

PRAYAS⁴IAS

AN INITIATIVE BY THE PRAYAS INDIA

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Prelims

NATIONAL

What is ‘conscious possession’ of drugs?

(Source: [The Hindu](#))

Context: A special court in Mumbai denied bail to Aryan Khan, son of Bollywood actor Shah Rukh Khan, though the Narcotics Control Bureau (NCB) did not find any drugs on him during his arrest on October 3 after a raid on a cruise ship off Mumbai. The arrest of Aryan, along with several others, has highlighted the stiff nature of the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985, and the nuances that go into the detection and seizure of narcotics, and how the matter is investigated and prosecuted. The court rejected his bail application on the ground that he had “conscious possession” of drugs.

What does the law say?

- Section 35 of the Act recognises the ‘presumption of culpable mental state’. Possession need not be physical and could be ‘constructive’.
- The Supreme Court defines the word ‘conscious’ as “awareness of a particular fact” — a state of mind which is deliberate or intended. That is, a person can still have power and control over the article in question, while another to whom physical possession is given holds it, subject to that power or control.
- An illustration of ‘conscious possession’ is if a person keeps his gun in his mother’s flat, which is safer than his own home, he must be considered to be in possession of the firearm.
- The liability is on the accused to dispel the court’s presumption of his culpable mental state. Section 54 also allows for a similar presumption in the possession of illicit articles.

What quantity of drugs will attract penal provisions?

- The NDPS Act treats drug offences very seriously and penalties are stiff. Penalties depend on the quantity of drugs involved. The Centre has notified the small and commercial quantities for each drug. For hashish, the commercial quantity is 1 kg.
- A small quantity of cocaine is two grams and commercial quantity is 100 grams; heroin is five grams and 250 grams respectively. For methamphetamine, the corresponding figures are two grams and 50 grams; and for MDMA, 0.5 gram and 10 grams. Abetment and criminal conspiracy and even an attempt to commit an offence under the Act attracts the same punishment as the offence itself.
- Preparation to commit an offence attracts half the penalty. Repeat offences attract one-and-a-half times the penalty and in some cases even the death penalty. Consumption of drugs like cocaine, morphine and heroin attracts rigorous imprisonment up to one year or a fine up to ₹20,000 or both.
- For other drugs, the punishment is imprisonment up to six months or a fine up to ₹10,000 or both. Addicts volunteering for treatment enjoy immunity from prosecution. Production, manufacture, possession, sale, purchase, transport, import inter-State, export inter-State or use of narcotic drugs and psychotropic substances in small quantities involve rigorous imprisonment up to six months or a fine up to ₹10,000 or both.
- More than small quantity but less than commercial quantity involves rigorous imprisonment up to 10 years and a fine up to ₹1 lakh. Those activities involving commercial quantity of drugs attract rigorous imprisonment of 10-20 years and a fine of ₹1 lakh-₹2 lakh.

What is the Centre’s role in implementing this law?

- This law has “stringent” provisions for the control and regulation of operations relating to narcotic drugs and psychotropic substances.
- These include forfeiture of property derived from, or used in, illicit traffic. The law has been made in adherence to international conventions, including those of the United Nations, on narcotic drugs and psychotropic substances.
- Human rights advocates have criticised the NDPS Act as a severe law which leans towards incarceration rather than bail. Section 37(1) mandates that an accused person should not be granted bail unless the court has reasonable grounds to believe that he is not guilty and that he is not “likely to commit any offence while on bail”.
- The provision is on the same terms as anti-terror laws.

What is the NCB's role?

- One of the Directive Principles in the Constitution (Article 47) directs the state to act against narcotic activities injurious to health.
- The NDPS Act mandates the formation of a central authority to exercise its powers and functions under the statute.
- The government constituted the NCB on March 17, 1986, to coordinate with other departments and ministries to fight illicit traffic in drugs and drug abuse.

Is genetically modified rice grown in India?

(Source: [The Hindu](#))

Context: A French manufacturer of rice flour claimed it had found unauthorised genetically modified rice in a consignment of 500 tonnes of broken rice imported from India this June. Since the European Union does not permit any use of GM rice, manufacturers of confectionery items and baked goods which had used the rice flour were then forced to carry out a mass recall of products. After a complaint letter from farm and environmental groups earlier this week, Indian authorities said they were investigating the allegations, but added that any contamination was unlikely as India does not allow commercial cultivation of GM rice either.

What is GM rice?

- GM foods are derived from plants whose genes are artificially modified, usually by inserting genetic material from another organism, in order to give it a new property, such as increased yield, tolerance to a herbicide, resistance to disease or drought, or to improve its nutritional value.
- Probably the best known variety of GM rice is golden rice, which involves the insertion of genes from a plant — both daffodils and maize have been used — and a soil bacterium to create a grain that is enriched with Vitamin A.
- India has approved commercial cultivation of only one GM crop, Bt cotton. No GM food crop has ever been approved for commercial cultivation. However, confined field trials have been allowed for at least 20 GM crops.
- That includes varieties of GM rice which would have improved resistance to insects and diseases, as well as hybrid seed production and nutritional enhancements such as golden rice.
- Trials have been carried out by public universities and research institutions such as the Indian Agricultural Research Institute (IARI) and Tamil Nadu Agricultural University, as well as private firms such as Bayer Bioscience and Mahyco.

Was GM rice exported from India?

- The Commerce Ministry has said that as commercial cultivation of GM rice is banned, “there is no question of export of GM rice from India”.
- It said the EU was not sure of the exact source of contaminant, adding that contamination could have occurred during the processing of the rice flour in Europe. Despite the outrage, it initiated an investigation by APEDA (Agriculture and Processed Food Products Export Development Authority) which identified a Maharashtra-based trader as the source of the rice consignment, which had been given a non-GMO certification by a testing agency just before shipping.
- It also demanded that the EU provide details of specific genetic markers in the consignment.
- Farm and environmental activists allege that plants or seeds from the GM rice field trials could have contaminated non-GM crops, noting that illegal varieties of GM cotton and brinjal are freely circulating among sections of Indian farmers.

What are the implications for Indian farmers?

- India is the world’s top rice exporter, earning ₹65,000 crore last year by selling 18 million tonnes of grain, about a quarter of which is premium basmati.
- Among the 75 countries which buy Indian rice, West Asian nations, the U.S. and the U.K. are the biggest importers of basmati, while the majority of non-basmati rice goes to African countries and Nepal and Bangladesh.
- For Indian farmers, the nightmare scenario could be what happened in the U.S. in 2006, when trace amounts of a GM rice variety being tested by Bayer were found in shipments ready for exports.
- Trading partners such as Japan, Russia and the EU suspended rice imports from the U.S., hitting farmers hard and forcing Bayer to pay \$750 million in damages. Under pressure from the rice export lobby at the time, India drafted policies to ban GM rice trials in the basmati belt.

What lies ahead?

- In the face of new advances in rice research, scientists and farmers say the regulatory regime needs to be strengthened for the sake of domestic and export consumers.

Gorias

(Source: [The Hindu](#))

Context: Indigenous Muslims in northern Assam’s Darrang district are now feeling the heat of an eviction drive that was ostensibly aimed at migrant Bengali Muslim settlers on the banks of the Brahmaputra.

Details:

- Between June 7 and September 23, the district authorities evicted more than 1,000 migrant Muslim families from the Dhalpur area to make way for the Government-run Garukhuti farm project. The eviction was paused after two persons, one a minor, were killed in police firing.
- A month on, the indigenous Gorias — a category of Assamese Muslims who played a part in bringing the ‘encroachment’ issue to the fore six years ago — have found themselves at the receiving end.
- They are worried about losing access to the land they had been using through generations for seasonal farming and grazing their livestock.
- District officials pointed out that the land is Government-owned and the onus was on the authorities to decide how it would be used.

Karnataka law to protect religious structures on public land

(Source: [Indian Express](#))

Context: The Karnataka Religious Structures (Protection) Act, which was passed in the state assembly in September, has come into effect following the assent of Governor Thaawarchand Gehlot. The law has now been published in the Karnataka Gazette notification. The law aims to protect religious structures in public places by preventing demolition.

What are the provisions of the Act?

- The bill defines an illegal religious structure as a “temple, church, mosque, gurudwara, Bodh vihar, Majar etc, constructed on a public place without authority of law”.
- The law also says that “no religious structure and construction shall be allowed by the state government or any local authority in future on a public place without proper permission.”
- The law gives protection to the state government and its officers or employees. “No suit, prosecution or other legal proceedings shall lie against the state government or any officer or other employees of the state government for anything which is done in good faith or intended to be done under this Act,” the Act says.
- The act further says that the district administration may allow religious activity in such protected structures, subject to custom, law, usage, and any other conditions as may be laid down by the state government from time to time.

What forced the Karnataka govt to bring this law now?

- The demolition of a temple in the Mysuru region of Karnataka on September 10 that resulted in a political furore in the state was carried out by “over-enthusiastic officials” without the knowledge of the government, the ruling BJP had said earlier in the Karnataka assembly in the course of a discussion to pass a bill to protect religious structures.
- The demolition of the Nanjangud temple in Mysuru on September 10 forced the Karnataka government to introduce a law to protect all religious structures following criticism of the ruling BJP from within and outside the party ranks.
- The demolition of the temple by Mysuru district officials, as part of a drive against illegal construction, triggered a war of words between members of the ruling BJP and the opposition Congress in the region.
- Former Karnataka Chief Minister Siddaramaiah had condemned the demolition of an ‘ancient’ Hindu temple at Nanjangud in Mysuru district without consulting local residents.

How was the bill passed in assembly?

- The Karnataka assembly passed the Karnataka Religious Structures (Protection) Bill, 2021 on September 21 night amid criticism from the opposition Congress party that the BJP, which had demolished the Mysuru temple 10 days ago, was trying to shield itself from the anger of rightwing groups by passing the law to protect religious structures identified earlier as illegal.
- The bill was passed with no opposition from Congress or Janata Dal (S) but was criticised by their leaders as a hasty attempt by the BJP government to make up for the demolition of a Mysuru temple.
- One of the clauses in the bill which protects the state government or any officer or other employees of the state government was opposed by the opposition saying that it can be used by officials to go ahead with demolitions.

Samudrayaan project

(Source: [The Hindu](#))

Context: Union Minister of State (Independent Charge) Science and Technology Jitendra Singh launched the Samudrayaan project of the Ministry of Earth Sciences for deep ocean exploration for rare minerals.

Details:

- Ahead of this launch, the National Institute of Ocean Technology (NIOT) had developed a ‘personnel sphere,’ built of mild steel and tested it as an unmanned trial, two days back, using the Ocean Research Vessel Sagar Nidhi, in Bay of Bengal.
- G. A. Ramadass, director of NIOT said, the deep sea vehicle Matsya 6000 under the Samudrayaan project aims to send humans underwater for deep sea exploration; it is a five-year project at an estimated cost of ₹350 crore.
- Now, this unmanned trial done two days back with this ‘personnel sphere’ was carried out before sending humans on this deep sea mission.
- This trial was a precursor and the sphere was lowered upto a depth of 600 metres, off Chennai coast.
- Now that we have received certification for this trial, we will work on the next one wherein a sphere of 2.1 diameter will be built in which three humans can sit and be sent off to a depth of 6,000 metres.

Ayushman Bharat Health Infrastructure Mission

(Source: [Indian Express](#))

Context: Prime Minister Narendra Modi is set to visit Uttar Pradesh's Varanasi to inaugurate what is being touted as “India’s largest scheme to scale-up health infrastructure”. The Ayushman Bharat Health Infrastructure Mission is aimed at ensuring a robust public health infrastructure in both urban and rural areas, capable of responding to public health emergencies or disease outbreak.

What is Ayushman Bharat Health Infrastructure Mission?

