

April (Week 2)

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Prelims

NATIONAL

Amending the Weapons of Mass Destruction Act

(Source: [The Hindu](#))

Context: On April 5, 2022, the Weapons of Mass Destruction (WMD) and their Delivery Systems (Prohibition of Unlawful Activities) Amendment Bill, 2022 was introduced in the Lok Sabha. It was passed the next day. The Bill amends the WMD and their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005 which prohibits the unlawful manufacture, transport, or transfer of WMD (chemical, biological and nuclear weapons) and their means of delivery. It is popularly referred to as the WMD Act. The recent amendment extends the scope of banned activities to include financing of already prohibited activities.

What was the purpose of the original WMD Act?

- The WMD and their Delivery Systems (Prohibition of Unlawful Activities) Act came into being in July 2005.
- Its primary objective was to provide an integrated and overarching legislation on prohibiting unlawful activities in relation to all three types of WMD, their delivery systems and related materials, equipment and technologies.
- It instituted penalties for contravention of these provisions such as imprisonment for a term not less than five years (extendable for life) as well as fines.
- The Act was passed to meet an international obligation enforced by the UN Security Council Resolution (UNSCR) 1540 of 2004.

What is the UNSCR 1540?

- In April 2004 the UN Security Council adopted resolution 1540 to address the growing threat of non-state actors gaining access to WMD material, equipment or technology to undertake acts of terrorism.
- In order to address this challenge to international peace and security, UNSCR 1540 established binding obligations on all UN member states under Chapter VII of the UN Charter.
- Nations were mandated to take and enforce effective measures against proliferation of WMD, their means of delivery and related materials to non-state actors.
- UNSCR 1540 enforced three primary obligations upon nation states — to not provide any form of support to non-state actors seeking to acquire WMD, related materials, or their means of delivery; to adopt and enforce laws criminalising the possession and acquisition of such items by non-state actors; to adopt and enforce domestic controls over relevant materials, in order to prevent their proliferation.
- It was to meet these obligations that enactment and enforcement of legislations to punish the unlawful and unauthorised manufacture, acquisition, possession, development and transport of WMD became necessary.

What has the Amendment added to the existing Act?

- The Amendment expands the scope to include prohibition of financing of any activity related to WMD and their delivery systems.
- To prevent such financing, the Central government shall have the power to freeze, seize or attach funds, financial assets, or economic resources of suspected individuals (whether owned, held, or controlled

directly or indirectly). It also prohibits persons from making finances or related services available for other persons indulging in such activity.

Why was this Amendment necessary?

- UNSCR 1540 undergoes periodic reviews to determine the success of its implementation and to identify gaps in enforcement.
- In one such review undertaken in 2016, it was concluded that the risk of proliferation to non-state actors is increasing due to rapid advances in science, technology, and international commerce.
- The statement of objects and reasons of the Bill presented in India echoes these developments for having made the Amendment necessary.
- Two specific gaps are being addressed —
 - first, as the relevant organisations at the international level, such as the Financial Action Task Force have expanded the scope of targeted financial sanctions and demand tighter controls on the financing of WMD activities, India's own legislation has been harmonised to align with international benchmarks.
 - Secondly, with advancements in technologies, new kinds of threats have emerged that were not sufficiently catered for in the existing legislation.
 - These notably include developments in the field of drones or unauthorised work in biomedical labs that could maliciously be used for terrorist activity.
 - Therefore, the Amendment keeps pace with evolving threats. In fact, domestic legislations and international measures that address issues of WMD security cannot afford to become fossilised. They must be agile and amenable to modifications in keeping with the changing tactics of non-state actors.

Odisha's Barbara forest

(Source: [The Hindu](#))

Context: *Dubbed as Asia's largest teak and sal forest, the Barbara forest in Odisha was perhaps the only forest in India guarded by the jawans of Central Reserve Police Force (for protecting forest resources). It will soon be open for public from the next tourist season from September.*

Details:

- The government is readying the infrastructure to bring the natural forest on ecotourism map.
- Three cottages have been constructed and other facilities are being created for tourists to enjoy the scenic landscape that holds a number of natural streams, dense teak forest and is suitable for trekking.
- Spread over 870-sq km, the forest touches three districts Khordha, Nayagarh and Ganjam of Odisha and, as per legend, is named after a British forest officer's wife, who was killed in a tiger attack in the area, 100-odd years ago.
- The dense teak forest, about 150 km from Bhubaneswar, lent to a flourishing timber market in Bhubaneswar, Berhampur, Cuttack and Nayagarh. It is said the timber mafia worked in tandem with the locals, prompting former Chief Minister Biju Patnaik to seek deployment of CRPF in 1994-95 to check tree felling and protect the forest.
- The Barbara landscape, under the Khordha Forest Division, is an enriched area that boasts several century-old plants sown by the British back in 1910.



Sowing maize in spring

(Source: [Indian Express](#))

Context: As per the initial field report of the Punjab Agriculture department, around 35,000 hectares (86,450 acres) are being used for the cultivation of spring/summer maize.

Utilizing more area for maize cultivation is always a welcome move in a state like Punjab where maize is seen as an alternative to the water-guzzling paddy crop. But growing maize during spring is not always a good choice in Punjab.

When and where in Punjab does the sowing of spring/summer maize take place?

- The ideal time for sowing maize is from January-end to February 15. But farmers continue to sow it till the end of February or even in early March.
- Spring maize is sown mostly in the potato belt comprising Jalandhar, Hoshiarpur, Nawanshahr and Kapurthala districts and in a few other districts like Gurdaspur, Ropar and Ludhiana.
- Harvesting of table potato harvesting, which started in January in the state, ends by February-end or early March. By that time, sowing of spring maize also starts in the state.

Why do farmers opt for sowing of spring maize in the state?

- Before paddy sowing, which starts by mid-June and ends by early July, the fields of potato growers remain empty. During this time, from February to mid-June, farmers prefer to grow one more crop before paddy.
- Therefore, spring maize is a good option as it is a 120-122 days' crop and it is also harvested by June. During spring, maize of hybrid quality is grown the yield of which is very high.
- Farmers get 90 to 100 quintals per hectare during spring, which is quite a high yield.
- If they get a good rate, which happens rarely, and if it is at par with the MSP decided by the centre government, which is around Rs 1900 per quintal, then they can earn a huge amount due to the high yield.

Which crops can be an alternative to spring maize in the state?

- Experts said that summer moong and sunflower crops are the best alternatives.
- Summer moong is a 70-day crop and sunflower is a 100-day crop. While summer moong needs only 3-4 irrigations, sunflower also takes 25-30% less water than summer maize.
- Both the crops are extremely vital in the country as India imports 2.5 million tonnes sunflower oil every year and also 2-3 million tonnes of pulses.
- Even Punjab meets 85% of its requirement of pulses from other states. Growing pulses also improves soil health.
- Apart from these, mash pulse, vegetables, sugarcane and green manure, which enhances the fertility of the soil, can be grown in spring.

Then why is maize seen as a big alternative to paddy in Punjab?

- Punjab needs to diversify its crop pattern, from paddy to maize, cotton and basmati. But the ideal alternative when it comes to maize is not the spring maize but kharif maize, which is grown during the paddy season from June to October.
- The state needs to bring around 5 lakh hectares under kharif maize cultivation. Though it is also the main maize grown in the state, 1.10 to 1.30 lakh hectares are used for growing this crop.
- Experts said that water consumption of kharif maize, which is sown just before the rainy season, is very less because most of its water need is met by the rains.
- However, the yield of kharif maize is quite less, which is around 50 to 60 quintals per hectare, depending upon varieties, as compared to the spring season. The need of the hour is to focus on developing good

kharif maize varieties. It also needs to be marketed better so that farmers can use more area for its cultivation instead of growing paddy.

Bengal coast faces most erosion

(Source: [The Hindu](#))

Context: *The Ministry of Earth Sciences, in a response to a question, informed the Lok Sabha earlier this week that of the 6,907.18-km-long coastline of the Indian mainland, about 34% is under varying degrees of erosion, while 26% is of an accretional nature and the remaining 40% is in a stable state.*

Details:

- In terms of percentage, West Bengal, located on the eastern coast of the country, with a 534.35-km-long coastline, suffered erosion along about 60.5% of the coast (323.07 km) over the period from 1990 to 2018.
- This is followed by Kerala on the west coast, which has 592.96 km of coastline and 46.4% of it (275.33 km) faced erosion. Tamil Nadu, with a long coastline of 991.47 km, recorded erosion along 42.7% of it (422.94 km).
- Gujarat, with the longest coastline of 1,945.6 km, recorded erosion along 27.06% (537.5 km) of it. In the Union Territory of Puducherry, with a 41.66-km-long coastline, about 56.2% of its coast (23.42 km) recorded erosion.
- Another organisation under the Ministry, the Indian National Centre for Ocean Information Services (INCOIS) has prepared and published an atlas of Coastal Vulnerability Index (CVI) maps for the entire coastline of India at a 1:100000 scale, the Ministry informed Parliament.

Mullaperiyar dam dispute

(Source: [The Hindu](#))

Context: *On April 8, the Supreme Court ordered the reconstitution of the Mullaperiyar dam's supervisory committee, which will include one technical expert each from Tamil Nadu and Kerala (the two States involved in the dispute concerning safety of the dam), and empowered the panel with functions and powers on par with those of the National Dam Safety Authority (NDSA), a body envisaged under the Dam Safety Act, 2021.*

What is the dispute?

- Located in Idukki district of Kerala, the 126-year-old Mullaperiyar dam is owned, operated and maintained by Tamil Nadu for several purposes, including irrigation, drinking water supply and hydro-power generation.
- In late 1979, after the eruption of the controversy over the structural stability of the dam, it was decided at a tripartite meeting that the water level be lowered to 136 feet against the full reservoir level of 152 feet so that Tamil Nadu could take up strengthening measures.
- In view of execution of a large portion of the measures, the Supreme Court, in 2006 and 2014, held that the water level be raised to 142 feet, up to which Tamil Nadu stored water even last year.
- The court's judgment of 2014 also provided for the formation of the supervisory committee and the completion of the remaining work by Tamil Nadu.



- But, there has been no end to litigation over the dam with Kerala witnessing landslides in recent years. Though there had been no reports of landslides in the vicinity of the dam site, the events in other parts of the State led to a renewed campaign against the dam.
- The Kerala government proposed that the existing dam be decommissioned and a fresh one be built, the options of which are not completely acceptable to Tamil Nadu which wants to complete the remaining strengthening work and restore the level to 152 feet.

Why was the Dam Safety Act framed? How does it affect Mullaperiyar?

- The Central government had mooted a bill on dam safety on account of the absence of a proper dam safety institutional framework.
- The Dam Safety Act, 2021, which came into force last December, deals with the subjects of surveillance, inspection, operation and maintenance of stipulated dams across the country, all of which hold relevance to the Mullaperiyar dam.
- Broadly, the law, which holds dam owners responsible for the construction, operation, maintenance, and supervision of dams, has designed two sets of bodies, one at the level of the Union government and another at the level of States.
- The National Committee on Dam Safety (NCDS) would devise dam safety policies and recommend necessary regulations while the NDSA would implement policies and address unresolved issues between States, apart from being the regulatory body.
- At the other level, the State Dam Safety Organisation and State Committees on Dam Safety have been envisaged. There is one more function attached to the NDSA, by which the NDSA would assume the role of a State Dam Safety Organisation for a dam located in one State and owned and operated by another. This is why Mullaperiyar comes under the law's purview.

What has the Supreme Court ruled?

- Apart from vesting the supervisory committee with powers and functions of the NDSA, the court has empowered it to decide on all outstanding matters related to the safety of the dam and conduct a fresh review of its safety.
- For any act of failure, "appropriate action" will be taken against the persons concerned not only for having violated the directions of the court but also under the Act, which talks of one year imprisonment or fine or both for refusal to comply with directions of bodies formed under the law.
- As required by the Supreme Court in its latest order, the two States are expected to nominate, within two weeks, one representative each to the supervisory committee, in addition to one nominee each.

The process of electing India's President

Context: *The tenure of the current President of India Ram Nath Kovind is set to end in July this year, which is also when the 16th Indian Presidential election will be held to elect his successor. The Assembly elections held in five States this year, and the changes in the National Democratic Alliance (NDA), are expected to alter the dynamic of votes in the upcoming presidential race.*

How is the President elected?

- The Indian President is elected through an electoral college system, wherein the votes are cast by national and State-level lawmakers. The elections are conducted and overseen by the Election Commission (EC) of India.
- The electoral college is made up of all the elected members of the Upper and Lower Houses of Parliament (Rajya Sabha and Lok Sabha MPs), and the elected members of the Legislative Assemblies



of States and Union Territories (MLAs). This means, in the upcoming polls, the number of electors will be 4,896 — 543 Lok Sabha MPs, 233 MPs of the Rajya Sabha, and 4,120 MLAs of all States, including the National Capital Territory (NCT) of Delhi and Union Territory of Puducherry.

