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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

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SECTION: A
(MAINS)

CURRENT AFFAIRS

DRYLANDS ARE NOT GETTING DRIER

CONTEXT

In a surprising new study, researchers have found that drylands are not getting drier. The researchers discovered that soil moisture exerts a negative feedback on surface water availability in drylands, which offsets some of the anticipated decline.

What are Drylands?

- Drylands are areas which face great water scarcity. They cover over 40% of the earth's land surface, and are home to more than two billion people.

UNEP on drylands

- The United Nations Environment Programme (UNEP) defines drylands according to an **aridity index (AI)**. Drylands are lands with an AI of less than 0.65.
  - Aridity Index is the ratio between average annual precipitation and potential evapotranspiration.
- Drylands are further divided, on the basis of AI, into:
  - hyper-arid lands
  - arid lands
  - semi-arid lands
  - dry sub-humid lands

- **Characteristics:** Drylands are characterised by:
  - low, erratic, and infrequent rainfall
  - limited water resources
  - low soil moisture
  - high evapotranspiration which results in water deficit
- They are highly adapted to climatic variability and water stress, but also extremely vulnerable to damaging human activities such as deforestation, overgrazing and unsustainable agricultural practices, which cause **land degradation.**

Evapotranspiration

- Evapotranspiration is the process of transferring moisture from the earth into the atmosphere.
- Put simply, evaporation occurs when water vapor leaves the soil or a plant's surface.
- Transpiration involves the passage of water through a plant, from its roots through its vascular system.

- The sum of evaporation and transpiration is evapotranspiration (ET).

Distribution of drylands

- Drylands are found on all continents, and include grasslands, savannahs, shrublands and woodlands.
- Geographically dryland agriculture area in India includes:
  - the north western desert regions of Rajasthan
  - the plateau region of central India
  - the alluvial plains of Ganga Yamuna river basin
  - the central highlands of Gujarat, Maharashtra and Madhya Pradesh
  - the rain shadow regions of Deccan in Maharashtra
  - the Deccan Plateau of Andhra Pradesh
  - the Tamil Nadu highlands

Dryland degradation assessment

- Land degradation or desertification is the loss of the biological or economic productivity of land.
- Desertification reduces agricultural output, contributes to droughts and increases human vulnerability to climate change.
- The loss of biodiversity in drylands, including bacteria, fungi and insects living in the soil, is one of the major causes and outcomes of land degradation.
- The main processes of soil degradation associated with desertification may be summarised as follows:
  - increased land pressure leads to local loss of vegetation cover and increased area of bare patches. Removal of crop (residues) for fuel or fodder reinforces this trend.
  - direct exposure of top soil to solar radiation increases soil temperature and the rate of organic matter decomposition.
  - loss of organic matter causes soil structural degradation (porosity, aggregate stability), reduces water holding capacity, decreased infiltration and increased runoff.

➤ decline in organic matter content decreases nutrient storage properties. Nutrients are lost by percolation and the efficiency of chemical fertilisers is reduced.

➤ impact of rain and sun on bare topsoil results in crusting; water infiltration is further reduced, and percentage of runoff increases.

➤ sediments are carried away by erosion. Effective soil depth accessible to plant roots decreases, leaving exposed restrictive soil layers or bare rock.

➤ exposed soil is eroded by wind, crops are destroyed by dust bearing winds (off-site effects), and dunes may encroach on arable land.

➤ in the worst-case scenario, gradually degraded patches link up to form extended areas of bare and degraded land. At this stage, reclamation becomes virtually impossible.

Effect of climate change on drylands

◉ Drylands are particularly affected by climate change through changing rainfall patterns and land degradation, which reduces the ability of species and people to cope with dryland conditions.

◉ About 20-35% of drylands already suffer some form of land degradation, and this is expected to expand significantly under different emission scenarios.

◉ Soil erosion is one of the more significant causes of land degradation in drylands, resulting in the loss of soil organic carbon present in roots and woody components of the soil, and the subsequent loss of land productivity.

The false assumption

◉ Scientists have thought that global warming will increase the availability of surface water — freshwater resources generated by precipitation minus evapotranspiration — in wet regions, and decrease water availability in dry regions.

◉ This expectation is based primarily on **atmospheric thermodynamic processes.**

◉ As air temperatures rise, more water evaporates into the air from the ocean and land.

◉ Because warmer air can hold more water vapor than dry air, a more humid atmosphere is expected to amplify the existing pattern of water availability, causing the "dry-get-drier, and wet-get-wetter" atmospheric responses to global warming.

Key-findings of the Study

◉ The study discovered that **soil moisture** exerts a negative feedback on surface water availability in drylands, which offsets some of the anticipated decline.

◉ Soil moisture's influence on evapotranspiration and wind patterns could help to ease the loss of surface water in arid areas.

◉ The study provides an exception to the "dry-get-drier, and wet-get-wetter" rule.

◉ This new study is the first to show that long-term soil moisture changes and feedbacks between soil moisture and the atmosphere play an important and previously underestimated role in these predictions about the future of drylands.

◉ The researchers found that **long-term soil moisture** helps to regulate atmospheric circulation and moisture transport.

◉ These effects largely ameliorate the potential decline of future water availability in drylands.

◉ Although drylands will continue to become drier with climate change, the effect would be much worse without the feedbacks (soil moisture).

Why are drylands important?

◉ **Support population:** Drylands are home to more than a third of the world's population – many of whom are the poorest of the poor. Whilst drylands also support some of the world's biggest cities, such as Mexico City and New Delhi.

◉ **Support biodiversity:** Drylands support an impressive array of biodiversity.

➤ This includes wild endemic species and cultivated plants and livestock varieties known as agrobiodiversity.

➤ Biodiversity in drylands also includes organisms which live in the soil, such as bacteria, fungi and insects, known as soil biodiversity, which are uniquely adapted to the conditions.

◉ **Food and water provision:** Low precipitation and prolonged dry seasons in drylands can lead to water scarcity, and limit agricultural productivity and output. Drylands biodiversity maintains soil fertility and moisture to ensure agricultural growth, and reduces the risk of drought and other environmental hazards.

◉ **Climate change mitigation and adaptation:** Biodiversity in drylands has adapted over millennia to the seasonality, scarcity and variability of rainfall, and can be useful in helping people adapt to climate change.

◉ **Important commodities:** Drylands also produce a number of globally important commodities such as gum arabic, frankincense, and cashmere.

◉ CONCLUSION

This study's findings underscore the urgent need to improve future soil moisture predictions and accurately represent soil moisture-atmosphere feedbacks in models, which are critical to providing reliable predictions of dryland water availability for better water resources management.

BREXIT: GIBRALTAR GETS UK-SPAIN DEAL TO KEEP OPEN BORDER

CONTEXT

Spain and the U.K. struck a last-minute deal over Gibraltar that eases access to the territory and removes the threat of fresh restrictions at the border with the European Union.

⊙ BACKGROUND

- The **Brexit trade deal** between the EU and the UK **did not cover Gibraltar.**

- Instead the fate of the territory was the topic of months of parallel negotiations that focused on **preserving free movement** across the shared border with Spain while steering clear of the centuries-old sovereignty dispute between London and Madrid.

- With just hours left before the UK was to leave the 27-member bloc, Spain and the United Kingdom have reached a "preliminary agreement" to avoid the **British Overseas Territory** from becoming a hard border of the European Union.

- The **UK-Spain deal** marks a new chapter in the sometimes strained relationship between Spain and the U.K. over Gibraltar, the tiny strategic enclave at the entrance to the Mediterranean.

⊙ ANALYSIS

Unlocking the 'key' to the deal

The key to the deal is that **The Rock (Gibraltar)**, whose sovereignty is disputed by Spain and Britain.

- **Free movement:** Under the deal, Gibraltar will be part of the Schengen zone and follow EU rules, thus ensuring that a hard border does not separate it from the rest of Europe.

- **Border control:** During the "implementation period," which will last for four years, these border controls will be headed up by the European border agency Frontex, but Spain will be responsible for the Schengen rules being observed in Gibraltar.

  ▶ That means that the European agents will have to render account to the Spanish authorities regarding who is permitted to enter the area and the policy of conceding visas.

- **Travelling requirements:** Anyone travelling to Gibraltar from Spanish territory will not require a passport, but British arrivals will, given that the **United Kingdom is not part of the Schengen area.**

Schengen area

- The Schengen passport-free zone consists of nations that have agreed to eliminate general travel checks among them.

- It is made up of 26 countries (22 from the EU, plus Norway, Switzerland, Iceland and Liechtenstein).

- The UK has never been a part of this zone.

Will Gibraltar get benefit from EU policies?

- Not only forming part of Schengen, Gibraltar will be able to benefit from EU policies, such as a customs regime for the trade of goods, always with the intermediation and support of Spain, and guaranteeing loyal competition in terms of taxation, environmental issues and work relations.

Does the deal address the issue of 'sovereignty'?

- The deal does not address the thorny issue of sovereignty.

- Spain has long disputed British sovereignty over the Rock which was ceded to Britain in 1713 and which is now home to about 34,000 people.

- The Remain vote there was an overwhelming 96% in the 2016 EU referendum.

What is the status of Gibraltar?

- Officially remaining a **British Overseas Territory**, Gibraltar will now be part of the **Schengen zone** and follow EU rules.

- After the Spain-UK deal, free movement will now continue, as Gibraltar is being placed in the **Schengen area**, with **Spain acting as a guarantor.**

The country profile

- Gibraltar, with an area of just 6.8 sq km has a population of around 34,000 people.

- It is a peninsular having a land frontier with **Spain** and is situated at the south-western tip of **Europe**, guarding the entrance to the **Mediterranean Sea** from the **Atlantic Ocean**, with **Morocco** situated 14 miles away across the **Straits of Gibraltar.**

- Gibraltar fell into **British** hands after a war in **1713**, and has since remained with Britain despite several attempts by Spain to retake it.

- Due to its strategic importance, Gibraltar came to be highly fortified by Britain since the 18th century, thus earning it's commonly known name– **"the Rock".**

- Even during World War II, Gibraltar's port was critically important for the Allies, and it continues to be a key base for NATO.

- When Britain joined the EU in 1973, Gibraltar was a **"crown colony",** but was reclassified as a **British Overseas Territory in 2002.**

- In two referendums, one in 1967 and the other in 2002, Gibraltarians overwhelmingly voted to remain a British territory.