- In a bid to increase accessibility, the Ayushman Bharat Health Infrastructure Mission, an addition to the National Health Mission, will provide support to 17,788 rural Health and Wellness Centres in 10 ‘high focus’ states and establish 11,024 urban Health and Wellness Centres across the country.
- According to a press release by the Prime Minister's Office, the mission's objective is to “fill critical gaps in public health infrastructure, especially in critical care facilities and primary care in both the urban and rural areas.”
- It will ensure access to critical care services in all districts of the country with over five lakh population through ‘Exclusive Critical Care Hospital Blocks’.
- The remaining districts will be covered through referral services, the PMO's statement read. Integrated public health labs will also be set up in all districts, giving people access to “a full range of diagnostic services” through a network of laboratories across the country.

Increased focus on diagnosis, surveillance of disease

- The Ayushman Bharat Health Infrastructure Mission also aims to establish an IT-enabled disease surveillance system through a network of surveillance laboratories at block, district, regional and national levels.

- All the public health labs will be connected through the Integrated Health Information Portal, which will be expanded to all states and UTs, the PMO said.
- In light of the coronavirus pandemic, the mission aims at ensuring a robust system for “detecting, investigating, preventing, and combating public health emergencies and disease outbreaks”. For this, 17 new public health units will be set up, while the 33 existing public health units will be strengthened. It will also train frontline and healthcare workers to respond to public health emergencies effectively.
- Apart from this, the mission will set up other infrastructure, including a national institution for one health, four national institutes for virology, a regional research platform for WHO’s South East Asia region, nine biosafety level-III laboratories, and five regional centres for disease control.

Why is the scheme significant?

- India has long been in need of a ubiquitous healthcare system. A study (**‘State of Democracy in South Asia (SDSA)–Round 3’**) by **Lokniti-CSDS** in 2019 highlighted how access to public health care remained elusive to those living on the margins.
- The study found that 70 per cent of the locations have public healthcare services. However, availability was less in rural areas (65 per cent) compared to urban areas (87 per cent).
- In 45 per cent of the surveyed locations, people could access healthcare services by walking, whereas in 43 per cent of the locations they needed to use transport.
- The survey also found that proximity to healthcare services is higher in urban localities: 64 per cent of the enumerators in urban areas observed that people can access healthcare services by walking, while only 37 per cent in rural areas can do so
- The Prime Minister had recently launched another scheme, the Ayushman Bharat Digital Mission (ABDM), a flagship digital initiative involving the creation of not just a **unique health ID for every citizen**, but also a digital healthcare professionals and facilities registry.

Birth and Death Database

(Source: [The Hindu](#))

Context: *The Centre has proposed amendments to a 1969 law that will enable it to “maintain the database of registered births and deaths at the national level”.*

Details:

- Presently, the registration of births and deaths is done by the local registrar appointed by the States.
- It is proposed that the Chief Registrar (appointed by the States) would maintain a unified database at the State level and integrate it with the data at the “national level,” maintained by the Registrar General of India (RGI).
- The amendments will imply that the Centre will be a parallel repository of data.
- States send annual statistical reports to the RGI. The amendments have been proposed by the RGI, which works under the Union Home Ministry.
- A new Section 3 A is proposed to be inserted in the Act, which says, “The Registrar General, India shall maintain the database of registered births and deaths at the national level, that may be used, with the approval of the Central government, to update the Population Register prepared under the Citizenship Act, 1955; electoral registers or electoral rolls prepared under the Representation of the People Act, 1951; Aadhaar database prepared under the Aadhaar Act, 2016; ration card database prepared under the National Food Security Act, 2013; passport database prepared under the Passport Act; and the driving licence database under the Motor Vehicles (Amendment) Act, 2019, and other databases at the national level subject to proviso of Section 17 (1) of the RBD Act, 1969.”

- If the amendments are implemented, the Centre could use the data to update the National Population Register. The NPR already has a database of 119 crore residents and under the Citizenship Rules, 2003, it is the first step towards the creation of the National Register of Citizens (NRC).

Vanadurga temple

(Source: [The Hindu](#))

Context: *The Vanadurga temple in Pakkam village near Gingee, which is in ruins and belongs to the Pallava period, is likely to get a new lease of life as the Archaeological Survey of India (ASI), Chennai Circle, has sought funds for its restoration.*

Details:

- The temple is very worthy on the aspect of its historicity and uniqueness. As the temple is dilapidated and also in much ruined condition, it is in urgent need of conservation on priority basis.
- He has requested funds “under non-protected monument category to preserve the temple and its paintings without altering its originality and authenticity.”
- The pathetic condition of the temple was brought to the attention of the ASI by Raj Panneerselvam, president of the Tiruvannamalai Heritage Foundation. Subsequently, the ASI deputed an assistant archaeologist to inspect the site and prepare a report.
- The important feature of this temple is it could be an early brick temple of Pallava period, so far documented in Tamil Nadu after Talagiriswara temple, Panamalai in Villupuram district and Kailasanatha temple, Kancheepuram.
- The deity, also known as Nilagiriamman, possesses a shanku and chakram in two hands and the other two hands are depicted as abayam and thodaikaram.
- He said though additions and alterations had been made to the original structure, the bricks used for the construction actually belonged to the Pallava period.
- Moreover, the paintings on the wall share similar features with those in Kailasanatha temple in Kancheepuram.
- Traces of Pallava period paintings were found on the wall of the temple located on a flat surface of a huge rock atop the hill.

Mullaperiyar dam

(Source: [Indian Express](#))

Context: *The Supreme Court directed that the maximum water level in Mullaperiyar dam should be 139.50 ft until November 10. The dam is at the centre of a decades-old dispute: for Kerala, where it is situated, the dam presents a threat to lakhs living downstream; and for Tamil Nadu, which controls the dam, the water it provides is the lifeline of people in five districts.*

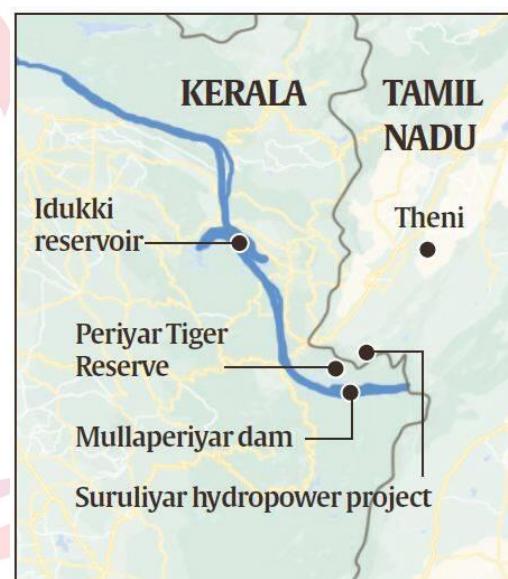
Details:

- The dam is located in the upper reaches of the river Periyar, which flows into Kerala after originating in Tamil Nadu. The reservoir is within the Periyar Tiger Reserve.

- The water diverted from the reservoir is first used for power generation in lower Periyar (by Tamil Nadu) before flowing into the Suruliyar, a tributary of Vaigai river, and then for irrigating nearly 2.08 lakh hectares in Theni and four other districts farther away.

Mullaperiyar dam: The current dispute

- The Supreme Court order on Thursday came after a court-appointed supervisory committee had suggested 139.50 ft as the permissible level.
- The court has directed both states to go by the committee's recommendation.
- Tamil Nadu had wanted the level increased to 142 ft as fixed by the Supreme Court in 2014, while Kerala wanted it within 139 ft as per a rule curve fixed until the end of the month.
- What has revived the dispute is the unusual rains in the last couple of weeks, which have led to the water level inching towards its permissible level of 142 ft. On Thursday, it reached 138.15 ft.
- Kerala had wanted the level fixed at 136 ft, but the Supreme Court in 2014 allowed Tamil Nadu to raise it to 142 ft.
- This time, while seeking a limit of 139 ft, Kerala pointed to a Supreme Court directive in August 2018 following the devastating floods in the state.
- One of the factors contributing to the floods was sudden discharge from the Mullaperiyar dam, after its water level went beyond 142 ft and all spillway shutters of the dam suddenly lifted.
- The excess water from Mullaperiyar had then flowed to downstream Idukki reservoir, which was also at maximum storage level.
- The unexpected flow forced Kerala to increase the discharge, leading to flooding of several parts of central Kerala.
- The situation in 2021 is not different, claims the Kerala government. The Idukki reservoir, which is in the same district as the Mullaperiyar dam, was at 94% of its live storage capacity, despite the shutters being kept opened for two weeks before they were shut on Wednesday. The overflow from Mullaperiyar would find its way to the Idukki reservoir, the government has argued.



What next

- As part of regulating the water level, Tamil Nadu has agreed to release water through spillway shutters from Friday morning. Kerala Chief Minister Pinarayi Vijayan recently wrote to Tamil Nadu CM M K Stalin to draw maximum water and release downstream water gradually to the Kerala side.
- Anticipating lifting of the shutters, Kerala has started evacuating families living on both banks downstream up to the Idukki reservoir, which is 35 km away.
- Kerala has been demanding a new dam replacing the existing one, and located 366 ft downstream.
- While Kerala Governor Arif Mohammed Khan recently expressed his support to the idea, such a project would need the consent of Tamil Nadu. Construction of a new dam would also give rise to a demand for a new water-sharing treaty; at present, only Tamil Nadu has rights over the dam water.

How it began

- In 1886, the then Maharaja of Travancore signed the 'Periyar Lease Deed' with the British government, which considered the Periyar waters useless to Travancore.
- It wanted to divert the water into arid regions of Tamil Nadu. The Maharaja signed the agreement after 20 years of resistance. In 1895, the dam was constructed. The Madras government started hydel power generation in 1959. Later, the capacity was increased to 140 MW.

- Safety concerns around the dam date back to the early 1960s, when media reported it was unsafe. Kerala brought up the issue before the Central Water Commission in 1961.
- After a joint inspection by Kerala and Tamil Nadu in 1964, the water level was reduced for the first time, from 155 ft to 152 ft.
- In the years that followed, Tamil Nadu witnessed public agitations demanding that the level be increased; Kerala opposed the demand.

Battle in courts

- Over the years, petitions have been filed in the high courts of both states. These were subsequently transferred to the Supreme Court. In 2000, the Centre appointed an expert committee to look into safety and suggest storage levels.
- In 2006, the Supreme Court allowed Tamil Nadu to raise the water level to 142 ft. It said after completing strengthening work, the level could be restored to 152 ft if an expert committee examined and recommended it.
- In March 2006, the Kerala Assembly amended the Kerala Irrigation and Water Conservation Act, 2003, bringing Mullaperiyar in the schedule of ‘Endangered Dams’ and restricting its storage at 136 ft. Since then, the issue has shifted to the safety of the dam.
- In 2007, the Kerala Cabinet permitted preliminary work on a new dam. Tamil Nadu approached the Supreme Court against the move. In 2010, the Supreme Court formed an empowered committee to look into the dam’s safety.
- In 2008, a flood routing study by IIT Delhi found the dam was unsafe; in 2009, IIT Roorkee reported the dam was in an earthquake-prone area and would not survive a major quake.
- In November 2011, Kerala sought the Centre’s intervention to bring down water levels to 120 ft after the area witnessed minor tremors. In 2014 came the Supreme Court order allowing Tamil Nadu to fix the water level at 142 ft.

Allegations against Sameer Wankhede

(Source: [Indian Express](#))

Context: Maharashtra Minister Nawab Malik has alleged that Sameer Wankhede, Mumbai Zonal Director of the Narcotics Control Bureau (NCB), who is in charge of the case against Shah Rukh Khan’s son Aryan, benefitted from the reservation for Scheduled Castes (SCs) despite being Muslim and ineligible for the quota. If the **allegations are proven**, Wankhede could lose his job.

What is Sameer Wankhede accused of?

- Malik has alleged that Dnyandev Kachru Wankhede, father of Sameer Wankhede, was an SC who converted to Islam before marrying Sameer’s mother, Zaheeda Begum.
- Sameer was born in 1979, and Malik has released the birth certificate which records his father’s name as Dawood K Wankhede.
- Malik has claimed that Sameer was raised as a Muslim, and has released the purported nikahnama — the document on which two Muslim partners entering into a civil union must sign to legalise their marriage — dated December 7, 2006, which shows his name as Sameer Dawood Wankhede.
- Malik has alleged that Sameer, a Muslim, was selected in the CSE under the SC quota to which he was not entitled.