- Before the voting, comes the nomination stage, where the candidate intending to stand in the election, files the nomination along with a signed list of 50 proposers and 50 seconders.
- These proposers and seconders can be anyone from the total of 4,896 members of the electoral college from the State and national level.
- The rule for securing 50 proposers and seconders was implemented when the EC noticed, in 1974, that several candidates, many without even a bleak chance of winning, would file their nominations to contest the polls. An elector cannot propose or second the nomination of more than one candidate.

What is the value of each vote and how is it calculated?

- A vote cast by each MP or MLA is not calculated as one vote. There is a larger vote value attached to it.
- The fixed value of each vote by an MP of the Rajya Sabha and the Lok Sabha is 708. Meanwhile, the vote value of each MLA differs from State to State based on a calculation that factors in its population vis-a-vis the number of members in its legislative Assembly.
- As per the Constitution (Eighty-fourth Amendment) Act 2001, currently, the population of States is taken from the figures of the 1971 Census. This will change when the figures of the Census taken after the year 2026 are published.
- The value of each MLA's vote is determined by dividing the population of the State by the number of MLAs in its legislative Assembly, and the quotient achieved is further divided by 1000. Uttar Pradesh for instance, has the highest vote value for each of its MLAs, at 208.
- The value of one MLA's vote in Maharashtra is 175, while that in Arunachal Pradesh is just 8. The total votes of each Legislative Assembly are calculated by multiplying the vote value of each MLA by the number of MLAs.
- Finally, based on these values, the total number of votes of all Rajya Sabha and Lok Sabha MPs would be 5,59,408 (776 MPs X 708), and the total votes of all MLAs from State Legislative Assemblies would come up to 5,49,495. Thus, the grand total vote value of the whole electoral college comes up to 10,98,903.

What is required to secure a victory?

- A nominated candidate does not secure victory based on a simple majority but through a system of bagging a specific quota of votes.
- While counting, the EC totals up all the valid votes cast by the electoral college through paper ballots and to win, the candidate must secure 50% of the total votes cast + 1.
- Unlike general elections, where electors vote for a single party's candidate, the voters of the electoral college write the names of candidates on the ballot paper in the order of preference.

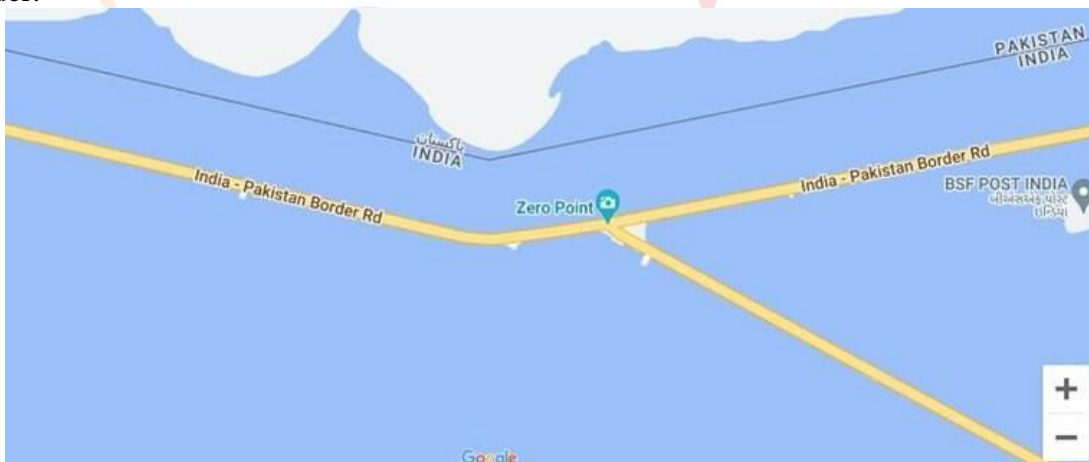
Seema Darshan Project

(Source: [Indian Express](#))

Context: As part of the Seema Darshan project, Union Home Minister Amit Shah inaugurated an Indo-Pakistan border viewing point in Nadabet in Gujarat, around 188 km from Ahmedabad. Located in the Rann of Kutch region, this attraction, also known as the 'Wagah of Gujarat', is connected by a narrow bitumen road cutting across mudflats that get inundated during high-tide.

What is the Seema Darshan project?

- The biggest attraction of the Seema Darshan project is the access provided to civilians to view the fenced international border with Pakistan at 'Zero Point'.
- This is guarded round the clock by the Border Security Force (BSF) in Banaskantha district of Gujarat.
- The Seema Darshan project is a joint initiative of the tourism department of the state government and the BSF Gujarat Frontier, where the focus is to develop border-tourism in the region which has a sparse population and even sparser vegetation.
- Shah had said the project would not only boost tourism but also restrict "migration from the villages across the border to the Indian side". Pakistan is around 150 metres from the border pillar 960 at Nadabet.
- Secondly, the parade held on the Indian side will be in the evening in an open-air auditorium that will have the capacity to seat 5,000 persons. This auditorium is located at T-junction which lies 30 km from the border.



- Zero Point is about 25 km north from the T-point near the India-Pakistan border.
- Apart from a retreat ceremony, the place offers adventures like rock climbing, rappelling, rifle shooting, zipline and other activities. It has war exhibits like the MIG-27 used in the 1971 Indo-Pak war, battle tanks, and an aircraft positioned on the road near the border. There is also a viewing gallery, selfie points near field guns, and a museum to learn about the history of BSF.

Role of Nadabet in 1971 Indo-Pak War

- According to BSF officials, Nadabet played a key role in the 1971 Indo-Pakistan War. It was in this region that the BSF not only stalled the enemy trying to invade from the west, but also captured 15 enemy posts.
- At Nadabet, there are maps showing the movements of the BSF battalions capturing enemy positions during the war.
- During the war, the BSF had captured 1,038 square km of Pakistan territory in Nagarparkar and Diplo areas. The area was returned to Pakistan after the Shimla Agreement was signed.

Canister Launched Anti-Armour Loiter Ammunition

(Source: [Indian Express](#))

Context: *The Army has issued a Request for Information (RFI) for anti-armour loiter ammunition for its mechanised forces which can be used on enemy tanks and other targets in the plains and deserts of Western India as well as on high altitude areas in the Northern borders in Ladakh.*

What exactly is a CALM System?

- The CALM System is a pre-loaded canister with loiter ammunition or a drone which once fired can remain aloft for a period of time over the area of operation, and when a target is sighted it can be guided down to destroy the target with the explosive payload that it carries.
- Usually, loiter ammunitions carry a camera which is nose-mounted and which can be used by the operator to see the area of operation and choose targets. These munitions also have variants which can be recovered and reused in case they are not used for any strike.

What is the RFI that the Army has issued and when?

- On April 8, the Army issued a RFI for the Cannister Launched Anti-Armour Loiter Ammunition (CALM) System.
- The Army has specified that it intends to procure 150 such systems which will be launched from the BMP Infantry Fighting vehicles of the Mechanised Infantry which are especially modified for this purpose.
- These systems are being procured under the 'Make in India' and 'Atmanirbhar Bharat' programmes.

What use of the equipment has been specified in the RFI?

- The RFI states that the CALM Systems will be used in the plains and deserts of the Western parts of the country as well as the Northern high altitude areas of heights up to 5,000 metres.
- In the plains and deserts, the system should be able to operate between the temperature of zero degrees Celsius to 45 degrees Celsius while in high altitude it should be able to operate between minus 15 degrees Celsius to 40 degrees Celsius.
- It will be employed by the Mechanised Infantry units of the Army for surveillance of beyond line of sight targets by day and night in real time and beyond visual range engagement of enemy armoured fighting vehicles and other ground based weapon platforms over extended ranges.

Has this kind of system been used in combat?

- The CALM System had been very effectively used in the Armenia-Azerbaijan conflict in 2021 where the Azerbaijan forces made extensive use of Israeli systems to wreak havoc on Armenian tanks, radar systems, communication hubs and other military targets.
- The top down attack capability of the loiter ammunition gives it a big advantage over targets such as tanks which are vulnerable to any attack on the top where the armour protection is weak.
- The Russian military is also using their ZALA KYB loiter ammunition in Ukraine while some reports say that the US has also provided Ukraine with its Switchblade loiter munitions that could target Russian armour 10 km away.

India to grow at 8%: World Bank

(Source: [The Hindu](#))

Context: India is projected to grow at 8% over the current fiscal year (April 1- March 31), and 7.1% over the next (2023-24) fiscal year, the World Bank said in its bi-annual South Asia Economic Focus Reshaping Norms: A New Way Forward.

Details:

- The country is estimated to have grown at 8.3% in the fiscal year that just passed, following a contraction of 6.6% in the previous year owing to the COVID-19 pandemic.

Slow pace | South Asia region's growth is expected to be slower due to Russia's war on Ukraine, which impacted the region while it was experiencing uneven and fragile growth

Country	FY20/21	FY21/22(e)	FY22/23(f)	FY23/24(f)
India	-6.6	8.3	8	7.1
	2020	2021(e)	2022(f)	2023(f)
Sri Lanka*	-3.6	3.5	2.4	NA
	FY19/20	FY20/21(e)	FY21/22(f)	FY22/23(f)
Bangladesh	3.4	6.9	6.4	6.7
Pakistan	-1	5.6	4.3	4

* = DATA FOR CALENDAR YEAR; (e) = ESTIMATED; (f) = FORECAST

- For the South Asia region, growth is expected to be slower than projected, by 1 percentage point, at 6.6% in 2022 and 6.3% next calendar year.
- This is due to Russia's war on Ukraine, which has impacted the region, when it was already experiencing "fragile" growth, rising commodity prices, bottlenecks to supply and financial sector vulnerabilities.
- The impact of the war has seen faster inflation, deteriorating current account balances and growing fiscal deficits, according to the lender.
- The indirect impact was via the global impact of sanctions on commodity and financial markets.
- All countries in the region will face challenges ahead, despite "solid" GDP growth during recovery, as per the report. In the case of India, household consumption will be constrained due to the incomplete recovery of the labour market and inflationary pressures.
- The report suggests that countries in the region move towards greener fuels and commodities as a response to rising fuel prices and the introduction of green taxes. This would also be a new source of government revenue.

Gram Swaraj scheme

(Source: [The Hindu](#))

Context: *The Cabinet Committee on Economic Affairs (CCEA) approved a proposal to continue the Rashtriya Gram Swaraj Abhiyan (RGSA), a scheme for improving the governance capabilities of Panchayati Raj institutions, till 2025-26.*

Details:

- The approved scheme of RGSA will help more than 2.78 lakh rural local bodies... to develop governance capabilities to deliver on SDGs [Sustainable Development Goals] through inclusive local governance with a focus on optimum utilisation of available resources.
- The statement said the scheme would work towards “poverty-free and enhanced livelihood in villages; healthy villages, child-friendly villages; water-sufficient villages; clean and green villages; self-sufficient infrastructure in villages; socially-secure villages; villages with good governance and engendered development in villages.”
- The government said panchayats would be strengthened and a spirit of healthy competition inculcated. No permanent posts would be created under the scheme but “need-based contractual human resources may be provisioned for overseeing the implementation of the scheme and providing technical support to States/UTs”.

Long Period Average for monsoon prediction

(Source: [Indian Express](#))

Context: *The country is **likely to receive a normal monsoon** for the fourth consecutive year, the India Meteorological Department (IMD) said in its first Long Range Forecast (LRF) for this year*

Long Period Average

- The IMD predicts a “normal”, “below normal”, or “above normal” monsoon in relation to a benchmark “long period average” (LPA).
- According to the IMD, the “LPA of rainfall is the rainfall recorded over a particular region for a given interval (like month or season) average over a long period like 30 years, 50 years, etc”.
- The IMD’s prediction of a normal monsoon on Thursday was based on the LPA of the 1971-2020 period, during which India received 87 cm of rain for the entire country on average. The IMD has in the past calculated the LPA at 88 cm for the 1961-2010 period, and at 89 cm for the period 1951-2000.
- While this quantitative benchmark refers to the average rainfall recorded from June to September for the entire country, the amount of rain that falls every year varies from region to region and from month to month.
- Therefore, along with the countrywide figure, the IMD also maintains LPAs for every meteorological region of the country — this number ranges from around 61 cm for the drier Northwest India to more than 143 cm for the wetter East and Northeast India.

Why LPA is needed

- The IMD records rainfall data at more than 2,400 locations and 3,500 rain-gauge stations. Because annual rainfall can vary greatly not just from region to region and from month to month, but also from year to year within a particular region or month, an LPA is needed to smooth out trends so that a reasonably accurate prediction can be made.



- A 50-year LPA covers for large variations in either direction caused by freak years of unusually high or low rainfall (as a result of events such as El Nino or La Nina), as well as for the periodic drought years and the increasingly common extreme weather events caused by climate change.
- The IMD maintains five rainfall distribution categories on an all-India scale. These are:
 - Normal or near normal, when the percentage departure of actual rainfall is $\pm 10\%$ of LPA, that is, between 96-104% of LPA;
 - Below normal, when departure of actual rainfall is less than 10% of LPA, that is 90-96% of LPA;
 - Above normal, when actual rainfall is 104-110% of LPA
 - Deficient, when departure of actual rainfall is less than 90% of LPA; and
 - Excess, when the departure of actual rainfall is more than 110% of LPA.



