (from 140-160 to just 50-80) under the **misguided notion** that the **government will have a reduced role due to economic liberalisation**.
- As of January 1, 2021, the **shortage of IAS officers at the all-India level was 23%**. The number of IAS officers recruited annually should be increased to around 200 for a few years as a short-term measure.
- The **second cause** is **lackadaisical "cadre review"**.
- This is an exercise conducted jointly by the Centre and the States to **designate certain strategic posts in the States as "cadre posts" and earmark them exclusively for IAS officers**.
- A proper cadre review in all the States will release many IAS officers from non-strategic posts and reduce the shortage. At the Centre, there is a strong case for downsizing the bloated Central Ministries dealing with subjects in the State List and the Concurrent List, thereby reducing the demand for IAS officers and the CDR obligations of the States.

- The **third cause** is the **ill-advised discontinuance of direct recruitment of officers** to the **Central Secretariat Service Group B since 2000**, and **undue delays in the regular promotions of officers** from the ranks in the Central Secretariat due to protracted litigation since 2011. These officers used to occupy a sizeable proportion of Deputy Secretary/Director-level posts in the Central Secretariat.
- The **fourth cause** is the **complete non-utilisation by the Centre of the services of officers who are appointed to the IAS by promotion or selection from the State Civil Services**.
- This **large pool of around 2,250 officers**, usually in the age bracket of **35-55 years**, who have immense field experience, remains **State-bound**.
- It should be made **mandatory** for these officers to work for **at least two years on Central deputation as Deputy Secretaries/Directors immediately after their appointment to the IAS** and their training in Mussoorie.
- Their next promotion in their State cadre should be subject to their completing this mandatory period of Central deputation. Officers who are over 50 years of age at the time of appointment may be exempted. This can solve the problem of shortage of Deputy Secretary/Director-level officers at the Centre in one stroke.
- The **fifth cause** is the **numerous administrative barriers to Central deputation imposed by the Centre itself in the form of highly restrictive conditions, perverse incentives, annual lapsing of offer lists, long debarment periods, compulsory cooling-off periods, etc**.
- Expecting directly recruited IAS officers to work for at least two years as Deputy Secretaries/Directors between nine and 16 years of service for empanelment as Joint Secretaries at the Centre is unwise because this is precisely the phase when they are working in posts with good job content, power, prestige and perks. So, a large number of them do not go on Central deputation and fail to get empaneled as Joint Secretaries, which automatically eliminates them from future empanelment as Additional Secretaries and Secretaries.

Proposed solutions

- It should be made **mandatory for directly recruited IAS officers to serve at least three years on Central deputation** between **nine and 25 years of service**.
- Their **promotion to Principal Secretary grade in their State cadre** (usually after 25 years) **should be subject to their completing this mandatory period of Central deputation**.
- This wider window will enable IAS officers to opt for Central deputation at their convenience and the Centre will also be assured of a steady, adequate supply of deputationists.
- The **process of empanelment of IAS officers** for the posts of Joint Secretary, Additional Secretary and Secretary (or their equivalent) at the Centre is criticized for being **opaque and arbitrary**.
- The **Centre should directly choose its Joint Secretaries, Additional Secretaries and Secretaries from among IAS officers "on offer"** who are **officiating in equivalent grades in State governments** through a process of selection — in much the same manner as it chooses Deputy Secretaries/Directors. This will make a larger, better talent pool available to the Centre and enable officers to use the experience gained in the State at various levels in the service of the Centre.
- It should be noted that even if the proposed amendments come into force, States can still scuttle Central deputations by giving adverse performance assessments or foisting false disciplinary and vigilance cases against the officers.
- The **shortfall in CDR obligations** can be solved by a constructive dialogue between Cabinet Secretary and all the Chief Secretaries, or the Prime Minister holding a meeting with all the Chief Ministers.

- The **Inter-State Council** constituted under **Article 263 of the Constitution** is the institution meant specifically for handling such Centre-State situations before things get out of hand.

Conclusion

- India lost 60% of its civil servants during partition.
- **Sardar Patel** showed great sagacity and overcame the shortage within a few years by **working with the provinces rather than against them**.
- The sanctity of the principle of cooperative federalism and the interests of national unity and administrative efficiency demand nothing less.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/oped-on-simpler-solutions-to-solve-the-problem-of-fewer-ias-officers-at-the-centre/article65048510.ece>

Question- The proposed amendments to Indian Administrative Service (IAS) (Cadre) Rules seeking unilateral powers for Central governments to order deputations of IAS officers is a challenge to cooperative federalism. Explain highlighting the issues and solutions for issue of IAS shortage at the centre.

A CASE FOR A MORE FEDERAL JUDICIARY

Context

- **There is an imbalance now which the Supreme Court of India needs to address by empowering High Courts again**
- India is a union of States. The Supreme Court of India has held that the federalist nature of our country is part and parcel of the basic structure of the Constitution.
- Much has been written about the federal structure in relation to the legislature and the executive. There is a need to examine the Indian judiciary and the need to strengthen the federal nature of our judiciary.

Integrated system

- Federalism is a **midpoint between unitarism** which has a supreme centre, to which the States are subordinate, and **confederalism** wherein the States are supreme, and are merely coordinated by a weak centre.
- An integral requirement of a federal state is that there be **a robust federal judicial system which interprets this constitution**, and therefore adjudicates upon the rights of the federal units and the central unit, and between the citizen and these units.
- The **federal judicial system** comprises the **Supreme Court and the High Court** in the sense that it is only these two courts which can adjudicate the above rights.
- The Supreme Court was created under the Constitution, and is a relatively new court. On the other hand, some of the High Courts in our country have been in existence since the 1860s (and some existed even before that, in their earlier avatars as supreme courts of the Presidencies).

An equality of power

- The Indian Constitution envisaged the equality of power of High Court judges and Supreme Court judges, with a High Court judge not being a subordinate of a Supreme Court judge.

- The Supreme Court has, on many occasions, reiterated the position that the **Supreme Court is superior to the High Court only in the appellate sense**. Therefore, the theoretical position has always been that High Court judges and Supreme Court judges are equals.
- A delicate balance is required to be maintained between the Supreme Court and the High Courts in order for the constitutional structure to work.
- This balance existed from Independence onwards, until the 1990s. Since then, however, it has been tilting in favour of the central court. The need for this balance was underscored during the Emergency, when the High Courts (a significant number, at least) stood out as beacons of freedom, even as the Supreme Court failed in this duty.
- In recent years, **three specific trends have greatly eroded the standing of the High Court**, leading to an **imbalance in the federal structure of the judiciary**.
- **First**, the Supreme Court (or rather, a section of its judges, called “the Collegium”) has the power to appoint judges and chief justices to the High Courts and the Supreme Court. This Collegium also has the power to transfer judges and chief justices from one High Court to another. **Second**, successive governments have passed laws that create parallel judicial systems of courts and tribunals which provide for direct appeals to the Supreme Court, bypassing the High Courts. **Third**, the Supreme Court has been liberal in entertaining cases pertaining to trifling matters.

A centralisation and effects

- This has resulted in balance tipping in favour of a centralisation of the judiciary. The greater the degree of centralisation of the judiciary, the weaker the federal structure.
- The Supreme Court of India today, by **playing the role of a collegium**, effectively wields the power to appoint a person as a judge to a High Court or to transfer him or her to another High Court, or to appoint (or delay the appointment) of a sufficiently senior High Court judge as a chief justice or as a judge of the Supreme Court.
- Moving to the second factor, **an aggressively interventionist Supreme Court** leads many to approach it directly as a panacea for all ills befalling the nation. In 2018, some individuals from Delhi directly filed a petition in the Supreme Court to curtail Deepavali celebrations. The Court promptly entertained the writ petition and issued directions that Deepavali could be celebrated for only one or two hours in the evening.
- We see the Supreme Court interfering in **matters** which are clearly of local importance, **having no constitutional ramifications**.
- Every time the Supreme Court entertains an appeal against a High Court decision it sends out the message to the litigant: ‘It does not matter that the High Court ruled against you, you can take one more chance with this appeal.’
- Every time the Supreme Court entertains a **public interest litigation** on some matter which could just as effectively have been dealt with by the High Court, what the litigant hears is: ‘You do not need to approach the High Court, you can directly file your claim here, and you will not only get your hearing, you will get publicity too.’

Parallel judicial hierarchies

- The third of the factors identified by us is the **creation of parallel hierarchies of courts and tribunals**, whether it be the Competition Commission, or the company law tribunals, or the consumer courts. In all these cases, the High Courts are bypassed.
- Laws have been drafted such that the High Court has no role to play and the Supreme Court directly acts as an appellate court.

- This leads to weakening of the authority of the High Courts or the possibility of a tendency towards subservience or apathy of the judges of the High Courts.

Conclusion

- The Supreme Court should itself recognise the importance of self-abnegation and restores the federal balance by re-empowering the High Courts. This will be in the best interest of the nation.

The Hindu link

<https://www.thehindu.com/opinion/lead/a-case-for-a-more-federal-judiciary/article65055822.ece>

Question- Along with legislative and executive, federal nature of judiciary is also essential. Explain.

WRONG SOLUTION: ON URBAN-RURAL DIVIDE AND RESERVATION

Context

- The Supreme Court has recently asked the Punjab and Haryana High Court to decide within four weeks the validity of the Haryana law mandating 75% reservation for local candidates in private sector jobs that pay up to ₹30,000 a month.
- The apex court **set aside an interim stay order granted by the High Court**, because the stay was granted without assigning reasons.
- It is a settled principle that legislation cannot be stayed unless there is a preliminary finding that it is unconstitutional or suffers from any glaring illegality.
- **Other states with similar bills-Andhra Pradesh and Jharkhand** have also introduced such laws, while the **ruling DMK in Tamil Nadu** had promised 75% reservation in its election manifesto for last year's Assembly polls.

Reasons for such legislations

- Given the bleak employment situation in the backdrop of the **reported loss of millions of jobs** during the pandemic, it is no surprise that the **leadership in every State seeks to find employment opportunities** for its youth.
- In some States, employers may find it cheaper to use the services of those from a faraway State, while in others there may be an acute shortage of labour within the local population.

Issues

- There are quite a few issues that arise when the State introduces a quota in the private sector, especially if it is based on a domicile norm.
- The **first hurdle** that a law such as the Haryana State Employment of Local Candidates Act will face is the **constitutional bar on discrimination on the basis of place of birth or residence**.
- Even though the **Constitution allows the Government to prescribe a residential criterion** for employment to public posts, **it is doubtful whether such a measure can be extended to the private sector**. In the Haryana case, it covers companies, societies, trusts, partnership firms and individual employers.
- The industry may feel aggrieved that the **residential requirement may adversely affect the hiring of talent from outside Haryana**.

- From an individual point of view, the **law may impinge on** –
- The freedom of movement,
- The right to reside and settle in any part of the country, and
- The right to carry on any occupation.
- Of course, **the Act provides for exemption** to any employer if an adequate number of local candidates are not available in terms of skill, qualification and proficiency.
- And there is a **sunset clause**: the **Act will cease to operate in 10 years**.

Way forward

- Beyond the question of legality, what is flagged by such developments is the state of the economy, especially the labour economy. **Rapid urbanisation** and the **agrarian situation** are **behind large-scale migration in search of employment**.
- The real issue to address is the widespread disparities between urban and rural areas, between advanced States and backward ones.

The Hindu Link

<https://www.thehindu.com/opinion/editorial/wrong-solution-the-hindu-editorial-on-urban-rural-divide-and-reservation/article65062806.ece>

Question- Reservation in jobs in private sector on the basis of state domicile is riddled with constitutional challenges. Elucidate.

DRAFT INDIA DATA ACCESSIBILITY & USE POLICY

Context

- The **Ministry of Electronics and Information Technology (MEITY)** presented a policy proposal named "**Draft India Data Accessibility & Use Policy, 2022**" on February 21, 2022, which was endorsed by the Cabinet. The initiative intends to "fundamentally change India's ability to exploit public sector data," according to the government.
- Proposals contained in the Draft Data Accessibility Policy have come under scrutiny since they would allow the government to licence and sell publicly available data to the commercial sector, which would be a first in the world.

Why has the Draft Data Accessibility Policy been proposed?