- Currently, the territory is self-governing in all aspects, except for defence and foreign policy, which are managed by London, and Gibraltarians have British citizenship.

Why Gibraltar has been the 'subject of dispute'?

- Gibraltar has been the subject of intense dispute between Spain and Britain for centuries.

- This is mainly because of its strategic location.

- The territory, which is connected to Spain by a small strip of land and surrounded by sea on three sides, serves as the only opening from the Atlantic Ocean into the Mediterranean Sea, making it a key location on the shortest sea route between Europe and Asia via the Suez Canal.

Why a 'hard border' was not favourable?

- The result of the **2016 Brexit referendum** gave rise to the possibility of a hard border coming up between **Gibraltar** and the rest of **Europe**

  ➤ In the 2016 referendum, **Gibraltar voted 96 percent being in favour of remaining in the EU.**

- Gibraltarians mainly voted to 'remain' because the territory's economy depends on an open border with Spain.

- Because of its small size, all food in Gibraltar is imported.

- More than 15,000 people live in Spain and work in Gibraltar, making up about 50 percent of its labor market.

- A hard border would have seen the end of many of these jobs in Gibraltar, as well as depriving the nearby Spanish population of customers with high spending power.

◉ WRAPPING UP

- The deal is a good initiative, it is the best way to keep everything moving. Furthermore, the deal will lay the groundwork for a new relationship.

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EU-CHINA DEAL: SHORT-SOLD BY EC, A REVERSAL AHEAD

CONTEXT

In a recent development, the European Union (EU) and China agreed in principle to the EU-China Comprehensive Investment Agreement (CAI) that was tentatively approved.

◉ BACKGROUND

- The Comprehensive Agreement on Investment has been seven years in the making.

- Since the launch of the project in 2013, the CAI was intended to increase investment between the EU and China by establishing a legal framework and common rules on issues ranging from state-owned enterprises to subsidy transparency.

- The deal is important politically as it shows the EU's commitment to its own economic sovereignty without constraints from the U.S.

- Also, it follows the example set by the **10-members of the Association of Southeast Asian Nations, Australia, Japan and South Kore**a in signing the **Regional Comprehensive Economic Partnership** back in November 2020.

- The timing of this deal is significant since for the EU, it comes on the heels of a deal with Brexit.

◉ ANALYSIS

What is 'in' the deal?

- The deal removes barriers to foreign investments in China for certain EU industries, such as new energy vehicles, cloud computing services, financial services and health.

- It will also be the first agreement to deliver on obligations for the behavior of state-owned enterprises and comprehensive transparency rules for subsidies.

- For China the deal includes investment possibilities in renewable energies on a reciprocal basis.

AI core focus

- **Access to the markets:** Provide for new opportunities and improved conditions for access to the EU and Chinese markets for Chinese and EU investors (more specifically, broadening the EU investors' access to the Chinese market by eliminating quantitative restrictions, equity caps, or joint venture requirements).

- **Addressing challenges:** Address key challenges of the regulatory environment, including those related to transparency, predictability, and legal certainty of the investment environment.

- **Guarantees protection:** Establish guarantees regarding the treatment of EU investors in China and of Chinese investors in the EU, including protection against unfair and inequitable treatment, unlawful discrimination, and unhindered transfer of capital and payments linked to an investment.

- **Non-discrimination**: Ensure a level playing field by pursuing, inter alia, non-discrimination as a general principle subject to a limited number of clearly defined situations.

- **Sustainable development:** Support to sustainable development initiatives by encouraging responsible investment and promoting core environmental and labour standards.

- **Dispute settlement mechanism:** Allow for the effective enforcement of commitments through investment dispute settlement mechanisms available to the contracting Parties and to investors.

The need of the deal

- **Increased cooperation:** The necessity of this agreement is due to the **increased cooperation** between China and the EU.

- **Bilateral trade: It** is also due to the high volumes of bilateral trade and investments (especially from the EU to China), that makes the urgency of shared principles and rules more and more appreciable.

- **Trade:** According to Eurostat data, in 2019 the EU had:

  ▸ exported goods worth approximately €198 billion (US$242 billion) to China

  ▸ imported goods worth €362 billion (US$442 billion) from China, with a bilateral trade worth some US$650 billion

- **Investment:** With reference to investments in 2019, Chinese foreign direct investment in the EU continued to decline, mirroring the decline in Chinese outbound investments globally.

- However, China continued to be the second largest FDI recipient.

Europe and China- major partners for a generation

- China and the European Union (EU) jointly account for nearly 35% of global GDP in PPP terms.
- Europe championed China's case for World Trade Organization (WTO) membership and China supported the 'European Project'.
- Between 1995 and 2012, Germany, Europe's economic powerhouse, enhanced its industrial value by 37%, the largest chunk of which came from supply chains not in the United States but in China.
- In March 2019, the EU Commission published "A Strategic Outlook", describing China as, simultaneously, a cooperative partner, an economic competitor and a systemic rival promoting alternative models of governance.

How is the deal different?

- The EU said this investment deal with China aimed to be ambitious and cover a wide range of issues.

- The European side said the **US-China phase one trade deal** signed in January failed to deal with structural issues in the Chinese economy and European firms were left feeling frozen out by the deal.

- The CAI is unlike the US-China phase one agreement, that not only demands greater market access for US companies but also holds Beijing to buying American goods.

- Nor is it similar to the Regional Comprehensive Economic Partnership (RCEP) trade deal signed between China and 14 other countries – the world's largest free-trade agreement.

  - RCEP streamlines rules and standards of trade to encourage the flow of goods and services, but not specifically investment.

- EU insists it wants to start talks about a bilateral free-trade agreement after the investment deal is done. But even if the China and the EU can sign a deal, the CAI will face a number of challenges from the EU parliament.

Why the deal is 'disappointing'?

- **A puppet show:** The EU bureaucracy is playing by China's rules, dancing to China's tune. The use of the word 'values' in the announcement devalues the term.

- **Ignored China's global threats:** It glides over:

  - Chinese Communist Party's (CCP) human rights abuses in China

  - consistent breach of rule of law in international dealings

  - bullying allies such as Australia and Norway

  - territorial aggression on democracies such as India and around the South China Sea

- **Trust issues:** The deal is very controversial as it happens against strong objections in the United States and in public opinion in Europe, as there are many problem areas: effective verification mechanisms are lacking and many investment areas are still closed or semi-closed.

- **Win-win situation 'only' for China:** It ignores the fact that while the deal will help drive China's Belt and Road Initiative into the EU on the physical side, it will equally enable Huawei to drive 5G telecommunications there and hand over the most precious commodity of the 21st century, citizen data, to the CCP.

China has already protected itself by rushing a **National Security Law** on December 19, right before getting CAI approved, to fend off foreign investment whenever it harms China's national security

- **Ignored intelligence law:** Worse, this deal has not even mentioned, leave alone questioned, China's National Intelligence Law that effectively turns every Chinese entity into an intelligence gatherer.

- **Threat to national security:** A China is not a US or an India. Every deal with this nation has to be seen through the prism of national security.

- **Suppression:** China will not change; instead, it will use the rules of law around which the rest of the democratic world functions to supress and smother its European partners.

- What about EU-US relations?

- Biden had sent signals that essentially told the EU not to rush and sign the CAI now.

- Moreover, the EU made it clear that it wanted to collaborate with the new Biden presidency after four years of difficult co-existence with the Trump presidency.

- It is not clear why the EU, despite all of this, went ahead and signed.

- The EU signed it in the last days of the Trump presidency, so it appears a toxic European response to the four years of often strained relations with the US.

- With China's proactive approach towards the EU, Biden may find it a difficult task to reset the US-EU relations.

- Assessing the implications for India

- **Trade competition:** After the EU-China deal, India would have to compete more with China in order to drive home its point.

- **Resettling relations with EU:** This deal would also lead India to think about resetting its relations with the EU. Although India and EU are stakeholders in each others' economy, the former would still need to pursue EU in a more proactive manner.

- **Addressing future challenges:** India also needs to watch for another angle that may emerge in future with China increasing its stakes in the EU.

- **Cooperation in Indo-Pacific region:** Of late a number of the EU countries such as France, Germany and the Netherlands are showing keen interest in the geopolitics of the Indo-Pacific Region. These countries have shown inclination to be a stakeholder in the security and economy of the Indo-Pacific Region. India needs to consider this inclination and work accordingly.

EU-India

- The European Union is India's largest trade partner with two-way trade amounting to $115.6 billion (€101.3 billion) in 2018-19.

- In recent times India has been hinting towards entering into a preferential trade agreement with the EU if not a free trade agreement.

⊙ WAY FORWARD

- The deal is not the 'solution' to commercial and economic problems, but it could be a step forward or become a tripwire for bigger problems around China and the world. In any case, it proves that China is not a secondary regional issue, but a massive global question that calls everybody to rethink many problems.

- Now, the ball lies in three courts — the European Parliament, the Council of the EU Council, and the Biden administration. The economic fate of the EU in the 21st century will only be determined by how these three poles uphold the liberal values they had authored in the middle of the 20th century.

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GULF STATES SIGN 'SOLIDARITY AND STABILITY' DEAL AT GCC SUMMIT

CONTEXT

In a long-awaited move, Gulf leaders (Bahrain, Egypt, Saudi Arabia and the United Arab Emirates (UAE)) have signed a "solidarity and stability" agreement towards ending the diplomatic rift with Qatar in the 41st Gulf Cooperation Council (GCC) Summit in Saudi Arabia.

⊙ BACKGROUND:

Regional geopolitics

- In 2017, Qatar was banished from the GCC in a move orchestrated by Riyadh and Abu Dhabi for supporting terror groups, giving home to the Muslim Brotherhood (MB) and generally punching above its weight in the region's affairs.

  - **Egypt** and the **UAE** view the support by Qatar and Turkey of Islamist groups like the Muslim Brotherhood as a security threat.

  - **Saudi Arabia** and **Bahrain** are primarily concerned about Qatar's ties with Iran.

- Due to these issues, the four countries (Bahrain, Egypt, Saudi Arabia and the United Arab Emirates (UAE)) imposed a partial blockade.