INTERNATIONAL

Major takeaways from the latest Intergovernmental Panel on Climate Change report

(Source: [The Hindu](#))

Context: *In its latest assessment report, the Intergovernmental Panel on Climate Change (IPCC) has laid out several scenarios on the steps that ought to be taken to keep temperatures below 2°C. It warned that even temporarily exceeding the warming level of 1.5°C over the next two decades would mean additional severe impact, some irreversible.*

How is this report prepared?

- Scientists from around the world including India are part of the Working Group III of the IPCC. They analyse the various interventions that can be made to ensure that temperature rise by the end of the century is minimal.
- The group does this by assessing the most credible, updated literature on the scientific, technological, environmental, economic and social aspects of mitigating the impact of climate change.
- This specific group studies social developments, such as decisions taken at the annual Conference of Parties (COP), progress on clean energy technologies and availability of finance.
- Placing the data in the context of climate science, the scientists analyse the role played by various groups such as forest communities, indigenous tribes and businesses, in addressing climate change and finally recommend steps that must be taken over three periods: until 2030, until 2050 and until 2100, on what needs to be done to limit temperature rise.
- A key part of the report, called the Summary for Policymakers, was approved by 195 member-governments of the IPCC, through a virtual approval session that started on March 21. The latest report is the third instalment of the IPCC's Sixth Assessment Report (AR6), which will be completed this year.

What are the key messages?

- Total net anthropogenic GHG (greenhouse gas) emissions have continued to rise from 2010–2019, as have cumulative net CO₂ emissions since 1850.
- Average annual GHG emissions during 2010–2019 were higher than in any previous decade, but the rate of growth between 2010 and 2019 was lower than that between 2000 and 2009. By 2019, the largest growth in absolute emissions occurred in carbon dioxide from fossil fuels and industry followed by methane.
- The per-unit costs of several low-emission technologies have fallen continuously since 2010, however innovation has lagged in developing countries due to weak enabling conditions.
- Even if countries adhered to their promises towards reducing emissions, called Nationally Determined Contributions, warming will still exceed 1.5°C during the 21st century. Keeping warming below 2°C would then rely on a rapid acceleration of mitigation efforts after 2030.
- Tracked financial flows were still falling short of the levels needed to achieve mitigation goals across all sectors and regions. The challenge of closing gaps was largest in developing countries as a whole. Increasing financial flows can be supported by clear policy choices and signals from governments and the international community, it said.
- According to the scientists, limiting warming to around 1.5°C requires global greenhouse gas emissions to peak before 2025 at the latest and be reduced by 43% by 2030; at the same time, methane would also need to be reduced by about a third.
- Even if this happened, it is almost inevitable that this ceiling would be temporarily breached but, with appropriate action, it could again dip by the end of the century.

- The global temperature will stabilise when carbon dioxide emissions reach net zero. For 1.5°C, this meant achieving net zero carbon dioxide emissions globally in the early 2050s; for 2°C, it is in the early 2070s.
- Even limiting warming to around 2°C would still require global greenhouse gas emissions to peak before 2025 at the latest and be reduced by a quarter by 2030, the report stressed.

What are the implications of this report for India?

- The report's warning against opening new coal plants is of relevance to India. The panel finds that all coal-fired power plants, without the technology to capture and store carbon (CCS), would need to be shuttered by 2050 if the world aspired to limit global temperature rise to 1.5°C.
- According to the Central Electricity Authority, India had about 211 GW of operational coal-fired power plants — roughly 10% of global capacity.
- As per Global Energy Monitor data, another 31 GW was being constructed and about 24 GW in various pre-construction phases. None of the existing under construction coal-fired power plants in India have CCS facilities.
- India has committed to a net-zero year, or when it would cease to be a CO₂ emitter, of 2070 and has defined a pathway to transition to renewable energy sources but also insisted on its right to coal use given its developmental needs as well underlining that the historical responsibility of climate change from fossil fuel rested with the developed countries, who needed to shoulder much of the mitigating burden.
- The Centre has “welcomed” the report and said it recognises India's position that developed countries must do more to mitigate climate change.

The '2+2' format of dialogue between India and the US

(Source: Indian Express)

Context: The fourth '2+2' dialogue between India and the United States is underway in Washington DC. India's External Affairs and Defence Ministers, S Jaishankar and Rajnath Singh, are meeting with their American counterparts, Secretary of State Anthony Blinken and Secretary of Defense Lloyd Austin.

2+2 talks between India and allies

- The 2+2 dialogue is a format of meeting of the foreign and defence ministers of India and its allies on strategic and security issues.
- A 2+2 ministerial dialogue enables the partners to better understand and appreciate each other's strategic concerns and sensitivities taking into account political factors on both sides, in order to build a stronger, more integrated strategic relationship in a rapidly changing global environment.
- India has 2+2 dialogues with four key strategic partners: the US, Australia, Japan, and Russia. Besides Russia, the other three countries are also India's partners in the Quad.
- The inaugural 2+2 dialogue with Australia was held in September 2021 when Jaishankar and Singh met with their counterparts Marise Payne and Peter Dutton in New Delhi.
- India held its first 2+2 dialogue with Russia in December last year, when Russian Foreign Minister Sergey Lavrov and Defence Minister Sergei Shoigu visited India.
- The first India-Japan talks in the 2+2 format were held between Jaishankar and Singh and their Japanese counterparts Foreign Affairs Minister Motegi Toshimitsu and Minister of Defense Kono Taro on November 30, 2019 in New Delhi.

Dialogue with the US

- The US is India's oldest and most important 2+2 talks partner.
- The first 2+2 dialogue between the two countries was held during the Trump Administration, when then Secretary of State Michael Pompeo and then Secretary of Defence James Mattis met the late Sushma Swaraj and then Defence Minister Nirmala Sitharaman in New Delhi in September 2018.
- The launch of the dialogue was seen as a "reflection of the shared commitment" by India and the US to provide "a positive, forward-looking vision for the India-US strategic partnership and to promote synergy in their diplomatic and security efforts".
- The second and third editions of the 2+2 dialogues were held in Washington DC and New Delhi in 2019 and 2020 respectively.

Defence and strategic agreements

- Over the years, the strategic bilateral relationship with its partners, including the dialogues held in the 2+2 format, have produced tangible and far-reaching results for India.
- India and the US have signed a troika of "foundational pacts" for deep military cooperation, beginning with the Logistics Exchange Memorandum of Agreement (LEMOA) in 2016, followed by the Communications Compatibility and Security Agreement (COMCASA) after the first 2+2 dialogue in 2018, and then the Basic Exchange and Cooperation Agreement (BECA) in 2020.
- The strengthening of the mechanisms of cooperation between the two militaries are of significance in the context of an increasingly aggressive China, which threatens a large number of countries in its neighbourhood and beyond, and which has been challenging several established norms and aspects of international relations.

Understanding the sovereign debt crisis in Sri Lanka

(Source: [The Hindu](#))

Context: *The Sri Lankan government on Tuesday decided to default on all its foreign debt worth \$51 billion as it awaits financial assistance from the International Monetary Fund (IMF). The government stated that it took the decision to preserve its dwindling foreign reserves to pay for the import of essential items. Ratings agencies such as Fitch, and Standard & Poor's have downgraded Sri Lanka's sovereign debt.*

What is sovereign debt?

- Sovereign debt refers to the debt issued or accumulated by any government. Governments borrow money to finance the various expenses that they cannot meet through their regular tax revenues.
- They usually need to pay interest on such debt along with the principal amount over time although many governments simply choose to borrow fresh debt to repay existing debt.
- Historically, governments have tended to borrow more money than they could actually repay in order to fund populist spending.
- It should also be noted that governments can borrow either in their local currency or in foreign currency like the U.S. dollar.
- Governments usually find it easier to borrow and repay in their local currency. This is because governments with the help of their central banks can easily create fresh local currency to repay debt denominated in the local currency.
- This is known as debt monetisation and it can lead to increased money supply which in turn causes prices to rise.
- Making good on their foreign debt which is denominated in a foreign currency, however, can be a tricky affair for governments.

- This is because governments depend on the inflow of foreign currency to gather the necessary foreign exchange to pay their foreign debt.
- The Sri Lankan government or the central bank, for example, cannot create U.S. dollars out of thin air to pay their foreign debt denominated in U.S. dollars.
- Instead, they depend on U.S. dollars flowing into Sri Lanka in the form of foreign investment and payments received in exchange for the export of various goods and services to build up their foreign reserves.

Why is Sri Lanka unable to make good on its foreign debt commitments?

- Sri Lanka depends heavily on its tourism sector to bring in the foreign exchange necessary to import essential items such as food and fuel.
- The tourism sector contributes to about 10% of Sri Lanka's gross domestic product. Since the coronavirus pandemic and the ensuing lockdowns, Sri Lanka's tourism sector has been hit hard. This, in turn, has affected the inflow of U.S. dollars into the Sri Lankan economy.
- Sri Lanka's forex reserves have dropped to \$2.3 billion in February this year from over \$7.5 billion in 2019.
- Thus, the Sri Lankan government has been finding it hard to obtain the U.S. dollars necessary to make good on its foreign debt obligations.
- It has thus sought help from the IMF as well as countries such as India and China. India this week agreed to offer additional financial assistance of \$2 billion to Sri Lanka by rolling over debt that the island nation owes India.
- Sri Lanka's efforts to fix the exchange rate of the Sri Lankan rupee against the U.S. dollar in order to prop up the price of the rupee may have also played a role in the foreign debt crisis.
- As foreign exchange inflows dried up during the pandemic and the Sri Lankan rupee came under increasing pressure, the country's central bank at a certain point banned the payment of more than 200 Sri Lankan rupees for one U.S. dollar.
- This rate was way below the actual market price of the dollar, which caused trades to be pushed into the black market and also caused a drop in the supply of U.S. dollars in the forex market.

What is the cost of defaulting on foreign debt?

- International lenders may be reluctant to lend any more money to the Sri Lankan government unless such lending is part of a restructuring agreement.
- This fact will also be reflected in the ratings that international ratings agencies give to debt issued by the Sri Lankan government.
- Going forward, the cost of fresh borrowing is likely to be high for the Sri Lankan government as lenders will be incurring greater risk while lending to a government that has been unable to make good on its previous commitments.
- A bailout by the IMF could be on the cards, but the Sri Lankan government will have to agree to implement structural reforms as a pre-condition for such aid.
- The IMF may require the Sri Lankan government to end its aggressive push towards 100% organic farming that has caused food supplies to be affected and food prices to rise. It may also recommend getting rid of price controls on food and other essential goods.
- It should be noted that price controls on any commodity affect the incentive that producers have to bring fresh supplies into the market. Controls imposed on the exchange rate of the rupee may also need to go in order to re-attract U.S. dollars. An end to price controls and the ban on non-organic farming can help the domestic economy return to normalcy.
- This, in turn, can help in the return of tourists. At the moment, mass protests due to rapidly rising prices may be causing many tourists to avoid visiting Sri Lanka, thus worsening the country's foreign debt crisis.

Genocide

(Source: [The Indian Express](#))

Context: *Washington and Kyiv are accusing Russia of genocide in Ukraine, but the ultimate war crime has a strict legal definition and has rarely been proven in court since it was cemented in humanitarian law after the Holocaust.*

What is genocide?

- The 1948 Genocide Convention defines genocide as crimes committed “with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such.”
- Three cases so far have met international courts’ threshold: the Cambodian Khmer Rouge’s slaughter of minority Cham people and Vietnamese in the 1970s, who were among an estimated 1.7 million dead; the 1994 mass killing of Tutsis in Rwanda that left 800,000 dead; and the 1995 Srebrenica massacre of some 8,000 Muslim men and boys in Bosnia.
- Criminal acts comprising genocide include killing members of the group, causing them serious bodily or mental harm, creating conditions calculated to destroy them, preventing births, or forcibly transferring children to other groups.

What must prosecutors do to prove genocide?

- To establish genocide, prosecutors must first show that the victims were part of a distinct national, ethnic, racial or religious group. This excludes groups targeted for political beliefs.
- Genocide is harder to show than other violations of international humanitarian law, such as war crimes and crimes against humanity, because it requires evidence of specific intent.
- The International Criminal Court opened an investigation into alleged war crimes and crimes against humanity in Ukraine in February. It also has jurisdiction over genocide.
- Ukrainian prosecutors, already investigating alleged Russian crimes since the 2014 annexation of Crimea, said they have identified thousands of potential war crimes by Russian forces since Feb. 24 and compiled a list of hundreds of suspects.

What cases are happening now?

- The International Criminal Court previously issued an arrest warrant on charges of genocide against former Sudanese President Omar al-Bashir, but his trial cannot begin until he is in custody in The Hague.
- The International Court of Justice also has jurisdiction over the Genocide Convention, the first human rights treaty adopted by the U.N. General Assembly in 1948, stating the international community’s commitment to prevent the atrocities of World War Two from ever happening again.
- It is hearing two cases: one claiming Myanmar committed genocide against Rohingya Muslims, the other brought by Ukraine to argue that Russia is using accusations of genocide as a false pretext for invasion.
- Such cases generally take years to reach a verdict.