- It is expected that the **creation of citizen data** would expand rapidly over the next decade, becoming the cornerstone of **India's \$5 trillion-dollar digital economy** in the long run. It is primarily commercial in nature, which is consistent with the rationale of the **National Economic Survey, 2019**, which at Chapter 4 noted the commercial benefits of government data exploitation, notably, "The private sector may be granted access to select databases for commercial use.," and "The private sector may be granted access to select databases for commercial use." As a result, it is only reasonable to tax the private sector for the use of this data, given that it has the potential to derive enormous benefits from it." Its goal is to maximise the economic value of the data that has been created.

- There is also a lack of openness, as seen by the absence of a consultation document or the revelation of the list of stakeholders who have been consulted, which according to a public notification by MEITY includes "**academics, industry, and the government.**"

How does the Draft Data Accessibility Policy aim to achieve its goals?

- The policy will **apply to any and all data and information generated, collected, and/or preserved by the Central Government, regardless of how it was obtained.** As an added bonus, it would let state governments to implement its provisions. It would be operationalized through the establishment of an **India Data Office (IDO) under the Ministry of Economic Affairs and Information Technology (MEITY)** for overall administration, with each government agency selecting a Chief Data Officer.
- In addition, an India Data Council would be established to serve as a consulting body for duties like as standardisation and finalisation of standards. It is not clear if the India Data Council would include representatives from industry, civic society, or technologists who are not affiliated with the government.
- **To achieve this goal, the policy strategy is to make government data available by default and then keep a negative list of datasets that are not available to the public.**
- The **definition of more sensitive categories** to which access should be limited is **left to the discretion of autonomous government departments.** In addition, current data sets will be enhanced or processed in order to increase their worth, and these data sets will be referred to as high-value datasets.
- A wide range of government information, particularly high-value datasets, will be made available for free sharing within government departments and will also be licenced to the commercial sector.
- The use of anonymisation and privacy preservation is recommended as a means of ensuring personal data privacy.

What are the privacy issues with the Draft Data Accessibility Policy?

- India does not have a data protection legislation that may hold people accountable and give recourse in cases of privacy violations such as forceful and excessive data collecting or data breaches, according to the **World Health Organization.**
- Inter-departmental data sharing raises privacy issues in this context, because the open government data portal, which contains data from all departments, may result in the building of 360-degree profiles and the implementation of state-sponsored mass surveillance, which is a problem.
- In spite of the fact that the policy considers anonymization to be an important objective, the policy lacks legal responsibility and independent regulatory supervision. There is also a failure to take into account scientific analysis as well as the availability of automated methods for the re-identification of anonymous information.
- Because of the financial incentives now in place for licencing to the private sector, in which the government serves as a data broker, this becomes increasingly crucial. In this case, the economic worth of the data grows as the amount of personal data collected increases.
- The absence of an anchoring piece of law further contributes to the policy's inability to meet the legality bar for state intrusion in privacy, which was established by the Supreme Court of India in its historic right to privacy ruling.

Are there any other issues with the policy?

- There are **three additional issues** with the policy document that merit consideration. While adopting the language of open data it strays from its core principle of providing transparency of the Government towards its citizens.

- There is only one mention of transparency and little to no mention of how such data sharing will help ensure demands for accountability and redress. The second issue is that the policy bypasses parliament as it contemplates large scale data sharing and enrichment that will be borne from public funds. Further, the constitution of offices, prescription of standards that may be applicable not only to the Central government, but even State governments and schemes administered by them require legislative deliberation. This brings us to the third and final issue of federalism.
- The policy, even though it notes that State governments will be, “free to adopt portions of the policy,” does not specify how such freedom will be achieved. It becomes relevant, if specific standards are prescribed by the Central government for data sharing, or as a precondition to financial assistance.
- There is also the absence of any comment on whether data gathered from States may be sold by the Central government and whether the proceeds from it will be shared with the States.

The Hindu link

<https://www.thehindu.com/sci-tech/technology/understanding-the-draft-india-data-accessibility-use-policy-2022/article65077964.ece?homepage=true>

Question- Describe the issues in Draft India Data Accessibility & Use Policy 2022.

NO QUICK FIX: ON THE STATE OF MEDICAL EDUCATION IN INDIA

Context

- The war in Ukraine has brought to the fore the plight of Indian students, many of them pursuing medicine.
- Amidst the turmoil, Prime Minister Narendra Modi, at a webinar on the Union Budget announcements on the health sector, stated that many young Indians were going to “small countries of the world for medical education” and, therefore, **the private sector should be encouraged, along with cooperation from States, to set up more medical colleges** and hospitals locally so that such aspirants remain in India.

State of the medical education in India

- The dynamics of India’s medical education system are complex.
- The most **sought-after international destinations** like U.S., the U.K. are too **expensive for most Indians**.
- In the last few decades, Russia, China and Ukraine, with their historical commitment to public health care have been able to offer more affordable, yet quality, education.
- India’s **huge population** still continues to be **predominantly rural**, but most of the **trained medical doctors, paramedics and nurses gravitate** towards cities for well-known reasons.
- The very nature of medical education, an empirical field, requires significant infrastructure — land, equipment, and trained faculty at the post graduate level — all of which are in short supply and uneven in their spread.
- Without correcting these deficiencies, India cannot expect to dramatically increase the availability of medical personnel. The Government needs to make health care the centrepiece of its economic rebuilding.
- The **anaemic spending on health** is not unique to this government; for several years, **India’s spending on health care has consistently trailed several countries** comparable to its size.

- There is **barely one doctor for every 1,000 Indians and specialists often a tenth of what is required.**
- These shortcomings have **lubricated the phenomenon of young Indians seeking affordable, quality, health-care education in other countries.**

Way Forward

- Merely having private establishments start medical schools, without a long-term commitment to offer necessary training and post-graduate education, could lead to a repeat of the engineering fiasco after the dotcom boom: a surfeit of engineering colleges without adequately trained faculty or infrastructure that churn out students who need a further skills upgrade to be employable.
- The Government must
- **Ease procedures for establishing medical colleges,**
- Spend more on infrastructure, and
- Provide incentives for a health-care ecosystem to develop in rural areas.
- While not a quick-fix, over time this could facilitate the growth of private and public medical colleges that could stem the outflow of students aspiring to be doctors.

The Hindu link

<https://www.thehindu.com/opinion/editorial/no-quick-fix-the-hindu-editorial-on-the-state-of-medical-education-in-india/article65089868.ece>

Question- What factors in the current medical education have lead to young students seeking medical education in foreign countries.

GENERAL STUDIES 3.

SCIENCE AND TECHNOLOGY

VIRTUAL DIGITAL ASSETS

Context

- Finance Minister, in her Budget 2022 speech on Tuesday (February 1), announced a **30 per cent tax** on income from virtual digital assets.
- As per the minister, the **phenomenal rise in such transactions and the magnitude and frequency of these transactions** has made it imperative to provide for a specific tax regime.
- Additionally, a **TDS on payment made** in relation to the **transfer of virtual digital assets at 1 per cent** above a monetary threshold is also proposed.

More on the news

- In short, the finance minister has **proposed a flat 30 per cent tax on digital asset gains** regardless of any long-term or short-term holding by the investor.
- Additionally, **if a virtual digital asset investor incurs losses during the transaction, it can't be set off against any other income.**
- The **gifting of virtual digital assets has also been proposed to be taxed** in the hands of the recipient.
- **What are virtual digital assets and how are they different from digital currency?**
- In her **post-budget media interaction**, Sitharaman explained that a **currency can be defined if it is issued by the central bank.**
- She clarified that **what the RBI issues in the next fiscal will be the digital currency and everything else apart from that are digital assets** being created by individuals and the government will be taxing the profit which are made during transactions of such assets at 30 per cent.
- **How does the government define virtual digital assets?**
- To define the term "virtual digital asset", a new clause (47A) is proposed to be inserted to section 2 of the Act.
- As per the proposed new clause, a **virtual digital asset is proposed to mean any information or code or number or token (not being Indian currency or any foreign currency), generated through cryptographic means or otherwise, by whatever name called, providing a digital representation of value which is exchanged with or without consideration, with the promise or representation of having inherent value, or functions as a store of value or a unit of account and includes its use in any financial transaction or investment, but not limited to, investment schemes and can be transferred, stored or traded electronically.**
- **Non fungible token** and; any **other token of similar nature are included** in the definition.

The Indian Express link

<https://indianexpress.com/article/explained/virtual-digital-assets-vs-digital-currency-explained-7752936/>

Question- Write a short note on virtual digital assets.

FIXING FREQUENCIES FIRST: ON 5G ECONOMIC PAYOFF IN BUDGET SPEECH

Context

- Finance Minister Nirmala Sitharaman's Budget announcement that the Government proposes to conduct the **"required spectrum auctions"** in 2022 to facilitate the roll-out of 5G mobile phone services in fiscal 2022-23 has understandably triggered speculation including about the feasibility of the timeline.
- Commenting on the Budget announcement, Communications Minister Ashwini Vaishnaw said TRAI was expected to submit its recommendations on the spectrum to be set aside for 5G by March, adding that the auction for the airwaves would be held soon after.
- While last week's flurry of announcements have raised the possibility that the next auction of telecom spectrum may be held within the next few months, there is little clarity on the approach the Government plans to take with regard to the crucial issues surrounding the introduction of 5G services.

Issues

- Foremost are questions around the **particular frequencies the regulator** is likely to recommend,
- **The Government's plans on pricing the spectrum,**
- The **very viability of the new technology**, both for the telecom companies and the economy as a whole.
- The **sector's appetite for the highly capital intensive 5G technology** is unlikely to be substantial at the moment. With the financially stressed private telecom service provider industry now reduced to a near duopoly, as Vodafone Idea continues to bleed losses and subscribers and even plans to convert some of its outstanding interest dues to the dot into an equity stake that will make the Union government the largest shareholder.

What is 5G?

- Technical specification for 5G –
- **High data rates:** For **4G** a theoretical **100 Mbps (Mega bits)**, **5G** tops at **10 Gbps(giga bits)**.
- **Massive connectivity** of 1 million connections /km² (4G- 100thousand connections/km²).
- **Ultra-low latency** of 1 millisecond (4G has a latency of 10 ms).
- **High reliability** (99.999% for mission critical 'ultra-reliable' communications),
- **Mobility** at high speeds (up to 500 km/h i.e. high-speed trains).
- **30 Ghz** of available spectrum in comparison to **3Ghz** of 4G.
- **5G mainly works in 3 bands**, namely **low, mid** and **high frequency** spectrum — all of which have their own uses as well as limitations.
- Currently 4G and earlier communication networks run only on **low band spectrum**, where the maximum speed is limited to 100 Mbps (Megabits per second).
- The **mid-band spectrum**, on the other hand, offers higher speeds compared to the low band, but has limitations in terms of coverage area and penetration of signals.

- Internet speeds in the **high-band spectrum** of 5G has been tested to be as high as 20 Gbps (giga bits per second), while, in most cases, the maximum internet data speed in 4G has been recorded at 1 Gbps.

5G deployment across the world

- Most countries that have commercialised 5G so far largely find the technology still **predominantly deployed as an upgraded replacement for 4G** in terms of end use,
- The industrial and public utility applications envisaged still **at least a few years away**.
- Also, for the new technology to work at its optimum potential the **Government would need to not only offer the key operational frequencies** including the below **1 GHz**, the **C-Band frequencies around 3.5 GHz**, and the **higher 26 GHz** but also crucially enable the transport or **backhaul of signals** between the base stations and telecom operator's core network by offering no- to low-cost E-Band airwaves.

Conclusion

- With the COVID-19 pandemic having shown up the existing mobile networks' inadequacies in terms of reach, especially in enabling the delivery of education to remote and rural students, it may make the most sense to delay the introduction of 5G until policymakers are sure its economic payoff will outweigh the high cost.

The Hindu Link

<https://www.thehindu.com/opinion/editorial/fixing-frequencies-first-on-5g-economic-payoff-in-budget-speech/article38389296.ece>

Question- Endeavours for faster adoption of 5G technology should balance the high input costs with fulfilment of intended outcomes. Explain.

CREATING A SUN IN A LAB

Context

- Two recent achievements have taken us a step closer to the dream of creating an artificial sun.
- China's Experimental Advanced Superconducting Tokamak (EAST) sustained the plasma at 70 million degrees Celsius for 1,056 seconds in January 2022.
- In February 2022, the Joint European Torus (JET) fusion experiment in Oxfordshire, U.K., produced 59 megajoules (MJ) of energy from thermonuclear fusion.
- These are dress rehearsals for the upcoming International Thermonuclear Experimental Reactor (ITER), a global experiment to generate 500 MW of power by fusing hydrogen atoms into helium atoms by 2035.