What are the rules of religion in eligibility for the SC quota?

- There is a 15 per cent quota for SCs in government jobs. But Hindu SCs who convert to Islam lose their SC status, and are no longer eligible for the quota.

- A brochure on the DoPT site lays down the position on SC status and conversions:
- “A person shall be held to be a member of a Scheduled Caste or Scheduled Tribe if he belongs to a caste, or a tribe which has been declared as such...
- “No person who professes a religion different from the Hindu or the Sikh religion shall be deemed to be a member of the Scheduled Castes...” (On STs, see later)
- Further, “A person belonging to a Scheduled Caste or Scheduled Tribe will continue to be deemed as such irrespective of his/her marriage to a non-Scheduled Caste/Scheduled Tribe.”
- However, “A convert or re-convert to Hinduism and Sikhism shall be accepted as a member of Scheduled Caste if he has been received back and accepted as a member of the concerned Scheduled Caste.”
- The Constitution (Scheduled Castes) Order, 1950, which lays down that no person professing a religion different from the Hindu or Sikh or Buddhist religion can be deemed to be a member of an SC, has been amended several times.
- The original order under which only Hindus were classified as SCs, was amended to include Sikhs in 1956, and Buddhists in 1990.
- No such religion-based bar, however, operates for STs and Other Backward Classes (OBCs). The brochure on the DoPT site says, “The rights of a person belonging to a Scheduled Tribe are independent of his/her religious faith.”

Is the exclusion of Muslims and Christians discriminatory?

- Petitions have been filed in the Supreme Court seeking the inclusion of Muslims and Christians in the SC category.
- In 2004, the Centre for Public Interest Litigation challenged the legality of the provision by which people professing and converting to religions other than Hinduism, Sikhism, and Buddhism were deprived of reservation benefits.
- In 2008, the National Commission on Minorities concluded that there was a case for inclusion Dalit Christians and Dalit Muslims in the SC category.
- In January 2020, the SC agreed to examine a plea by the National Council of Dalit Christians to make the government’s affirmative action programmes religion-neutral. The plea is pending before the court.

In inter-caste marriages, can mother's caste be the caste of the couple's child?

- The child carries the caste of the father, and caste certificates are issued on this basis. However, courts have taken note of the surroundings in which the child was brought up.\
- In Rameshbhai Dabhai Naika vs State of Gujarat & Ors (2012), the Supreme Court ruled: “In an inter-caste marriage or a marriage between a tribal and a non-tribal there may be a presumption that the child has the caste of the father.
- This presumption may be stronger in the case where in the inter-caste marriage or a marriage between a tribal and a non-tribal the husband belongs to a forward caste. But by no means the presumption is conclusive or irrebuttable and it is open to the child of such marriage to lead evidence to show that he/she was brought up by the mother who belonged to the Scheduled Caste/Scheduled Tribe.”
- In 2006, then Minister for Social Justice and Empowerment Meira Kumar proposed that children born of inter-caste marriages should get SC status if either parent belongs to a Scheduled Caste.
- A proposal was to be placed before the Cabinet in April 2008, but was withdrawn at the last minute. There was resistance to the suggestion from many quarters, including the National Commission for Scheduled Castes (NCSC).

What can happen if a caste certificate is found to be false?

- A DoPT circular of May 19, 1993 says: “Wherever it is found that a Government servant, who was not qualified or eligible in terms of the recruitment rules etc... or had furnished false information or produced a false certificate in order to secure appointment, he should not be retained in service...”

- “If he/she has become a permanent Government Servant... if the charges are proved, the Government servant should be removed or dismissed from service.”
- Sameer Wankhede may face an inquiry, and may even be dismissed if his SC certificate is found to be false.
- However, the matter is currently very politicised, and clarity is required on several questions — for example:
 - whether his father was a Muslim when Sameer was issued his certificate;
 - whether his father converted to Islam to marry and then re-converted — and if so, when;
 - whether Sameer changed his religion to Hinduism just to receive an SC certificate.

Dengue fever

Context: With *dengue cases in Punjab have reached 16,129 — an all-time high figure since 2016*

Which tests are used to detect dengue?

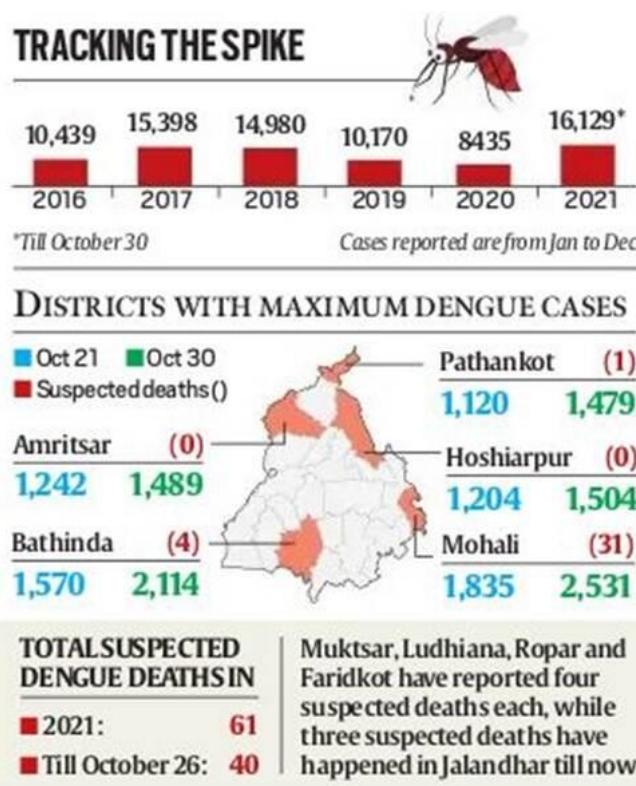
- IgM and IgG antibodies test and NS1 antigen test. Both are done through ELISA kits and hence are popularly known as Elisa test.
- IgM and IgG test for dengue antibodies detected in an initial blood sample, meaning that it is likely that the person became infected with dengue virus within recent weeks.
- This test is normally done after 3-7 days of fever while NS1 antigen test is a test for dengue, which allows rapid detection on the first day of fever, before antibodies appear. Both tests are card tests which give instant results.
- Punjab government has fixed a cost of Rs 600 for these tests in private hospitals while they are free in government hospitals.
- However, there are limited kits in government institutions, which is forcing patients to run to private labs.

What are the common symptoms for dengue fever?

- The onset of dengue fever is usually a sudden rise in temperature lasting 2-7 days and commonly associated with headache, flushing, retro-orbital pain and/or rash, myalgia, weakness, rash and itching. Hemorrhagic manifestation (petechiae and positive tourniquet test).

At what stage should platelet transfusion be done?

- Dr Vittul Gupta, chairman of the Malwa branch of Physicians Association, said, “Transfusion must only be done if a person’s platelet count is less than 10,000, and he/she has active bleeding.
- Most dengue cases are preventable and manageable. The risk of complications is in less than 1 per cent of dengue cases. Platelet counts are unreliable to predict bleeding.
- In a small study in which children with severe thrombocytopenia were included, platelet infusion did not alter the outcome of patients.
- In a recent randomized controlled trial (RCT) in adults with confirmed dengue infection and



thrombocytopenia ($=20\ 000$ platelets 25 per μL), without persistent mild bleeding or any severe bleeding, prophylactic platelet transfusion was not superior to supportive care.”

Which symptoms indicate that the patient is improving or deteriorating?

- Improving: Stable pulse, blood pressure and breathing rate normal temperature, no evidence of external or internal bleeding, return of appetite, no vomiting, convalescent confluent petechiae rash, stable haematocrit, good urine output.
- Deteriorating: Shock delayed capillary refill or oliguria, fluid accumulation in serosal cavities with respiratory distress, severe bleeding manifestations, severe organ involvement
- Liver: Hepatomegaly, liver failure, AST or ALT >1000 units of CNS: Impaired consciousness
- Heart: Myocardial dysfunction



INTERNATIONAL

CO2 emissions in 2020 above decadal average

(Source: [The Hindu](#))

Context: A report from the World Meteorological Organisation (WMO) said the increase in CO2 from 2019 to 2020 was slightly lower than that observed from 2018 to 2019 but higher than the average annual growth rate over the past decade. This is despite the approximately 5.6% drop in fossil fuel CO2 emissions in 2020 due to restrictions related to the pandemic.

Emissions on the rise

- For methane, the increase from 2019 to 2020 was higher than that observed from 2018 to 2019 and also higher than the average annual growth rate over the past decade.
- For nitrous oxides also, the increase was higher and also than the average annual growth rate over the past 10 years. The National Oceanic and Atmospheric Administration (NOAA) Annual Greenhouse Gas Index (AGGI) shows that from 1990 to 2020, radiative forcing by long-lived greenhouse gases (LLGHGs) increased by 47%, with CO2 accounting for about 80% of this increase.
- Concentration of carbon dioxide (CO2), the most significant greenhouse gas, reached 413.2 parts per million in 2020 and is 149% of the pre-industrial level.
- Methane (CH4) is 262% and nitrous oxide (N2O) is 123% of the levels in 1,750 when human activities started disrupting earth's natural equilibrium.
- Roughly half of the CO2 emitted by human activities today remains in the atmosphere. The other half is taken up by oceans and land ecosystems.
- The Bulletin, as the WMO report is called, flagged concern that the ability of land ecosystems and oceans to act as 'sinks' may become less effective in future, thus reducing their ability to absorb CO2 and act as a buffer against larger temperature increase.
- The Bulletin shows that from 1990 to 2020, radiative forcing — the warming effect on our climate — by long-lived greenhouse gases increased by 47%, with CO2 accounting for about 80% of this increase. The numbers are based on monitoring by WMO's Global Atmosphere Watch network.
- "At the current rate of increase in greenhouse gas concentrations, we will see a temperature increase by the end of this century far in excess of the Paris Agreement targets of 1.5 to 2 degrees Celsius above pre-industrial levels," said WMO Secretary-General Prof. Petteri Taalas.

Unclean air

Key greenhouse gase emissions rose faster in 2020 than the average for the previous decade. A comparison of the key trends to pre-industrial levels:

Parameter	CO ₂	CH ₄	N ₂ O
2020 global mean abundance	413.2 ± 0.2 ppm	1889 ± 2 ppb	333.2 ± 0.1 ppb
Pre-industrial levels	278 ppm	722 ppb	270 ppb
2020 abundance relative to 1750	149%	262%	123%
2019-2020 absolute increase	2.5 ppm	11 ppb	1.2 ppb
Mean annual absolute increase over past 10 years	2.4 ppm	8 ppb	0.99 ppb

Joe Biden's 'wealth tax' plan

(Source: [Indian Express](#))

Context: To help pay for his big economic and social agenda, President Joe Biden is looking to go where the big money is: billionaires. Biden never endorsed an outright "wealth tax" when campaigning last year. But his more conventional proposed rate hikes on the income of large corporations and the wealthiest Americans have hit a roadblock.

Wealth tax: How would it work?

- Essentially, billionaires earn the bulk of their money off their wealth. This might be from the stock market.
- It could include, once sold, beachfront mansions or the ownership of rare art and antiquities. A triceratops skeleton.
- This new tax would apply solely to people with at least \$1 billion in assets or \$100 million in income for three straight years.
- These standards mean that just 700 taxpayers would face the additional tax on increases to their wealth, according to a description obtained by *The Associated Press* of the proposal of Senate Finance Committee Chairman Ron Wyden of Oregon.
- On tradeable items such as stocks, billionaires would still pay a tax even if they held on to the asset.
- They would be taxed on any increases in value and take deductions on losses. Under current law, those assets get taxed only when they're sold.
- Billionaires would also face an additional tax on non-tradeable assets such as real estate and business interests once those assets are sold.
- During the first year of the proposed tax, the billionaires would also owe taxes on any built-in gains that predate the tax.

How much money would it raise?