Past cases

- The International Criminal Tribunal for Rwanda convicted dozens of senior officials, all of them Hutus, of genocide against Tutsis.
- When former Rwandan Mayor Jean-Paul Akayesu was found guilty of the crime in 1998, the court became the first international tribunal to interpret the definition of genocide set forth in the 1948 Genocide Convention.
- In 2018, a hybrid U.N.-Cambodian tribunal found two leaders of Cambodia’s Khmer Rouge guilty of genocide following years of debate about whether the “Killing Fields” constituted genocide. The judges



ruled that the Khmer Rouge had a policy to target Cham and Vietnamese people to create “an atheistic and homogenous society”.

- The International Criminal Tribunal for the former Yugoslavia convicted several key figures of genocide for their roles in the Srebrenica killings during the Balkan wars of the 1990s.
- They include wartime Bosnian Serb military commander Ratko Mladic and Bosnian Serb political leader Radovan Karadzic. Former Yugoslav President Slobodan Milosevic died in custody before his genocide trial concluded.

Designation as a ‘state sponsor of terrorism’ by the US

(Source: [Indian Express](#))

Context: *Ukraine’s President Volodymyr Zelenskyy has asked President Joe Biden to designate Russia as a “state sponsor of terrorism”, which would activate perhaps the harshest suite of sanctions available with the United States against the government of President Vladimir Putin.*

Terrorist designation

- The US Secretary of State (the minister primarily in charge of foreign relations) has the power to designate countries that “have repeatedly provided support for acts of international terrorism” as “State Sponsors of Terrorism”.
- According to the State Department website, the US can place four categories of sanctions on countries that are on this list: restrictions on US foreign assistance; a ban on defence exports and sales; certain controls over exports of dual use items; and miscellaneous financial and other restrictions.
- Sanctions can also be placed on countries and persons that engage in certain trade with designated countries.

Countries on the list

- As of now, there are four countries on the list of state sponsors of terrorism.
- The first to be designated among them was Syria (December 29, 1979), followed by Iran (January 19, 1984), and North Korea (November 20, 2017). Cuba was re-designated as a state sponsor of terrorism on January 12, 2021.
- A Congressional Research Service (CRS) brief prepared for members and committees of the United States Congress in May 2021 clarifies that “a terrorism designation is but one part in the bilateral relationship between the United States and each of these governments.”
- Countries can be put and taken off the list from time to time. A country can be de-listed if it is deemed by the US to have reformed its behaviour and returned to complying with the requirements of international law and conduct, or if it has undergone a change of leadership
- So, in October 2020, President Donald Trump announced that the US was taking Sudan, which was first designated under President Bill Clinton in 1993, off the list of state sponsors of terrorism.
- Iraq was removed from the list first in 1982, before being re-listed in 1990, and again removed in 2004.
- South Yemen was removed in 1990, when it merged with North Yemen, and Libya was removed in 2006.
- Cuba was first designated in 1982. In 2014, President Barack Obama announced he would reestablish diplomatic relations with Cuba and ease diplomatic and economic restrictions, and on May 29, 2015, Secretary of State John Kerry delisted the government of Cuba.

- Trump turned the clock back, and in the dying days of his administration, Secretary of State Michael Pompeo last year designated Cuba once again as a supporter of acts of international terrorism.

Statutes authorising designation

- There are currently three statutes that authorise the Secretary of State to designate a foreign government for repeatedly providing support for acts of international terrorism:
 - (i) Section 620A of the Foreign Assistance Act of 1961, which prohibits the transfer of most aid;
 - (ii) Section 40 of the Arms Export Control Act (AECA), which prohibits exports, credits, guarantees, other financial assistance, and export licensing overseen by the State Department; and
 - (iii) Section 1754(c) of the Export Controls Act of 2018.
- According to the CRS brief, of these three statutes, only the AECA identifies objectionable activities as part of the definition.
- While none of the three Acts defines the overarching term “international terrorism,” the AECA says that the term includes:

Impact of designation

Major ways in which the designation can potentially hurt the target country’s financial system:

- freezing of the country’s assets in the United States, including real estate;
- requiring the US to veto efforts of that country to secure World Bank or International Monetary Fund loans;
- prohibiting a wide variety of dual-use exports;
- requiring the US to take economic action against countries that continue to do business with the targeted country.”
- Designation as a state sponsor of terrorism would deal blows to Putin’s “reputation” and “grand hope”, from which he “would be unlikely to recover”.



Mains

GS I

A non-place

(Source: [The Hindu](#))

Context: *What do hotels, airports, and shopping malls have in common? These metropolitan motifs are inorganic spaces that confer a uniform identity on individuals based on their consumption patterns. One is always a 'diner', 'passenger' or 'customer' here. These artificial spaces are what French anthropologist Marc Augé refers to as 'non-places'.*

Details:

- In his seminal work *Non-Places: Introduction to an Anthropology of Supermodernity* (1992), Augé identifies non-places as temporary spaces that thrive under capitalism which include holiday resorts, hotel chains and supermarkets.
- On the other hand, spaces such as refugee camps, shanty houses and torn-down settlements that proliferate under inhumane conditions can also be considered non-places. Located at the intersection of human relations, they are spaces of transience, marked by impermanence and anonymity.
- Non-places are tied intrinsically to supermodernity, a late-capitalist phenomenon that is characterised by an excess of information, space, and events.
- Augé's hypothesis is that the condition of supermodernity generates non-places that do not qualify as 'places' owing to their ahistorical and impersonal nature.
- He argues that the burgeoning of non-places leads to an alteration of awareness, where surroundings are only perceived in a partial and distorted manner.

Places and non-places

- What separates non-places from places? The term 'place' is understood in the symbolised sense, or as an anthropological place, and is often used in association with an event, a myth, or history.
- This contrast between the symbolised place and the non-symbolised space produces the fundamental difference between place and non-place, where the former is symbolised, and the latter is not.
- While places are historical, relational and associated with identity, non-places are constituted by spaces that do not concern themselves with history and identity.
- Places and non-places are separated by another key difference. Places are formed by individual identities through shared language, local references and know-hows. Non-places, however, homogenise identities or confer temporary identities.
- Further, non-places exist in relation to specific ends, such as transport, commerce and leisure. By ordaining the relations that individuals have with space, non-places enforce a contractual nature on the association between space and the individual.
- The identity of an individual (as a 'customer', 'passenger', or 'user') is created and subsequently erased upon the individual entering and leaving the non-place.

Associations in the non-place

- The association between the non-place and the individual is often mediated by words, where non-places exist in relation to words that evoke them.
- For instance, it is possible to evoke the idea of a holiday through the words 'beach', 'resort', or 'cruise'. Similarly, the memory of non-places such as airports may be summoned by the instructional ('Check-

in') or prohibitive language ('No Smoking', 'No Flammable Liquids') they deploy to address individuals.

- The transactional nature of the language that is used in non-places in turn defines the relationship between the individuals that inhabit the non-place.
- Augé cites the example of a billing counter at a supermarket, where the interactions between the customer and cashier are characterised by silence.
- The customer hands the cashier a credit card which is checked and swiped, leaving little room for conversation. Instead of communicating with one another, the cashier and customer engage more with the card machine, which instructs them to 'Insert Card' or 'Remove Card', or informs them that 'Card is faulty'.
- The language used here also governs the relationship between each customer in the supermarket. By addressing them simultaneously and indiscriminately, the supermarket fashions an 'average person' who is absorbed into the shared identity of a 'customer'.
- This creation of shared identities further subjects individuals in the non-place to a lonely contractuality, leading to what Augé refers to as 'ordeals of solitude'. This phenomenon is less evident in places, where the generation of social relations is organic.

Proliferation of non-places

- Are non-places nothing more than a play of text? While any phenomenon is affected by several determinants, Augé believes that non-places hold an attraction that is inversely proportional to tradition and territorial affinity.
- This is evident in the scores of cars that line highways and toll gates on weekends and overbooked resorts and vacation homes during the holidays.
- Yet, it cannot be denied that it is the individual who is at the centre of this concept — it is the image of the individual that gives meaning to the non-place, while also being capable of undoing it in the future.
- As the world contemplates a return to pre-COVID norms, the focus on non-places has intensified.
- Despite social distancing norms and bio-bubbles that may have altered our interaction with space during the pandemic, non-places continue to remain germane in defining the relationship between space and the individual.
- Their growing presence today provides an experience that is a rare combination of solitary individuality and non-human mediation between individuals. These ahistorical experiences have become an inseparable component of social existence.

GS II

India and the U.K.

(Source: [The Hindu](#))

Context: *The war in Ukraine has brought unexpected changes in the world as global powers seek to recalibrate their foreign policies. India's position has been in the spotlight in recent days with New Delhi hosting diplomats and dignitaries from various countries. On March 31, the U.K. Foreign Secretary, Elizabeth Truss, visited New Delhi as a part of a wider diplomatic push. She had visited India last October. Ms. Truss met with External Affairs Minister S. Jaishankar and also participated in the inaugural edition of the India-U.K. Strategic Futures Forum, a Track 1.5 Dialogue.*

Areas of cooperation

- Despite the challenge posed by the Ukraine crisis, the India-U.K. relationship has been on an upward trajectory, exemplified by the conclusion of a Comprehensive Strategic Partnership on May 4, 2021. The agreement also established a 2030 Roadmap for India-U.K. relations, which primarily outlines the partnership plans for the bilateral relationship.
- During her visit to New Delhi, Ms. Truss emphasised countering Russian aggression and reducing global strategic dependence on Moscow by underlining the importance of democracies working cohesively to deter aggressors. Furthermore, she highlighted the importance of developing deeper ties between Britain and India in the Indo-Pacific which would not only result in job creation, but also foster security in the region.
- She also furthered talks on defence-related trade and deepening cyber security and defence cooperation between the two countries.
- A new joint cyber security programme is set to be announced, which aims to protect online infrastructure in India and the U.K. as both parties attempt to carry out joint exercises to combat threats from cyber criminals and ransomware.
- India and the U.K. also plan to hold the first Strategic Tech Dialogue, a ministerial-level summit on emerging technologies.
- Additionally, the U.K. and India have agreed to strengthen their cooperation in the maritime domain as the U.K. will join India's Indo-Pacific Oceans Initiative and become a major partner on maritime security issues in Southeast Asia.
- In 2021, HMS Queen Elizabeth and the Carrier Strike Group took part in a military exercise with the Indian Navy in the Bay of Bengal before proceeding to exercise with the navies of Singapore, Malaysia, and Thailand.
- India is a key strategic partner for the U.K. in the Indo-Pacific both in terms of market share and defence, as was underscored by the signing of the Defence and International Security Partnership between India and the U.K. in 2015. The U.K. is a regional power in the Indo-Pacific as it possesses naval facilities in Oman, Singapore, Bahrain, Kenya, and British Indian Ocean Territory.
- The U.K. has also confirmed £70 million of British International Investment funding to support the usage of renewable energy in India, which will help in building renewable energy infrastructure and developing solar power in the region. In January, India and the U.K. managed to conclude the first round of talks for an India-U.K. Free Trade Agreement.
- The negotiations reflected shared ambitions to secure a comprehensive deal between the fifth and sixth largest economies in the world as technical experts from both sides covered over 32 sessions encompassing 26 policy areas.

- The first round of negotiations laid the groundwork for subsequent rounds which were held in March 2022.
- India and the U.K. are expected to meet this month in New Delhi with the expected possibility of signing an early harvest deal.
- New Delhi has sought easy market access for Indian fisheries, pharma, and agricultural products besides duty concession for labour-intensive exports.
- For Britain, a successful conclusion of an FTA with India would provide a boost to its 'Global Britain' ambitions as the U.K. has sought to expand its markets beyond Europe since Brexit.
- Britain has been trying to seize opportunities in the growing economies of the Indo-Pacific to cement its place on the global stage as a serious global actor.

New areas of cooperation

- Amid a renewed optimism about the trajectory of the India-U.K. relationship, British Prime Minister Boris Johnson is expected to visit India at the end of April. Mr. Johnson and Prime Minister Narendra Modi last met on the sidelines of the COP26 in Glasgow in November 2021 where both leaders focused on the India-U.K. Climate Partnership.
- During his visit, negotiations on the FTA are expected to gain further impetus as the 2030 Roadmap aims to double bilateral trade between India and the U.K. by 2030.
- Both India and the U.K. are serious in overcoming legacy issues and engaging in robust dialogues to promote cooperation on strategic and defence issues both in the Indo-Pacific as well as at the global level.
- The newer areas of cooperation — namely, fintech, market regulation, sustainable and green finance, and cyber security — have emerged as the new frontiers of this engagement.
- The notable success of the collaboration with Oxford-Astra Zeneca and the Serum Institute of India in producing Covishield vaccines in India has been just one of many instances of potential successful cooperation.
- The forthcoming visit of Mr. Johnson to New Delhi signifies the importance of India's role in the dynamically changing global order as New Delhi prepares itself to host multiple foreign leaders in the upcoming months and the G20 presidency in 2023.

A unique moment

- As India seeks to carve out a new role for itself in the evolving global order as a 'leading power' and the U.K. recalibrates its strategic outlook post-Brexit, this is a unique moment in India-U.K. ties.
- The top leadership in the two nations remain committed to building a lasting partnership and in the process, older issues like Pakistan have become marginal in the bilateral discourse.
- New geopolitical realities demand a new strategic vision from London and New Delhi. It is time to seize the moment and to lay the foundations of a partnership that can respond adequately to the challenges of the 21st century.