- Qatar, which had angered the other states because of its close ties with Iran had dismissed these allegations.

- Till a certain extent, the move was also a show of dominance by the duo of MbS and UAE's ruler Prince Mohamed bin Zayed (MbZ), now widely regarded as the most powerful and influential figure in West Asia (Middle East).

- However, the eventual outcomes of the blockade were arguably not what Saudi and UAE expected.

- **Conditions:** The 4 countries presented Qatar with 13 demands as conditions for ending the embargo.

  - They included closing Al Jazeera and other Qatar-funded news outlets, downgrading diplomatic ties with Iran, closing a Turkish military base in Qatar, and ending "interference" in other countries' internal affairs.

- It remains to be seen for now how many of these demands, and till what extend, has Doha agreed to address.

- **MbZ:** UAE's ruler Prince Mohammed bin Zayed

- **MbS:** Crown Prince of Saudi Arabia Mohammed bin Salman

- **MB:** Muslim Brotherhood, the world's oldest Islamist movement

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⊙ ANALYSIS

The bone of contention

- For Abu Dhabi, the rift with Qatar has been a much deeper, ideological one.

- Doha's support for the MB has been a singular point of infraction for MbZ, who has taken on MB and political Islam in the region aggressively.

- When MB backed Mohamed Morsi won elections in Egypt in 2012 after the Arab Spring revolution ousted long-time dictator Hosni Mubarak from power, MbZ deported thousands of Egyptian

preachers and teachers from the UAE, and later declared MB as a terror group.

◎ After Morsi was ousted in a coup, and military rule came back to Egypt with Abdel Fattah al-Sisi, Abu Dhabi pushed Cairo to regulate mosques and preachers in a bid to control MB's influence.

◎ MbZ's fraught personal and family history with MB has made the group a non-negotiable issue with the leader.

What is GCC?

• The GCC was set up in 1981 as the political and economic confederation of six states, all headed by monarchies that make up the Arabian Peninsula, minus Iraq and Yemen.

• The US-allied bloc comprises Bahrain, Kuwait, Qatar, Saudi Arabia, Oman and the UAE.

• The GCC countries own about half of the world's oil and gas reserves, making the alliance a powerful one on the world economic stage.

Who is in a 'win-win' situation?

◎ Arguably, Qatar has come out victorious in this intra-GCC battle.

Qatar, country profiling

• Qatar - the world's largest exporter of liquefied natural gas - is a small peninsula whose only land border is with Saudi Arabia.

Doha **Capital**

➤ 2.7 million **Population**

➤ 11,437 sq km **Area**

➤ Arabic **Language**

➤ Islam **Religion**

➤ Riyal **Currency**

◎ Even if it has made concessions to achieve normalisation at Al Ula, the small but rich country showcased resilience, and managed the economic blockade without any major domestic crisis.

◎ During this period, it also invigorated a strong sense of nationalism not only with the local population, but the expats in the country as well, a phenomenon not witnessed often.

◎ However, to make it so, Doha forged closer ties with Saudi and UAE foes Iran and Turkey.

◎ In June 2017 itself, Turkish troops arrived in Qatar, with more numbers added in December that year to back Doha's position and Tehran increased

shipments of supplies to the import dependent country.

◎ Going forward, it will be interesting to follow how Doha now manages this balance.

◎ Cutting military ties with Ankara will be an unreasonable expectation, and the ensuing silence by the UAE around this normalisation orchestrated under MbS's blessings also gives weight to reports of disagreements between MbS and MbZ over regional geopolitics.

Did the 2017 Boycott change Doha?

• The boycott failed to change Doha's stance, however, instead buoying its young ruler domestically as patriotic fervor swept through Qatar in support of his resolve.

• It also pushed Qatar closer to Turkey and Iran, which rushed to assist the ultra-wealthy Gulf state as it faced medical and food supply shortages in the first days of the embargo.

What's actually behind the reconciliation?

◎ **To counter Iran:** The move is seen by analysts as mainly aiming to create a regional bloc to counter arch-rival Iran.

◎ **Ineffective utilization of financial resources:** For MbS (Saudi Arabia), expansive regional conflicts mean more financial resources devoted to defence and foreign affairs, and less availability of funds for the drastic domestic reforms the Crown Prince has planned.

◎ **Changing global perception for economic benefits:** For Saudi Arabia, without a drastic shift in global perception, this pivot towards building global financial centers is an extremely difficult dream to achieve.

➤ Saudi Arabia aims for the transformation of Saudi society not just economically, but politically and culturally as well, is one that is not to be undermined as an easy undertaking.

➤ MbS wishes to move the kingdom away from being known as a regressive theocratic state is in direct conflict with his aims to build Dubai like centers in Saudi.

◎ **Signalling unity with US:** This development, from a Gulf perspective, is also a signal of unity for the incoming administration of president-elect Joe Biden.

➤ By resolving intra-GCC feuds, Riyadh will be able to put forward a much more united front in Washington DC against Iran, in collaboration with Israel, against the eventual attempts by the Biden administration down the line to bring back the Iran nuclear deal (JCPOA) that

Trump, much to Israel and the Gulf's delight, unceremoniously exited from in 2018.

US's concern

- As Qatar hosts the **largest US military base** in the Middle East, Trump's administration has been concerned that the rift between Washington's regional allies has weakened its efforts to create a **regional bloc against Iran.**

- It is believed that the Trump administration has piled pressure on the Gulf nations to resolve the dispute as it seeks to claim a diplomatic win before President-elect Joe Biden takes office on Jan. 20.

How India responded?

- India welcomed the restoration of diplomatic ties between Qatar and four other Arab countries that had imposed an embargo on it in 2017, saying such a move would give a boost to peace and stability in the region.

- India shares an excellent relationship with all the countries in the GCC.

- The Indian government has worked hard to boost its relations with the Arab states, particularly in defence cooperation and energy security, and it has also welcomed the recent normalisation of ties between Israel and key Arab states such as the UAE.

Indian interests in the region

- A peaceful and stable Gulf region is critical to India, and recent diplomatic interventions, which

included top level visits to Oman, UAE, Saudi Arabia, Bahrain and Kuwait, were largely designed around one aim, **a swift return of the Indian diaspora to the Gulf** which was forced to return due to the pandemic in large numbers.

  - The GCC states are home to some nine million Indian expatriates, with a majority based in Saudi Arabia and the UAE.

- Beyond these immediate aims, India also aims to create a task force to facilitate Qatari investments in India, with the small nation being one of the richest countries in the world thanks to its vast natural gas reserves.

- It is to note that open talks about investments, a specific task force and so on were far and few while the intra-GCC feud played out, as New Delhi paid more attention to strengthening its relations with UAE and Saudi Arabia while maintaining a traditional diplomatic balance between all sides.

◉ CONCLUSION

Though there is no clarity yet on what kind of concessions were agreed to by Doha in order to make this reconciliation work, and more importantly, how Qatar's leadership now manages its relations with the Gulf on one side, and Iran and Turkey on the other, with the latter having supported Doha in its time of need. The new developments in the coming days will be a critical test on how the Saudi-Qatar, and perhaps more importantly, UAE-Qatar relationships unfold.

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EX-ANTE REGULATION FOR DIGITAL MARKETS IN INDIA

CONTEXT

The world is increasingly witnessing a shift to online marketplaces and online platforms. However, this shift also poses many unprecedented challenges for antitrust/ competition law.

⊙ BACKGROUND

- Rapid technological advancement has given birth to new products and services which are ever-evolving and an unchartered territory for competition regulators.

- Digital markets have grown from being considered an extension of brick and mortar markets to an alternate market unto themselves in less than half a decade.

- Digital economy is dynamic and fundamentally different from other sectors.

- The dynamic growth of the sector has resulted into competition problems and anti-trust issues all over the world.

  ➤ These arise specifically in certain areas such as digital monopolies, tax planning, problems with patent etc.

- As witnessed in a series of antitrust cases against big tech firms such as Microsoft, Google and Facebook, the antitrust enterprise was found struggling for various reasons.
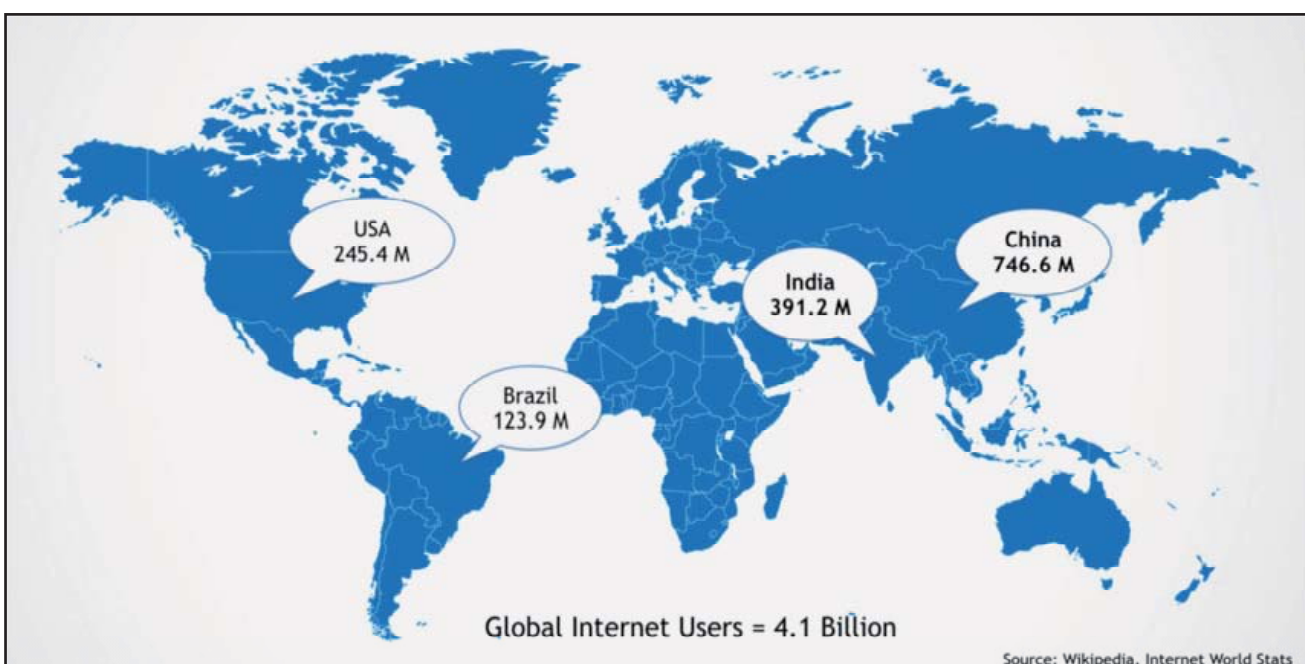
Internet Users:

- As of October 2020, 59% of the world population is using the Internet. (i.e) 4.66 Billion Users. In these users 4.28 are unique mobile users & 4.14 are active social media users.