- House Speaker Nancy Pelosi estimated on *CNN* that the tax would raise \$200 billion to \$250 billion.
- This is a meaningful sum, but it's well shy of the nearly \$2 trillion in proposed additional spending over 10 years being negotiated right now.
- This means that additional levies such as the global minimum tax and increased enforcement dollars for the IRS would still be needed to help close the gap.
- And the forecasts for revenue from the wealth tax are highly debatable.
- It's just impossible to implement," said Allison Schrager, a senior fellow at the conservative Manhattan Institute.
- There's a lot of evidence that these things don't work, and I've never heard an explanation of how this could be workable.

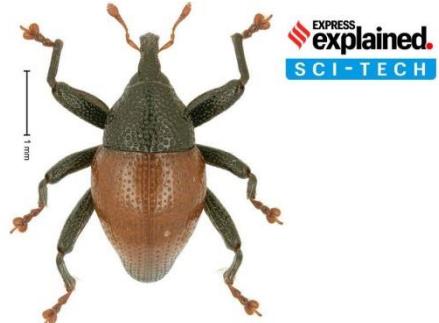
Trigonopterus corona

(Source: [Indian Express](#))

Context: On the Indonesian island of Sulawesi, museum scientists have discovered 28 new species of beetles. The species, all of which measure 2-3 mm, are described in the journal *Zookeys*.

Details:

- One of them has been named *Trigonopterus corona*. This reflects the large impact of the Covid-19 pandemic on this project, Pensoft Publishers, which brings out the journal, said in a blog spot.
- And it is not the only insect species to be named after the pandemic. In April, a new species of caddisfly (a moth-like insect) was collected near a stream in Kosovo by a team of scientists, and named *Potamophylax coronavirus* (Biodiversity Data Journal).
- The same month, out of six new species of Brazilian wasps described in the Journal of Hymenoptera Research, one was named *Allorhagas quarentenus*, a reference to the quarantine, which occurred while the authors were describing the species.
- And earlier this month, out of five new wasp species discovered in Mexico, scientists named one *Stethantyx covidia* (Zookeys).



EXPRESS
Explained.
SCI-TECH

Queen Heo Hwang-ok of Korea and her Ayodhya connection

(Source: [Indian Express](#))

Context: On the banks of the Sarayu in Ayodhya, acres of green space, mostly known as Ram Katha Park, have been through a major beautification exercise. Once inaugurated on November 4, the spruced-up space will be known as Queen Heo Hwang-ok Memorial Park, after a Korean queen believed to have had Indian roots.

Who was Queen Heo Hwang-ok?

- She was a Korean queen who is believed to have been born Princess Suriratna of Ayodhya, daughter of King Padmasen and Indumati. Padmasen ruled the ancient kingdom of Kausala, a region that extended from present-day UP to Odisha.
- Her story is described in *Samguk Yusa* (Memorabilia of Three Kingdoms), a 13th-century collection of legends, folktales and history of Korea's three kingdoms — Goguryeo, Baekje and Silla — and some other regions.
- In 48 BC, the princess, then 16, travelled to Korea from the ancient land of 'Ayuta' and married Kim Suro, founder and King of Geumgwan Gaya in south-eastern Korea.
- She travelled by boat along with an entourage, having been sent by her father, who is said to have had a dream about her marrying Suro.
- She became the first queen of Geumgwan Gaya, believed to be located around modern-day Gimhae city in Southern Gyeongsang province. The couple are said to have had 12 children.



EXPRESS
Explained.
CULTURE

What is her legacy?

- More than six million present-day Koreans trace their lineage to Heo Hwang-ok. They belong to clans such as Gimhae Kim, Heo (the queen had asked the king that two of their sons be given her maiden name) and Lee.
- Her direct descendants include Kim Yoon-ok, wife of former South Korean President Lee Myung-bak. King Kim Suro and Queen Heo Hwang-ok birthed the Karak dynasty, whose descendants include former South Korean President Kim Dae-jung and former Prime Minister Kim Jong-pil.
- For years now, many Koreans have visited Ayodhya to pay homage to the queen's ancestral home. In Gimhae in South Korea, two tombs, believed to be of Kim Suro and queen Heo Hwang-ok, are maintained as a memorial park.
- A pagoda, believed to have been brought by the queen from India to calm the ocean gods, is placed next to the tomb. Culturally, the queen has been part of Korea's popular culture for years, with many plays and musicals based on her.

What led to setting up the memorial park in Ayodhya?

- In 2000, India and South Korea signed an agreement to develop Ayodhya and Gimhae as sister cities.
- The memorial space was unveiled in 2001. In 2016, a proposal was sent by a South Korean delegation to refurbish the existing memorial.
- Subsequently, Prime Minister Narendra Modi and South Korean President Moon Jae-in signed an MoU for developing the memorial. South Korean First Lady Kim Jung-sook attended the inauguration of the beautification work in 2018.
- The memorial now comprises Queen and King pavilions with their busts in place, and a pond to represent Princess Suriratna's journey.
- According to the legend, the princess had taken a golden egg to Korea, and the park includes an egg made of granite.

How much of her Indian connection is established as fact?

- The story has helped boost the relationship between India and South Korea. But there is some debate about her Indian origins.
- There are many versions of the same story.
- While Samguk Yusa talks about the queen from a distant land named Ayuta and popular culture considers it Ayodhya, no Indian document or scripture has any record of her.
- Some historians also believe that the princess could actually be from Thailand's Ayutthaya kingdom.
- But the kingdom in Thailand came about in 1350, years after Samguk Yusa had already been written.

Mains

GS I

Re-evaluating the neo-Buddhist movement

(Source: [The Hindu](#))

Context: Till October 14, 1956, the followers of Buddhism in India were an insignificant mass. And as a religion, it was one that was on the verge of extinction. On this date, Babasaheb Ambedkar embraced Buddhism in a grand ceremony at Nagpur, Maharashtra, and offered it to millions of his followers. Significant sections among the erstwhile untouchable castes divorced the degraded untouchable caste identity to find solace in the teachings of the Buddha.

Ambedkar's impact

- A few days ago, on October 20, 2021, Prime Minister Narendra Modi inaugurated Kushinagar International Airport in Uttar Pradesh, which will help connect important Buddhist pilgrimage sites. Kushinagar is an important Buddhist pilgrim destination.
- The Prime Minister heralded the Buddhist sites and the Buddha's teachings as the marker of India's ancient civilisational heritage.
- However, he never acknowledged Ambedkar's contribution in revitalising the Buddhist faith. Buddhism's affiliation with the Dalit emancipatory movement is largely neglected, and often, its ornamental spiritual side is what is presented instead.
- According to the last national population census, the Buddhists are one of the smallest minorities (0.7% of the total population) in India. Interestingly a majority of them are converted Dalits from Maharashtra.
- Within the conventional Hindu social order, the untouchables were reduced to a sub-human category and treated with hatred and subject to prejudices.
- Though there were impactful social reforms to correct historic wrongs, the general social psyche of the dominant caste Hindus towards the lowest rung remained pervasive.
- It is with the arrival of Ambedkar on the national political stage that Dalits realised their self-potential and launched a struggle, claiming an equitable share in the modern institutions of power.
- Embracing Buddhism is heralded as the intellectual choice of Dalits that connects them to a robust historic past while also making them ready to enjoy constitutional rights as secular citizens.

A force in Maharashtra

- Important cities in Maharashtra such as Mumbai, Aurangabad and Nagpur have witnessed the rise of powerful Dalit movements, social events and modern monuments.
- Deeksha Bhoomi in Nagpur, the place where Ambedkar embraced Buddhism, has emerged as a monumental heritage site, attracting millions of visitors every year.
- Here, Buddhism was resurrected not only as a part of India's cultural and civilisational heritage but also as a tool to escape the caste hierarchical cultural hegemony and social hostility.
- In the post-Ambedkar period, it is urban Buddhists — because of their educational achievements and newly gained middle class status — who have offered vital leadership to Dalit politics and organised various social and cultural struggles.
- Importantly, it is the creative application of the neo-Buddhist identity and ideology that has structured the Dalit movement as an autonomous political force in Maharashtra.

- A serious debate between neo-Buddhists and Marxist-Socialists erupted during the heightened period of activism by the Dalit Panthers' in Bombay.
- Namdeo Dhasal, a maverick revolutionary poet, offered a militant political alternative, suggesting that 'Dalit' is a revolutionary collective of all oppressed communities and that they shall contest caste atrocities and state violence by radical violent means.
- Dhasal was influenced by the Maoist-Naxalbari movements and wanted that Dalits should build close solidarities with the Communist working-class movement.
- Raja Dhale, another founding member of the Dalit Panthers' movement, criticised such a 'Leftist turn' of the Dalit movement.
- As an alternative to Dhasal's 'Marxist Manifesto', he offered a Buddhist perspective, suggesting that the social justice movement must be based upon a primacy to Ambedkarite liberal principles and making a break from the ideas of a violent class struggle.
- Conversion to Buddhism helped the community appreciate the constitutional values of secularism and social justice substantively and develop a critical distance from the ideologies that legitimise any brutal usage of violence.
- Dhale visualised the neo-Buddhist movement not as a sectarian project for the emancipation of untouchables only but visualised it as a revolutionary project that would enlighten the wider Bahujan mass.
- Second, conversion to Buddhism also helped Dalits to find a robust meaning about their cultural past. They reinvented the Buddhist cultural symbols (by building monuments, viharas and religious sites), rituals and practices (by celebrating Buddhist festivals) as the proud markers of their new social identity.
- Buddhist cultural assertions and claims over public spaces became the symbols of their rejection against Hindu cultural hegemony and its social tentacles. Such assertiveness often put them in opposition with right-wing ideologies.

Niche ideological space

- In Mumbai, under Bal Thackeray's leadership, the Shiv Sena responded to the neo-Buddhist social activism with street violence and riots.
- In the early 1990s, the neo-Buddhists launched a mass movement to liberate the Bodhgaya temple from the control of Brahmin priests and also raised legal claim over the controversial site of the Babri Masjid, thus putting Hindutva politics into conundrum — on how to deal with the neo-Buddhists' demands.
- Though the Bharatiya Janata Party regime at the centre appears more accommodative to Dalit cultural and religious symbols and avoided much skirmish on this front, it is difficult for the right wing to attract neo-Buddhists under the Hindutva project.
- As an ideological force, neo-Buddhists offer an alternative reading of history and imagine Buddhism as the chief challenger to Brahmanical Hindu traditions, caste order and orthodox ritualism.
- Buddhists thus stand distinct from the militant Hindutva hegemony and wish to retain their own autonomy in sociocultural spaces.
- Non-allegiance with the Left militancy and later its opposition to Hindutva politics have created a niche ideological space for Dalits especially amongst neo-Buddhists.
- However, as a political force, they have failed to provide any significant challenge to the dominant caste and class elites and failed to mobilise other marginalised communities under their social or political programmes.
- In recent times, neo-Buddhism has generated a passive communitarian exclusivity that often engages with ritualistic and spiritual endeavours rather than building impressive struggles for social justice or to gain political power.

A democratic dialogue

- The revolutionary promises made during Ambedkar's historic Buddhist conversion would be fulfilled only if the polity is sensitive towards secularism and social justice.

- The current advancement of Hindutva is coercive and hegemonic as it offers residual space to Buddhist symbols and keeps a distance from its revolutionary anti-caste struggles.
- Though it is vital to protect the autonomous cultural space that the neo-Buddhist intellectual class has developed, it is equally important to build a unified people's movement to protect the merits of India's constitutional democracy.
- It is only by initiating democratic dialogue with other marginalised and struggling communities that neo-Buddhists can revitalise Ambedkar's transformative project.