India's role in a disordered world

(Source: [The Hindu](#))

Context: *Western nations want to throw Russia out of the G-20. China has opposed them. India will be chair of the G-20 from December 1, 2022. The world is greatly disordered. What should India stand for?*

Details:

- Institutions of global governance have failed to unite the world. Summit after summit has produced mostly hot air in trying to resolve the global climate crisis.
- Vaccines were hoarded by rich countries in the COVID-19 pandemic: poor countries starved.
- The World Trade Organization (WTO) was already in the intensive care unit before the novel coronavirus pandemic, with rich and poor countries unable to agree on equitable rules, when COVID-19 froze global supply chains.
- The war in Ukraine in February 2022 has put the final nail in the coffin of the boundary-less global economy that seemed to be emerging with the fall of the Berlin Wall and the collapse of the Soviet Union in 1991.

Undemocratic architecture

- Millions of civilians died in the Second World War. European cities were razed by carpet bombing. The war ended with two nuclear bombs to terrorise the Japanese government into submission, erasing two Japanese cities and killing thousands of civilians. Never again, the victors vowed.
- New institutions for global governance were established — the United Nations and the General Agreement on Tariffs and Trade (GATT), and the World Bank and the International Monetary Fund (IMF) to provide finance to build the economies of all countries to eliminate poverty.
- However, the victors retained their veto power within the United Nations Security Council to determine when force can be used to keep the world in order, and to prevent the proliferation of nuclear power outside their small circle because they could not trust other countries to use it wisely! They also control the World Bank, the IMF, and the WTO.
- The UN General Assembly meets every year — now 193 nations strong. It passes many resolutions to address global problems — hunger, poverty, women's rights, terrorism, climate change, etc.
- However, “might is right”: members of the Security Council retain their right to deny the democratic will of the Assembly when it does not suit them.
- Global governance is not democratic. If the leader of any member country overrules resolutions of its own parliament, he would be branded an undemocratic dictator. Armed interventions and sanctions imposed on countries, authorised by the Security Council to restore democracy in other countries, make a mockery of global democracy.
- The United States, the United Kingdom, France, Italy, Japan, West Germany and Canada formed the G7 in 1976 ‘so that the noncommunist powers could come together to discuss economic concerns, which at the time included inflation and recession following the Organization of the Petroleum Exporting Countries (OPEC) oil embargo’.
- The European Union was invited to attend in 1977. Russia joined in 1998 — and ‘its inclusion was meant as a signal of cooperation between East and West after the collapse of the Soviet Union in 1991’. However, Russia was thrown out in 2014 when it invaded the Crimea. China was never a member.
- The rapid spread of global finance and trade after the victory of the Washington Consensus in 1991, created instabilities in developing countries. After the Asian financial crisis, the G20 was formed in 1999 with the aim of discussing policies in order to achieve international financial stability.
- Russia and China are members. Now western nations want to throw Russia out of the G-20. China has opposed them. India will be chair of the G-20 from December 2022, or will it be G-19 then? Meanwhile, India is being hectorated by officials from the U.S. and the U.K. to support their sanctions on Russia. India has so far refused to be cowed down.

Inequalities have only risen

- The belief that unfettered flows of finance and trade across national borders will lift people in all poor countries out of poverty and make the world flatter in terms of inequality has failed. Inequalities have increased within countries and amongst them too.
- Citizens are reacting everywhere. Even in democratic countries such as the U.S., demands are increasing for more “socialism” and less unbounded capitalism. Strong leaders who put the interests of their own

countries first are gaining power through elections — in Turkey, Hungary, Poland, Russia, and even India. Donald Trump had once too.

- Free market capitalism is not ideologically compatible with a genuine democracy. Capitalist institutions are governed by the fundamental principle of ‘property rights’: decision rights in capitalist enterprises are allocated in proportion to property owned.
- Whereas, genuine democracies are founded on the principle of equal human rights. All western electoral systems — in Britain, the U.S., and Europe, began centuries ago with rights to vote limited to property owners only.
- Universal adult franchise, wherein all humans have equal votes whether they are billionaires or paupers, is a more recent development in the West. In many western countries, women and racial minorities were given even de jure equal voting rights only in the last century, and continue their struggles for de facto equality in their societies.

Social tensions

- The rules of governance of capitalist and democratic institutions have always been in tension within societies. Capitalist institutions want to be unfettered by democratic regulations to make it easier to do business.
- Democratic institutions want to rein in the competitive animal spirits, red in tooth and claw, of capitalism to create a more compassionate capitalism that improves the world for everyone, not only for financial investors.
- The simultaneous imposition of free markets and elections in countries “liberated” from communism or socialism by the U.S. has invariably increased inequalities and increased social tensions and sectarian conflicts, which more elections cannot resolve democratically.
- This is the story of Iraq, Afghanistan, Russia, and even Chile, which was once the showcase of the western model of liberal capitalism. When social tensions increase too much, elections often produce populist socialists such as Hugo Chávez in Venezuela, or capitalist autocrats such as Vladimir Putin in Russia.
- The West does not like either sort when they stand up against the Washington-controlled “North Atlantic” hegemony of the world. Though capitalist dictators such as Augusto Pinochet in Chile, and the monarchies of the Gulf/West Asia can be their good friends. Even Chinese communists were tolerated so long as they were not a threat to U.S. power.

Redistribution of power

- Power accumulates in societies by the principle of “cumulative causation”. Those who already have more power, from greater wealth or more education, will use their power to not only improve the rules of the game — ostensibly to improve the world for everyone — but also to ensure they remain in power.
- Redistribution of de facto power within a society must often precede the redistribution of assets of wealth and education that are the sources of power. Those who have power will resist losing it.
- That is the natural order. Violent internal revolutions and anti-colonial movements are the means of changing power equations, as are armed wars even between rich countries in Europe.
- All violence must stop. To prevent violence, it is essential that global governance becomes genuinely democratic. Countries must not attack each other. But they must be given the freedom to evolve their own democracies and economies and not be dictated to by others.
- The hypocrisy of undemocratic global dictators using their financial powers to impose sanctions (which are weapons of mass destruction that harm innocent civilians), to bring down their opponents, must stop. Calling on a democratic country such as India, to take their side, must also end.

The Anganwadi model

(Source: [The Hindu](#))

Context: *Anganwadi workers have the potential to revive early childhood education, but they are underpaid and overburdened*

Details:

- Evidence on Early Childhood Education (ECE) suggests that children who engage in early and play-based learning activities have better developmental outcomes than those who don't.
- The National Early Childhood Care and Education Curriculum Framework in 2013 mandated a 'play-way' curriculum in all Anganwadi Centres (AWCs) and preschools.
- In 2018, the government launched the 'Transformation of Aspirational Districts' initiative. One of the components involved capacity building, improving infrastructure, and nurturing a child-centric environment in the AWCs of these districts.
- The National Education Policy (NEP), 2020, envisions universalising Early Childhood Care and Education through Anganwadis. However, the advent of COVID-19 led to an abrupt halt in ECE services and progress.
- AWCs fall under the Integrated Child Development Services (ICDS) Scheme. Preschool education is one of the six services provided in this package.
- AWCs are expected to provide preschool education through low-cost, locally sourced material that caters to the sociocultural context of mothers, and children below six years.
- The infrastructure usually consists of an open space and one or two rooms to carry out activities. On the other hand, private preschools usually mimic the formal schooling approach in terms of infrastructure and learning activities.

Learning crisis

- Evidence on AWCs and private pre-schools indicates that neither model provides appropriate inputs for the holistic development of young children. An impact study on early childhood by the Centre for Early Childhood Education and Development at Ambedkar University and ASER Centre found that children who regularly participate in a preschool programme perform better than children who do not.
- But at the same time, preschool education (AWCs or private preschools) is not developmentally appropriate for children.
- As a result, children's early learning outcomes were nowhere close to the expected levels. An all-India survey of young children by ASER in 2019 found that not even half of the enrolled children between the ages of four and eight could perform age-appropriate cognitive tasks.
- The cause of this learning crisis in Anganwadis may lie in the fact that such centres are under-resourced and overburdened. A report on the ICDS by the Ministry of Women and Child Development identified the absence of adequate space, lack of play-based learning materials, low investment in ECE and "constraints of human resources" as some key reasons for this situation.
- It said the implementation of the ICDS scheme in AWCs was uneven across States. The report also highlighted the lack of research and development in non-formal preschool education, making it one of the weakest dimensions of the ICDS model. The evidence showed a severe deficit in the delivery of quality ECE services even before COVID-19.
- The pandemic has impacted 28 million young children across India due to the sporadic closure of AWCs and private schools (UNICEF). As a consequence, any progress made in ECE may be reversed.



- However, innovative strategies were devised to continue early education in some States. In Gujarat, the ‘Umbare Anganwadi (doorstep Anganwadi)’ initiative, a video series consisting of educational modules and easy-to-follow activities, was telecast every alternate day and streamed on online platforms to promote interactive learning.
- Similarly, Anganwadi workers in Haryana, Punjab, Odisha and Bihar visited homes to conduct activities with children. However, anecdotal evidence suggests that access to these strategies was not uniform. They also placed a huge burden on Anganwadi workers.
- To understand the repercussions of school closures, ASER conducted three field surveys in 2021 and found that the learning abilities of children had regressed. As we move into the third year of the pandemic, more children may be entering primary school severely unprepared.

Improving the model

- The Anganwadi model has been struggling to deliver quality ECE, but the potential of Anganwadis remains enormous.
- Over the years, Anganwadi workers have ensured last-mile delivery of ECE and education care schemes. It is crucial to leverage their vast reach by filling implementation and infrastructural gaps.
- If we increase the honorarium of Anganwadi workers, build capacity and invest in research and development of a meaningful ECE curriculum, AWCs will be an ideal launchpad for children entering primary school.

HOPS as a route to universal health care

(Source: [The Hindu](#))

Context: *The lingering COVID-19 crisis is a good time to revive an issue that is, oddly, slow to come to life in India — universal health care (UHC). Meanwhile, UHC has become a well-accepted objective of public policy around the world. It has even been largely realised in many countries, not only the richer ones (minus the United States) but also a growing number of other countries such as Brazil, China, Sri Lanka and Thailand. Some of them, such as Thailand, made a decisive move towards UHC at a time (20 years ago) when their per capita GDP was no higher than India’s per capita GDP today. The time has come for India — or some Indian States at least — to take the plunge.*

Routes to UHC

- The basic idea of UHC is that no one should be deprived of quality health care for the lack of ability to pay. This idea was well expressed — in archaic words perhaps — by Aneurin Bevan, the fiery founder of the National Health Service (NHS) in Britain.
- “No society,” he said, “can legitimately call itself civilised if a sick person is denied medical aid because of lack of means.” The same idea inspired the Bhore Committee report of 1946, where a case was made for India to create its own NHS-type health-care system.
- In concrete terms, UHC typically relies on one or both of two basic approaches: public service and social insurance.
- In the first approach, health care is provided as a free public service, just like the services of a fire brigade or public library. If this sounds like socialist thinking, that is what it is. Interestingly, however, this socialist project has worked not only in communist countries such as Cuba but also in the capitalist world (well beyond the United Kingdom).
- The second approach allows private as well as public provision of health care, but the costs are mostly borne by the social insurance fund(s), not the patient, so the result is similar: everyone has access to quality health care.



- Social insurance is very different from a private insurance market. The simplest variant is one where insurance is compulsory and universal, financed mainly from general taxation, and run by a single non-profit agency in the public interest.
- That is how it works in Canada (province-wise), and to varying extents in other countries with “national health insurance” (e.g., Australia and Taiwan).
- This single-payer system makes it easier for the state to bargain for a good price from health-care providers.
- But some countries have other models of social insurance, based, for instance, on multiple non-profit insurance funds instead of a single payer (Germany is one example).
- The basic principles remain: everyone should be covered and insurance should be geared to the public interest rather than private profit.

Some challenges

- Even in a system based on social insurance, public service plays an essential role. In the absence of public health centres, dedicated not only to primary health care but also to preventive work, there is a danger of patients rushing to expensive hospitals every other day.
- This would make the system wasteful and expensive. As it is, containing costs is a major challenge with social insurance, because patient and health-care provider have a joint interest in expensive care — one to get better, the other to earn.
- One possible remedy is to require the patient to bear part of the costs (a “co-payment”, in insurance jargon), but that conflicts with the principle of UHC. Recent evidence suggests that even small co-payments often exclude many poor patients from quality health care.
- Another challenge with social insurance is to regulate private health-care providers. Here, a crucial distinction needs to be made between for-profit and non-profit providers. Non-profit health-care providers have done great work around the world (including the U.S., where most hospitals were non-profit institutions just a few decades ago).
- For-profit health care, however, is deeply problematic because of the pervasive conflict between the profit motive and the well-being of the patient. This calls for strict regulation, if for-profit health care is allowed at all.
- Today, most countries with UHC rely on a combination of public service and social insurance. For all we know, however, the NHS model based on plain public service may be the best approach. Private non-profit health care can be regarded as a form of public service, and private for-profit health care tends to defy discipline. A vibrant NHS is hard to beat.
- The word “vibrant”, of course, is critical. I am referring not only to good management and adequate resources but also to a sound work culture and professional ethics.
- A primary health centre can work wonders, but only if doctors and nurses are on the job and care for the patients. India’s public health services have a bad name in that respect, but they are improving, and they can improve more.