- The total number of users on internet in 1995 was less than 1% of the world population.

- This shows the growth of digital marketing in last 20 years.

- India has surpassed USA in total number of users, with the emergence of Reliance Jio, India has seen a great increase in internet users, which gives more scope for digital marketers to reach target audience.

⊙ ANALYSIS

Why digital markets are 'peculiar'?

- Products in digital markets are often built on **self-learning algorithms** that feed on big data.

USA
245.4 M

China
746.6 M

India
391.2 M

Brazil
123.9 M

Global Internet Users = 4.1 Billion

Source: Wikipedia, Internet World Stats

- In the Artificial Intelligence (AI) ecosystem, big data is considered the most vital input and, therefore, players compete to have **access to the same.**

- Data and, more specifically, the knowledge extracted from data are a source of a significant competitive advantage, which may work in favour of large incumbent platforms.

- The concern arises when large digital firms reinforce and exploit this data advantage through anti-competitive means.

- Multi-sided business models facilitate access to user data by offering services for free to users while charging the other side (mostly advertisers).

- These markets often experience high entry barriers in the form of network effects (both direct and indirect), economies of scope and massive investment requirements.

- Resultantly, such markets quickly shift to the monopolistic structure. Even if there are competitors, they are largely insignificant.

- It is, therefore, no surprise that most of the people are regular users of Google (Internet search), Facebook (social media), and Amazon (online shopping).

Data generation and consumption

- Data is being generated at a tremendous rate in India. As per a study, by 2022, India's data consumption is projected to grow at 72.6 percent (CAGR).

- The country already has the highest data usage per smartphone user owing to the sudden boom in the telecom market, especially sparked by the launch of Reliance Jio in 2016 that changed the mobile data usage landscape in India.

- Even the large-scale government projects such as smart cities, airports, and security and surveillance infrastructure are built with the capability of collating data at a massive scale.

- In recent times, innovation in technologies related to collecting as well as analyzing data such as **IoT, artificial intelligence (AI), data science, Big Data, and edge analytics** have been revolutionary.

- More and more companies are adopting the concept of **SMAC - integration of social, mobile, analytics and cloud technologies** to leverage customer's behavior and buying patterns to achieve their business goals.

- This data can be the key for many enterprises to unlock and explore new business models and strategize their future decisions.

Why a dominant market position is a problem?

- A dominant market position, in itself, is not a problem. Should a firm abuse its dominant position, for instance, by excluding its rival, competition law may step in and prohibit such conduct.

- However, as experience suggests, the competition enforcement machinery is too slow in such complex technological sectors and by the time effective orders are passed, the market may already 'tip' in favour of the delinquent firm.

  ▸ For instance, the European Commission's (EC) investigation into Google's anti-competitive practices in online shopping took seven years to produce an order.

How few firms become de facto 'gatekeepers'?

- The importance of some platforms has made them **de facto 'gatekeepers'** to certain online markets, in that they determine the terms of access to users.

- Interestingly, in digital markets, a firm may adversely affect competition even below the dominant position.

- The Furman report in the UK identifies a platform having a **Strategic Market Status (SMS)**, which is below the dominant position, as the right candidate for **ex-ante regulation**.

- In addition, certain platforms act in a dual capacity — not only do they act as facilitators, but they also compete with the other businesses in the verticals they facilitate.

- Google and Amazon both provide platforms to businesses, but have their own competing businesses in the downstream— a ready recipe for self-preferencing.

Assessing on-going efforts to regulate digital companies

After much debate, some jurisdictions have started moving towards regulating big tech firms.

- The UK is establishing the **Digital Markets Unit** to this end.

- More concrete steps have been proposed in the EU, where the European Commission has come up with a proposal for a **Digital Markets Act**, which intends to ensure contestable and fair digital markets through a set of ex-ante regulations for digital gatekeepers.

- Efforts to reign in digital gatekeepers are underway in the **United States (US)** as well.

Where does India stand?

- India is a prominent market where tech firms, both domestic and foreign, are jostling for space. The **antitrust issues** that have arisen elsewhere have resonated in India as well.

➤ There have been five cases against Google before the **Competition Commission of India (CCI)** spanning search, Android OS and Play Store.

➤ Indian antitrust authorities are also investigating Amazon and Flipkart for exclusive sale of certain smartphones.

➤ The E-commerce market study by the CCI also flagged several concerns of Indian stakeholders in the e-commerce market, such as platforms not acting in a neutral way, unfair contract terms, use of price parity clauses, exclusive agreements, and deep discounts.

Competition Commission of India

- Competition Commission of India is a **statutory** body of the Government of India responsible for enforcing '**The Competition Act 2002'.**

- It was founded in **2003.**

- It is the duty of the Commission:

  ➤ to eliminate practices having adverse effect on competition

  ➤ to promote and sustain competition

  ➤ to protect the interests of consumers

  ➤ to ensure freedom of trade in the markets of India

What India needs to do?

◉ While the CCI is doing its bit to ensure fairness in digital markets, a need for some form of regulation is already felt.

◉ In its e-commerce market study, the CCI has mentioned the need for marketplace platforms adopting self-regulation to ensure transparency concerning search ranking:

  ➤ collection, use and sharing of data

  ➤ user review and rating mechanism

  ➤ revision in contract terms

  ➤ discount policy

◉ Consequently, India should adopt binding ex-ante regulations for digital 'gatekeepers' to ensure market contestability for businesses including start-ups and fairness for users.

◉ What is the role of private sector in regulation?

◉ The role of the private sector in regulation is significant.

◉ The private sector is well positioned in the digital economy to increase awareness among consumers on the best practices required for the industry.

◉ Further, it should also participate extensively with the government to create a co-regulatory framework to maintain the digital economy.

◉ CONCLUSION

◉ Anti-trust issues in the digital economy may not only harm economies but also societies and democracies. There is a pressing need, therefore, for cooperation between competition authorities at the bilateral, regional and international levels, to address the challenges posed by the digital economy and to deal with any negative outcomes that may arise from digital platforms.

****

FOR ALL OUR SAKES, BUILDING DIGITAL TRUST HAD BETTER BE THE TECHNOLOGY TREND OF THE 2020S

CONTEXT

- The Coronavirus pandemic has driven life 'online'. In this situation, where this online trend may never return, trust is a significant differentiator.

- In this emerging scenario, the defining aspect of technology and innovation is not an algorithm or an invention, it is digital trust.

⊙ BACKGROUND

- As the world grapples with the Covid-19 pandemic, digital trust has become pivotal in the **new changing world order.**

- The current pandemic has served as rocket fuel for organisations aspiring to achieve rapid scale and velocity on digital transformation.

- It has accelerated the shift of off-line processes to on-line across the spectrum of the organisation's functions, whether they are government, corporate, or non-profit organisations.

- Consequently, the sector has witnessed a drastic increase in the generation of data and information during the pandemic period.

- The use of digital technology during the COVID-19 crisis offers clear lessons:
  - ➤ focus on the safety of essential organizations
  - ➤ protect work-from-home capabilities
  - ➤ target mistrust broadly to enable specific crisis-relevant tech

- However, in the long-run, plans to "re-build" post-pandemic using digital tools, risk falling at the very first hurdle 'digital mistrust'.

- The 'Great Reset' will require digital trust, whose foundations are 'security' and 'responsibility'.

⊙ ANALYSIS

The open question of 'digital mistrust'

- The most important trend for the next decade will be digital trust.

- More innovative technologies, being implemented at an ever-fast pace, will be the norm for the next several years and possibly for our lifetimes. This is near inevitable.

- The open question is whether all these technologies will be **deployed responsibly and whether leaders and innovators have the courage and foresight to build security, equality, and responsibility into the new technological world.**

- The technological inclination of the next decade had better be towards digital trust, otherwise, the future will be in dark state.

- The following changes will build on each other to create a world that looks more like science fiction than our history.
  - ➤ As more powerful AI and machine learning tools become more widely available
  - ➤ As improved robotics replace and augment human work
  - ➤ As scientists continue to unlock the power of biology, chemistry and physics to shape the world.

- The above changes, seemingly combined into an all-encompassing phenomenon sometimes called the "**Fourth Industrial Revolution**," represent a destabilising force on societies and economies.

- From business to social interactions, from our psychology to international relations, no one has escaped this impact.

- Even democracy itself may become destabilised by our new technologies.

- As we stand on the threshold of a new decade, we worry that all this innovation may be causing more harm than good — exacerbating inequality, fomenting conflict, and concentrating power into fewer and fewer hands.

- Drawing a line from the near past highlights a disturbing trend ahead, unless we make it a priority to use technology responsibly to build a better world.

> absence of end-to-end solution testing

> need for IoT SoC

> lack of skill in IoT

The concept of digital trust

- Digital Trust is a concept that refers to the level of confidence that customers, business partners and employees have in a company or organization's ability to maintain secure networks, systems and infrastructures, especially with regard to their sensitive data.

What are the risks that can destroy trust?

- In the digital age, analyzing and acting on insights from data can introduce entirely new classes of risk. These include:

  > unethical or even illegal use of insights

  > lackluster ethical data practices

  > amplifying biases that exacerbate issues of social and economic justice

  > using data for purposes to which its original disclosers would not have agreed, and without their consent

What factors influence Digital Trust?

There are the following parameters that impact Digital Trust:

- **Data breaches:** Major attacks on utilities, state-sponsored data breaches have become one of the significant pain points for the Indian government and companies.

- **Lack of standards:** The issue is further compounded by the fact that the country does not have any standards to secure the internet of things and connected ecosystems. There are no baseline tests to certify such products.