The thermonuclear fusion:

- In a thermonuclear fusion reaction, **lighter atoms like those of hydrogen fuse to produce slightly heavier atoms** like that of helium.
- The mass of combination of Hydrogen atoms reduces to form energy:
- The mass of one hydrogen atom is 1.007825 Atomic Mass unit (AMU).
- When four hydrogen atoms are combined, it transmutes into a helium atom. The sum of the mass of four hydrogen atoms is 4.03130 AMU, while the mass of one helium atom is just 4.00268 AMU.

- As we know, matter is neither created nor destroyed; hence the mass difference 0.02862 AMU is converted into pure energy by way of Einstein's famous formula $E=mc^2$.
- If we fuse four grams of hydrogen into helium, about 0.0028 grams of mass would be converted to 2.6×10^{11} joules; with that energy, we can light a 60-watt light bulb for over 100 years! 600 million tons of hydrogen are fused every second in the Sun, producing 596 million tons of helium. If one-thousandth of a gram of mass can create energy to power a 60W bulb for a hundred years, imagine the amount of energy the remaining four million tons of hydrogen unleash every second by the Sun.

History of Thermonuclear fusion reaction:

- On March 24, 1951, then Argentinian president Juan Perón stunned the world by announcing the success of 'Proyecto Huemul' led by Nazi scientist Ronald Richter to harness energy from fusion. But this turned out to be science fiction.
- But both the USSR and the U.S. stepped up their fusion research, not to be left behind. Soon, the Soviets came up with a viable design to kindle and sustain nuclear fusion—the **Tokamak**.
- Unlike the fission reactors, the **fusion reactors do not pose the dangers of a radioactive leak**.
- Gram for gram, the **thermonuclear power produces four million times more energy than burning coal**. The only waste product is harmless helium.
- “The Artificial Sun”: In stars such as the sun, hydrogen atoms combine to produce helium in the thermonuclear reaction and release immense energy in light and radiation. Ordinarily, the atoms cannot fuse.
- The like charges of the electron clouds surrounding the atoms would repulse and keep them at bay from coming too close.
- However, in **the core of the stars, the temperature is some 15 million Kelvins**. All the electrons are ripped away at these temperatures, forming what is known as plasma.
- Further, **due to gravity, the pressure builds up 200 billion times greater than Earth's** atmospheric pressure, making the density to become 150 times that of water.
- In this sizzling heat, intense pressure and dense core, **the plasma of hydrogen fuse with each other to form helium**, spewing colossal energy in the form of light and heat.
- If only one can mimic the condition of the interior of the stars, we can artificially ignite fusion; and the fusion reactors which permits us to do so are Tokamaks.

Tokamak

- If fusion has to occur, the **first step has to be the creation of hot plasma**. Heating a tiny pellet of hydrogen to millions of degrees and generating plasma is not that hard; lasers could do the job well.
- However, to **keep the fiery plasma at millions of degrees from touching the container wall is another thing**. Soviet physicists Igor Tamm and Andrei Sakharov conceptualised that if one can create a magnetic field in the shape of a torus — like a south Indian vada—then the scorching plasma could be contained in the invisible magnetic bottle.
- The scalding of the walls of the container could be prevented. Based upon this theory, an experimental reactor was built and demonstrated by a Soviet team led by Lev Artsimovich at the Kurchatov Institute, Moscow.

Designs for containing Plasma:

- The **Tokamak is an acronym for tongue-twisting Russian terms 'toroïdalnaïa kameronas magnitnymi katushkami'**, which means "**toroidal chamber with magnetic coils**".

- Although **alternative designs** such as z-pinch and stellarator **have been designed and tested, tokamaks are still the rage for achieving fusion.**

The International Thermonuclear Experimental Reactor (ITER):

- The effort to harness energy from thermonuclear fusion today, thankfully, is a global collaborative effort. Thirty-five countries, including India, Russia, the United States, the United Kingdom, China, European Union, are collaborating to jointly build the largest Tokamak as part of the ITER.
- The idea germinated in 1985. After years of ups and downs since March 2020, the machine assembly is underway at Saint Paul-lez-Durance, southern France.
- With the installation of the Cryostat, a device to cool the reactor, covering the assembly is slated to be completed by 2025. If all goes well, the first plasma will be produced at the end of 2025 or early 2026. After testing and troubleshooting, energy production will commence in 2035.
- The **Future**: The plant is expected to generate 500 MW power and consume 50 MW for its operation, resulting in a net 450 MW power generation.
- Although there are many experimental tokamaks worldwide, including one in India, none has demonstrated net energy production more than the input.
- Thus, the main task of the experimental ITER reactor is to get operational experience and train human resources.
- Scientists, engineers and technicians from all the 35 participating countries are working on the site learning along the way, hoping to lay the foundation for their own national fusion energy programmes.
- The ITER fusion reaction will use the isotopes of hydrogen called deuterium and tritium.
- Deuterium, also called heavy hydrogen, has a neutron and a proton in its nucleus.
- In contrast, ordinary hydrogen has only one proton.
- Tritium, another isotope of hydrogen, has two neutrons and one proton.

Critical processes:

- **Holding Plasma:** Using strong magnets, the weltering plasma must be held in place, made to swirl around, beams collide, fuse and release tremendous energy as heat. To create plasma for fusion, the mixture of deuterium and tritium needs to be heated to temperatures 10 times hotter than the Sun's centre.
- **Extracting heat:** The heat must be removed from the reaction to boil water, produce steam and turn a turbine to generate electricity.
- **Extracting Commercial advantage:** The plasma at high temperature needs to be sustained for a long time if commercial energy has to be obtained.
- **Instabilities:** One of the critical challenges in the Tokamak is the sudden appearance of plasma instabilities. We need to get experience and assess the probability of such disruptions and work out how we can manage them. Making plasma at higher and higher temperatures and sustaining it at that temperature for more and more time will provide insights on disruptions.

Significance of the recent feats:

- The Chinese accomplishment of maintaining 2.8 times the Sun's temperature for 17 minutes is a milestone in this direction. For the first time, the Joint European Torus experiment used the tritium fuel mix, the same one that will power ITER.
- They could harvest one-third of the input energy as an output, a significant step from earlier results.
- The experimental results from this JET indicate that the models used to design ITER are robust, boosting our confidence in them. These experiments would help validate ITER's designs.

India's Position:

- Way back in 1955, in the first 'Atoms for Peace' meeting in Geneva, Homi J. Bhabha saw a future in energy coming from thermonuclear fusion.
- The Institute for Plasma Research (IPR) in Gandhinagar and the Hot Plasma Project at Saha Institute of Nuclear Physics (SINP), Kolkata, took the lead in nuclear fusion research in India.

The Hindu link

<https://www.thehindu.com/sci-tech/science/creating-a-sun-in-a-lab/article38411877.ece>

Question- What do you mean by Tokamak reactors? Describe the process of nuclear fusion and its potential benefits for energy security in near future.

TAKING A BYTE OUT OF CYBER THREATS**Context**

- Cyber-attacks may be a relatively new phenomenon, but in a short time frame have come to be assessed as dangerous as terrorism.

Cyber-attacks in recent years:

- The world was possibly made aware of the danger and threat posed by cyber weapons with the advent of the **Stuxnet Worm in 2010**, which resulted in **large-scale damage to Iran's centrifuge capabilities**.
- Two years later, in 2012, a **bank of computers belonging to the Saudi Aramco Oil Company** were targeted, reportedly by Iranian operatives, employing malware that wiped out data on 30,000 computers.
- A few weeks later, **Iran** was again believed to have been behind a **targeted attack on the Qatari natural gas company, RasGas**.
- The string of instances appear to have provoked then United States Defence Secretary, Leon Panetta, to utter the warning that the world had to prepare for a kind of '**cyber Pearl Harbour**', highlighting a new era of potential vulnerabilities.

Static response:

- The West seemed to lose its way on how to deal with the emerging cyber threat. Each succeeding year, despite an increase in cyber threats, witnessed no change in the method of response.
- While the **West focused on 'militarization' of the cyber threat**, and how best it could win with its superior capabilities, valuable time was lost. It led to misplaced ideas and erroneous generalisations, resulting in a decade of lost opportunity.
- In 2021, cyber-attacks that attracted the maximum attention were **Solar Winds** and **Colonial Pipeline** in the U.S., but these were merely the tip of a much bigger iceberg among the string of attacks that plagued the world.
- **Estimates of the cost to the world in 2021** from cyber-attacks are still being computed, but if the cost of cyber-crimes in **2020** (believed to be more than \$1 trillion) is any guide, it is likely to range between **\$3trillion-\$4 trillion**.
- What is not disputed any longer is that soon, if not already, cyber-crime damage costs would become more profitable than the global trade of all major illegal drugs combined.

Sectors that are vulnerable

- As 2022 begins, the general consensus is that the **cyber threat** is likely to be among, if not the biggest, concern for both companies and governments across the globe.
- In the **Information age, data is gold**. Credential threats and the threat of data breaches, phishing, and ransomware attacks, apart from major IT outages, are expected to be among the main concerns.
- **Results** are also likely to far eclipse the damage stemming from the COVID-19 pandemic or any natural disasters.
- A **little publicised fact is that the vast majority of cyber-attacks** are directed at small and medium sized businesses, and it is likely that this trend will grow.
- According to experts, among the most targeted sectors in the coming period are likely to be: health care, education and research, communications and governments.
- **Health-care ransomware** has been little publicised, but the reality is that ransomware attacks have led to longer stays in hospitals, apart from delays in procedures and tests, resulting in an increase in patient mortality.

Measures to check attacks

- Far more than merely apportioning costs linked to cyber crime is the reality that **no organisation can possibly claim to be completely immune from cyber attacks**.
- While preventive and **reactive cyber security strategies** are needed — and are essential to mitigate cyber risks — they are proving to be highly illusive in an increasingly hyper-connected world. Comprehending the consequences of this reality could be devastating.

Threats of Ransomware:

- For instance, despite all talk about managing and protecting data, the reality is that **ransomware** is increasing in intensity and is tending to become a near destructive threat, because there are many available soft targets. Statistics in this regard are also telling, viz., that new attacks are taking place every 10 seconds.
- Apart from loss of data, what is also becoming evident is that **ransomware criminals** are becoming more sophisticated, and are using ransomware to cripple large enterprises and even governments.
- Talk of the emergence of '**Ransomware as a Service**' (**RaaS**) — a business model for ransomware developers — is no mere idle threat.

Ever increasing risks:

- **Digitalization after Pandemic:** A conservative estimate is that a rash of attacks is almost certain to occur on home computers and networks.
- A **tendency seen more recently to put everything on the Cloud could backfire**, causing many security holes, challenges, misconfigurations and outages.
- Furthermore, even as **Identity and Multifactor Authentication (MFA)** take centre stage, the gloomy prognostication of experts is that **Advanced Persistent Threats (APT) attacks** are set to increase, with criminal networks working overtime and the Dark web allowing criminals to access even sensitive corporate networks.

Scant clarity

- Cyber security experts appear to be floundering in finding proper solutions to the ever widening cyber threat.

- **Emerging cyber security technologies and protocols** intended to protect systems, networks and devices, but little clarity whether what is available can ensure protection from all-encompassing cyber attacks.
- **Technology geeks**, meanwhile, are having a field day, insisting on every enterprise incorporating **SASE — Secure Access Service Edge** — to reduce the risk of cyber attacks.
- Additional solutions are being proposed such as **CASB — Cloud Access Security Broker** — and **SWG — Secure Web Gateway** — aimed at limiting the risks to users from web-based threats.
- Constant references to the **Zero Trust Model and Micro Segmentation** as a means to limit cyber attacks, can again be self-limiting.
- **Zero Trust** does put the onus on strict identity verification ‘allowing only authorized and authenticated users to access data applications’, but it is not certain how successful this and other applications will prove to be in the face of the current wave of cyber attacks.
- What is most needed is absent, viz., that cyber security experts should aim at being two steps ahead of cyber criminals. This is not evident as of now.

Way Forward

- **Misplaced attention around Cyber security has led to unique challenges.** This situation needs to be reversed.
- **A detailed study of the series of low- and medium-level proactive cyber attacks** that have occurred during the past decade is clearly warranted.
- It could reinforce the belief that when it comes to deterrence in cyber space, **what is required is not a piece of ‘grand strategy’: low and medium tech, low and medium risk targeted operations could be just as effective.**
- A related aspect is to **prevent individual companies from attempting their own tradeoffs** — between investing in security and maximising short-term profits. What many companies and even others fail to realise is that inadequate corporate protection and defence could have huge external costs for national security, as was evident in the Solar Winds attack.
- **Defence and backup plans:** Nations and institutions, instead of waiting for the ‘Big Bang cyber-attack’, should actively prepare for a rash of cyber-attacks — essentially ransomware — mainly directed at available data.
- The emphasis should be on prioritising the defence of data above everything else. Consequently, law enforcement agencies would need to play a vital role in providing effective defence against cyber-attacks.