GS II

India-China relations

(Source: [The Hindu](#))

Context: *The India-China relationship is in a difficult place, with the past shadowing the present. The period from 1949 to 1962 is crucial as Jawaharlal Nehru sought, albeit unsuccessfully, to establish a workable relationship with the Chinese. Nirupama Rao, former Foreign Secretary and Ambassador to China, traces the history of Tibet, the genesis of the McMahon Line, Communist China's military takeover and domination of Tibet, and the border row between India and China in her new book, The Fractured Himalaya.*

Details:

- An excerpt from the book:
 - It was to be over a year before negotiations between India and China on relations between India and Tibet opened in Beijing. These commenced on December 31, 1953. Jawaharlal Nehru's approach to frontier questions between India and China was already well-entrenched by then.
 - Tibet had become more a 'psychological' buffer from a political one during British rule — psychological because Nehru was convinced that any military attack on India from Tibet was not feasible.
 - For him, while the status of Tibet and Tibetan autonomy, as also Indian interests in Tibet inherited from the British were issues for discussion with China, the frontier, as his biographer S. Gopal noted, 'was firm, well-known and beyond dispute'.
 - Loosely put, Nehru's attitude was that there was no room for controversy over the McMahon Line: 'Our maps show that the McMahon Line is our boundary and that is our boundary — map or no map.'
 - That fact remains and we stand by that boundary, and we will not allow anybody to come across that boundary.' Gopal notes that this assertion of rights was more definite regarding the eastern sector of the boundary.

Flawed advice

- The problem lay in the fact that, except for Sikkim, the border had not been demarcated — jointly with China — on the ground; the boundary in the western and middle sectors had not been defined in detail by treaty and only, as Nehru stated, by custom, usage and tradition.
- The McMahon Line was shown only on a map that the Chinese government had initialled in 1914 but not subsequently accepted. The Chinese would set their strategy in such a way subsequently, when the officials of the two sides met in 1960, to seek 'fresh acceptance of every stretch' of the boundary. K.M. Panikkar, without the benefit of hindsight, only had this advice to give Nehru: the issue would pose no difficulty.
- Could Panikkar [the first Indian Ambassador to China] have sensed the actual Chinese attitude? In retrospect, his advice to Nehru would have serious repercussions for India. As advice, it was fatally flawed.
- Throughout his stay in China, Panikkar took the stand that the Tibetan issue was a simple one. Leaders like Zhou Enlai, in his view, recognised the 'legitimacy' of India's trade and cultural interests in Tibet and only suggested that the political office in Lhasa, 'an office of dubious legality' in Panikkar's words, should be regularised by its transformation into an Indian Consulate-General.

- Other posts and institutions like the telegraph lines set up in the British era, the military escort at Yadong in the Chumbi Valley, ‘were to be abolished quietly in time’, and the trade agents in Tibet and their subordinate agencies brought ‘within the framework of normal consulate relations’.
- In his seeming obsession with the big picture of two big Asian nations forging deeper understanding and cooperation, Panikkar was content to say that he left ‘no outstanding issue’ pending at the time of his departure. It was a strategic miscalculation which would have serious consequences.
- When Zhou Enlai told Panikkar in September 1951 in a ‘shrouded sentence’ that the question of the stabilisation of the Tibetan frontier — a matter of common interest to India, Nepal and China — could be settled by discussion between the three countries, it was assumed, in diplomatic guesswork, that stabilisation meant that there was no territorial dispute between India and China.

‘Cunning’ move

- Many records indicate that the view of the officials in the Ministry of External Affairs was that while negotiations for an agreement between India and China on Tibet were necessary, they should also include a border settlement.
- There should be a quid pro quo for India’s recognition of Chinese sovereignty over Tibet. A note by the Foreign Secretary, K.P.S. Menon on April 11, 1952 observed that the Chinese government’s attitude was far from straightforward, and could, in fact, be termed ‘cunning’.
- A child could see through the game, said Menon. Zhou Enlai had suggested in September 1951 that India’s position in Tibet should be regularised and the ‘boundary with Tibet stabilised’.
- India had said immediately that ‘we were ready for discussions’ but there had been no response from the Chinese.
- The latter were saying that ‘they [the Chinese] have been in Tibet only for a short while and want more time to study the problem.’ Menon was suspicious of Chinese irredentism, and a whispering campaign was already doing the rounds in Lhasa that not only Tibet, but Sikkim and Bhutan, and even the Darjeeling-Kalimpong area ‘would soon be liberated.’
- This would encourage the Tibetans to lay their hands on Tawang and other disputed areas to the south of the McMahon Line. ‘The Chinese have long memories; irredentism has always played a part in the policy of the Chinese government whether imperial, Guomindang or Communist.’
- India was clearly inviting trouble when it was decided that the border issue would not figure in the negotiations on Tibet.
- Responding positively to the Chinese move for an agreement on Tibet was seen essentially as a means of reducing Chinese pressure on the border, and as ‘helping’ the Tibetans within a larger policy framework of coaxing the Chinese out of their isolation.

Piecemeal solution

- The ‘knight-administrator’ (called thus because of his British knighthood and being a member of the Indian Civil Service) Sir Girija Shankar Bajpai was by now the Governor of Bombay. He continued to be in the picture regarding Tibet.
- He had noticed that the list of pending issues proposed for discussion with the Chinese did not include the question of the frontier with Tibet. His view, as expressed to the Foreign Secretary, was that ‘This business of Sino-Indian relations over Tibet, would, in my judgement, be best handled comprehensively and not piecemeal’, implying that the question of the border should not be left aside.
- Perhaps, as a result of Bajpai’s letter, the Prime Minister in a note to the Foreign Secretary on 23 July, expressed his inclination that the frontier should be mentioned in the talks with the Chinese.
- Panikkar’s reasons for not advancing this subject, be what they may, were appreciated but Nehru felt ‘that our attempt at being clever might overreach itself’ and that it was better to be absolutely straight and frank about the issue with the Chinese.

Nehru’s misgivings

- This was not the first time that Nehru had expressed some misgivings on the issue. In June of the same year, he had in a message to Panikkar said it ‘was odd’ that Zhou Enlai had made no reference to the frontier in his discussions with the Ambassador.
- He did not like Zhou’s silence in the matter, he added, since the Indian government had made it clear in Parliament that not only the direct frontier with Tibet, but also the frontiers of Nepal, Bhutan and Sikkim, should remain unchanged.
- Panikkar’s response was to state that the Chinese were aware of India’s interest in the integrity of Nepal and had not raised any question about it.
- Neither had they objected to the PM’s public statements on the issue. Panikkar said he did not want to make this a subject for further discussion.
- India should stick to the position that the frontier had been defined ‘and there is nothing for us to discuss’.
- It would be legitimate ‘to presume that Chou En Lai’s silence on this point and his NOT having even once alluded to Sikkim or Bhutan at any time even indirectly during our conversation would mean acquiescence in, if NOT acceptance of our position.’ The Prime Minister did not demur further.

A reminder that India still trails in the hunger fight

(Source: [The Hindu](#))

Context: *The Global Hunger Report (GHR) has once again made headlines in India for the country’s poor ranking in terms of the Global Hunger Index (GHI). The report ranks India at 101 out of 116 countries, with the country falling in the category of having a ‘serious’ hunger situation. The ranks are not comparable across years because of various methodological issues and so it is wrong to say that India’s standing has fallen from 94 (out of 107) in 2020. However, it is true that year after year, India ranks at the lower end — below a number of other countries that are poorer in terms of per capita incomes. This in itself is cause for concern.*

The indicators

- The Government of India, through a press release, refuted the GHI, claiming that it is ‘devoid of ground reality’ and based on ‘unscientific’ methodology.
- The GHI is ‘based on four indicators — percentage of undernourished in the population (PoU); percentage of children under five years who suffer from wasting (low weight-for-height); percentage of children under five years who suffer from stunting (low height-for-age), and percentage of children who die before the age of five (child mortality)’.
- The first and the last indicators have a weight of one-third each and the two child malnutrition indicators account for one-sixth weightage each in the final GHI, where each indicator is standardised based on thresholds set slightly above the highest country-level values.
- Looking at each of these indicators separately, India shows a worsening in PoU and childhood wasting in comparison with 2012. It is the PoU figure of 15.3% for 2018-20 that the Government is contesting.

From official data sources

- The Government’s objection to the methodology, that “They have based their assessment on the results of a ‘four question’ opinion poll, which was conducted telephonically by Gallup”, is not based on facts. The report is not based on the Gallup poll; rather, it is on the PoU data that the Food and Agriculture Organization of the United Nations (FAO) puts out regularly (as has also been clarified by the publishing agencies).

- PoU, according to the FAO, ‘is an estimate of the proportion of the population whose habitual food consumption is insufficient to provide the dietary energy levels that are required to maintain a normal active and healthy life’.
- PoU is estimated taking into account a number of factors such as food availability, food consumption patterns, income levels and distribution, population structure, etc.
- All the data used are from official data sources of respective national governments. In the absence of food consumption data in most countries, this indicator is an estimate based on a modelling exercise using available data; therefore, there is some margin of error.
- Most of the criticism of the FAO’s PoU data has been about how it underestimates hunger rather than over. Therefore, while there is scope for a valid discussion on the GHI methodology and its limitations, this objection by the Government is not warranted.

Slow rate of progress

- The main message that the GHR gives is to once again remind us that India has not been very successful in tackling the issue of hunger and that the rate of progress is very slow. Comparable values of the index have been given in the report for four years, i.e., 2000, 2006, 2012 and 2021.
- While the GHI improved from 37.4 to 28.8 during 2006-12, the improvement is only from 28.8 to 27.5 between 2012-21. The PoU data show that the proportion of undernourished population showed a declining trend up to 2016-18 when it reached the lowest level of 13.8%, after which there is an increase to 14% for 2017-19 and 15.3% for 2018-20. Other data also broadly validate these findings.
- The partial results of the National Family Health Survey-5 (2019-20) also show that stunting and wasting indicators have stagnated or declined for most States for which data is available.
- The leaked report of the consumption expenditure survey (2017-18) also showed that rural consumption had fallen between 2012-18 and urban consumption showed a very slight increase.

A period before the pandemic

- It must also be remembered that all the data are for the period before the COVID-19 pandemic.
- There were many indications based on nationally representative data — such as from the Centre for Monitoring Indian Economy and various field surveys conducted by research organisations, academics and civil society groups — that the situation of food insecurity at the end of the year 2020 was concerning, and things are most likely to have become worse after the second wave.
- Many of these surveys find that over 60% of the respondents say that they are eating less than before the national lockdown in 2020. Services such as the Integrated Child Development Scheme (ICDS) and school mid-day meals continue to be disrupted in most areas, denying crores of children the one nutritious meal a day they earlier had access to.
- It would, therefore, not be surprising if national surveys (hopefully conducted soon) show a further slowdown in improvement in malnutrition.
- The novel coronavirus pandemic has affected food security and nutrition across the world. In countries such as India — where the situation was also already poor to begin with — the impact is probably worse. The response cannot be one of denial; rather, what is needed are measures to ensure rapid recovery.
- It has been pointed out by many that the relief measures of the Government, so far, have been inadequate in comparison to the scale of the problem.

Cuts for schemes

- The only substantial measure has been the provision of additional free foodgrains through the Public Distribution System (PDS), and even this has been lacking. It leaves out about 40% of the population, many of whom are in need and includes only cereals.
- Also, as of now, it ends in November 2021. At the same time, inflation in other foods, especially edible oils, has also been very high affecting people’s ability to afford healthy diets.

- On the one hand, while we need additional investments and greater priority for food, nutrition and social protection schemes, Budget 2021 saw cuts in real terms for schemes such as the ICDS and the mid-day meal.
- The argument that the GHI is an indicator of undernutrition and not hunger, is only diverting attention away from more substantial issues.
- Of course, malnutrition is affected by a number of factors (such as health, sanitation, etc.) other than food consumption alone, but that in no way means that healthy diets are not central.
- There is no denying that diverse nutritious diets for all Indians still remain a distant dream.