- **Threat to privacy:** Using big data to predict behaviour and profile individuals offers obvious business benefits. But these techniques can cross the line when it comes to individual rights and privacy.

- **Cyber-attacks:** Cybercrime rates are increasing globally, and individuals are putting more focus on how their personal information are being handled and secured.

- **Ethics and control:** Digital trust issues centre around the ethics and control of data access and use, interaction through the Internet, digital risk resilience and value creation in the digital age.

- **Monopolistic approach:** Digital companies are gathering huge data and at times, emerging as a kind of monopolies that affect other competitors.

- Other major challenges include:

  > Fake news on social media

  > lack of testing framework

Digital Intelligence Index

- Digital Intelligence Index charts the progress countries have made in advancing their digital economies, fostering trust and integrating connectivity into the lives of billions. Mapping 95% of the world's online population and drawing on 12 years of data, the index found:

- **Stand Out economies –** Singapore, United States, Hong Kong, South Korea, Taiwan, Germany, Estonia, UAE, Israel, Czech Republic, Malaysia, Lithuania and Qatar – are both highly digitally advanced and exhibit high momentum.

- They are leaders in driving innovation, building on their existing advantages in efficient and effective ways.

- **Stall Out economies** – such as Sweden, United Kingdom, Netherlands, Japan and Canada – are mature digital economies with a high state of digital adoption despite slowing digital momentum.

- They tend to trade off speed for sustainability and are typically invested in expanding digital inclusion and building robust institutions.

- **Break Out economies –** such as China, India, Indonesia, Poland and Russia – are evolving rapidly.

- With such momentum and significant headroom for growth, they are often highly attractive to investors.

- **Watch Out economies** – such as Nigeria, Uganda, Colombia, Peru, Pakistan and Sri Lanka – have a number of infrastructure gaps.

- Despite this, young people are showing enthusiasm for a digital future with increased use of social media and mobile payments.

Assessing the role of the State (Organizations/Regulators/Government)

- **Organizations**

  > **Building confidence:** An active and inclusive culture of data sharing between governments, tech giants, start-ups and consumers is critical for innovation.

    - Digital trust is the necessary foundation to this end.

- In their management of data and development of AI, organisations should strive to build confidence with consumers beyond merely complying with applicable standards.

- **Regulators/Policymakers**
  - **Balanced regulatory interventions:** Policymakers have the power and responsibility to facilitate this process of confidence building. But the task is not easy.
    - Regulatory intervention needs to be balanced so that it does not stifle innovation and adoption.
    - At the same time, it must give clear, consistent and flexible guidance on how to develop and use trustworthy, safe and accountable technology.

- **Government**
  - **New and effective policies:** First and foremost, the state is tasked with creating new policies for the digital age and aligning digital initiatives with national development strategy.
  - **Research & Development:** The Government must support R&D and play an entrepreneurial role in researching and testing promising new digital platforms and technologies.
  - **Inclusive and affordable internet:** The Government should work to extend the backbone telecommunications infrastructure and securing access to an inclusive and affordable internet.
  - **Investment:** Furthermore, investing in human and organizational complements and institutional learning across all sectors will help to secure digital dividends and inclusion.
  - **Transformation through collaboration:** Governments need to take a holistic view of national digital transformation and deal with digital transformation as a highly interactive ecosystem, requiring shared vision, agile strategies, sustained commitment, and institutionalized collaboration.
  - **Human capital:** Skilled human resources are at the heart of the digital revolution.

Recent government initiatives to enhance digital ecosystem

- **Comprehensive policy:** With an eye on further empowering the nation's growing digital economy, the Government of India introduced the **National Policy on Electronics (NPE)** and the **National Policy on Software Products (NPSP)**.

- These policies aim to build a comprehensive digital manufacturing and research and development (R&D) ecosystem, and are intended to complement efforts already underway to improve digital literacy and infrastructure under the **"Digital India"** programme.

- **Connectivity:** Another initiative, the **BharatNet project**, aims for 100 percent internet connectivity.

- **Digital literacy:** India is looking to extend digital literacy to 60 million rural people by March 2020. As more people come online, tools such as **JAM Trinity**, a union of **Jan Dhan-Aadhaar-**Mobile number will better contribute to nation-building and overall economic progress.

Ban to preserve State's security

- In June 2020, the government put a ban on 59 apps including TikTok and WeChat.
  - These measures have been undertaken since there is credible information that these apps are engaged in activities which are prejudicial to sovereignty and integrity of India, defence of India, security of state and public order.
  - The decision has been taken in a bid to safeguard the interests of crores of Indian mobile users.

How to solidify trust in the digital ecosystem (Guiding Principles)?

- **Integration:** The process to build trust should start with the integration of all stakeholders. Everyone's opinion is almost more important than the result.

- **Transparency and control:** Digital trust can be built through transparency and control. Government and organization need people to understand how a product or innovation works. There should be more information and access to meet expectations.

- **Easy to use experience:** An easy-to-use experience that conveys a sense of security will build a much deeper natural commitment to building digital trust.

- **Integrated approach:** The digital trust framework should take an integrated approach i.e. combining data discovery and protection, cloud-based access management, authentication, risk management, AI-based fraud detection, and global threat intelligence.
  - It will ensure that the robustness of the security protocol so that it is not overwhelming for

the user, while at the same time establishing a sense of trust.

- **Sense of security:** Without security, sustainable technological progress cannot be achieved because new technologies will increasingly be rejected by an ever-more-paranoid population — and rightfully so. This will require:
  - ➤ new ways of planning for cyber resilience
  - ➤ new visions for leadership
  - ➤ new mechanisms for cooperation

- **Common standards and procedure:** Trust decisions among digital ecosystem partners must be supported by a common language and standards for information, capabilities and open application program interfaces (APIs).

- **Balancing the privacy:** Balancing the privacy of individuals' and organizations' information with the ability to use the information to develop better products, services and experiences for customers is key to creating long-term, mutually beneficial, sustainable trust relationships among all the members of a digital ecosystem.

- **Blockchain:** Investments are on rise in Blockchain to get future-ready. Blockchain could be a game-changer for the world - what the internet did for information world a few decades back, is what Blockchain is going to do for transparency and trust.

- **Education and awareness:** Education is so important, and governments should make it a priority to let people understand the pros and cons of certain technologies in a neutral way.

How 'Empathy' is at the core of trust delivery?

- Digital trust is a moving target, like any other strategic business goal. No organization can rely on stagnant strategies to grow profitability or address risks.

- To build lasting customer relationships, organizations must understand that trust is a dynamic pursuit that requires agility.

- Empathy towards the customer is at the core of trust delivery. As customer attitudes about privacy and behaviors shift, enterprise practices and technology must keep up with evolving data privacy threats, compliance requirements and client behaviors.

- The importance of trust is unlikely to diminish, but delivering trust-inspiring customer experiences requires a culture of design thinking, continuous improvement and security by default.

- Why ethical commitment is essential?

- The pandemic and recent major societal movements related to human dignity, diversity and inclusion have accelerated the trend towards ethical practices also in technology use and development.

- If the government wants to adopt the security-by-design principles in order to ensure continued innovation, it needs to commit to ethical and responsible use of technology.

- The norms, values, and agreements that represent our social contracts and structures need to be instilled into new technologies as well. **For example-**

- If artificial intelligence is used to discriminate against the poor or against ethnic or racial minorities, it does not matter how secure against outside intrusion it is.

- Automation that turns workers out of their jobs without a social safety net is likewise no positive innovation, regardless of how safe or efficient it is.

- Data harvesting that eradicates individual privacy, whether to create new medicines or pad a social media company's bottom line, is tempting a severe backlash.

- If technology is to serve humankind, then it needs to be subject to human values and implemented to further our collective wellbeing or it can never be trusted.

The ethical questions

- What methods were used to collect the data? Do collection methods align with best practices? Did data disclosers provide informed consent? What are the security risks with how the data is stored?

- What are the classes of harm that a bad actor or group of actors could cause if the entire set of aggregated data sources or any related analysis?

- What are the potential risks to the organization if a watchdog group have the access to private data?

- What kind of data governance tools and solutions can help transform ethical principles into practice?

⊙ CONCLUSION

In the post-Covid 19 world, the use of data is going to be even more disruptive. While it is a challenge for organisations to keep pace with the volumes of data being generated, nevertheless, the focus should be on building trust and challenging within to get the right balance between societal trust and corporate profits. Future success will belong to the organisations that get this balance right. Without trust, innovation stumbles.

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RAMATEERTHAM TEMPLE

⦿ **CONTEXT:** In another case of temple vandalization in Andhra Pradesh, the miscreants targeted the famous Ramatheertham in Vizianagaram district and desecrated 400-year-old idol of Bhagwan Ram.

⦿ **ABOUT:**

- The Ramatheertham temple in Nellimarla Mandal of Vizianagaram District, Andhra Pradesh is dedicated to Lord Sri Rama.

- This temple belongs to **3rd Century.**

- It is located on the **Bavikonda Hills.**

- River **Champa** flows beneath the Hill between **Bhaskara Lake** and **Neelachalam Hills**.

- The idols in the temple are installed by **Pandavas** during their exile period of 12 years.

- Sri Pedda Jiyar Swamy installed Ramasthoopam in the temple. Ramatheertham is also famous for Buddhist monastery and Jain Thirthankars.

The incident

- The idol of the ancient temple was found vandalised with its head missing on Tuesday morning by priests.

- Later, several portions of the 400-year-old idol were found from a nearby pond.

- Legal status of idols

- Under the Indian Judicial system, Idols have been given the **status of a legal person**.

- Idol of a God in a temple is an **artificial person** and can sue when someone tries to damage it. The caretaker of the Idol (Mahant) of the temple will sue on behalf of the Idol.

> **Important SC's Observations on idols**
>
> - **Dakor Temple Case:** In 1887, the Bombay High Court held in the Dakor Temple case: "Hindu idol is a juridical subject and the pious idea that it embodies is given the status of a legal person."
>
> - **Vidya Varuthi Thirtha vs Balusami Ayyar:** This was reinforced in the 1921 order in Vidya Varuthi Thirtha vs Balusami Ayyar, where the court said, "under the Hindu law, the image of a deity (is) a 'juristic entity', vested with the capacity of receiving gifts and holding property".
>
> - In **Shiromani Gurdwara Parbandhak Committee vs Som Nath Dass and Others (2000),** the Supreme Court said: "The very words Juristic Person connote recognition of an entity to be in law a person which otherwise it is not. In other words, it is not an individual natural person but an artificially created person which is to be recognised to be in law as such."
>
> **Sabarimala case:** In the Sabarimala case, one of the arguments presented against allowing women of menstruating age entry into the temple was that this would violate the right to privacy of Lord Ayyappa, who is eternally celibate.