Conclusion:

- On the strategic plane, understanding the nature of cyber space is important. While solving the technical side is **‘one part of the solution, networks and data structures need at the same time to prioritise resilience through decentralised and dense networks, hybrid cloud structures, redundant applications and backup processes’.** This implies ‘planning and training for network failures so that individuals could adapt and continue to provide service even in the midst of an offensive cyber campaign’.

The Hindu link

<https://www.thehindu.com/opinion/lead/taking-a-byte-out-of-cyber-threats/article38414892.ece>

Question- Cyber-attacks in recent times have increases multifold. Explain. How can these be tackled by strengthening legislation, scrutiny and implementation of robust policies?

ZOOMING IN ON THE POTENTIAL OF INDIA'S GEOSPATIAL SECTOR

Context

- The date, February 15, 2021 will be regarded as a watershed moment when new **guidelines** took effect to **completely de-regulate the geospatial sector for Indians**.
- As we celebrate the first anniversary of this moment, it is time to look back and assess its impact and identify the bottlenecks so that the full potential of the geospatial sector can be realised.

Not much of a percolation

- India has a **robust ecosystem in geospatial**, with the **Survey of India (SoI)**, the **Indian Space Research Organisation (ISRO)**, **remote sensing application centres (RSAC)s**, and the **National Informatics Centre (NIC)** in particular, and all ministries and departments, in general, using geospatial technology.
- However, the full benefits have yet to percolate to the public; neither is there much contribution to the nation's GDP.

New interest and developments

- Since the declaration of the guidelines, there has been a lot of hype and hoopla about the geospatial sector.
- The media too published many articles projecting the market to some ₹1 lakh-crore by the year 2029 with 13% Compound Annual Growth Rate (CAGR). Consequently, the geospatial sector, is seeing new interest.
- The last year has also witnessed some activity on the ground. The most noticeable was the over subscription of the **initial public offering of MapmyIndia**.
- The other noticeable activity was the launching of a city mapping programme by Genesys International in India.
- Such an aggressive stance by investors for geospatial was not seen in the earlier regime; it is certain that the new guidelines have played a role. Today, there is a positive mood in the private industry, which is no more apprehensive and conservative like it was in previous years.

Key issues

- Among the most prominent hurdles is the absence of a sizeable geospatial market in India.
- There is no demand for geospatial services and products on a scale linked to India's potential and size. This is mainly due to the **lack of awareness** among potential users in government and private.
- The other hurdle has been the **lack of skilled manpower** across the entire pyramid.
- The **unavailability of foundation data, especially at high-resolution**, is also a constraint.
- The **lack of clarity on data sharing and collaboration** prevents co-creation and asset maximisation. Lastly, barring a few cases, there are still no ready-to-use solutions especially built to solve the problems of India.
- Unless these issues are addressed, the policy alone will not suffice.

Solution

- It is understood that these issues **cannot be resolved overnight** and that the formulation of guidelines alone is not enough.
- The **inertia and the mindset** due to decades of restrictions **will be difficult to shrug off**.
- However, **India needs to be aggressive to make a leapfrog**; therefore, special attention is required as far as this sector is concerned.
- First and foremost is the **need to publish the entire policy document** and **make government and private users aware of things**.
- The **data available with government departments should be unlocked**, and **data sharing should be encouraged and facilitated**.
- This will only be **possible through an open data sharing protocol**.
- The Government needs to **invest in developing standards** and must mandate the adoption of standards.
- There is a **need to establish a geo-portal** to make all public-funded data accessible through data as a service model, with no or nominal charge.
- Most **important is to inculcate the culture of data sharing, collaboration and co-creation**.
- There is a need to generate foundation data across India. This should include the **Indian national digital elevation model (InDEM)**, data layers for cities, and data of natural resources.
- While different types of data will be produced on a project-to-project basis, Solution developers and start-ups should be engaged to build solution templates for various business processes across departments.
- **Local technology and solutions** should be **promoted**, and **competition** should be **encouraged** for quality output.
- As the **new guidelines** prevent **high-accuracy data** being stored in overseas clouds, there is a need to develop a geospatial data cloud locally and facilitate a solution as service.
- For instance, the Ministry of Environment, Forest and Climate Change can host a complete suite of Geographic Information Systems (GIS) applications like **working plan, wildlife corridor mapping, social forestry**, etc.
- National **organisations** like **Soi and ISRO** should be **entrusted with the responsibility of regulation** and the projects related to the nation's security and scientific significance.

Academic changes needed

- Though India has many who are trained in geospatial this is mostly either through a master's level programme or on-job training.
- India lacks a strata of core professionals who understand geospatial end-to-end.
- India should start a **bachelor's programme in geospatial** also in the Indian Institutes of Technology and the National Institutes of Technology.
- Besides these, there should be a dedicated geospatial university. Such programmes will propel research and development efforts which are crucial for the development of technologies and solutions locally.
- The geospatial sector in the country is rightly positioned for investment. However, clarity on the issues discussed and the creation of an enabling ecosystem are essential. By the time we celebrate the 10th anniversary, we should have achieved the projected market volume and have Indian entrepreneurs stand out internationally.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/geospatial-sector-in-india-and-possibilities/article65048521.ece?homepage=true>

Question- The geospatial sector can provide impetus to both policy formation and policy implementation in the country across myriad of sectors. Elucidate. Also mention challenges and solutions for this.

NO SLACKING: ON ACTION PLANS AGAINST ANTIMICROBIAL RESISTANCE

Context

- The recent **publication of The Lancet's global burden of bacterial antimicrobial resistance** — an elaborate and studied estimate validated by using counterfactual analysis for the first time — comes at a time when the world, weary with battling COVID-19, seems to have lost steam to mount a robust AMR policy.
- But the report makes it clear that no slacking can be allowed on this front any longer; it **estimated that 4.95 million deaths were associated with bacterial AMR in 2019 alone**.
- It also **identified the pathogens and pathogen-drug combinations** that cause such resistance.

Bacterial Antimicrobial Resistance

- Bacterial AMR occurs when the drugs used to treat infections become less effective, as a result of the pathogens becoming resistant to the drugs.
- This happens due to
 - Indiscriminate use of antibiotics,
 - Availability of antibiotics over the counter,
 - Poor hygiene and sanitation,
 - Antimicrobial use in the farming and poultry industry,
 - Lack of vaccines and newer antibiotics, and
 - Poor infection control practices in hospitals.
- While data on exact number of deaths might not have been available, there was no doubt about the alarming nature of associated mortality and morbidity. And yet, few nations have a policy to counter this pernicious problem.

AMR in India

- In 2008, the **NDM1 enzyme** that **renders bacteria resistant to a range of antibiotics** was traced back to India. It served as an urgent call for action.
- India released its own **AMR action plan in 2017**, and announced a task force for implementation.
- By 2019, **Kerala and Madhya Pradesh had rolled out State action plans**.
- Since then, little progress has ensued: 11 other States are still framing their action plans.
- The **Chennai Declaration**, a consortium of doctors and health-care institutions against AMR, was also formed in 2012 to draw up a road map.
- The **ban on Colistin** in the **poultry, aqua farming and animal feeds supplements** sectors, which India enforced from July 2019, was considered a strong strike in countering the AMR challenge.

Conclusion/ Way forward

- No doubt **AMR offers humanity one of the most complex challenges** that it has faced; but the **recognition that solutions are not only in the realm of science is necessary**.

- Scientific publications have **established** the correlation **between AMR and poor hygiene, lax administrative governance and poor ratio of public-private expenditure.**
- Governments must **raise the standard of living for citizens, provide them accessible and affordable quality health care,** besides **regulating the sale and use of antibiotics.** Not doing so in studied haste will only land up eroding the significant health-care gains India has proactively, and painfully at times, secured over the years.

The Hindu link

<https://www.thehindu.com/opinion/editorial/no-slacking-the-hindu-editorial-on-action-plans-against-antimicrobial-resistance/article65068311.ece>

Question- What do you mean by antimicrobial resistance (AMR)? What are the steps taken by the government to check AMR?

NON FUNGIBLE TOKENS (NFTs)

Context

- Non fungible tokens (NFTs) have, thanks to their ability to assign value to everything from art to music to a **simple selfie**, taken the world by storm.
- The sales of NFTs surged \$25 billion in 2021 as the crypto asset exploded in popularity, fuelled by the rising interest of celebrities and tech evangelists, according to market data tracker DappRadar data analytics.

What are NFTs?

- Anything that can be converted into a digital form can be an NFT. Everything from your drawings, photos, videos, GIF, music, in-game items, selfies, and even a tweet can be turned into an NFT, which can then be **traded online** using **cryptocurrency.**
- NFTs are unique from other digital forms as they are backed by Blockchain technology.
- Blockchain is a distributed ledger where all transactions are recorded. All the transactions are transparent and can be seen by anyone and cannot be changed or modified once recorded.
- NFTs are gaining massive popularity now because they are becoming an increasingly popular way to showcase and sell your digital artwork.

Working of NFTs

- NFT works on blockchain as it gives users complete ownership of a digital asset. For instance, if you're a sketch artist, and if you convert your digital asset to an NFT, what you get is proof of ownership, powered by Blockchain.

Process

- When an NFT is listed on a marketplace, you pay something called a **gas fee (transaction fee)** for using the Blockchain, following which your digital art is then recorded on Blockchain, mentioning that you (your address) own the particular NFT.
- This gives you full ownership—which cannot be edited or modified by anyone, including the marketplace owner.

- An **NFT is thus created, or “minted”**, to get exclusive ownership rights.
- NFTs can have only one owner at a time.
- Apart from exclusive ownership, NFT owners can also digitally sign their artwork and store specific information in their NFTs metadata. This will be only viewable to the individual who bought the NFT.

Difference between cryptocurrency and NFT

- NFTs and cryptocurrencies are very different from each other.
- While both are built on Blockchain, that is where the similarity ends.
- Cryptocurrency is a currency and is fungible, meaning that it is interchangeable. For instance, if you hold one crypto token, say one Ethereum, the next Ethereum that you hold will also be of the same value.
- But NFTs are non-fungible, that means the value of one NFT is not equal to another. Every art is different from other, making it non fungible, and unique.

Who can buy NFTs?

- Anyone who holds a cryptocurrency wallet can buy an NFT. That is the only prerequisite to purchase an NFT.
- Some of the largest NFT marketplaces are:
 - **OpenSea.io**
 - **Rarible**
 - **Foundation**

Downside of NFTs

- Nfts, like any other entity, have a dark side to it too. In the recent past, several incidents of NFT scams have been reported including:
 - Emergence of fake marketplaces,
 - Unverified sellers often impersonating real artists and
 - Selling copies of their artworks for half prices.
- Another risk associated with nfts that cannot be swept under the rug is the unquestionably **negative impact on the environment**. In order to validate transactions, crypto mining is done, which requires high powered computers that run at a very high capacity, affecting the environment ultimately.

The Indian Express Link

<https://indianexpress.com/article/explained/what-are-non-fungible-tokens-nft-7783662/>

Question- What are Non fungible tokens? How are they different from cryptocurrencies?

ECONOMY

DIGITAL RUPEE

Context

- Finance Minister Nirmala Sitharaman in the budget announced the launch of the Digital Rupee — a central bank digital currency (CBDC) — 2022-23 onwards.

Authority

- The Reserve Bank of India will launch the CBDC from the upcoming financial year.
- This follows the government's plans to launch the CBDC that will be backed by blockchain technology.

CBDC

- CBDC is a legal tender issued by a central bank in a digital form.
- It is similar to a fiat currency issued in paper and is interchangeable with any other fiat currency.

Requirement of CBDC

- According to Investopedia, the goal is to provide users with convenience and security of digital as well as the regulated, reserve-backed circulation of the traditional banking system.

Announcement in budget

- The announcement in the Budget essentially expresses the government's intention on cryptocurrencies and other virtual currencies.
- The RBI has on several occasions flagged concerns of money laundering, terror financing, tax evasion, etc with private cryptocurrencies like Bitcoin, Ether, etc and had planned to announce its own CBDC.