Right to health care

- What would be a possible route to UHC for India today? The private sector is too entrenched for a NHS to displace it in the near future. But it is possible to envisage a framework for UHC that would build primarily on health care as a public service, and have a chance at least to converge toward some sort of NHS in due course.
- This framework might be called “healthcare as an optional public service” (HOPS). The idea is that everyone would have a legal right to receive free, quality health care in a public institution if they wish. It would not prevent anyone from seeking health care from the private sector at their own expense. But the public sector would guarantee decent health services to everyone as a matter of right, free of cost.
- In a sense, this is what some Indian States are already trying to do. In Kerala and Tamil Nadu, for instance, most illnesses can be satisfactorily treated in the public sector, at little cost to the patient. There

is a thriving private sector too, begging for better regulation and restraint. But health care of decent quality is available to everyone as an optional public service.

- HOPS would not be as egalitarian as the NHS or national health insurance model where most people are in the same health-care boat.
- But it would still be a big step toward UHC. Further, it is likely to become more egalitarian over time, as the public sector provides a growing range of health services. If quality health care is available for free in the public sector, most patients will have little reason to go to the private sector.
- What about social insurance? It could play a limited role in this framework, to help cover procedures that are not easily available in the public sector (e.g., high-end surgeries).
- Social insurance, however, carries a risk of tilting health care towards expensive tertiary care, and also towards better-off sections of the population. The extension of social insurance to for-profit health-care providers is especially risky, given their power and influence. There is a case for social insurance to work mainly within the non-profit sectors (public and private), leaving out for-profit health care as far as possible.
- The main difficulty with the HOPS framework is to specify the scope of the proposed health-care guarantee, including quality standards. UHC does not mean unlimited health care: there are always limits to what can be guaranteed to everyone.
- HOPS requires not only health-care standards but also a credible method to revise these standards over time. Some useful elements are already available, such as the Indian Public Health Standards.
- Tamil Nadu is well placed to make HOPS a reality under its proposed Right to Health Bill. Tamil Nadu is already able to provide most health services in the public sector with good effect (according to the fourth National Family Health Survey, a large majority of households in Tamil Nadu go to the public sector for health care when they are sick).
- The scope and quality of these services are growing steadily over time. A Right to Health Bill would be an invaluable affirmation of the State's commitment to quality health care for all.
- It would empower patients and their families to demand quality services, helping to improve the system further. Last but not least, it would act as a model and inspiration for all Indian States.

The controversy over the China-Solomon Islands security cooperation deal

(Source: [The Hindu](#))

Context: *A recent leaked document has revealed that the Solomon Islands in the South Pacific has reached a deal with China which outlines an unprecedented level of security cooperation. This is the first deal of its kind for Beijing in the region. Honiara's confirmation of the move has raised alarms in Washington and Canberra, which have extensive stakes in the South Pacific.*

What are the contents of the proposed deal and why are they controversial?

- The document titled 'Framework Agreement between the Government of the People's Republic of China and the Government of Solomon Islands on Security Cooperation' was leaked through social media on March 24.
- It created a huge controversy domestically as well as internationally because it has the potential to disturb the established security mechanisms in the South Pacific region.
- The document explicitly enables Beijing to send its "police, armed police, military personnel and other law enforcement and armed forces" to the islands on the latter government's request, or if the former sees that the safety of its projects and personnel in the islands are at risk.

- The document also provides for China's naval vessels to utilise the islands for logistics support. There have been speculations in the wake of this revelation that China might be building its next overseas naval base in Solomon Islands after Djibouti, which was also incidentally referred to as a logistics support base.
- Dismissing the prospects for any foreign military base, the government of Solomon Islands affirmed the finalisation of the draft of such a deal. The deal is not yet signed and it is not fully known whether the provisions mentioned in the leaked document are present in the final draft.

What is the rationale for the Solomon Islands' increasing proximity to China?

- The Solomon Islands is part of the ethnically Melanesian group of islands in the Pacific and lies between Papua New Guinea and Vanuatu.
- The islands, which were initially controlled by the British Empire during the colonial era, went through the hands of Germany and Japan and then back to the U.K., after the Americans took over the islands from the Japanese during World War II.
- The islands became independent in 1978 to become a constitutional monarchy under the British Crown, with a parliamentary system of government. Nevertheless, its inability to manage domestic ethnic conflicts led to close security relations with Australia, which is the traditional first responder to any crisis in the South Pacific.
- The Solomon Islands had cultivated strong ties with Taiwan, which ended with the emergence of the current government in Honiara.
- In 2019, the new government headed by Prime Minister Manasseh Sogavare switched Taiwan for China. This was supposedly after Beijing offered half a billion U.S. dollars in financial aid, roughly five times what Taiwan spent on the islands in the past two decades.
- It has been alleged by the pro-Taiwan Opposition that the Sogavare government has been bribed by China. As the money from China flowed in, so did the adverse impact to the local population from Chinese businesses, Chinese labourers for Chinese infrastructure projects, as well as a perceived preferential treatment for Chinese interests by Honiara.
- The switching of diplomatic relations along with the general dissatisfaction with the government, led to widespread Opposition protests and riots in Honiara in November 2021. Strikingly, these riots targeted Chinese assets in addition to government property.
- The government has also notably mentioned that the move is aimed at diversification of its security partnerships, taking aim at its longstanding security dependence on Australia.

Why is China interested in the Solomon Islands?

- The Pacific islands are among the few regions in the world where China has competition from Taiwan for diplomatic recognition.
- China considers Taiwan to be a renegade territory awaiting reunification, and opposes its recognition as an independent state on the international stage. Hence, any country which has to officially establish relations with China will have to break diplomatic ties with Taiwan.
- The Solomon Islands was one among the six Pacific island states which had official bilateral relations with Taiwan.
- However, in 2019, the Solomon Islands, along with Kiribati, switched allegiance to China. This has left only four regional countries backing Taiwan, mostly belonging to the Micronesian group of islands which are under the control of the U.S.. The small Pacific island states act as potential vote banks for mobilising support for the great powers in international fora like the United Nations.
- Moreover, these states have disproportionately large maritime Exclusive Economic Zones when compared to their small sizes, the reason why these 'small island states' are seen also seen as 'big ocean states'. Solomon Islands, in particular, have significant reserves of timber and mineral resources, along with fisheries.
- But more importantly, they are strategically located for China to insert itself between America's military bases in the Pacific islands and Australia.

- This is especially significant in the current scenario, given the emergence of the AUKUS (Australia, the U.K. and the U.S.) which seeks to elevate Australia's strategic capabilities vis-à-vis China through Anglo-American cooperation.
- Nonetheless, the anti-China nature of the 2021 riots in Honiara turned out to be the immediate trigger for Beijing to ramp up its security cooperation with the Solomon Islands.

What does this mean for the established geopolitical configuration in the region?

- The Pacific islands, in the post-World War II scenario, were exclusively under the spheres of influence of the Western powers, in particular the U.S., U.K., France and the regional heavyweights, Australia and New Zealand.
- All of them have territorial possessions in the region, with the three nuclear powers among them having used the region as a nuclear weapons testing ground. The smaller island nations of the region are heavily dependent on them, especially Australia as it is a resident power.
- This established power structure in the region is being increasingly challenged by China through the steady displacement of Taiwan and the cultivation of economic and political clout.
- Its proposed deal with the Solomon Islands has added a security dimension to its fast-growing profile in the region. Australia has reacted with boosted finances, and by extending its current security mission till 2023 when the islands will host the Pacific Games.
- The U.S. has responded by considering reopening its embassy in Honiara after a long 29-year gap. New Zealand has shed its typical restraint about China and has criticised it for attempting to militarise the Pacific islands.
- However, it is to be noted that China's rise in the South Pacific is not without opposition. AUKUS is a recent example of how the established powers are reacting; although, to what extent they can mobilise individual governments against China is questionable.
- Significant discontent has been brewing within and among the Pacific island states against China's economic inroads and its adverse impact on their vulnerable economic and political systems. The riots in Honiara is only the recent one in the region which has an anti-China tint.
- The Nuku'alofa riots in Tonga (2006) had a similar character. The geopolitics of the region is undergoing an unprecedented flux in tandem with the larger shifts in the Indo-Pacific, suggesting an intensification of regional great power rivalry and domestic volatility for the Pacific island states in the coming years.

The food vaccine as right, more so for TB patients

(Source: [The Hindu](#))

Context: *In the past, there was a belief that every ill had a pill and the pill killed the germs that made you ill. That germ could be a bacteria, virus or a parasite. Factors such as genetic and metabolic causes, hormonal imbalance and altered neuro-chemical transmitters causing illnesses were less known then. But there was fairly good knowledge of how good air and nutrition reduced consumption illnesses such as tuberculosis (TB).*

History and a perspective

- This is why sanatoriums/sanatoria were set up in mountain terrain, with fresh air, pure water and good food, in the quest for a cure for TB. There were no drugs for TB till the discovery of streptomycin in 1943.
- With improved wages, better living standards and the accompanying higher purchasing power for food, the TB mortality rate came down from 300 people per 1,00,000 population to 60 in England and Wales.



- TB disappeared from socio-economically developed countries long before the advent of chemotherapy. After the Second World War, in 1946 G.B. Leyton reported a 92% reduction in the incidence of TB among British soldiers who were fed an additional Red Cross diet of 1,000 calories plus 30 grams of protein when compared to Russian soldiers who were fed only a camp diet.
- This historical importance of good nutrition was ignored by the modern therapist who tried to control TB initially with streptomycin injection, isoniazid and para-aminosalicylic acid.
- In the ecstasy of finding antibiotics killing the germs, the social determinants of disease were ignored.

Not patient-centric

- With more drug arsenals such as rifampicin, ethambutol, pyrazinamide, the fight against TB bacteria continued, which became multidrug resistant.
- Sharper bullets were fired into the frail body of patients. It was bacteria targeted, not patient-centric. The regimes and the mode of delivery of drugs were changed to plug the loopholes of alleged “non-compliance of illiterate and irresponsible patients”.
- Blister packs of a multi-drug regime were provided at the doorstep, and the directly observed treatment/therapy (DOT) mechanism set up. There was little done to try to understand where patients lived, what work they did for a living, how much they could afford to buy food, and how much they ate.
- Many of the poor discontinued blister-packaged free drugs thinking that these were “hot and strong” drugs not suited for the hunger pains they experienced every night. They coughed up virulent bacteria from their emaciated body to infect many around them. It is no wonder that TB was never brought under control.
- Let me narrate this example. I was defending a project proposal to provide nutritional supplementation of additional rice, dhal and cooking oil for TB patients in the tribal areas of Bastar-Chhattisgarh as part of the National Rural Health Mission (NRHM) plan in 2009-10. But it was rejected twice by the central technical team as ‘an intervention without proven benefit’.

Nutrition status and TB risk

- “The nutrition of the individual, is the most vital factor in the prevention in tuberculous disease,” said Dr. J.B. McDougall of the World Health Organization (WHO), in 1949. And, Dr. René J. Dubos in the Journal of the American Medical Association, in 1960, said, “It is most unlikely that drugs alone, or drugs supplemented by vaccination, can control TB in the underprivileged countries of the world as long as their nutritional status has not been raised to a reasonable level.”
- The fact is that 90% of Indians exposed to TB remain dormant if their nutritional status and thereby the immune system, is good.
- When the infected person is immunocompromised, TB as a disease manifests itself in 10% of the infected. India has around 2.8 million active cases.
- It is a disease of the poor. And the poor are three times less likely to go for treatment and four times less likely to complete their treatment for TB, according to WHO, in 2002. Scientists like Rudolph Virchow (before 1902), Sir William Osler (before 1919) and Dr. Dubos (from 1960) have been saying the same thing.
- The work and the findings of a team at the Jan Swasthya Sahayog hospital at Ganiyari, Bilaspur in Chhattisgarh established the association of poor nutritional status with a higher risk of TB.
- In the period 2004-09, among the 1,695 pulmonary TB patients they treated, men had an average body weight of 42.1 kg and a body mass index (BMI) of 16. For women, the average body weight was 34.1 kg and a BMI of 15. With these levels of undernutrition, there was a two to four-fold rise in the mortality associated with TB.
- In 2014, research led by Dr. Anurag Bhargava (professor of medicine) showed that undernutrition in the adult population was the major driver of India’s TB epidemic. Subsequently, the central TB division of the Ministry of Health came up with a “Guidance Document – Nutritional Care and Support for Patients with Tuberculosis in India” after a national workshop held in February 2016 at Yenapoya Medical College, Mangaluru, Karnataka.