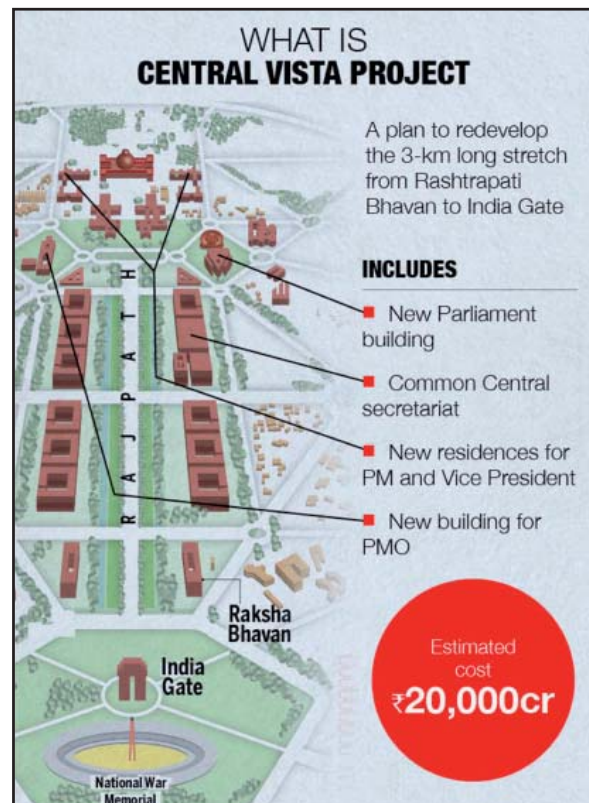# CENTRAL VISTA PLAN GETS SC NOD IN 2-1 MAJORITY VERDICT

⦿ **CONTEXT:** By a 2-1 majority, the Supreme Court gave the thumbs-up to the Central government's over ₹15,000 crore redevelopment plan for the historically

significant Central Vista area of New Delhi where a new Parliament, Central Secretariat and union ministries' offices are to be built.

⊙ **ABOUT:**

- **The central vista project**

  ◉ The project aims to renovate and redevelop 86 acres of land in Lutyens's Delhi, in which the landmark structures of the Indian government, including Parliament House, Rashtrapati Bhavan, India Gate, North Block and South Block, etc. stand.

  ◉ The "Prime Minister's dream project" of redeveloping the nation's administrative heart was announced by the Ministry of Housing and Urban Affairs on September 13, 2019.

  ◉ The redevelopment project of the Central Vista -- the nation's power corridor – envisages:

    ➤ a new triangular Parliament building

    ➤ a common central secretariat

    ➤ revamping of the three-km-long Rajpath, from Rashtrapati Bhavan to India Gate

WHAT IS
CENTRAL VISTA PROJECT

A plan to redevelop the 3-km long stretch from Rashtrapati Bhavan to India Gate

INCLUDES

- New Parliament building
- Common Central secretariat
- New residences for PM and Vice President
- New building for PMO

Estimated cost
₹20,000cr

Features of the new building

- The new Parliament building's indigenous architecture will represent the cultural diversity and strengthen the **"Ek Bharat-Shrestha Bharat"** spirit.

- The **red Dholpur stone of Rajasthan** will provide a great look to this temple of democracy.

- **Seating capacity:** The building will have a seating capacity for 888 members in the Lok Sabha and 384 members in Rajya Sabha as against the present 543 members and 245 members respectively.

- **Area:** 64,500 sqm

- **Cost:** 971 crores

Background

- A petition was filed in the Supreme Court in April 2020, challenging the Centre's change-of-land-use notification of March 2020 with regard to the 86 acres of land.

- The petition argued:

  ◉ The order violated the citizen's Right to Life guaranteed under Article 21 by depriving people of open and green spaces.

◎ The notification violated the Master Plan of Delhi 2021.

● Subsequently, the court heard the challenge on three main grounds:

◎ change of land use

◎ violations of municipal law

◎ violations of environmental law

Limitations in the current buildling structure

● The Parliament building in Delhi is over 100 years old. It was originally built by the British for the Imperial Legislative Council.

● Since Parliament is a heritage building, there are severe limitations to the structural repair, alteration and modifications that can be made.

● The existing Parliament building:

◎ lacks several safety features such as earthquake-proofing

◎ lackof a standard fireproofing system

◎ inadequate office space

● **Article 81** of the Indian Constitution provides for the delimitation of parliamentary constituencies.

● Since the last delimitation exercise was conducted based on the 1971 census, the ongoing freeze on increasing the state-wise distribution of seats will end in 2026.

● Subsequently, the number of MPs will undoubtedly increase, which poses an urgent demand for appropriate arrangements for the upcoming legislators.

SUPREME COURT ON HORIZONTAL, VERTICAL QUOTAS WORK

◉ **CONTEXT:** The Supreme Court's recent judgement by a three-judge Bench in **Saurav Yadav v State of Uttar Pradesh** is a significant addition to the discourse on reservations. The interlocking of the two types of reservation throws up a host of questions on how certain groups are to be identified.

◉ **ABOUT:** **Understanding two types of Reservation**

● **Vertical reservation**

◎ Reservation for Scheduled Castes, Scheduled Tribes, and Other Backward Classes is referred to as vertical reservation.

◎ It applies separately for each of the groups specified under the law.

● **Horizontal reservation**

◎ Horizontal reservation refers to the equal opportunity provided to other categories of beneficiaries such as women, veterans, the transgender community, and individuals with disabilities, cutting through the vertical categories.

Horizontal reservations cut across the vertical reservations – the Supreme Court called it as **"interlocking reservations"** in **Indra Sawhney and Others v Union of India (1992).**

How the two categories of reservation are applied together?

- OBC and SC are vertical reservation categories, while Female is a horizontal reservation category.

- The horizontal quota is applied separately to each vertical category.

- For example, if women have 40% horizontal quota, then 40% of the selected candidates will have to necessarily be women in each vertical quota category.

- Same percentage of all selected SC candidates will have to be women and also the unreserved or general category will have to be women, and so on.

> In a subsequent case, the Supreme Court further clarified the issue thus: For example, if there are 200 vacancies and 15% is the vertical reservation for SCs and 30% is the horizontal reservation for women, the proper description of the number of posts reserved for SCs should be: **"For SC: 30 posts, of which nine posts (30 per cent of 30) are for women".**

What is the issue with both of them using together?

- The interlocking of the two types of reservation throws up a host of questions on how certain groups are to be identified. For example,

- Would an SC woman be put in the category of women or SC?

- Since quotas are fixed in percentages, what percentage of quota would be attributed to each?

The case

- In the instant case, two candidates, one belonging to the **OBC-Female** and another belonging to the **SC-Female** participated in the selection process in 2013 for filling up posts of constables in Uttar Pradesh police.

- Their grievance was that candidates with marks lower than what they secured had been selected in General Female category disregarding their claim.

- Sonam Tomar and Rita Rani had secured 276.5949 and 233.1908 marks respectively. They had applied under the categories of OBC-Female and SC-Female respectively.

- In the General-Female category, the last qualifying candidate had secured 274.8298 marks, a score that was lower than Tomar's.

- The question is if the criterion for making selections is "merit", should Tomar be selected under General-Female quota instead of the OBC-Female category for having secured a higher score?

What the court decided?

- The court ruled that if a person belonging to an intersection of vertical-horizontal reserved category had secured scores high enough to qualify without the vertical reservation, the person would be counted as qualifying without the vertical reservation, and cannot be excluded from the horizontal quota in the general category.

- If a person in the SC category secures a higher score than the cut-off for the general category, the person would be counted as having qualified under the general category instead of the SC quota.
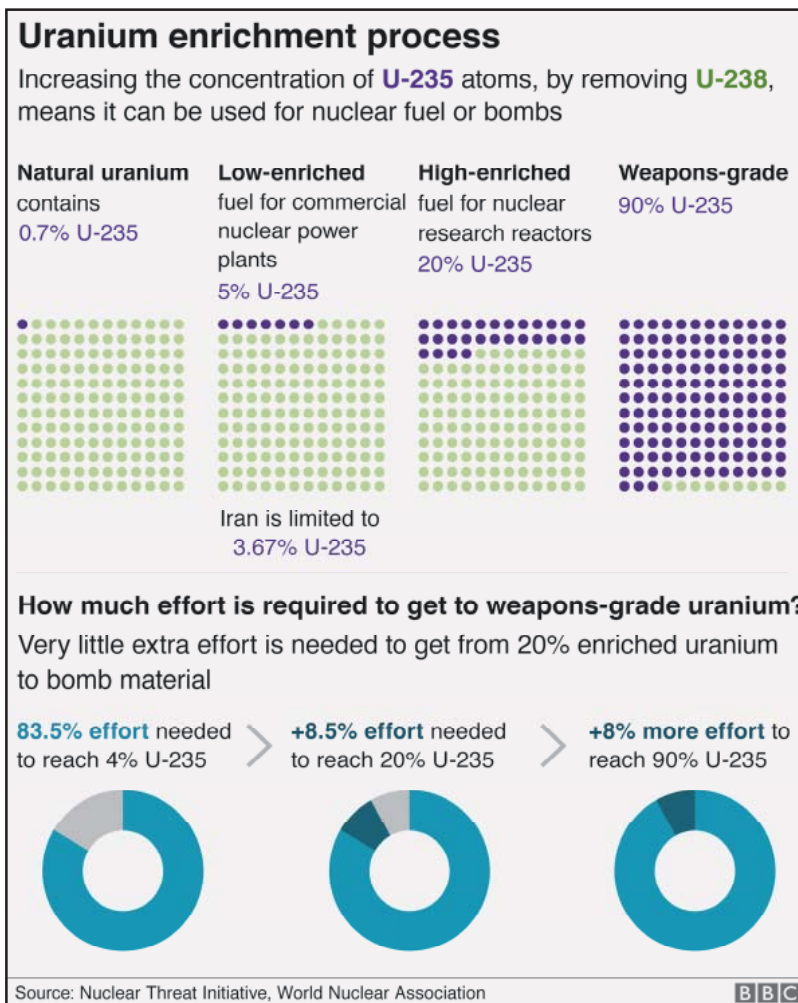
IRAN RESUME URANIUM ENRICHMENT

⊙ **CONTEXT:**   **In a breach of the 2015 nuclear deal, Iran claims that it has resumed 20 percent uranium enrichment at Fordow site where activity was banned for 15 years.**

⊙ **ABOUT:**

What is Uranium enrichment?