Likely Impact

- There are several models proposed by technology experts and evangelists on how the Digital Rupee could be transacted but a formal announcement by the Reserve Bank of India will likely detail how the Digital Rupee will be transacted by citizens.
- One chief difference will be that a Digital Rupee transaction will be instantaneous as opposed to the current digital payment experience.

The Indian Express link

<https://indianexpress.com/article/explained/explained-what-is-the-digital-rupee-announced-by-sitharaman-in-budget-7751109/>

Question- Write a short note on India's central bank digital currency (CBDC)- digital rupee.

BIG ON HOPES, SHORT ON IDEAS: ON UNION BUDGET 2022-23

Context

- Finance Minister Nirmala Sitharaman's fourth successive budget, while common-sensical in its approach, is not exactly bubbling with new ideas.

Highlights of the budget:

- The Minister acknowledges the **role public capital expenditure could play in crowding-in private investment** at a time when "private investments seem to require that support" and help to 'pump-prime' demand in the economy, the Budget outlay of **₹7.50 lakh-crore for the capital account** marks **24.4%** increase from the revised estimate of ₹6.03 lakh-crore for the current fiscal.
- **The Budget speech highlights the PM Gati Shakti**, a "transformative approach for economic growth and sustainable development" that is to be powered by the 'seven engines' of roads, railways, airports, ports, mass transport, waterways, and logistics infrastructure.
- **'Master Plan for Expressways'** that **will be formulated in 2022-23** under the scheme.
- It projects the addition of **25,000 kilometres** of roads to the **National Highways** network.
- The talk of enabling seamless **multimodal movement of goods and people** and providing multimodal connectivity between mass urban transit systems and railway stations, however, all sound a familiar refrain from past speeches.

Social Sector got less lucrative allocations:

- Spending outlays on several other key sectors including **health care, rural development and the vital jobs and income providing MGNREGS, have all shrunk** as a percentage of overall expenditure in the Budget estimates for fiscal 2023 from the revised estimates for the current year, even if in some cases only marginally.
- **Spending on health** care ought to have instead been significantly increased, with the lessons from the ongoing pandemic's first two waves serving to illuminate the need for a sizeable enlargement of the public health infrastructure.
- **'National Tele Mental Health Programme'** to address mental health problems that have been exacerbated by the claustrophobic lockdowns and plethora of anxieties triggered by the pandemic.
- **Tariff policy to boost self reliance or Atma Nirbharta**, the Finance Minister has proposed a series of tariff and policy steps that could help bolster domestic manufacturing in the long run.
- To **reduce import dependence in procurement for the country's defence forces**. To that end the Minister has proposed **earmarking 68% of the armed forces' capital procurement budget to domestic industry in 2022-23**, a not insignificant increase from the current fiscal's 58% target.
- **The tariff rationalisations**, which cover a broad swathe of items ranging from electronics, gems and jewellery, chemicals, inputs used by MSME units and project and capital goods, could, however, have varying short-term impacts.
- Specifically, **the move to phase out the concessional rates in capital goods and project imports** gradually and **apply a moderate tariff of 7.5%** could in the short term hurt infrastructure projects and the setting up of new manufacturing capacity, some proposed exemptions for advanced machinery notwithstanding.

Crypto currencies:

- **Central Bank Digital Currency** that she posits will impart a big boost to the digital economy and "lead to a more efficient and cheaper currency management system". The **RBI-issued Digital Rupee would leverage blockchain** and other related technologies in this fiscal.
- **Tax on other virtual currencies:** In parallel, she intends to tax income from the transfer of any virtual digital asset **at the rate of 30%**, with deduction allowed only for the cost of acquisition.

- It remains to be seen if the Government's efforts at bringing the mushrooming trade and investment in a multiplicity of virtual digital assets including cryptocurrencies under the tax net would have a salutary impact besides adding a revenue stream to the exchequer.

Monetization & Privatization:

- The Minister's **latest budget also skirts mention of the asset monetisation plan** mentioned in the last Budget and shows a sharp decline in capital receipts from disinvestment.
- With **just ₹65,000 crore budgeted from asset sale for fiscal 2023, as opposed to ₹78,000 crore as per the revised estimates** for the current fiscal,
- **Government's keenness to broadly stick to a fiscal consolidation** road map — with the Budget projecting a narrowing of the **fiscal deficit to 6.4% of GDP in 2022-23**, from a revised estimate for 6.9% — reflects on its priorities.
- The Minister has had to **increase gross borrowings to ₹14.95 lakh-crore, a 24% increase** from the current fiscal's budget estimate but a far sharper 43% jump from the revised estimate of ₹10.46 lakh-crore.
- The resource crunch manifest in the proposed **higher debt issuance** is ultimately bound to get more acute in the days ahead, given the Budget's lack of growth-invigorating proposals.

The Hindu link

<https://www.thehindu.com/opinion/editorial/big-on-hopes-short-on-ideas-on-union-budget-2022-23/article38361006.ece>

Question- Write a short note on PM Gati Shakti scheme and importance of boosting transport infrastructure.

THE BRAHMOS DEAL AND INDIA'S DEFENCE EXPORTS

Context

- Recently, Philippines signed a \$374.96 million deal with BrahMos Aerospace Pvt. Ltd. for the supply of shore based **anti-ship variant of the BrahMos supersonic cruise missile**.
- The Philippines contract includes delivery of three BrahMos missile batteries, training for operators and maintainers as well as the necessary Integrated Logistics Support (ILS) package. The coastal defence regiment of the Philippine Marines, which is under the Navy, will be the primary employer of the missile system.
- This is the **first export order for the missile** which is a joint product between India and Russia and also the biggest defence export contract of the country.
- This **adds impetus** to the efforts to boost defence exports and meet the ambitious **target set by the Government to achieve a manufacturing turnover of \$25 billion or ₹1,75,000 crore including exports of ₹35,000 crore in aerospace and defence goods and services by 2025**.

About BrahMos missile system

- BrahMos is a joint venture between India's Defence Research and Development Organisation (DRDO) and Russia's NPO Mashinostroyeniya.
- The missile derives its name from the Brahmaputra and Moskva rivers.

- Beginning with an anti-ship missile, several variants have since been developed and it is **now capable of being launched from land, sea, sub-sea and air against surface and sea-based targets and has constantly been improved and upgraded**. The missile has been long inducted by the Indian armed forces and the Army recently deployed BrahMos along the Line of Actual Control (LAC) in Arunachal Pradesh.
- The **range of the BrahMos** was originally **limited to 290 kms as per obligations of the Missile Technology Control Regime (MTCR)** of which Russia was a signatory. Following India's entry into the club in June 2016, plans were announced to **extend the range initially to 450 kms and subsequently to 600 kms**.
- BrahMos with extended range upto 450 kms has been tested several times since.

Further avenues for export the BrahMos missiles

- There is another long pending deal under discussion for BrahMos missiles for the **Philippines Army** which could see progress in the near future.
- Negotiations with **Indonesia and Thailand** in advanced stages.
- There is reportedly interest for BrahMos from countries in **West Asia** as well.

Other defence exports

- Philippines is also looking at **several other military procurements from India and South East Asia as the region** has emerged as a **major focus area for India's defence exports**.
- For instance, Hindustan Aeronautics Limited (HAL) has received interest from Philippines Coast Guard for procurement of seven **Dhruv Advanced Light Helicopters and eight Dornier Do-228 aircraft** under the \$100mn Line of Credit (LoC) extended by India.
- Kanpur based company MKU has supplied **Bullet Proof Jackets (BPJ)** to Philippines in the past and is now in the race for **bigger contracts for BPJs and helmets**.
- In addition, **maritime domain and ship building** is another potential area for Indian companies in the Philippines.

Status of defence exports

- From 2016-17 to 2018-19, the country's defence exports have increased from ₹1,521 crore to ₹10,745 crore, a **staggering 700% growth**.
- The value of exports of defence items including major items in Financial Year 2014-15 and 2020-21 was ₹1,940.64 crore and ₹8,434.84 crore respectively. As per data given by the Government, defence exports for 2020-21 stood at ₹8434.84 crore and the export target for financial year 2021-22 was ₹10,000 crore.

Steps taken by the government-

- There have been a series of **measures announced to incentivise and promote domestic defence manufacturing** as well as efforts to **boost exports** which include
- Simplified defence industrial licensing,
- Relaxation of export controls and grant of no objection certificates (noc),
- Extending line of credit (loc) to foreign countries to import defence products and
- Empowering defence attaches in Indian missions abroad to promote defence exports.
- The draft 'defence production & export promotion policy (dpepp) 2020' is expected to be finalised soon.

- In december 2020, the cabinet committee on security (ccs) approved the export of indigenous **akash surface to air (sam)** missile systems which several countries in south east asia and west asia have expressed interest in.
- To provide **faster approvals for export** of major defence platforms, a **committee comprising of the defence minister, External Affairs Minister and National Security Advisor was set up.**

Conclusion

- In the last few years, India has put out a range of military hardware on sale which includes various missile systems, Light Combat Aircraft (LCA), helicopters, warship and patrol vessels, artillery guns, tanks, radars, military vehicles, electronic warfare systems in addition to other weapons systems.

The Hindu link

<https://www.thehindu.com/news/national/the-brahmos-deal-and-indias-defence-exports/article38395523.ece>

Question- Write a short note on status of India's defence exports and how developing nations especially in south-east Asia and Africa can boost our defence exports. Also highlight various steps taken by the government in this regard.

NOTES FOR INDIA AS THE DIGITAL TRADE JUGGERNAUT ROLLS ON

Context:

- Despite the cancellation of the Twelfth Ministerial Conference (MC12) of the WTO late last year (November -December, 2021) due to COVID-19, digital trade negotiations continue their ambitious march forward.
- On December 14, **Australia, Japan, and Singapore, co-convenors** of the plurilateral **Joint Statement Initiative (JSI) on e-commerce**, welcomed the 'substantial progress' made at the talks over the past three years and stated that they expected a convergence on more issues by the end of 2022.
- Given the increasingly **fragmented global trading landscape** and the rising importance of the global digital economy, can India tailor its engagement with the WTO to better accommodate its economic and geopolitical interests?

Holding out:

- The **JSI members account for over 90% of global trade**, and the initiative welcomes newer entrants. However, over half of WTO members (largely from the developing world) continue to opt out of these negotiations. They fear being arm-twisted into accepting global rules that could etiolate domestic policymaking and economic growth.
- **India and South Africa** have led the **resistance** and been the JSI's most vocal critics. India has thus far resisted pressures from the developed world to jump onto the JSI bandwagon, largely through coherent legal argumentation against the JSI and a long-term developmental vision.

Global rules on digital trade:

- The WTO emerged in a **world in 1994 largely analogous to today's world.**

- It was only at the **Second Ministerial Conference (1998)** that members agreed on core rules for e-commerce regulation.
- A **temporary moratorium was imposed** on customs duties relating to the **electronic transmission** of goods and services.
- This moratorium has been renewed continuously, to **consistent opposition from India and South Africa**. They argue that the moratorium imposes significant costs on developing countries as they are unable to benefit from the revenue customs duties would bring.
- The members also agreed to set up a **work programme on e-commerce** across **four issue areas** at the General Council: **goods, services, intellectual property, and development**.
- Frustrated by a lack of progress in the two decades that followed, **70 members brokered the JSI in December 2017** to initiate exploratory work on the trade-related aspects of e-commerce.
- **Several countries, including developing countries, signed up in 2019 despite holding contrary views to most JSI members on key issues**. Surprise entrants, China and Indonesia, argued that they sought to shape the rules from within the initiative rather than sitting on the sidelines.
- **India and South Africa** have rightly pointed out that the **JSI contravenes the WTO's consensus-based framework**, where every member has a voice and vote regardless of economic standing. Unlike the **General Council Work Programme**, which India and South Africa have attempted to revitalise in the past year, the JSI does not include all WTO members. For the process to be legally valid, the initiative must either build consensus or negotiate a plurilateral agreement outside the aegis of the WTO.
- India and South Africa's positioning strikes a chord at the heart of the global trading regime: how to balance the sovereign right of states to shape domestic policy with international obligations that would enable them to reap the benefits of a global trading system.