Getting the focus back on Early Childhood Education

(Source: [The Hindu](#))

Context: *Early Childhood Education (ECE) is crucial to the overall development of children, with impacts on their learning and even earning capabilities throughout their lifetimes. Despite the importance of ECE, little has been said about the continuance of ECE delivery during the COVID-19 school closures, reminiscent of its status quo even prior to the novel coronavirus pandemic. Those attending preschool are primarily enrolled in the nearly 14 lakh anganwadis spread across the country where ECE continues to suffer from low attendance and instructional time amid prioritisation of other early childhood development services in the anganwadi system.*

Details:

- Where ECE has continued during COVID-19 pre-school closures, access has reduced and the priority for ECE is low within households. In a recent study by the Vidhi Centre for Legal Policy, 45% of the 650+ households surveyed in urban Maharashtra reported that they prioritise their older child's education over ECE.
- A crucial factor for households to be able to prioritise ECE is active parental engagement in their child's education, especially for children in the age group of three to six years who spend a majority of their time within the household and rely greatly on parental assistance in the learning process.
- The overall development of a child in the early stages edicts a conducive home environment and parental involvement in addition to equitable access to the schooling system.
- As such, the home environment and stimulation children receive within the household can contribute to their overall development. For example, studies have found that the act of making conversation with your child in the early years has significant gains on language skills they develop.

Role of parental engagement

- Enabling parental engagement in ECE requires an understanding of barriers that usually prevent parents from meaningfully engaging in their child's education.
- The socio-economic background of households determines access to preschools and the ability to invest in ECE. Worryingly, the lack of priority for ECE often means that households choose to forgo investing in ECE altogether.
- The pandemic has highlighted the glaring digital divide in the country, even in an urban context. Unless the state vows to provide devices and Internet access to all children, it is clear that complete reliance on technology is not an option.
- Even for those who are able to overcome the initial barrier of access, the ability to engage in ECE at home remains dependent on time and ability. Households that have limited means have little time to invest in educational activities in the home.

- In the study mentioned above, with low-income households engaged in ECE in urban Maharashtra during COVID-19, we find that job and income losses led to further de-prioritisation of education, and the need to invest in educational and digital resources for its continuance during school closures.
- Even among households that are able to create the time for education, many parents lack the self-efficacy to support their child's learning.
- Most parents lack knowledge of effective methods to facilitate learning within the home, and appropriate means of using technology for education.
- Parents in low-income households are additionally less likely to be able to access support to learn such methods. COVID-19 school closures made engagement of parents in their child's education a further necessity.

Overcoming barriers

- Crossing these barriers will become crucial as we move towards achieving universal and equitable ECE, as envisioned in the National Education Policy (NEP) 2020.
- Some of these are harder to address, such as internalising the importance of ECE among parents. This shift of mindset requires prolonged and committed state action, which at present does not reflect any such urgency.
- Other barriers, however, are easier to address if we operationalise support of the state, schools and teachers towards the goal of enabling parental engagement at home.
- The pandemic has created an opportunity where parents and teachers have increasingly recognised the crucial role of parents as partners in their child's education. As we slowly move towards the reopening of schools for younger grades, we should not lose sight of this.
- In the same study we conducted in urban Maharashtra, we studied two ECE programmes — the E-paatshala programme in Balwadis run by Rocket Learning, and Akanksha schools in Mumbai and Pune. For those who were able to access the programmes, we found that those participating in these programmes showed higher engagement levels associated with the alleviation of some of the barriers discussed above.
- What might have worked for E-paatshala was its design to use only materials available at home for educational activities. This minimised the need for parents to purchase any additional resources and ensured that it was relevant to the child's environment and experiences. We found that programmes that were supporting parents' financially — through provision of rations and devices for education — resulted in higher parental engagement in ECE.
- The study also highlighted that a more decentralised approach of identifying and alleviating these barriers to ECE, through teachers and school systems as the forerunners, goes a long way. Being the first point of contact with both the child and the parents, teachers are the most equipped to effectively engage with parents, address their challenges, and design adaptable and innovative modes of teaching and learning.

Empower households

- We must leverage the present opportunity of heightened parental engagement in children's education. Efforts must be taken to empower households with time and resources so that they have the ability to prioritise ECE and are not forced to choose between their children's education.
- The provision of non-educational support to low-income households to alleviate income and food insecurities might be just as crucial in aiding parents to invest in education.
- Second, we must collect information about teachers' experiences (on suitable modes of engagement with parents and children, delivery logistics, constraints of parents, etc.) and on innovations they have developed to increase parental engagement during school closures.
- We need to ask what has been done to alleviate constraints, and how can these be operationalised to reach more households?
- While teachers should remain at the centre of this effort we must also make sure they are not further overburdened, by providing adequate resources and institutional support.

GS III

Why is India facing bouts of extreme weather?

(Source: [The Hindu](#))

Context: Even as the southwest monsoon began to retreat from the subcontinent, Kerala and Uttarakhand received record rainfall in October. In both these States and others, over the last few years, there have been variations in the pattern and intensity of rainfall. Kerala had seen a severe spell in 2018, which caused havoc. This year's rain, too, claimed lives in Kerala and Uttarakhand.

What is the quantity of rainfall?

- According to the India Meteorological Department (IMD), the Kerala and Mahe region received 124% excess rainfall from October 14 to October 20. Against the normal 72.1 mm rainfall for the period, the region had received 161.2 mm.
- Lakshadweep received 15% excess rainfall. From October 1 to October 22, Kerala recorded 121% excess rainfall, with all districts, except Alappuzha, recording above 70% excess rainfall. Alappuzha recorded 52% excess for the period.
- The latest fortnightly forecast from the agency says “above normal” rainfall is expected over the next fortnight. Uttarakhand recorded 192.6 mm against the usual 35.3 mm from October 1 to October 20, with several districts reporting 24-hour highs that exceeded the figures from over a century.

What explains the torrential rain?

- There are different factors at play in Kerala and Uttarakhand. There have been two rain-bearing ‘low pressure systems’ that are active in the Arabian Sea as well as the Bay of Bengal since the past week.
- The low pressure system in the Arabian Sea contributed to the heavy rain in Kerala, whereas western disturbances, which are periodic influxes of moisture-laden clouds from the Mediterranean, and common during winter, are what caused the rain in northern India.
- The Bay of Bengal is still warm and strong winds from there are reaching as far as Uttarakhand and will contribute to rainfall in several parts of north-eastern India.
- October is the month when the southwest monsoon entirely retreats from India and the northeast monsoon sets in, bringing rain over Tamil Nadu, Puducherry, coastal Andhra Pradesh and Kerala. Both low pressures as well as western disturbances are tangentially connected to the larger pattern of global warming.
- The Bay of Bengal is historically the warmer ocean that seeds low pressures and cyclones that bring rain to India. In recent years however, the Arabian Sea, too, has been warmer than normal, and leading to significant cyclonic activity.
- Overall elevated temperatures are also contributing to warmer waters in the Arctic Ocean and drawing colder air from the poles with greater intensity. This added to the increased moisture, thereby seeding more intense western disturbance activity over north India.

Is the delayed monsoon withdrawal responsible?

- This year, the monsoon began its retreat on October 6 and though it was expected to fully retreat by October 16, it is yet to completely withdraw, with the associated clouds still lingering on. The IMD’s latest assessment is that the monsoon will completely withdraw by October 26 and that will also herald the beginning of the northeast monsoon.
- When the atmosphere and the ocean is considered as a whole, rain everywhere is the result of moisture rushing up to fill differences in temperature between oceans and the land and while there is a broad

agreement that warming oceans are contributing to intense spells of rainfall in pockets followed by long rainless spells, specific instances — such as what is being seen in Kerala and Uttarakhand — aren't unprecedented.

- The monsoon cycle is prone to large variations, and every year regional factors get accentuated — it's hard to predict which in advance — that then lead to extreme climate events.

What are the factors responsible for the disasters?

- This year, India was poised to receive below normal rainfall until August when global meteorological factors changed and caused a torrential September that largely repaired the monsoon deficit.
- However, the vagaries in climate reveal their impact in the damage that they cause and the latter is due to society's environmental choices.
- Kerala and Uttarakhand have large tracts of hilly terrain that are prone to landslips. But construction has continued unabated even on land unsuited for human habitation.
- Several ecologists and environmentalists have for years warned of the consequences of unplanned development and, in the context of an increasingly erratic climate, it is only logical that more inhabitants of these regions will be exposed to greater climate risk.

Climate targets set, missed

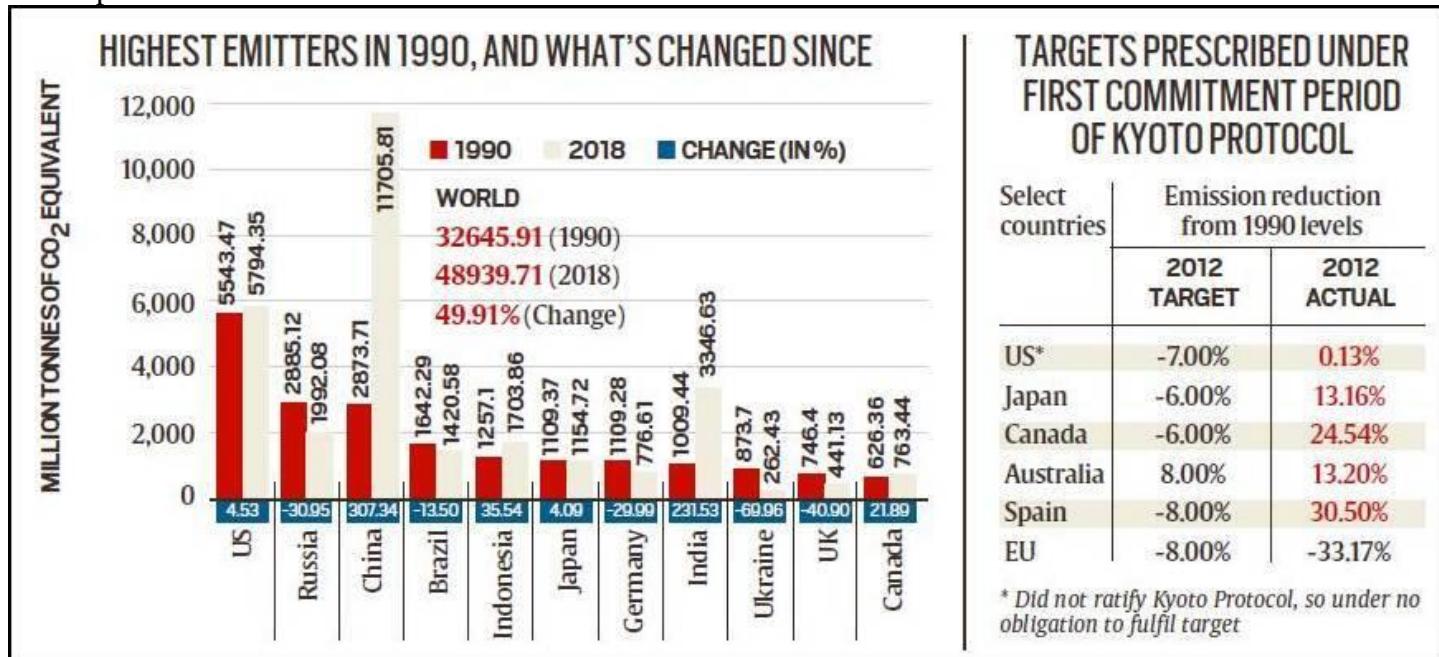
(Source: [Indian Express](#))

Context: *The annual climate meetings have succeeded in galvanising the world into taking collective action against climate change, but they have not been able to prevent the crisis from worsening in the last two decades. The quantum of action that these series of meetings has enabled has always been well short of what, science says, is required to avoid the catastrophic impacts of climate change. Countries have missed their targets, reneged on promises made, and delayed their actions. The decision-making at these meetings has not always been guided purely by climate change considerations. Very often, economic and foreign policy imperatives have over-ridden environmental concerns. As a result, the world seems to have got locked in a perennial firefighting mode, struggling to cope with the ever-increasing frequency of extreme weather events, which are a direct consequence of global warming.*

Missed chances

- For most of the first two decades since climate change became a global issue — between 1990 and 2010 — very little action was taken to curb growing emissions. The first target, for the developed countries to return to their 1990 levels of emissions by 2000, was never taken seriously.
- An international agreement to reduce greenhouse gas emissions was finalised at just the third climate change conference, in Kyoto in 1997, but it couldn't be operationalised until 2005 in the absence of the requisite number of ratifications. The United States, the world's largest emitter at that time, did not ratify the Kyoto Protocol and was thus not bound by it.
- The Kyoto Protocol asked a group of 37 rich and industrialised countries to collectively achieve a modest 5 per cent reduction in their emissions from 1990 levels during the 'first commitment period' of 2008-2012. Except the European Union, and some of its individual member countries such as Germany and the United Kingdom (which was then in the EU), most of the countries did not achieve the target.
- Russia and the east European economies, however, saw a dramatic drop in their emissions after the collapse of the Soviet era. It helped a great deal in ensuring that the collective emissions of this group of countries fell by 22 per cent, well above the 5-per-cent target.