- Uranium found in nature consists largely of two isotopes, U-235 and U-238.

- Enriched uranium is produced by feeding uranium hexafluoride gas into centrifuges to separate out the most suitable isotope for nuclear fission, called **U-235.**

- Low-enriched uranium, which typically has a 3-5% concentration of U-235, can be used to produce fuel for commercial nuclear power plants.

- Highly enriched uranium has a concentration of 20% or more and is used in research reactors. Weapons-grade uranium is 90% enriched or more.
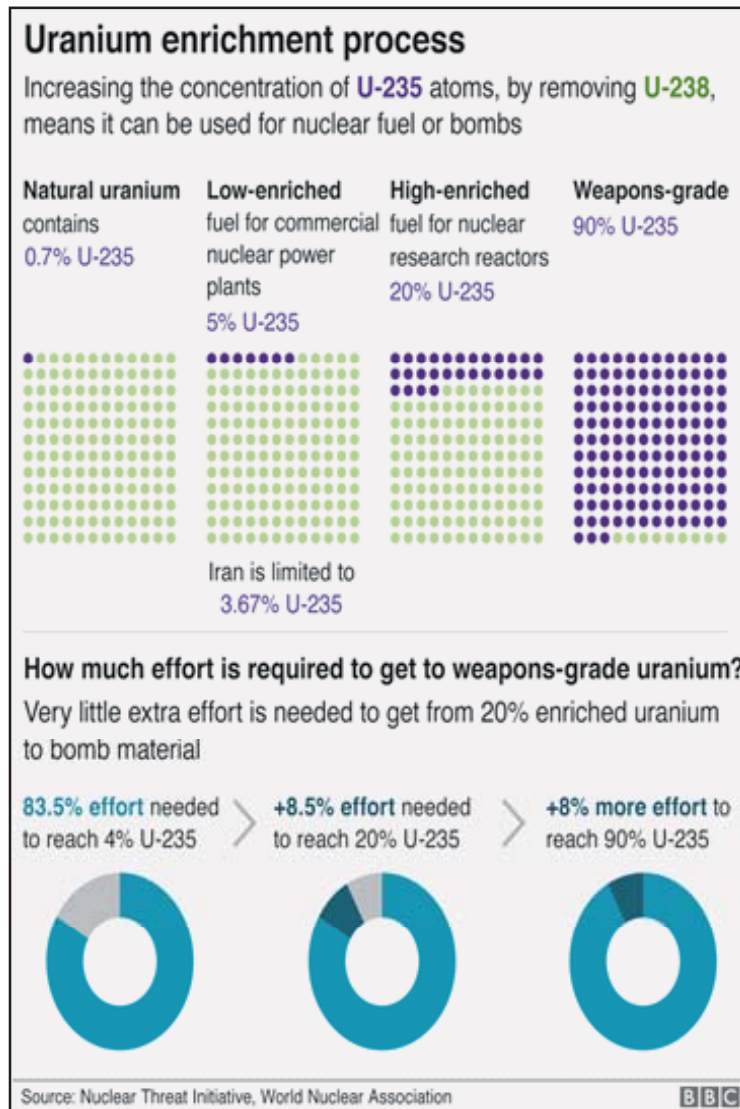

The deal

- Under the **2015 nuclear deal**, Iran is allowed

  o to enrich uranium only up to a **3.67% concentration**

  o to stockpile no more than **300kg (660lbs)** of the material

  o to operate no more than **5,060** of its oldest and least efficient centrifuges

  o to cease enrichment at the underground **Fordo facility**

- Another part of the deal instructs Iran not to accumulate more than **130 tonnes of heavy water,** which contains more hydrogen than ordinary water, and to redesign its heavy-water nuclear reactor at Arak.

- Spent fuel from a heavy-water reactor contains plutonium, which can be used in a nuclear bomb.

The concern

- The move is seen as a significant step toward achieving weapons grade levels of uranium.

- The higher levels raise fears that Iran will work toward building a nuclear weapon, which requires 90% enrichment.

- Iran's move is its latest away from the nuclear deal as it seeks to pressure the other signatories, particularly those in Europe, to deliver on promises of sanctions relief.

- The United States pulled out of the deal in 2018 and instituted economic sanctions, especially targeting Iran's key oil sector.

FSSAI SLASHES LIMIT FOR TRANS FAT LEVELS IN FOODS

⦿ **CONTEXT:** In a latest development, the Food Safety and Standards Authority of India (FSSAI) has slashed the amount of trans fatty acids allowed in oils and fats to 3 percent from 5 percent.

⊙ **ABOUT:**

What are Trans Fatty Acids?

- According to the **World Health Organisation**, trans fat, or trans-fatty acids, are unsaturated fatty acids that come from either natural or industrial sources.

- Naturally occurring trans fat comes from cows and sheep

- Industrially produced trans fat are formed in an industrial process that adds hydrogen to vegetable oil, converting the liquid into a solid, resulting in 'partially hydrogenated oil'.

Major foods containing trans fat

- Fried and packaged foods along with vanaspati, margarine and bakery shortenings are some food items that contain trans fats.

- According to the FSSAI, bakery items such as biscuits, cookies, doughnuts, rusk, cake and packaged foods such as bhujia, namkeen mixtures, chips, corn, tortilla chips and microwave popcorn contains trans fats.

- All kinds of fried foods and especially those cooked in reused oil contain trans fat.

Why trans fat are harmful?

- **Hard to metabolise:** Trans fats have a specific chemical structure, that our body finds hard to metabolize.

- **No role:** Also trans fats have no physiological role to play in our body.

- **Inflammation:** Those who eat more trans fats have higher levels of C-reactive protein (a biomarker for inflammation in the body).

- **Poor memory:** Further, trans fat consumption is linked with poor memory and higher risk for dementia too.

- **Increase bad cholesterol & decrease good cholesterol:** Trans fats increase 'bad' LDL cholesterol and triglycerides, and reduce 'good' HDL cholesterol, and can trigger diabetes, immune dysfunction and obesity among other things.

  - ⊚ The WHO estimates that every year, trans fat leads to more than 5,00,000 deaths worldwide, mostly from cardiovascular diseases. Hence, eliminating trans fats is crucial.

India's commitment to eliminate trans fat (industrial)

- India is committed to the elimination of industrial trans fats in fats/oils, and in foods containing fats/oils in a phased manner.

- Now, the trans fat content in fats and oils has been reduced to 3 percent.

- Further reduction to 2% by 2022 is under process.

"Trans Fat Free" logo

- In October 2020, Union Health Ministry had launched the **"Trans Fat Free" logo** during the 8th International Chefs Conference in the national Capital.

- The logo is meant to be used by restaurants and food manufacturers, on voluntary basis, that use trans-fat free fats or oils, which do not have industrial trans fats more than **0.2g/100g** of the food.

IFSCA BECOMES ASSOCIATE MEMBER OF THE GLOBAL LOBBY GROUP IOSCO

⊙ **CONTEXT:** International Financial Services Centres Authority (IFSCA) has become an associate member of the International Organization of Securities Commissions (IOSCO).

⊙ **ABOUT:**

What is IOSCO?

- The International Organization of Securities Commissions (IOSCO) is the international body that brings together the **world's securities regulators**.
- IOSCO was established in 1983.
- It is recognized as the **global standard setter** for the securities sector.
- IOSCO develops, implements and promotes adherence to internationally recognized standards for securities regulation.
- It works intensively with the G20 and the **Financial Stability Board (FSB)** on the global regulatory reform agenda.
- India is a member of the IOSCO Board.

About IFSCA

- The first International Financial Services Centre (IFSC) in the country has been set up at the Gujarat International Finance Tec-City (GIFT) in Gandhinagar.
- To regulate such institutions, the government established IFSCA in 2019 with its head office in Gandhinagar.
- It is a **statutory unified regulatory** body under the **Department of Economic Affairs, Ministry of Finance**
- IFSCA has been established as a **unified regulator** with a holistic vision in order to promote ease of doing business in IFSC and provide world class regulatory environment.
- **Objective:** The main objectives are:
  - ◉ To develop a strong global connect and focus on the needs of the Indian economy
  - ◉ To serve as an international financial platform for the entire region and the global economy as a whole.

Significance of the development

- The membership of IOSCO will provide the IFSCA a platform to exchange information at the global level, and even at the regional level, on areas of common interests.
- Further, the IOSCO platform will enable the IFSCA to learn from the experiences and best practices of the regulators of other well established financial centres.

KOCHI-MANGALURU NATURAL GAS PIPELINE

⊙ **CONTEXT:** The Government launched the natural gas pipeline from Kerala's Kochi to Mangaluru in Karnataka.

⊙ **ABOUT:**

The Project

- Built by: The 450km long pipeline, is built by GAIL (India) Ltd.
- Cost: Rs 3,000-crore

- The project will carry natural gas from the Liquefied Natural Gas (LNG) Regasification Terminal at Kochi to Mangaluru, while passing through Ernakulam, Thrissur, Palakkad, Malappuram, Kozhikode, Kannur and Kasaragod districts.

- It has the transportation capacity of 12 million metric standard cubic metres per day.

- The project marks an important milestone towards the creation of "One Nation One Gas Grid".

> **About Natural Gas**
> - Natural gas is the earth's cleanest fossil fuel and is colorless and odorless in its natural state.
> - It is composed of four hydrocarbon atoms and one carbon atom (CH4 or methane).
> - Colorless and odorless in its natural state, natural gas is the cleanest burning fossil fuel.
> - When it burns, natural gas produces mostly carbon dioxide, water vapor and small amounts of nitrogen oxides.

One Nation One Grid

- The project marks a significant development towards the creation of 'One Nation One Gas Grid'.