A contested regime

- There are several issues upon which the developed and developing worlds disagree.
- **International rules relating to the free flow of data** across borders. Several countries, both within and outside the JSI, have imposed **data localisation mandates** that compel corporations to store and process data within territorial borders.
- This is a **key policy priority for India**. Several payment card companies, including Mastercard and American Express, were prohibited from issuing new cards for failure to comply with a 2018 financial data localisation directive from the RBI.
- The **Joint Parliamentary Committee (JPC) on data protection** has recommended stringent localisation measures for sensitive personal data and critical personal data in India's data protection legislation.
- However, for nations and industries in the developed world looking to access new digital markets, these restrictions impose unnecessary compliance costs, thus arguably hampering innovation and supposedly amounting to unfair protectionism.
- **Disagreement regarding domestic laws mandating disclosure of source codes**: Developed countries believe that this hampers innovation, whereas developing countries believe it is essential for algorithmic transparency and fairness — which was another key recommendation of the JPC report in December 2021.

India's choices

- **India's global position is reinforced through narrative building** by political and industrial leaders alike.
- **Data sovereignty** is championed as a means of **resisting 'data colonialism'**, the exploitative economic practices and intensive lobbying of Silicon Valley companies.

- Policymaking for India's digital economy is at a critical juncture. **Surveillance reform, personal data protection, algorithmic governance, and non-personal data regulation** must be galvanised through evidenced insights, and work for individuals, communities, and aspiring local businesses — not just established larger players.
- **Hastily signing trading obligations could reduce the space available to frame appropriate policy.**
- **However, sitting out trade negotiations** will mean that the digital trade juggernaut will continue unchecked, through mega-regional trading agreements such as the **Regional Comprehensive Economic Partnership (RCEP)** and the **Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)**.
- India could risk becoming an unwitting standard-taker in an already fragmented trading regime and lose out on opportunities to shape these rules instead.

Way forward

- **Negotiations need not mean compromise.** For example, exceptions to digital trade rules, such as 'legitimate public policy objective' or 'essential security interests', could be negotiated to preserve policymaking where needed while still acquiescing to the larger agreement.
- Further, **any outcome need not be an all-or-nothing arrangement.**
- **Taking a cue from the Digital Economy Partnership Agreement (DEPA)** between Singapore, Chile, and New Zealand, India can **push for a framework where countries can pick and choose modules with which they wish to comply.**
- These combinations can be amassed incrementally as emerging economies such as India work through domestic regulations.

Conclusion

- Despite its failings, the WTO plays a critical role in global governance and is vital to India's strategic interests. Negotiating without surrendering domestic policy-making holds the key to India's digital future.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/notes-for-india-as-the-digital-trade-juggernaut-rolls-on/article38393921.ece>

Question- Describe the challenges associated with e-commerce and digital trade and how World Trade Organisation can help streamline the negotiations.

STEP UP AGRI-SPENDING, BOOST FARM INCOMES

Context

- While the overall **budgetary allocation towards the agricultural sector has marginally increased by 4.4%** in the Union Budget 2022-23, the **rate of increase is lower than the current inflation rate of 5.5%-6%**.
- The **Food and Agriculture Organization (FAO)** report for 2001 to 2019 shows that, globally, India is **among the top 10 countries in terms of government spending in agriculture, constituting a share of around 7.3% of its total government expenditure.**

- However, India lags behind several low-income countries such as Malawi (18%), Mali (12.4%), Bhutan (12%), Nepal (8%), as well as upper middle-income countries such as Guyana (10.3%) and China (9.6%).

India's low rank in Agriculture Orientation Index (AOI)

- It was developed as part of the Goal 2 (Zero Hunger) of the 2030 Agenda for Sustainable Development in 2015. The Sustainable Development Goal (SDG) 2 emphasizes an increase in investment in rural infrastructure, agricultural research and extension services, development of technology to enhance agricultural productivity and eradication of poverty in middle- and lower-income countries.
- The AOI is calculated by dividing the agriculture share of government expenditure by the agriculture value added share of GDP.
- In other words, it measures the ratio between government spending towards the agricultural sector and the sector's contribution to GDP.
- India's index is one of the lowest, reflecting that the spending towards the agricultural sector is not commensurate with the sector's contribution towards GDP.
- India's AOI is one of the lowest in Asia and among several other middle-income and upper-income countries.
- Asia as a whole performs much better, with a relatively higher performance by Eastern Asian countries. China has been doing remarkably well with an index steadily improving and crossing one.
- Countries like Korea and even Zambia have commendable spending in the agricultural sector.
- India holds only the 38th rank in the world, despite being an agrarian economy wherein a huge population is dependent on the agricultural sector for its livelihood, and despite being among the largest producers of several crops produced and consumed in the world.
- High spending in these countries has reflected in their higher crop yield.
- Within the Asian region, Eastern Asia has the highest cereal yield of 6,237 kg per hectare.
- In China, even with an average land holding size of 0.6 hectares, which is much lower than India's average land holding size, the performance of the sector in terms of crop yield is much higher than India.
- For example, the cereal yield is 6,296 kg per hectare, pulses yield is 1,815 kg per hectare and vegetable crops yield is 25,546 kg per hectare in China; the corresponding figures for India are 3,282 kg, 704 kg, and 15,451 kg, respectively.

The Indian scenario

- A closer look at the budgetary allocation towards the agricultural sector shows that there has been a drastic slashing of funds toward important schemes such as crop insurance and minimum support price (MSP).
- Even with an overall increase in budgetary outlays, the allocation towards Market Intervention Scheme and Price Support Scheme (MIS-PSS) was only ₹1,500 crore. This is 62% less than the previous allocation of ₹3,959.61 crore in revised estimates (RE) of FY 2021-22.
- Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) experienced a significant reduction to only 1 crore as against the allocation of ₹400 crore in 2021-22. This scheme is important especially for pulses and oil seeds.
- Furthermore, the Distribution of pulses to States for welfare schemes has also been reduced to ₹9 crore as compared to the ₹50 crore of FY 2021-22 (revised estimates) and the allocated amount of

₹300 crore in the year 2021-22. Additionally, there is an overall reduction in ₹718.8 crore in total central schemes/projects, which may have serious implications for the performance of the sector.

Focus needed on Capital expenditure:

- While one can still argue that the **capital investment in the agricultural sector is more crucial than price support** programmes, **there has not been any considerable and commensurate increase in the allocation towards capital investment**, especially for promotion of rural infrastructure and marketing facilities.
- **Allocation for rural development** was 5.59% in the previous Budget and it has been **reduced to 5.23%**.
- The **allocation of funds towards schemes such as Pradhan Mantri Kisan Samman Nidhi (PM KISAN), Pradhan Mantri Kisan Maandhan Yojana**, though desirable, **will not result in long run asset generation**.

Measures to implement

- The intensification in government spending towards the agricultural sector is the key to attain the sustainable development goals of higher agricultural growth and farm income.
- The **focus on development of irrigation facilities, urban infrastructure and development of national highways** must be complemented with an emphasis on the **development of rural infrastructure and rural transportation facilities**, along with an **increase in the number of markets**, as suggested by the National Commission on Farmers.
- These measures will play a crucial role in enhancing farmers' access to markets and integrating small and marginal farmers into the agricultural supply chain to a greater extent.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/step-up-agri-spending-boost-farm-incomes/article38398661.ece>

Question- To relieve agricultural distress, capital expenditure on agriculture is both a desirable and rewarding avenue when complemented by price support systems. Elucidate.

CREDIT RATING AGENCIES

Context

- Finance Secretary recently accused ratings agencies of “double standards” when assessing emerging markets and developing economies.
- He was responding to ratings agencies' terming the country as the most indebted emerging market and the claim that the latest budget did not provide clarity on fiscal consolidation plans.

What did the rating agencies say?

- **Fitch**, a rating agency, **had stated that higher deficits and continued lack of clarity on medium-term consolidation plans** in the recent Union Budget was its rationale for **projecting of a downward trajectory in the country's debt/GDP**.

- Another agency, **Moody's**, said the **Union Budget was growth-oriented, credit positive for many issuers but the budgetary provisions posed fiscal challenges**. Focus on capital expenditure, it said, supported near-term growth but challenged long-term fiscal consolidation. Additionally, the budget projected only a slight narrowing in the central government deficit.

What is a rating agency?

- Ratings agencies **assess the credit worthiness or potential of an equity, debt or country**.
- Their **reports are read by investors to make an informed decision on whether or not to invest in a particular country or companies** in that geography.
- They assess if a country, equity or debt is financially stable and whether it at a low/high default risk. In simpler terms, these reports help investors gauge if they would get a return on their investment.
- The agencies periodically re-evaluate **a previously assigned ratings after new developments** (example, Coronavirus pandemic or a geography-specific climate change), **geo-political events** or a **significant economic announcement** by the concerned entity.
- Their reports are sold and published in financial and daily newspapers.

What grading pattern do they follow?

- The three prominent ratings agencies, viz., Standard & Poor's, Moody's and Fitch subscribe to largely similar grading patterns.
- **Standard & Poor's accord their highest grade, that is, AAA, to countries, equity or debt with the exceedingly high capacity to meet their financial commitments. Its lowest grade is 'D', accorded to entities with high probability of payment default or breach of an imputed promise.**
- **Moody's separates ratings into short and long-term definitions.** The former involves obligations maturing in thirteen months or less whereas the latter involves obligations maturing in eleven months or more. Its **longer-term grading ranges from Aaa to C, with Aaa being the highest.** The succession pattern is similar to S&P. The short-term ratings scale ranges from P-1 to NP, with P-1 being the highest.
- **Fitch, too, rates from AAA to D, with D being the lowest.** It follows the same succession scheme as Moody's and Fitch.

Criticism of rating agencies

- Popular ratings agencies publicly reveal their methodology, which is based on macroeconomic data publicly made available by a country, to lend credibility to their inferences.
- However, credit rating agencies were subjected to **severe criticism for allegedly spurring the financial crisis in the United States.**
- They were **charged for methodological errors and conflict of interest** on multiple counts.

Do countries pay attention to ratings agencies?

- **Lowered rating of a country can potentially cause panic selling or offloading of investment** by a foreign investor.
- In 2013, the **European Union opted for regulating the agencies.**
- **Ratings Agencies in the EU are now permitted to issue ratings for a country only thrice a year, and after close of trade in the entire Union.**

The Hindu link

<https://www.thehindu.com/business/Economy/explained-what-is-a-ratings-agency-and-why-do-they-matter/article38407011.ece>

Question- Write a short note on credit rating agencies and how do these ratings impact investment cycles in an economy.

REVAMPING SEZs TO BOOST EXPORTS

Context

- At a time when India is poised to breach the **annual \$400-billion target for exports**, the move to change laws governing the Special Economic Zones Act comes as a big boost for the sector.
- This **transformative announcement** will enable states to become partners in the **Development of Enterprise and Service Hubs**.
- As the finance minister observed, the move would enable all large industrial enclaves to optimally utilise the available infrastructure, thereby pushing up competitiveness of exports.

Current scenario

- In the April-December 2021 period, exports from SEZs increased by 25% to \$93 billion; these were \$102.3 billion in 2020-21.
- About 270 SEZs are currently operational, though many more have been notified.

Issues to address

- In rewriting the SEZ legislation, the commerce ministry will be guided by the recommendations of the **Baba Kalyani report**, submitted in November 2018. It had suggested
- A focus on promoting **employment**,
- Recommended that sezs be transformed into **employment and economic enclaves** (3 es) and operational guidelines and other rules be modified accordingly.
- There have been calls for separate procedures for manufacturing and services sezs.
- The **prospective SEZ legislation is expected to be more enterprise-friendly**. As noted economist Prof Arvind Panagariya if it provides for **significantly larger zones with more flexible labour laws and speedy customs clearance of inbound inputs and outbound finished goods**, we may witness in India the emergence of China-style large, globally competitive processing firms.
- **Emphasis on coastal regions-** India's coastline of 7,517 km, abutting nine states, can be leveraged to **develop large hubs or industrial clusters near deep draft ports** to enable goods to be sent out.
- At the same time, **firms may choose to be located in tier-2 and tier-3 cities in the hinterland**, to be able to **cash in on labour costs** and the **relatively lower cost of living**.
- If the new legislation is framed with these considerations in mind, **labour-intensive exports in apparel, footwear, furniture can be encouraged** in a big way.
- Focus is on to **enable optimum utilisation of all the vacant land and buildings in SEZs and industrial parks**.
- The **infrastructure needs to be used to the maximum** and, therefore, the government is looking to **convert SEZs into a plug-and-play industrial park ecosystem**.
- **Services companies appear to have been able to use SEZs more effectively than manufacturing companies**.
- The commerce ministry is understood to be working to see **whether SEZ firms can be allowed to sell goods in the domestic market** by paying just an 'equalisation levy'.