- Data from the World Resources Institute show that the emissions of the US in 2012 were marginally higher than they were in 1990, meaning there was no reduction. Australia's emissions went up by about 15 per cent.



- Global emissions went up by 40 per cent between 1990 and 2012, thanks mainly to the rapid rise of China and India, which continues to this day.
- China overtook the United States as the world's leading emitter around 2007. Its current emissions are more than 4 times the 1990 levels. India's emissions have grown over 3.5 times from 1990.

Newly growing economies

- But countries such as China, India and similar fast-growing economies such as Brazil, South Africa or Indonesia, were not mandated to cut down their emissions, because of well-justified reasons.
- Over 90 per cent of the accumulated greenhouse gases in the atmosphere, the reason for global warming, had come from the rich and industrialised countries over the last 150 years.
- Countries such as India and China had begun to develop only in the 1980s and 1990s, and needed the space to grow their economies in order make the lives of their people better.
- This is what gave rise to the principle of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC), the most endearing and empowering provision for the developing countries.
- But while they had little contribution in the "historical emissions", industrial activity in China, India and other major developing countries was leading to their emissions growing at a very fast pace.
- That was a major grouse for the developed countries, which felt that a free pass to these countries was also handing them an unfair economic advantage at their cost.
- Thus began a systematic effort to erode the Kyoto Protocol and replace it with an architecture that put some constraints on the emissions of India and China as well. It was achieved with the finalisation of the Paris Agreement in 2015 and the formal demise of the Kyoto Protocol last year. In the process, the basic framework of the climate change architecture was severely diluted.
- Instead of science-based emission-reduction targets, that were binding in nature, countries were only asked to do what they thought they were best capable of. There is little incentive, and no obligation, for countries to put their best foot forward in a system like this.

EMISSION REDUCTION: TARGETS & PROGRESS		
COUNTRY	EMISSION REDUCTION TARGET	STATUS IN 2018
US	26-28% by 2025 from 2005 levels	10% reduction from 2005
EU (27)	40% by 2030 from 1990 levels	22% reduction from 1990
Australia	26-28% by 2030 from 2005 levels	3.48% above 2005
Japan	25.4% by 2030 from 2005 levels	2.66% reduction from 2005
Canada	30% by 2030 from 2005 levels	24.16% reduction from 2005
Russia	25-30% reduction by 2030 from 1990	30.95% reduction from 1990
China	Peak emissions in 2030	70.57% above 2005
Brazil	37% by 2025 from 2005 levels, 43% by 2030	29.13% below 2005
Indonesia	29% by 2030 from business-as-usual scenario	37.11% above 2005
Iran	4% by 2030 from business-as-usual scenario	45.58% above 2005

A coal-fired plant in Utah, US. NYT

Lack of money, tech

- More than the lack of adequate action on emission reductions, the developed countries have been found wanting in their commitment to help and support developing countries, especially the least developed ones, in dealing with the impacts of climate change.
- This included providing money and technology to facilitate adaptation to the changing environment, something that the developed countries are mandated to do, not just under the Kyoto Protocol but also in the successor Paris Agreement regime.
- But hardly any meaningful amount of money, or transfer of technology, took place under the Kyoto Protocol. In 2009, at the Copenhagen conference, the then US Secretary of State Hillary Clinton announced that the developed countries would ‘mobilise’ \$100 billion in “new and additional” climate finance for developing countries every year from 2020. This promise got written in the Paris Agreement as well.
- While the developed countries claim that this sum has already started flowing, developing countries say there is very little money on offer, and that a lot of what is being dressed as climate finance is actually pre-existing aid or money flowing for other purposes.
- Besides, \$100 billion now seems like a paltry amount when estimates suggest that trillions of dollars are required in climate finance every year.

COP26: The agenda for Glasgow

(Source: [Indian Express](#))

Context: Amid fresh warnings and new evidence suggesting worsening of the climate crisis, negotiators from around the world are assembling in Glasgow, Scotland, from Monday next week to tie up a few loose ends of the Paris Agreement that have remained unresolved for over two years. COP26 (or the 26th Conference of Parties to the UN Framework Convention on Climate Change) was scheduled to be held last year, at the same venue, but had to be put off for the first time in its history because of the pandemic.

Details:

- The official agenda of the two-week meeting is to finalise the rules and procedures for implementation of the Paris Agreement, which was supposed to have been completed by 2018.

- However, most of the discussions ahead of the meeting have been around an effort to get all countries to commit to a net-zero target by a specific year, somewhere around the mid-century.
- Carbon neutrality is a state in which a country's emissions are compensated either by absorption of greenhouse gases, as is done by trees and forests, or by physical removal of carbon dioxide from the atmosphere using futuristic technologies.
- Net-zero is an extremely contentious subject, deeply dividing the developed and developing countries.

The COP meetings

- The annual climate change meetings are part of a UN-backed process initiated in the early 1990s after the world realised that greenhouse gas emissions were powering a rise in temperature that would slowly make the Earth uncomfortable to live in.
- Over the years, these meetings have had remarkable success in bringing climate change to the top of the global agenda, and ensuring that every country has an action plan to tackle climate change.
- This process has also delivered two international agreements — Kyoto Protocol in 1997 and Paris Agreement in 2015 — aimed at cutting down global emissions (see box).
- The outcomes of these meetings, however, have not matched the scale of the response required. The original objectives, in terms of the amount of emission reductions and the principles that would govern the international climate architecture, have been diluted severely.
- Most industrialised countries have failed to deliver on their initial promises, not just on emission reductions but also on their commitments to help with finance and technology. As a result, the climate crisis has worsened in the last 20 years, manifesting itself in more frequent and intense extreme weather events.
- Despite the shortcomings, however, these meetings remain the best bet to put the world on a path away from climate disasters.

Carbon markets

- The rules and procedures of the landmark Paris Agreement of 2015 are still hanging because countries are yet to agree on some of the provisions related to creation of new carbon markets.
- Carbon markets are an important instrument to facilitate emissions reductions, and were an integral part of the Kyoto Protocol that has now given way to Paris Agreement.
- Under the Kyoto Protocol, a set of rich and industrialised countries were allotted specific emission reduction targets. One of the indirect ways to achieve these was to let countries buy carbon credits from developing countries. The latter had no obligations under the Kyoto Protocol to reduce their emissions, but if they were able to do so, they could earn carbon credits.
- Developed countries could buy these credits and count them towards achieving their targets. Developing countries did not lose anything, and instead received payment to finance their switch to cleaner technologies.
- Because emission reductions anywhere helped the entire globe, this was seen as a win-win situation for everyone. There were a couple of other methods through which carbon credits were traded, for money, both within and between countries.
- Over the years, developing countries like China, India, and Brazil accumulated large numbers of carbon credits, which at one point, were in great demand as developed countries had to achieve their targets, and this was often a cheaper way than to reduce emissions by upgrading their own industrial facilities.
- However, as the clamour grew for a new agreement to replace the Kyoto Protocol, which rich industrialised countries found constraining, the motivation of the developed countries to move towards their targets reduced. Countries realised that non-achievement of their targets did not carry any penalty.
- So, most never met their targets. Several others even walked out of the Kyoto Protocol. The result was a big drop in demand for carbon credits, and a consequent fall in the price of carbon.

- But countries such as India, China and Brazil continued to earn carbon credits in the hope that demand would return, once a successor pact to the Kyoto Protocol was in place. That happened with the Paris Agreement.
- Carbon markets are envisioned in the Paris Agreement as well, but a new problem arose. Developed countries said they would not allow the transition of the earlier carbon credits to the new market mechanism, claiming many of these were dubious and did not accurately represent emission reductions. They sought more robust methods to grant carbon credits.
- The developing countries are insisting that their accumulated carbon credits, worth billions, remain valid in the new market.
- This remains the last stumbling block in the finalisation of the rules and procedures of Paris Agreement.
- Most other issues were negotiated at the previous meeting in Madrid in 2019. Settling this is one of the main objectives of the Glasgow meeting.

Net zero

- An agreement on carbon markets would involve intricate negotiations. The discussion on net-zero targets, in the meanwhile, is much more attention grabbing.
- Incidentally, the issue of net-zero, or carbon neutrality, does not find a mention in the Paris Agreement, and therefore, does not form part of the process. But this is not the first time that an issue that has not grown organically from the COP meetings has come to dominate a session.
- More than 50 countries have pledged to carbon-neutrality by middle of the century. China has said it would achieve this status by 2060; Germany has announced a target of 2045.
- India is the largest emitter that still does not have a net-zero commitment, and has said it does not intend to commit immediately. Several other developing countries have also been resisting such targets, arguing it is the developed world's way of shifting their own burden of reducing emissions onto everyone else.
- Last week, in a virtual meeting, ministers of 24 nations, which call themselves 'Like Minded Developing Countries', or LMDCs, denounced the efforts to force a net-zero target on everyone, saying it went against 'equity' and 'climate justice'.
- India is a part of LMDC, and interestingly, so is China. Other members include Indonesia, Malaysia, Iran, Bangladesh, the Philippines and Sri Lanka.
- Reminding the developed world that the COP meetings were a history of their "broken promises", the LMDC said it was lack of adequate action on the part of rich nations that had led to worsening of the climate crisis.
- "Despite their lack of ambition shown in the pre-2020 period, as well as in their Paris Agreement NDCs (nationally-determined contributions), major developed countries are now pushing to shift the goal posts of the Paris Agreement from what have already been agreed by calling for all countries to adopt Net Zero targets by 2050. This new 'goal' which is being advanced runs counter to the Paris Agreement and is anti-equity and against climate justice," the ministerial statement said.
- "Demands for 'Net zero' emissions for all countries by 2050 will exacerbate further the existing inequities between developed and developing countries," it said.
- It is clear that discussions on net-zero are also likely to lead to fireworks at Glasgow.

Climate on the global table

1992: Earth Summit, Rio de Janeiro

- The meeting that set up the architecture for negotiations on an international climate change agreement. It finalised the UN Framework Convention on Climate Change (UNFCCC), the mother agreement that lays down the objectives and principles on which climate action by countries are to be based. It acknowledged that developing countries had fewer obligations and capabilities to bring down emissions. Developed countries agreed to a non-binding commitment to take measures aimed at returning to their 1990 emissions levels by 2000.

2009: COP15, Copenhagen

- Attempt to finalise a new agreement ended in failure. Over 110 heads of nations assembled, but differences were too deep to be bridged. Countries agreed to try again a few years later. Developed countries committed to mobilising \$100 billion every year in climate finance for developing countries from 2020.

1997: COP3, Kyoto

- Delivered the Kyoto Protocol, precursor to Paris Agreement. The Protocol assigned specific emission reduction targets for a set of developed countries, to be achieved by 2012. Others were supposed to take voluntary actions to reduce emissions. The Kyoto Protocol expired last year as Paris Agreement took its place.

2007: COP13, Bali

- It reaffirmed the principles of CBDR in the efforts to find a replacement to the Kyoto Protocol, which developed nations were getting increasingly uncomfortable with, especially after the emergence of China as the world's leading emitter. Developed countries want emission reduction targets for everyone, or for nobody, their argument being that without stringent action from China and India, the success of any climate action would not be possible.

2015: COP21, Paris

- The successor agreement was finally delivered. The Paris Agreement does not assign emission reduction targets to any country. Instead, it asks all to do the best they can. But the targets they set for themselves must be reported and verified. The objective is to limit the global rise in temperatures to within 2°C from pre-industrial times.