- The 2019 Global TB report identified malnutrition as the single-most associated risk factor for the development of TB, accounting for more cases than four other risks, i.e., smoking, the harmful use of alcohol, diabetes and HIV.
- Beginning with the JSS, a number of organisations began providing eggs, milk powder, dhal, Bengal gram, groundnuts and cooking oil to diagnosed patients along with anti-TB drugs.
- Chhattisgarh also initiated the supply of groundnut, moong dhal and soya oil, and from April 2018, under the Nikshay Poshan Yojana of the National Health Mission, all States began extending cash support of ₹500 per month to TB patients to buy food; this amount needs to be raised. Without simultaneous nutrition education and counselling support, this cash transfer will not have the desired outcome.

‘Syndemics’

- According to Dr. Bhargava, “undernutrition and TB” are “syndemics”, and the intake of adequate balanced food, especially by the poor, can work as a vaccine to prevent TB.
- This vaccine is “polyvalent, acting against many gastrointestinal and respiratory tract infections; orally active, that can be produced in the country without patent rights; dispensed over the counter, without prescription and without any side-effects; safe for children, pregnant and lactating women, and of guaranteed compliance because it brings satisfaction and happiness”.
- The food vaccine is a guaranteed right for life under the Constitution for all citizens, more so for TB patients.
- Thus, the goals of reducing the incidence of TB in India and of reducing TB mortality cannot be reached without addressing undernutrition.

GS III

A merger to better manage the Indian Railways

(Source: [The Hindu](#))

Context: A recent Gazette notification regarding the creation of the Indian Railway Management Service (IRMS) marks a paradigm shift in the management of one of the world's largest rail networks. Eight out of 10 Group-A Indian Railway services have been merged to create the IRMS. They are: Indian Railway Traffic Service (IRTS), Indian Railway Personnel Service (IRPS), Indian Railway Accounts Service (IRAS), Indian Railway Service of Electrical Engineers (IRSEE), Indian Railway Service of Signal Engineers (IRSS), Indian Railway Service of Mechanical Engineers (IRSME), Indian Railway Service of Civil Engineers (IRSE) and Indian Railway Stores Service (IRSS).

Through the UPSC

- This marks one of the biggest bureaucratic transformations in India since Independence. A nearly 8,000 strong cadre of the erstwhile eight services is now merged into one.
- Besides removing silos, this restructuring also aims at rationalising the top-heavy bureaucracy of the Indian Railways. Rather than getting into a debate over the decision to create the IRMS, it is worthwhile discussing what lies ahead for future IRMS applicants.
- About four lakh applicants will apply for the IRMS through the Union Public Service Commission (UPSC); it is important to figure out what the job demands for the next 30-odd years of their career and whether they have the right aptitude for the role the job demands.

Coordinated work

- A typical day for an Indian Railways officer (in field postings) begins at 6 a.m.; there are also control office calls at odd hours in the night. For a railway officer, every day of the year is practically a working day, and he/she has to prove their mettle every single day.
- Maintaining safety of operations and ensuring the punctuality of trains require a wide set of skills, from engineering to coordination.
- The adoption of the latest technology and improving the efficiency of logistics operations require continuous updating of knowledge. The job of a railway officer is not meant for those looking for a fixed hours work profile.
- Training the future leaders of India's public transporter in the rapidly evolving logistics sector of the country is the most important task ahead.
- The fact remains that even after the creation of the IRMS, the 8,000 strong (already serving) officers of the Indian Railways will need to work in coordination and not in silos, as they will be serving in the organisation for decades to come.
- Though the UPSC will recruit a few hundred IRMS officers each year from now, they will remain much less in number when compared to already serving officers for a long time to come.
- This highlights the importance of training of the existing cadre of officers as they will have to deliver on the ambitious Gati-Shakti projects.
- The task of training such a dynamic talent pool assumes importance in view of India's aspirations of becoming a \$5 trillion economy and an economic powerhouse in the near future.
- The Indian Railways will play a very crucial role in achieving key objectives with its prestigious projects such as a network of dedicated freight corridors, high speed rail corridors, station re-development projects, the induction of Vande Bharat trains on a large scale, and other projects of strategic importance.
- All this will require a massive revamp of the capacity building ecosystem of the Indian Railways.



Chance for revamped training

- The merger of services provides an opportunity to redesign the training for newly recruited IRMS officers to make them future ready. Initial training along with mid-career training programmes may be reoriented.
- The focus should be to create capacity to manage the verticals of operations and business development, infrastructure development and maintenance, traction and rolling stock, and finance and human resource management.
- The IRMS training needs to be a design based on competencies required for different leadership roles. Mission Karmayogi of the Government of India provides for competencies based postings of officers. Accordingly, domain, function and behaviour-related competencies will need to be mapped for the IRMS.
- The Integrated Government Online Training (iGOT) programme of the Government of India will be instrumental in shaping the career progression of IRMS officers.
- Future IRMS officers should be ready to face the challenges of working in an organisation which is involved in round the clock and round the year operations, has substantial social obligations to meet and, at the same time, which must earn for itself. Leading the transformation of more than a million workforce to meet the needs of Gati Shakti goals is not an easy task.
- Young graduates who will be opting for the IRMS through the civil services examination should be aspirational and agile learners. They have the opportunity not only to serve the country's lifeline but also to turbocharge the engine of the economy.

In pandemic shock, critical lessons for MSMEs

(Source: [The Hindu](#))

Context: *Micro, Small and Medium Enterprises (MSMEs) are critical for achieving the overall objectives of economic development. The sector is a significant contributor in terms of industrial output, employment generation, and the share in gross domestic product and export. But despite many initiatives by governments since Independence, the sector has been facing challenges in its quest for survival and growth. The COVID-19 pandemic has further exposed the vulnerability of the MSME sector. During the pandemic, this sector was among the worst hit on account of the demand and supply shocks caused and the measures taken later to curb the spread of infection. The sector is still struggling to survive and recover from the pandemic-induced shocks.*

The pandemic's deep impact

- Let us focus on the impact of COVID-19 on MSMEs. A recent study (by the writers) — as a primary survey of 225 small firms located in the National Capital Region (NCR) and Uttarakhand — observed that the turnover of around 90% of small firms had declined in FY2020-21.
- Around 53% of firms faced more than a 50% decline in their turnover. Around 29% of firms reported a collapse of their businesses. Around 53% observed a decrease in demand while around 36% faced erratic supply of raw materials.
- The main reasons for a fall in turnover included restriction/s on economic activities and mobilities; decrease in demand; shortage of raw materials; restriction on trade; slow recovery of markets; payment delays and labour shortage, among others.
- These firms faced a 25% reduction in their employment particularly in the informal workers' segment that stood at around 47%.
- Major challenges faced by firms in their revival included delayed payment issues; reduced demand; a lack of financial resources; supply chain disruptions; increased cost of production; lack of skilled workers and, most importantly, business uncertainties.

- Although most of the firms were aware about the initiatives under the ‘Atmanirbhar Bharat’ package, only half of them found it to be of any help.
- Given the lack of demand and business uncertainties, firms did not find it rational to avail of financial assistance available under the ‘Atmanirbhar Bharat’ package. A majority of firms suggested that the Government should have been more focused on creating a revival of demand for products and services.

Lessons for resilience

- Nevertheless, not all firms have suffered due to the pandemic-induced recession. Around 10% of firms under the study had either a rise in their turnover or reported no change.
- The key sectors these firms operated in included human health activities; manufacture of pharmaceuticals, medicinal, chemical and botanical products; food and beverage service activities; and manufacture of apparels, etc.
- The owners of these firms also reported that they tried to quickly adapt to the use of e-commerce platforms and even switched to other business activities that had demand — i.e., production of masks, sanitizers, home delivery of products, etc.
- They exploited the opportunity using their own savings to invest in the areas that offered new opportunities.
- This highlights that a firm’s resilience depends upon its financial resources and ability to invest in new technologies or new business opportunities. The firms that suffered, unlike the large firms, lacked financial planning for business uncertainties in order to overcome vulnerable shocks.

Planning ahead

- COVID-19 is neither the first pandemic nor it is going to be the last.
- Even during the first two decades of this century, the world went through some other pandemics, viz. SARS in 2002-04, H1N1 influenza in 2009/Swine flu influenza in 2009, MERS in 2012 and the Zika virus in 2015-16. COVID-19 has been the worst among them.
- Apart from the pandemic, there were also other factors such as a sudden change in government policies, wars, and natural catastrophes such as floods and drought, etc. which caused business uncertainties and affected small businesses.
- Further, the bulk of MSMEs are in the informal sector which lack registration and the necessary financial documents to avail such benefits. These firms are at great risk of shutting down after a large-scale disaster or economic shock.
- Therefore, there is a need to develop a mechanism for MSMEs which should help rescue them from shutting down and support their revival during business uncertainties caused by economic shocks.
- In order to make the MSME sector resilient we propose the provision of emergency funds for small businesses that should be made mandatory from the beginning.
- Similar to the public provident fund, the Government can initiate what is called an ‘Uncertainty Corpus Fund for Small Businesses’. This fund can be used to meet the financial needs of small firms during business uncertainties.
- It may be linked with the turnover of firms — a firm could maintain a certain fraction of its turnover to meet the needs of this fund.
- Although it would be a ‘forced saving’ it would still be very useful for MSMEs during business uncertainties caused by economic shocks. The Government should encourage small firms by assuring them a lucrative return on the investment through this fund.
- Further, the Government may also contribute to the corpus fund as a fraction of the contribution of MSMEs for firms up to a certain limit of turnover.
- Another measure can be the ‘Small Business Insurance Scheme’ which can be similar to term insurance. There are lessons to be learnt from the crop insurance scheme.
- As there are more than 6.4 million MSMEs in the country, there is huge market potential for the insurance sector, if such a scheme is framed properly. In order to encourage firms to invest in such an

insurance scheme, the Government may pay an initial premium or a fraction of the premium on behalf of such enterprises particularly micro enterprises and own account enterprises.

Gaps in the Budget

- Although Budget 2022-23 seeks to lay a foundation and a blueprint to steer the economy over the (Amrit Kaal) next 25 years, it has failed to bring in any plan/ideas that makes the MSME sector resilient.
- The proposed financial measures suggested above, namely, an ‘Uncertainty Corpus Fund for Small Businesses’, and ‘Small Business Insurance Scheme’, can help MSMEs become resilient and sustain their growth during business uncertainties caused by economic shocks.
- It could enable small firms to meet their working capital requirements, in particular retaining their workforce, and investing in new technology or new business opportunities to cope with uncertainties. In terms of planning, MSMEs can be on a par with large firms.
- It would boost the confidence of small firms during normal business times and make them more competitive by giving them a sense of security in times of an abnormal business cycle.
- It would also be of great help to the Government in a time of crisis as the Government can focus on addressing demand issues which is one of the biggest challenges faced by an economy during a shock.

Getting serious about supporting the care economy

(Source: [The Hindu](#))

Context: *Greater investment in care services can create an additional 300 million jobs globally, many of which will be for women. In turn this will help increase female labour force participation and advance Sustainable Development Goal (SDG) 8 (which is to ‘promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all’).*

Still ‘unseen’ by policy

- Every year, March 8 is celebrated as International Women’s Day. The immense contribution of women to all spheres of life is often overlooked, unfairly valued, and hardly rewarded.
- This is ‘particularly evident in care work — both paid and unpaid, which is crucial to the future of decent work.
- Care work encompasses direct activities such as feeding a baby or nursing an ill partner, and indirect care activities such as cooking and cleaning’. Whether paid or unpaid, direct or indirect, care work is vital for human well-being and economies.
- Unpaid care work is linked to labour market inequalities, yet it has yet to receive adequate attention in policy formulation. Paid care workers, such as domestic workers and anganwadis in India, also struggle to access rights and entitlements as workers.
- The importance of care work is now widely acknowledged and covered in various international commitments such as the SDGs and the International Labour Organization (ILO)’s Centenary Declaration. Since March 2020, the demand for care services has skyrocketed. However, the investment in the care economy has not matched the pace.
- This year, to commemorate International Women’s Day, the ILO brought out its new report titled, ‘Care at work: Investing in care leave and services for a more gender-equal world of work’.
- The ILO is the only tripartite UN agency, which brings together governments, employers, and workers of 187 member States, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.

Benefits down the line



- The report highlights the importance of maternity, paternity, and special care leave, which help balance women's and men's work and family responsibilities throughout their lives.
- Furthermore, it demonstrates that workplaces that provide time, income security and space for undertaking care services such as breastfeeding, enable positive nutrition and health outcomes.
- Bridging the gaps in current policies and service provisions to nurture childcare and elderly care services will deliver the benefits of child development, aging in dignity and independent living as the population grows older and also generate more and better employment opportunities, especially for women.