- The idea was conceptualized in the 90s.

- Now, India's power system is divided into five regional grids (Northern, Eastern, Western, North Eastern, and Southern region) with each grid catering to electricity demands of one particular region.

- To make 'One Nation One Grid' a reality, all these grids have to be integrated.

Significance of the project

- **Environment-friendly and affordable fuel:** The pipeline will supply environment-friendly and affordable fuel in the form of piped natural gas (PNG) to households and compressed natural gas (CNG) to the transportation sector.

- **Curb on air pollution:** Consumption of cleaner fuel will help in improving air quality by curbing air pollution.

- **Economic development:** It will also supply natural gas to commercial and industrial units across the districts along the pipeline, thus leading to economic development.

40TH INDIAN SCIENTIFIC EXPEDITION TO ANTARCTICA LAUNCHED

⊙ **CONTEXT:**   India launched the 40th Indian scientific expedition to Antarctica.

⊙ **ABOUT:**
- The 40th scientific expedition to Antarctica, marks four decades of country's scientific endeavour to the southern white continent.

- The focus is to support the ongoing scientific projects on climate change, geology, ocean observation, electric and magnetic flux measurements, environmental monitoring, resupplying of food, fuel, provisions and spare and accomplishing the return of the winter crew.

India's Antarctica Programme

- The Indian Antarctic expeditions began in 1981.

- The Indian Antarctic programme has now been credited to have built three permanent research base stations in Antarctica—named Dakshin Gangotri, Maitri, and Bharati.

- As of today, India has two operational research stations on the polar continent of Antarctica — Maitri and Bharati.

- These stations are operated under the **National Centre for Polar and Ocean Research (NCPOR), Union Ministry of Earth Sciences.**

About NCOPR

- National Centre for Polar and Ocean Research (NCPOR) is India's premier R&D institution responsible for the country's research activities in the polar and Southern Ocean realms.

- It manages the Indian Antarctic Research Bases "Maitri" and "Bharati", and the Indian Arctic base "Himadri".

- Why polar expeditions to Antarctica assume significance?

- Antarctica is uninhabited except for those manning the nearly 60 permanent stations established by several countries, including India, for carrying out scientific research.

- The importance of Antarctica as a pedestal for front-ranking scientific research was recognized by Indian way back in 1981 itself, when the first Indian Scientific Expedition to Antarctica was launched.

- Since then, India has made great strides in initiating scientific projects of both national and global relevance as well as in catering to the entire gamut of complex logistics operations called for, in the Annual Expeditions to Antarctica.

ANTARCTIC OZONE HOLE — ONE OF THE LARGEST, DEEPEST — CLOSES'

⊙ **CONTEXT:** **The annually occurring ozone hole over the Antarctic had rapidly grown from mid-August and peaked at around 24 million square kilometres — one of the largest so far — in early October 2020.**

⊙ **ABOUT:** **What is Ozone hole?**

- An ozone hole is the thinning of the ozone layer boosted in size by colder temperatures.

- As the temperature high up in the **stratosphere** starts to rise, ozone depletion slows, the polar vortex weakens and breaks down.

- By the end of December, ozone levels return to normal. This time around, however, the process took longer.

- The formation of ozone hole in the Antarctic has been an annual occurrence and has been recorded for the last 40 years.

- Human-made chemicals migrate into the stratosphere and accumulate inside the polar vortex.

- It begins to shrink in size as warmer temperatures dominate

The science behind ozone depletion

- Ozone depletion occurs when **chlorofluorocarbons (CFCs)** and **halons** (gases formerly found in **aerosol spray cans** and refrigerants) are released into the atmosphere.
- Ozone sits in the upper atmosphere and absorbs ultraviolet radiaton, another type of solar energy that's harmful to humans, animals and plants.
- CFCs and halons cause chemical reactions that break down ozone molecules, reducing ozone's ultraviolet radiation-absorbing capacity.

What led to the expansion?

- The expansion of the hole was driven by a strong, stable and cold polar vortex and very cold temperatures in the stratosphere.
- The same meteorological factors also contributed to the record **2020 Arctic ozone hole**, which has also closed.

GREENHOUSE GAS EMISSIONS FROM MAN-MANAGED GRASSLANDS SIMILAR TO GLOBAL CROPLANDS

⊙ **CONTEXT:**   As per a new study, emissions of methane (CH_4) and nitrous oxide (N_2O) from grasslands increased by a factor of 2.5 since 1750 mainly due to increased emissions from livestock.

⊙ **ABOUT:**   **What are Grasslands?**

- Grasslands are the most extensive terrestrial biome on Earth and are critically important for animal forage, biodiversity and ecosystem services.
- They have different names in different regions of the world:
  - In the U.S. Midwest, they are often called **prairies**
  - In South America, they are known as **pampas**
  - Central Eurasian grasslands are referred to as **steppes**
  - African grasslands are **savannas**
- What they all have in common are grasses, their naturally dominant vegetation.
- They are mainly comprised of **grasses** belonging to the **families Poaceae** that include plants like millets, rice, wheat, bluegrass, ryegrass, bamboos, sugarcane and many more.
- **Types:** There are two main kinds of grasslands:
  - **Tropical:** the hot savannas of sub-Saharan Africa and northern Australia.
  - **Temperate:** Eurasian steppes, North American prairies, and Argentine pampas.

Grasslands in India

Grasslands occupy nearly **24 percent** of the geographical area in India.

The major types of grassland in India are:

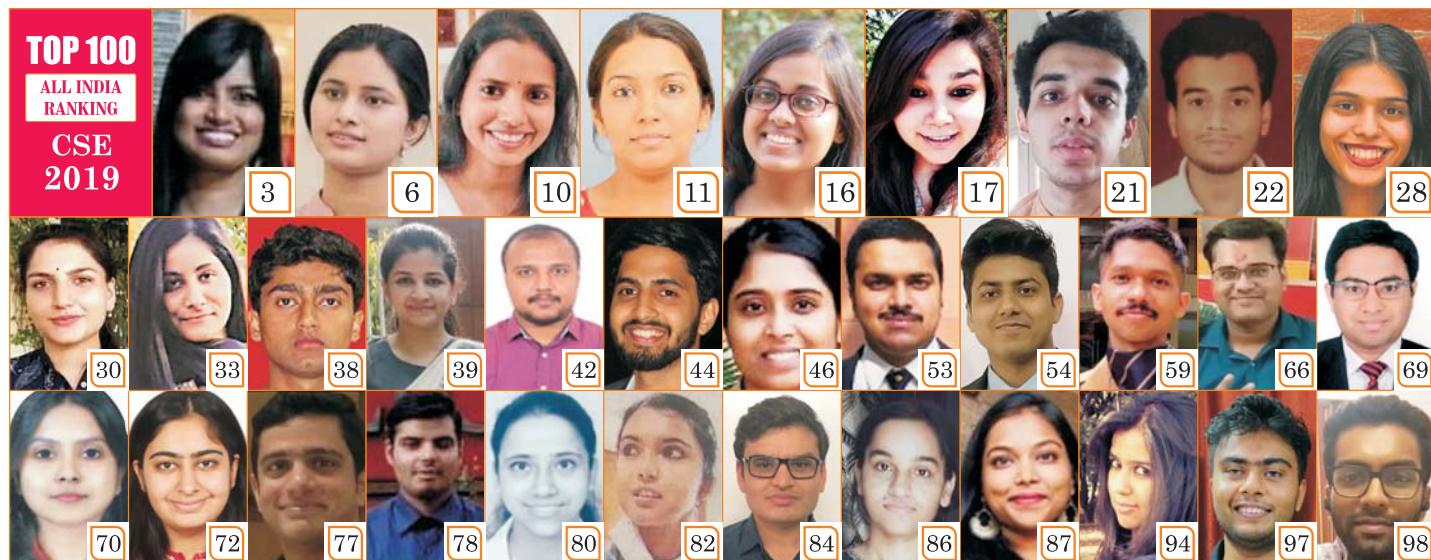- **the alpine moist meadows** of the Greater Himalayas

- **alpine arid pastures or steppe** formations of the trans Himalayas
- **hillside grasslands** in the mid-elevation ranges of the Himalayas
- **'Chaurs'** of the Himalayan foothills
- **'Terai'** grasslands on the Gangetic and the Brahmaputra floodplains
- **'Phumdis'** or floating grasslands of Manipur
- **'Banni'** and **'Vidis'** of Gujarat
- **'Shola' grasslands** of the Western Ghats
- **Savannas** of western and peninsular India
- **Plateau and valley grasslands** in the Satpuras and Maikal hills
- **Dry grasslands** of the Andhra Pradesh and Tamil Nadu plains

Climate warning from managed grasslands

- Managed grasslands contribute to global warming by the exchange of the greenhouse gases carbon dioxide, nitrous oxide and methane.
- They absorb and release **carbon dioxide (CO2)** and emit **methane (CH4)** from grazing livestock and **nitrous oxide (N2O)** from soils, especially when manure or mineral fertilizers are introduced.
- Direct human management activities are simulated to have caused grasslands to switch from a sink to a source of greenhouse gas, because of increased livestock numbers and accelerated conversion of natural lands to pasture.
- However, climate change drivers contributed a net carbon sink in soil organic matter, mainly from the increased productivity of grasslands due to increased CO2 and nitrogen deposition.

How global croplands contribute to climate change?

- Today, agriculture is a major contributor to challenges facing our environment: land degradation, aquifer depletion, nitrogen runoff and greenhouse gas emissions, etc.
- Agriculture is responsible for about half of global methane emissions. Methane is 26 times stronger as a GHG than CO2.
- **Methane sources in agriculture**
  - **Ruminant livestock**, including cows and sheep, digest their food through enteric fermentation, which produces methane.
  - **Burning biomass** to prepare fields is another methane-maker
  - **Applying manure** to fields.
  - **Rice grown in paddies**, where bacteria break down biomass submerged in the fields.

- **Suggestive measures**
  - **Sustainable management:** These findings highlight the need to use sustainable management to preserve and enhance soil carbon storage in grasslands.
  - **Reporting:** Full greenhouse gas reporting for each country could facilitate the assessment of progress towards the goals of the Paris Agreement and better link national greenhouse gas budgets to the observed growth rates of emissions in the atmosphere.

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