2021: COP26, Glasgow

- Was supposed to be held last year but postponed because of Covid. The rulebook for implementation of Paris Agreement is still to be finalised. The main remaining hurdle is an agreement over creation of future carbon markets, and the transition of pending carbon credits with some developing countries to that new market.

Why India shouldn't sign on to net zero

(Source: [The Hindu](#))

Context: Despite the net zero campaign by a number of countries and non-state actors, the timing of the world's carbon dioxide emissions reaching net zero is not the critical parameter for the safety of humanity. As the recent report of the Intergovernmental Panel on Climate Change made it clear, limiting the increase in the world's average temperature from pre-industrial levels to those agreed in the Paris Agreement requires global cumulative emissions of carbon dioxide to be capped at the global carbon budget. It is a truism that such a cap means that eventually emissions must go to zero, or more precisely, net zero. But reaching net zero by itself is irrelevant to forestalling dangerous warming. This is no more rocket science than saying that the promise of when you will turn off the tap does not guarantee that you will draw only a specified quantity of water.

What promises of net zero do

- What do we know about projected cumulative emissions? The top three emitters of the world — China, the U.S. and the European Union — even after taking account of their net zero commitments and their enhanced emission reduction commitments for 2030, will emit more than 500 billion tonnes of carbon dioxide before net zero.
- These three alone will exceed the limit of about 500 billion tonnes from 2020 onwards, for even odds of keeping global temperature increase below 1.5°C. With these committed emissions, there is no hope of “keeping 1.5°C alive.”
- The target is dead-on-arrival. For two-to-one odds for the same target, the limit is 400 billion tonnes of carbon dioxide, a limit that is even more certain to be breached.
- Neither the Paris Agreement nor climate science requires that net zero be reached individually by countries by 2050, the former requiring only global achievement of this goal “in the second half of the century”.
- Claims that the world “must” reach specific goals by 2030 or 2050 are the product of specific economic models for climate action. These are designed to achieve the Paris goals by the “lowest cost” methods, foregoing equity and climate justice.
- They front-load emission reduction requirements on developing countries, despite their already low emissions, to allow the developed world to backload its own, buying time for its own transition.
- These stringent limits on future cumulative emissions post 2020, amounting to less than a fifth of the total global carbon budget, is the result of its considerable over-appropriation in the past by the global North.
- Less than a fifth of the world has been responsible for three-fifths of all past cumulative emissions, the U.S. and the EU alone having contributed a whopping 45%.
- Promises of net zero in their current form perpetuate this hugely disproportionate appropriation of a global commons, while continuing to place humanity in harm’s way.

What India must do

- India’s emissions story cannot be bracketed with the top three. India is responsible for no more than 4.37% cumulative emissions of carbon dioxide since the pre-industrial era, even though it is home to more than a sixth of humanity. India’s per capita emissions are less than half the world average, less than one-eighth of the U.S.’s, and have shown no dramatic increase like China’s post 2000.
- For India to declare net zero now is to accede to the further over-appropriation of the global carbon budget by a few. India’s contribution to global emissions, in both stock and flow, is so disproportionately low that any sacrifice on its part can do nothing to save the world.
- Nor can it proceed with the expectation that the developed world and China would limit their emissions further in the future. If such expectations were belied, it would endanger the future of its own population, subjecting it to unprecedented hardship.
- The failure of the developed world to meet its pre-2020 obligations along with its refusal to acknowledge this provides little confidence for the future.
- The allocation of property rights, without grandfathering, is essential to ensure equitable access to any global commons. The global carbon budget has been subject to no such restriction allowing the developed countries to exploit it fully, in the past and the present. Only China, from among the rest, has managed to surmount this barrier to access.
- India, in enlightened self-interest, must now stake its claim to a fair share of the global carbon budget. Technology transfer and financial support, together with “negative emissions”, if the latter succeeds, can compensate for the loss of the past. In the absence of such a claim, India’s considerable current efforts at mitigation are a wasted effort, only easing the way for the continued over-exploitation of the global commons by a few.
- Such a claim by India provides it greater, and much-needed long-term options. It enables the responsible use of coal, its major fossil fuel resource, and oil and gas, to bootstrap itself out of lower middle-income economy status and eradicate poverty, hunger and malnutrition for good.

- India's resource-strapped small industries sector, which provides employment and livelihoods to the majority of the population outside agriculture, needs expansion and modernisation.
- The agriculture sector, the second largest source of greenhouse gas emissions for India after energy, needs to double its productivity and farmers' incomes and build resilience. Infrastructure for climate resilience in general is critical to future adaptation to climate change. All of these will require at least the limited fossil fuel resources made available through a fair share of the carbon budget.
- Developed countries and China, on the other hand, if they are serious about the Paris Agreement targets, must reach net zero well before 2050. For a target of 2°C, there is more room for the rest of the world, since the cumulative emission limit for it, with the same even odds, is 1,350 billion tonnes of carbon dioxide.
- However, without restriction of their future cumulative emissions by the big emitters, to their fair share of the global carbon budget, and the corresponding temperature target that they correspond to made clear, India cannot sign on to net zero.
- Even if India were to enhance its short-term Nationally Determined Contributions under the Paris Agreement in some fashion, unnecessary as of now, it should do so while staking a claim to its share of the global commons.
- This will ensure that its efforts will not further enable the free-riding of the developed world and protect its access to this strategic resource, vital to India's industrial and developmental future.

Current Affairs Quiz

1) Consider the following statements with respect to Initial Public Offering (IPO):

1. Companies must meet requirements by exchanges and the Securities and Exchange Commission (SEC) to hold an initial public offering (IPO).
2. Initial Public Offering and Post Marketing Strategy are the two steps involved in an IPO process.

Select the CORRECT answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

2) Consider the following statements with respect to the Drone Rules, 2021:

1. No permission required to fly drones in green and yellow zones.
2. No pilot license required for micro drones of commercial use.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

3) Consider the following statements wWith respect to Production Linked Incentive (PLI) Scheme for Speciality Steel:

1. Steel is a de-regulated sector in India.
2. Speciality Steel refers to value-added steel where the normal finished steel is worked upon by way of coating, plating and heat treatment.
3. It can be used in various strategic applications such as defence, space, power apart from automobile sector and specialised capital goods.

Which of the statements given above are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer : d

4) Consider the following statements:

1. ABHYAS is an air vehicle launched using twin under-slung boosters.
2. It is powered by a Scramjet engine to sustain a long endurance flight at subsonic speed.
3. It is designed & developed by the Defence Research and Development Organisation (DRDO).

Which of the statements given above are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer : b

It is powered by a gas turbine engine to sustain a long endurance flight at subsonic speed.

5) In which of the following place, the flag of Indian National Army (INA) was hoisted for the first time on Indian soil?

- a. Agartala, Tripura
- b. Moirang in Manipur
- c. Dimapur, Nagaland
- d. Malda, West Bengal

Answer : b

6) Consider the following statements:

- 1. NBFCs are allowed to take traditional demand deposits i.e. readily available funds, such as those in savings accounts from the public.
- 2. NBFCs are subject to banking regulations and are overseen by federal and state authorities.

Select the CORRECT answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

7) Consider the following statements:

- 1. Ayushman Bharat Health Infrastructure Mission aims to establish an IT-enabled disease surveillance system through a network of surveillance laboratories at the state level only.
- 2. All the public health labs will be connected through the Integrated Health Information Portal.
- 3. The mission will also set up a regional research platform for WHO's South East Asia region.

Select the CORRECT answer code:

- a. 1 and 2 only
- b. 2 only
- c. 2 and 3 only
- d. 1 and 3 only

Answer : c

The Ayushman Bharat Health Infrastructure Mission is aimed at ensuring a robust public health infrastructure in both urban and rural areas, capable of responding to public health emergencies or disease outbreak.

8) Consider the following statements:

- 1. Intergovernmental Panel on Climate Change released the Sixth Assessment Report (AR6) which estimates the carbon budget.
- 2. AR6 was developed on the basis of 'warming from non-CO₂ gases such as methane and nitrous oxide'.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

9) Consider the following statements with respect to Kyoto Protocol:

- 1. It's objective is to 'stop the production and import of ozone depleting substances'.
- 2. Russia, United States and Australia were the first countries to ratify the Kyoto Protocol.
- 3. The Doha amendment to the Kyoto Protocol provides a revised list of Green House Gases (GHC) to be reported on by Parties in the second commitment period.

Select the CORRECT answer code:

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. All are correct

Answer : d

10) Consider the following statements:

- 1. The catchment area of the Mullaiperiyar Dam includes Cumbum in Tamil Nadu and Idukki in Kerala.
- 2. The dam is operated both by Kerala and Tamil Nadu.

Select the CORRECT answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : d

The catchment area of the Mullaperiyar Dam itself lies entirely in Kerala and thus not an inter-State river.

11) Consider the following statements:

- 1. The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) scheme focuses on correcting regional imbalances in the availability of tertiary healthcare services.
- 2. It has been designed to provide financial risk protection against catastrophic health expenditure.

Select the correct answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : a

PM- JAY has been designed to provide financial risk protection against catastrophic health expenditure that impoverishes an estimated 6 crore people every year.

12) Consider the following statements with respect to Rule of Law:

- 1. Rule of law gives freedom to the judiciary to control the executive who exceeds their jurisdiction.
- 2. Article 105 and Article 194 is an exception to rule of law.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

13) Which of the following statements is/are correct with respect to ‘Blue Carbon’?

- 1. Blue carbon is organic carbon that is mainly obtained from decaying plant leaves, wood, roots and animals.
- 2. It is captured and stored by coastal and marine ecosystems.
- 3. Sundarbans National Park is one among the five sites that have the highest blue carbon stocks globally.

Select the CORRECT answer code:

- a. 1 and 3 only
- b. 1 and 2 only
- c. 2 and 3 only

- d. 1, 2 and 3 only

Answer : d

14) Which of the following statements is/are correct with respect to International Solar Alliance (ISA)?

1. Denmark was the first country to ratify the ISA.
2. The sun shine countries are present at the equatorial line, since they receive the maximum sun rays.
3. One of the missions of ISA includes, ‘every house no matter how far away will have a light at home’.

Select the CORRECT answer code:

- a. 1 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 2 only

Answer : c

15) Consider the following statements with respect to Samudrayan Project:

1. It is under the ministry of Science and Technology.
2. It is India’s first unmanned mission to the surface of the ocean.
3. India now joins the elite club of nations such as USA, Russia, Japan, France and China to have such underwater vehicles.

Which of the above statements is/are correct?

- a. 3 only
- b. 1 and 3 only
- c. 1 and 2 only
- d. 2 and 3 only

Answer : a

It comes under the ‘Ministry of Earth Science’.

16) ‘Operation Red Rose’ was launched in -

- a) Maharashtra
- b) Punjab
- c) Bihar
- d) Uttar Pradesh

Answer: b)

17) Consider the following statements with respect to India’s Rice exports:

1. More than 25% of the rice exported from India is destined for the European countries.
2. Rice exports constitute the second-highest share in terms of India’s total exports.

Select the CORRECT answer code:

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: d)

Data show that **rice exports form the fifth-highest share in terms of India’s total exports**. India is also the biggest exporter of rice globally, forming over 30% of the world’s exports.

However, less than 5% of the rice exported from India is destined for the European countries. But for many European countries, India is their primary source for rice imports.

18) The goal of the POSHAN Abhiyaan is to improve nutritional status of which of the following?

1. Children (0-6 years)

2. Adolescent girls
3. Pregnant women and lactating mothers

Select the correct answer code:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Answer: d)

19) Consider the following statements :

1. National Commission for Backward Classes is a non-constitutional body under the Ministry of Social Justice and Empowerment.
2. The commission was the outcome of Indra Sawhney & Ors. Vs. Union of India.
3. The commission have the same powers as a Civil Court.

Which of the above statements is/are correct?

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

Answer: c)

20) Consider the following statements regarding.

1. China-Pakistan 1963 agreement resulted in Pakistan handing over the Shaksgam Valley of Aksai Chin to China.
2. The agreement is recognized as legal by India.
3. India and Bhutan are China's only land neighbours that don't have a resolved boundary.

Which of the above statements is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Answer: c)