- A lower duty would, no doubt, help boost sales. But it will neutralise the advantages that SEZs enjoy, being specifically delineated duty-free enclaves, vis-à-vis domestic manufacturers to ensure a level-playing field.

Way forward

- To be sure, the changes to SEZs need to be accompanied by **better labour laws** and **lower levels of protectionism**.
- Industry players should brace for **increased competition** and **think global** since India is going to **sign a host of 'very deep' FTAs with advanced economies** like Australia, the UK and the EU.
- Indeed, while the government needs to make it easier to do business, exporters too must shape up.

The Indian Express link

<https://www.financialexpress.com/editorial/revamping-sezs-to-boost-exports-changes-to-sez-act-need-to-be-accompanied-by-better-labour-laws-lower-levels-of-protectionism/2428814/>

Question- What are the issues that need to be addressed in Special Economic Zones Act to give boost to make in India?

EXCLUSION FROM SWIFT: WHAT IT ENTAILS

Context

- Russian participation in the **Society for Worldwide Interbank Financial Telecommunication (SWIFT)**, an **international network for banks that facilitates seamless money transactions throughout the world**, is being considered by the United States, Europe, and many other western countries.
- Because it has the ability to prevent Russia from obtaining foreign payments, this might be the most severe economic penalty imposed on the country in response to its military actions in Ukraine.

About SWIFT

- SWIFT is a messaging network that is used by banks and financial institutions all over the world to send information relevant to financial transactions in a timely and error-free manner.
- The SWIFT network, which is based in Belgium, connects more than 11,000 banking and securities organisations in more than 200 nations and jurisdictions.
- Each participant on the platform is issued a unique eight-digit SWIFT number or a bank identity code, which is different from the other participants (BIC).
- If a person in New York with a Citibank account wants to send money to someone in London with an HSBC account, the payee would have to submit to his bank the account number of the London-based beneficiary as well as the eight-digit SWIFT code of the latter's bank in order for the transaction to be processed.
- After then, Citi would send a SWIFT communication to HSBC. Once that has been received and authorised, the funds will be sent to the appropriate account. SWIFT is only a messaging platform that does not retain any securities or money; it is not a financial institution. It allows for standardised and dependable communication, which makes the transaction easier to complete.

What happens if one is excluded from SWIFT?

- When countries are denied access to the most participatory financial enabling platform, their **external financing suffers**, and they are **forced to rely primarily on local investors in order to satisfy their financial responsibilities**.
- This is particularly troublesome when institutional investors are always on the hunt for new places in which to invest, which is the case in many emerging nations. Construction of a replacement system would be time-consuming, and integration with an already complicated system would be even more difficult than it is now.
- According to the SWIFT website, the organization's first usage of the system was in **1973, and it became operational in 1977 with 518 institutions from 22 different countries**. It was SWIFT that had supplanted the far slower and less dynamic Telex system in the first place.

Are there any nations that are barred from using SWIFT?

- The **removal of several Iranian institutions from the financial system occurred in 2018**, amid opposition from numerous European governments. "While disappointing, this move was made in the interest of the stability and integrity of the larger global financial system, and was based on an evaluation of the economic circumstances," according to a statement on the SWIFT website.

What is the structure of the organization's governance?

- SWIFT asserts that it is neutral. The business's shareholders, which are made up of 3,500 companies from across the world, elect the 25-member board of directors, which is responsible for the overall governance and operation of the organisation.
- With the **European Central Bank, it is governed by the G-10 countries' central banks (Belgium; Canada; France; Germany; Italy; Japan; the Netherlands; the United Kingdom; the United States; Switzerland; and Sweden); and the European Central Bank**.
- The **National Bank of Belgium is the organization's primary supervisor**. 2012 marked the first anniversary of the establishment of the SWIFT monitoring forum. The central banks of India, Australia, Russia, South Korea, Saudi Arabia, Singapore, South Africa, the Republic of Turkey, and the People's Republic of China were among the G-10 participants, as were the central banks of the United States, Canada, and the United Kingdom.
- According to **data on the SWIFT website, the financial messaging platform logged an average of 42 million FIN messages every day in 2021, representing an increase over the previous year. On a year-over-year basis, the total figure increased by 11.4 percent for the entire year**. Europe, West Asia, and Africa transmitted a total of around 4.66 billion communications to one another.
- The Americas and the United Kingdom came in second and third, respectively, with 4.42 billion contacts, with the Asia Pacific region coming in third with over 1.50 billion interactions.

The Hindu link

<https://www.thehindu.com/news/international/explained-what-is-swift-and-why-is-russia-being-threatened-with-exclusion-from-the-service/article65089651.ece>

Question- Write a short note on SWIFT international network. What are implications of economic sanctions through SWIFT on a country?

ENVIRONMENT

ARTIFICIAL INTELLIGENCE TECHNOLOGIES HAVE A CLIMATE COST

Context

- Artificial intelligence (AI) technologies are considered as a **gateway to a future** written in chrome, operating on a virtual cloud.
- This techno-optimism underpinned 2022 budget speech, where **AI was described as a sunrise technology** that would “**assist sustainable development at scale and modernise the country.**” a
- While there is an allure to national dreams of economic prosperity and global competitiveness, underwritten by AI, there is an environmental cost and — like any issue at the nexus of technology, development, growth and security — a cost that comes with being locked into rules about said environmental impact set by powerful actors.

Unfair Race

- The “race” for dominance in AI is far from fair: Not only do **a few developed economies possess certain material advantages** right from the start, they also set the rules. They have an **advantage in research and development**, and **possess a skilled workforce as well as wealth to invest in AI**. North America and East Asia alone account for three-fourths of global private investment in AI, patents and publications.

Inherent Inequality

- We can also look at the state of inequity in AI in terms of governance: How “tech fluent” are policymakers in developing and underdeveloped countries? What barriers do they face in crafting regulations and industrial policy? Are they sufficiently represented and empowered at the international bodies that set rules and standards on AI? At the same time, there is an emerging challenge at the nexus of AI and climate change that could deepen this inequity.

Climate impact

- The climate impact of AI comes in a few forms-

 1. The **energy use of training and operating large AI models** is one. In 2020, digital technologies accounted for between 1.8 per cent and 6.3 per cent of global emissions.
 2. At the same time, **AI development and adoption** across sectors has skyrocketed, as has the **demand for processing power associated with larger and larger AI models**.
 3. Paired with the fact that governments of developing countries see **AI as a silver bullet for solving complex socio-economic problems**, we could see a growing share of AI in technology-linked emissions in the coming decades.

Consideration of climate impact of AI

- The idea of sustainability is rapidly entering mainstream debates on AI ethics and sustainable development. In November 2021, UNESCO adopted the Recommendation on the Ethics of Artificial Intelligence, calling on actors to “reduce the environmental impact of AI systems, including but not limited to its carbon footprint.”

- Similarly, technology giants like Amazon, Microsoft, Alphabet and Facebook have announced “net zero” policies and initiatives.
- These initiatives are a good sign, but they only scratch the surface. Both global AI governance and climate change policy (historically) are contentious, being rooted in inequitable access to resources.

Challenges for Developing and underdeveloped countries

- On two fronts:
 1. AI’s social and economic benefits are accruing to a few countries, and
 2. Most of the current efforts and narratives on the relationship between AI and climate impact are being driven by the developed West.
- The relationship between climate change and AI is understudied, not least because the largest companies working in this space are neither transparent nor meaningfully committed to studying, let alone acting, to substantively limit the climate impact of their operations.

Way forward

- Governments of developing countries, India included, should also assess their technology-led growth priorities in the context of AI’s climate costs.
- It is argued that as developing nations are not plagued by legacy infrastructure it would be easier for them to “build up better”.
- These countries don’t have to follow the same AI-led growth paradigm as their Western counterparts. It may be worth thinking through what “solutions” would truly work for the unique social and economic contexts of the communities in our global village.

The Indian Express Link

<https://indianexpress.com/article/opinion/columns/artificial-intelligence-technologies-have-climate-cost-7753829/>

Question- Artificial Intelligence may prove to be a game changer for social welfare but it does have significant environmental costs. Comment.

GOVERNMENT’S GREEN HYDROGEN POLICY

Context

- The Centre on recently notified the green hydrogen and green ammonia policy **aimed at boosting the domestic production of green hydrogen to 5 million tonnes by 2030** and making India an export hub for the clean fuel.

Types of hydrogen

- Green hydrogen is hydrogen gas **produced through electrolysis of water** — an energy intensive process for splitting water into hydrogen and oxygen— using renewable power to achieve this.
- **Brown hydrogen** is produced **using coal** where the emissions are released to the air.
- **Grey hydrogen** is produced from **natural gas** where the associated **emissions are released to the air**.
- **Blue hydrogen** is produced from natural gas, where the **emissions are captured** using carbon capture and storage.

Policy set to boost domestic production of green hydrogen

- The **new policy offers 25 years of free power transmission for any new renewable energy plants set up to supply power for green hydrogen production before July 2025.**
- This means that **a green hydrogen producer will be able to set up a solar power plant in Rajasthan to supply renewable energy to a green hydrogen plant in Assam and would not be required to pay any inter-state transmission charges.**
- The move is likely going to **make it more economical for key users of hydrogen and ammonia such as the oil refining, fertiliser and steel sectors to produce green hydrogen for their own use.** These sectors currently use grey hydrogen or grey ammonia produced using natural gas or naphtha.

Incentives

- The government is set to provide a **single portal for all clearances** required for setting up green hydrogen production as well as a facility for producers to **bank any surplus renewable energy generated with discoms for upto 30 days and use it as required.**
- The power ministry has also said that **energy plants set up to produce green hydrogen/ammonia would be given connectivity to the grid** on a priority basis.
- Power distribution companies may also **procure renewable energy to supply green hydrogen producers** but will be required to do so at a concessional rate which will only include the cost of procurement, wheeling charges and a small margin as determined by the state commission, under the new policy.
- Such procurement would **also count towards a state's Renewable Purchase Obligation (RPO)** under which it is required to procure a certain proportion of its requirements from renewable energy sources.

Facilities to boost export of green hydrogen and ammonia

- Under the policy port authorities will also provide land at applicable charges to green hydrogen and green ammonia producers to set up bunkers near ports for storage prior to export.
- Germany and Japan could be key markets for green hydrogen produced in India.

Way Forward

- The government is set to come out with mandates requiring that the oil refining, fertiliser and steel sectors procure green hydrogen and green ammonia for a certain proportion of their requirements.

The Indian Express link

<https://indianexpress.com/article/explained/explained-green-hydrogen-policy-7779679/>

Question- Describe various types of hydrogen on basis of production process. Also give provisions and potential benefits of Green hydrogen policy unveiled recently.

A ROADMAP FOR INDIA'S NATURAL FARMING AMBITIONS

Context

- In her budget speech, Finance Minister Nirmala Sitharaman reaffirmed the Centre's **commitment to natural, chemical-free, organic and zero-budget farming.**

- While the FM talked of promoting natural or chemical-free farming across the country, **especially in a corridor in the Gangetic basin**, no specific allocations have been made to the Ministry of Agriculture and Farmers Welfare.
 - In fact, currently-operational schemes such as the Paramparagat Krishi Vikas Yojana and the National Project on Organic Farming did not find any mention in the budget.
 - The Rashtriya Krishi Vikas Yojana, which has received a 4.2-times (year-on-year) larger allocation of Rs 10,433 crore, will earmark some funds for the on-ground implementation of chemical-free farming.
 - As the ministry plans the fund utilisation under RKVY, here are **eight suggestions to scale up chemical-free farming**.
- 1. Focus on promoting natural farming in rainfed areas beyond the Gangetic basin.**
 - Rainfed regions use only a third of the fertilisers per hectare compared to the areas where irrigation is prevalent. The shift to chemical-free farming will be easier in these regions. Also, the farmers stand to gain as the current crop yields in these areas are low.
 - 2. Enable automatic enrolment of farmers** transitioning to chemical-free farming into the government's crop insurance scheme, PM Fasal Bima Yojana (PMFBY).
 - Any transition in agriculture — crop diversification, change in farming practices — adds to the farmer's risk. Covering such risks could enhance the appetite of the farmers to embark on the transition.
 - 3. Promote microenterprises that produce inputs for chemical-free agriculture.** An often-cited barrier by farmers in transitioning to chemical-free agriculture is the lack of readily available natural inputs.
 - To address this challenge, combine the promotion of natural farming with the **setting up of village-level input preparation and sales shops**.
 - 4. Leverage NGOs and champion farmers** who have been promoting and practising sustainable agriculture across the country. CEEW research estimates that at least five million farmers are already practising some form of sustainable agriculture and hundreds of NGOs are involved in promoting them.
 - Learning from peers, especially champion farmers, through on-field demonstrations has proved highly effective in scaling up chemical-free agriculture in Andhra Pradesh.
 - 5. Beyond evolving the curriculum in agricultural universities, upskill the agriculture extension workers on sustainable agriculture practices.**
 - 6. Leverage community institutions** for awareness generation, inspiration, and social support.
 - The government should facilitate an ecosystem in which farmers learn from and support each other while making the transition.
 - 7. Support monitoring and impact studies.** Such assessments would ensure an informed approach to scaling up sustainable agriculture.
 - 8. Dovetail the ambition on millet promotion with the aim to promote sustainable agriculture.**

Conclusion

- India's food system needs a holistic transformation in demand, production, and supply chains. Let's hope 2022-23 is the inflection point when we convert intent into action in our journey towards achieving a chemical-free food system.

The Indian Express link

<https://indianexpress.com/article/opinion/columns/roadmap-for-india-natural-farming-ambitions-nirmala-fm-budget-7788054/>

Question- What do you mean by Zero Budget Natural Farming? Give suggestions for smoother implementation of ZBNF across the country.

PLOUGHING A NEW CHANNEL FOR INDIA'S FOOD SYSTEMS

Context

- In an effort to spur national and regional action to deliver the United Nation's 17 Sustainable Development Goals (SDGs) through transforming food systems, the UN Food Systems Summit called for action by governments in five areas:
- Nourish all people;
- Boost nature-based solutions;
- Advance equitable livelihoods,
- Decent work and empowered communities; build resilience to vulnerabilities, shocks and stresses; and
- Accelerate the means of implementation.
- Such a transformation in the Indian context would **involve enhancing interfaces between the spheres of science, society and policy, focusing on sustainability, resource efficiency and circularity.**

Mix of science and policy

- India's Green Revolution in the 1960s, **enabling food security and addressing widespread hunger and poverty, was achieved not only through science and technology and the development of improved high-yielding varieties of rice and wheat but also through policy measures and development of institutional structure.**
- It included **a vast agricultural research and technology transfer system** at the national, regional, State and local levels.
- Although **India is now self-sufficient** in food grains production in the macro sense, it **has about a quarter of the world's food insecure people**, a pointer to the amount of food necessary to allow all income groups to reach the caloric target (2,400 kcal in rural and 2,100 kcal in the urban set-up).
- Nutrition indicators have marginally improved over the years. However, macro- and micronutrient malnutrition is widespread, with 18.7% of women and 16.2% of men unable to access enough food to meet basic nutritional needs, and over 32% of children below five years still underweight as per the recently released fifth National Family Health Survey (2019-2021) phase 2 compendium.
- India is ranked 101 out of 116 countries in the **Global Hunger Index, 2021.**
- Not surprisingly, **widespread concerns about poverty, malnutrition and the need for a second Green Revolution are being made in tandem.**
- The country faces the **dual challenge of achieving nutrition security**, as well as addressing **declining land productivity, land degradation and loss of ecological services** with change in land use.

Need for 'transition'

- **Change in Approach**-The siloed approach of 'agriculture' serving 'food security' needs must give way to 'food systems' for 'sustainability' and 'better nutrition' and embrace the range of activities and actors involved in food production, aggregation, processing, distribution and consumption embedded in their socio-economic and physical context.
- In the context of the intensifying economic, environmental and climate challenges and crisis, the **need of the hour is a good theory of transition** encompassing the spatial, social and scientific dimensions, supported by policy incentives and mechanisms for achieving a sustainable, resilient and food secure agriculture.

Enhancing sustainability

- An agro-climatic approach to agricultural development is important for sustainability and better nutrition.
- Harnessing the spatial diversity of agricultural production systems adopting the principles of sustainability, resource efficiency and circularity could correct the limitations and unintended consequences of the Green Revolution.
- These are the loss of indigenous landraces, soil nutrients depletion, groundwater stress, excessive use of agrochemicals and its residual presence in foods and environment, income gap between large, marginal and small farmers, and the gap between irrigated and rain-fed areas.
- Data reveal enormous potential for crop diversification and precision for enhanced crop productivity based on soil type, climate, and captive water resources.
- The focus should be on improving farmers' competitiveness, supporting business growth in the rural economy, and incentivising farmers to improve the environment.

Keeping policy in mind

- Strengthening and shortening food supply chains, reinforcing regional food systems, food processing, agricultural resilience and sustainability in a climate-changing world will require prioritising research and investments along these lines.
- A stress status of the natural resource base — soil and water in different agro-climatic zones — will help understand the micro as well as meso-level interventions needed with regard to technologies, extension activities and policies.
- Lastly, infrastructure and institutions supporting producers, agripreneurs and agri micro, small and medium enterprises (MSMEs) in their production value chain are central to the transition.

Way forward

- All This should be aligned to the national and State policy priorities such as the National Policy guidelines 2012 of the Ministry of Agriculture for the promotion of farmer producer organisations, and the National Resource Efficiency Policy of 2019 of the Ministry of Environment, Forest and Climate Change.
- It would encourage a resource efficient and circular economy for production, processing and storage techniques of food products through renewable energy solutions, reduction of supply chains and inputs. It would also ensure the efficient use of by-products, thereby creating value while using fewer inputs and generating less waste for long term and large-scale impact.
- Science, society and policy have a lot to gain from an effective interface encompassing the range of actors and institutions in the food value-chain and a multidisciplinary and holistic approach, along with a greater emphasis on policy design, management and behavioural change.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/ploughing-a-new-channel-for-indias-food-systems/article65081135.ece>

Question- The shift from 'food security' based agriculture to one focusing on sustainability, resource efficiency and circularity needs drastic changes in planning and implementation. Explain.

A SHRINKING GREEN IN INDIA'S GROWING MEGACITIES

Context

- Urbanisation is an **inevitable process of development** that has the potential to provide privileged social and economic advantages, including better education, health, housing and employment opportunities.
- Though only half the world's population lives in urban areas with **the ability to generate 80% of the Global Gross Domestic Product (GDP)**, urbanisation has a good capacity and rich potential to improve well-being in societies.
- **Rising Urban population**-As the UN World Cities report highlights, we expect the present population of urban areas to increase from 55% to 68% by 2050. The urban population of Indian cities is projected to reach near 60% from 31% (2011) by 2050.
- By 2030, India will have seven megacities which will include Ahmedabad and Hyderabad apart from New Delhi, Mumbai, Kolkata, Chennai and Bengaluru.

Benefits of green spaces

- Green spaces in cities and towns besides providing various **ecosystem services** and **public health benefits** also offer **services of psychological relaxation, stress reduction, physical activities and reduction of climate-related vagaries** such as pollution, heat waves, etc.
- Almost 70% of all greenhouse emissions is generated from an urban built environment. The ever-increasing pace of urbanisation is going to make this condition worse in the years ahead. A **study shows trees in megacities may save nearly \$500 million per year in services including environmental protection** making **urban environments cleaner, more affordable and more pleasant** places to live in.
- Urban green spaces have become essential for city planners and managers to mitigate negative environmental consequences and ensure a delicate balance between development and the environment.
- Ensuring environmental sustainability is one of the three interlinked principles of the **New Urban Agenda** adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in 2016. The **importance of green space has also been highlighted in Self Development Goal 11** dealing with sustainable cities and communities to make cities and human settlements inclusive, safe, resilient and sustainable.

Challenges to green spaces in urban areas

- **Densification-prompted activities** causing a rapid loss and fragmentation of both public and private green space are one of the major challenges influencing urban green space.
- Additionally, activities such as **infill development and redevelopment of land** coupled with the real estate boom and skyrocketing land values always force a citizen to go in for maximising economic benefits with little or no priority to green space.
- These factors along with the **lack of necessary policy support, priority and funds make urban green space-related issues insignificant and inefficacious.**
- A **lack of concern among citizens and official laxity** in the strict implementation of regulations related to the maintenance of green cover further worsen what is already a bad situation.
- A relook of these factors may help reorient our strategy of urban planning and management to accommodate the green vision and action.

Case study- Hyderabad and Telangana

- Green space and other nature-based solutions are an essential component for the development of sustainable, resilient and inclusive cities.
- The World Health Organization (WHO) has recommended per capita green space of 9 square metres besides access to public green spaces within 300 m linear distance or a five-minute walk from the houses of urban residents.
- Though many western cities easily qualify when it comes to both these norms, the condition of Indian cities is quite inadequate.
- In terms of decadal change of forest cover in seven megacities, the **FSI Report 2021** noticed an overall increase of 68 square kilometres in the last 10 years. All megacities witnessed poor decadal growth **except for Hyderabad which has witnessed a maximum 147% increase in forest cover**. Hyderabad is the **only city that has seen decadal increase in per capita forest cover from 4.3 to 8.2 sq. met near the recommended green cover of 9 sq. met**. The poor per capita forest cover in some cities needs corrective interventions for its improvement.
- **Telangana** has accorded **equal priority to improve green cover outside reserve forests** under its flagship programme, '**Telangana Ku Harithaaharam**'.
- Out of nearly 109 urban parks identified, 53 parks are in operation to usher in climate resilience and provide much-needed ecosystem services besides improving green cover.
- Further, **each gram panchayat of Telangana is developing nearly 19,000 mini-park-cum-forests (Prukriti Vanam)**; each **mandal of the State is developing a Brihad Palle Prukriti Vanam (BPPV) spread over 10 acres each**.
- The historic amendments to panchayat and municipal acts of Telangana and the recently created provision of a Green fund have provided a much-required boost to facilitate its commitments to improve green cover.
- The ongoing interventions of the Hyderabad Metropolitan Development Agency (HMDA) and the Greater Hyderabad Municipal Corporation (GHMC) such as **Miyawaki, median planting, green walls, facade greenery, hanging gardens, rooftop garden terraces and urban wetlands with local adaptations** need further scaling up to compensate for the rapid decline in green and blue features of urban jungles in the coming years.

Future green

- Urbanisation is an inevitable and important component of development. To ensure a delicate balance between development and the environment, the activities aimed at a reduction in negative environmental externalities and their impact on natural resources and environmental services as an important aspect of green growth have become essential for city planners and managers.

Action plan suggested

- The **3-30-300 rule** of Cecil Konijnendijk stipulating the
- Ability of everyone to see at least three trees from home,
- The presence of 30% canopy cover in each neighbourhood and
- A maximum distance of 300 m to the nearest park in a city needs adoption to the extent possible for a greener, better and more biophilic environs in our cities.

Way forward

- **Strict compliance of environmental obligations**, including green space by user agencies, needs to be enforced without exceptions.

- **Innovative concepts** such as **nature-based solutions**, being 50% cheaper than **grey alternatives** and delivering 28% greater environmental benefits need to be incorporated in future urban planning.
- Together with multi-stakeholder involvement, adequate financial resources, and institutional support, this will strengthen urban governance to reorient our strategy of urban planning and management. In the end, this will ensure desired green cover in cities for our current generations as well as for the future.

The Hindu link

<https://www.thehindu.com/opinion/op-ed/a-shrinking-green-in-indias-growing-megacities/article65085616.ece>

Question- What are the challenges towards greening of urban areas in India. Recommend steps need to ensure adequate green spaces in Indian cities.



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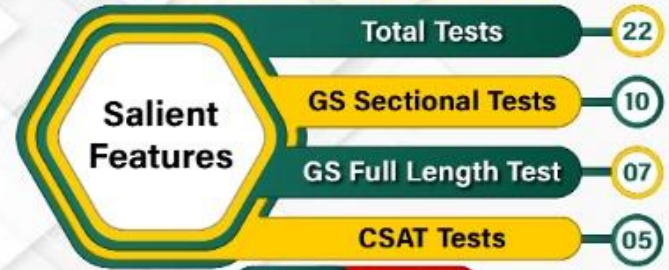
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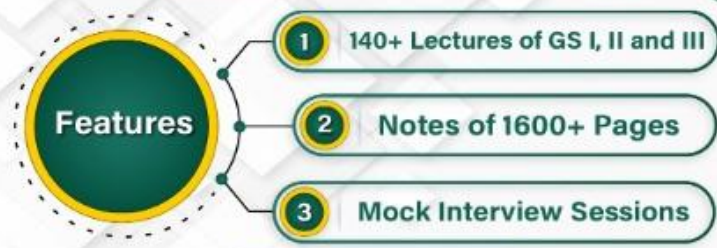
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