Maternity leave, child care

- Maternity leave is a universal human and labour right. Yet, it remains unfulfilled across countries, leaving millions of workers with family responsibilities without adequate protection and support. India fares better than its peers in offering 26 weeks of maternity leave, against the ILO's standard mandate of 14 weeks that exists in 120 countries.
- However, this coverage extends to only a tiny proportion of women workers in formal employment in India, where 89% of employed women are in informal employment (as given by ILOSTAT, or the ILO's central portal to labour statistics).
- While paternity leave is recognised as an enabler for both mothers and fathers to better balance work and family responsibilities, it is not provided in many countries, including India. Globally, the average paternity leave is nine days, which further exacerbates inequity.
- Access to quality and affordable care services such as childcare, elderly care and care for people with disabilities is a challenge workers with family responsibilities face globally. While India has a long history of mandating the provision of crèches in factories and establishments, there is limited information on its actual implementation.
- There is scope for improvement in availability, accessibility, affordability and quality. Working conditions of care workers are another critical gap to address.
- Though childcare and anganwadi workers undertake important work, and childcare is recognised as professional work in advanced countries, they lack recognition as workers and do not have requisite access to workers' rights and entitlements in India.
- Domestic workers, on whom Indian households are heavily reliant, also face challenges in accessing decent work. They became ad hoc care workers during the novel coronavirus pandemic without adequate social or health protection measures.
- According to the Government's 2019 estimates, 26 lakh of the 39 lakh domestic workers in India are female. While important developments have extended formal coverage to domestic workers in India, such as the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act and the minimum wage schedule in many States, more efforts are required to ensure decent work for them.
- Recognising care workers and promoting decent work for all, including for domestic and childcare workers are also necessary for India to achieve the SDGs which have a principle of 'leave no one behind'.
- They, like all other workers, need to enjoy basic human and worker's rights and access fair wages, enjoy a workplace free from violence and harassment, have good working conditions, and access social protection, among other benefits.

Look at it as public good

- India spends less than 1% of its GDP on the care economy; increasing this percentage would unfurl a plethora of benefits for workers and the overall economy.
- Therefore, in consultation with employers' and workers' organisations and the relevant stakeholders, the Government needs to conceptualise a strategy and action plan for improved care policies, care service provisions and decent working conditions for care workers.
- The ILO proposes a 5R framework for decent care work centred around achieving gender equality. The framework urges the Recognition, Reduction, and Redistribution of unpaid care work, promotes

Rewarding care workers with more and decent work, and enables their Representation in social dialogue and collective bargaining. Care work should be viewed as a collective responsibility and public good.

- A human-centred and inclusive recovery from the COVID-19 pandemic that benefits workers, employers, and the government, requires a more significant investment in and commitment to supporting the care economy, which cares for the society at large.

Concessional tax rate regime

(Source: [Indian Express](#))

Context: *The concessional corporate tax rate announced by the Union government in September 2019 saw two out of every five new domestic manufacturing companies incorporated in 2019-20 (April-March) opting for the reduced 15 per cent tax rate. These companies, numbering 1,244 in 2019-20, cumulatively accounted for just Rs 35.13 crore in total income, government data showed.*

The tax regime numbers

- The regime was introduced midway through the year and so the total income figure is for a six-month period. Data beyond 2019-20 has not been made available so far.
- For 2019-20, the number of new manufacturing companies that filed corporate tax returns were 3,219 (the difference between 1,36,909 manufacturing companies that filed corporate tax returns for 2019-20 and 1,33,691 companies that filed returns for 2018-19).
- The corporate tax rate for all existing companies (manufacturing and non-manufacturing) was cut to 22 per cent (without surcharge and cess) from 30 per cent. This, however, appears to be a success.
- Over 1.45 lakh companies (15.85 per cent of the total number of corporate returns for 2019-20) representing total income of more than Rs 9.33 lakh crore (62.01 per cent of the total income reported by all companies for 2019-20) chose the concessional tax regime.
- As per finance ministry data, overall, the effective tax rate, inclusive of surcharge and education cess, for all 9,17,494 companies came down to 22.54 per cent in 2019-20. This is compared to 27.81 per cent effective rate for 8,85,289 companies in 2018-19.

The new corporate tax regime

- Under the new regime introduced in September 2019, a tax rate of 15 per cent was announced under Section 115BAB for newly incorporated domestic companies, which make fresh investment by March 31, 2023, for manufacturing, production, research or distribution of such articles or things manufactured. This was extended by one year in this year's Budget to March 31, 2024.
- In both cases, choosing the concessional tax rate means companies cannot avail exemptions, deductions or incentives provided under the old tax regime.

What have the government, RBI said on this?

- The Reserve Bank of India had earlier noted that the new tax regime did not help kick-start the intended investment cycle. In case of existing companies choosing the reduced tax rate, as pointed out by the RBI in its Annual Report for 2019-20, the tax rate cut may have been “utilised in debt servicing, build-up of cash balances and other current assets rather than restarting the capex cycle”.
- Responding to a written question in Parliament on the new tax rate, Finance Minister Nirmala Sitharaman had last week noted that “...not all new manufacturing companies may have opted for provisions under Section 115BAB. Some may have opted for tax under the normal provisions, depending upon whether the same is more beneficial”.
- A similar concessional rate regime was also introduced by the Centre for personal income taxpayers effective 2020-21, under which assesseees willing to forgo deductions and exemptions such as those

under sections 80C, 80D, house rental allowance and leave travel allowance could choose to pay tax on their income at a reduced rate.

- Even though the government has not yet published data on taxpayers opting for the new personal income tax regime, it is indicated that the new regime has not drawn taxpayers in large numbers prompting the government to take a relook.
- Responding to a question on the new income tax regime at a Friday press conference, Revenue Secretary Tarun Bajaj said: “Due to the portal issue, we are still grappling with this kind of analytics data. But one can say it upfront that the numbers who would have gone to that would not be very large... basically we’ll have to do some changes there... to get to people to come in the new regime.”
- The government detailed record-high tax collections of Rs 27.07 lakh crore for 2021-22, with direct taxes having grown 49 per cent over previous year. Corporate tax recorded growth of 56 per cent in 2021-22, while income tax posted a growth of 43 per cent.

India’s solar power energy targets

(Source: [The Hindu](#))

Context: A report, jointly prepared by two energy-research firms — JMK Research and Analytics and the Institute for Energy Economics and Financial Analysis — says India will likely miss its 2022 target of installing 100 gigawatts (GW) of solar power capacity. This is because of rooftop solar lagging behind, the authors say.

What is India’s solar policy?

- Since 2011, India’s solar sector has grown at a compounded annual growth rate (CAGR) of around 59% from 0.5GW in 2011 to 55GW in 2021.
- The Jawaharlal Nehru National Solar Mission (JNNSM), also known as the National Solar Mission (NSM), which commenced in January 2010, marked the first time the government focussed on promoting and developing solar power in India.
- Under the scheme, the total installed capacity target was set as 20GW by 2022. In 2015, the target was revised to 100GW and in August 2021, the government set a solar target of 300GW by 2030.
- India currently ranks fifth after China, U.S., Japan and Germany in terms of installed solar power capacity.
- As of December 2021, the cumulative solar installed capacity of India is 55GW, which is roughly half the renewable energy (RE) capacity (excluding large hydro power) and 14% of the overall power generation capacity of India.
- Within the 55GW, grid-connected utility-scale projects contribute 77% and the rest comes from grid-connected rooftop and off-grid projects.

What does the report say?

- As of April, only about 50% of the 100GW target, consisting of 60GW of utility-scale and 40GW of rooftop solar capacity, has been met. Nearly 19 GW of solar capacity is expected to be added in 2022 — 15.8GW from utility-scale and 3.5GW from rooftop solar.
- Even accounting for this capacity would mean about 27% of India’s 100GW solar target would remain unmet, according to Jyoti Gulia, co-author of the report and Founder, JMK Research.
- A 25GW shortfall in the 40GW rooftop solar target, is expected compared to 1.8GW in the utility-scale solar target by December 2022. Thus, it is in rooftop solar that the challenges of India’s solar-adoption policy stick out.

What are the reasons for rooftop solar adoption not meeting targets?



- In December 2015, the government launched the first phase of the grid-connected rooftop solar programme to incentivise its use in residential, institutional and social areas.
- The second phase, approved in February 2019, had a target of 40GW of cumulative rooftop solar capacity by 2022, with incentives in the form of central financial assistance (CFA).
- As of November 2021, of the phase 2 target of 4GW set for the residential sector, only 1.1GW had been installed. The disruption in supply chains due to the pandemic was a key impediment to rooftop solar adoption.
- In its early years, India's rooftop solar market struggled to grow, held back by lack of consumer awareness, inconsistent policy frameworks of the Centre/ State governments and financing.
- Recently, however, there has been a sharp rise in rooftop solar installations thanks to falling technology costs, increasing grid tariffs, rising consumer awareness and the growing need for cutting energy costs.
- These factors are expected to persist giving a much-needed boost to this segment, the report notes. Going ahead, rooftop solar adoption is expected to proportionally increase as land and grid-connectivity for utility solar projects are expected to be hard to come by.
- Factors impeding rooftop-solar installation include pandemic-induced supply chain disruption to policy restrictions, regulatory roadblocks; limits to net-metering (or paying users who give back surplus electricity to the grid); taxes on imported cells and modules, unsigned power supply agreements (PSAs) and banking restrictions; financing issues plus delays in or rejection of open access approval grants; and the unpredictability of future open access charges, the report notes.

How critical is solar power to India's commitment to mitigate climate change?

- Solar power is a major prong of India's commitment to address global warming according to the terms of the Paris Agreement, as well as achieving net zero, or no net carbon emissions, by 2070.
- Prime Minister Modi at the United Nations Conference of Parties meeting in Glasgow, in November 2021, said India would be reaching a non-fossil fuel energy capacity of 500 GW by 2030 and meet half its energy requirements via renewable energy by 2030.
- To boost the renewable energy installation drive in the long term, the Centre in 2020 set a target of 450GW of RE-based installed capacity to be achieved by 2030, within which the target for solar was 300GW.
- Given the challenge of integrating variable renewable energy into the grid, most of the RE capacity installed in the latter half of this decade is likely to be based on wind solar hybrid (WSH), RE-plus-storage and round-the-clock RE projects rather than traditional solar/wind projects, according to the report.
- On the current trajectory, the report finds, India's solar target of 300GW by 2030 will be off the mark by about 86GW, or nearly a third.
- The authors in fact speculate that that the government, in the short-term, will aggressively push for expediting solar capacity addition to achieve the 100GW target by 2022 by re-allocating some of the unmet rooftop targets to utility-scale projects.

Current Affairs Quiz

1) Which of the following statements is/are correct regarding the National Commission for Protection of Child Rights?

1. The maximum age to serve in the commission is 65 years for chairman and 62 years for members.
2. It can insure into the violation of child rights and recommend initiation of proceedings in these cases.
3. It monitors the implementation of the provisions of the POCSO Act and the designation of special courts by state governments.

Codes:

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

Answer : b

The maximum age to serve in commission is 65 years for Chairman and 60 years for members.

2) Consider the following statements:

1. Mission Vatsalya is one of the triad of schemes launched along with Mission Shakti, and Poshon 2.0 by the Ministry of Women and Child Development.
2. The objective of Mission Vatsalya is to secure a healthy and happy childhood for every child in India.
3. Under the mission, the government plans to partner with private sector for the protection of vulnerable children.

Which of the above statements is/are correct?

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

Answer : d

3) Consider the following statements regarding care economy:

1. It corresponds to the government's spending towards childcare and care for the elderly.
2. India spends less than one percent of GDP on care work infrastructure.

Which of the above statement(s) is/are correct?

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

Answer : c

4) Consider the following statements with respect to the State Energy and Climate Index:

1. It is released by the NITI Aayog and is the only index that tracks the efforts of States and UTs in the climate and energy sector.
2. The indices used are, performance of the distribution companies, energy efficiency and environmental sustainability.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only

- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

5) Consider the following statements regarding a booster dose:

- 1. When a booster dose is considered mixing of vaccines is allowed to increase the immunity.
- 2. Mixing of vaccines is not allowed in India and it administers only precaution vaccine dose and not booster dose.

Which of the above statement(s) is/are correct?

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

Answer : c

6) Consider the following statements regarding the Intelligent Transportation Systems:

- 1. It is an initiative of the Ministry of Electronics and Information Technology.
- 2. It is a warning system to prevent road accidents which was developed with the help of South Korea.

Which of the above statements is/are correct?

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

Answer : a

It is an initiative of Ministry of Electronics and Information Technology (MeitY), indigenously developed in India.

7) Consider the following statements regarding the 2+2 dialogue:

- 1. It is the highest level of institutional mechanism between two countries.
- 2. India holds 2+2 only with the country of the USA.

Which of the above statements is/are correct?

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

Answer : a

India holds such talks with Australia, Japan and the USA.

8) Consider the following statements regarding the Canister Launched Anti-Armour Loiter Ammunition System:

- 1. In this weapon system, the ammunition once fired can remain aloft for a period of time over the area of operation.
- 2. It is an unmanned missile system that when launched finds and destroys the targets on its own.

Which of the above statements is/are correct?

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

Answer : a

The CALM System is a pre-loaded canister with loitering ammunition or a drone that once fired can remain aloft for a period of time over the area of operation.

9) Consider the following statements:

1. HELINA is a high-altitude anti-tank missile developed in cooperation with the United States.
2. It has a maximum range of seven kilometers and can engage targets both in the direct hit mode and top attack mode.

Which of the above statements is/are correct?

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

Answer : b

It is an anti-tank guided missile indigenously developed in India.

10) Consider the following statements with respect to Hope Mission:

1. The Hope Mission is UAE's first Mars Mission done in collaboration with the European Space Agency.
2. The aim of the mission is to create mankind's first integrated model of the Red planet's atmosphere.

Which of the above statements is/are correct?

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

Answer : b

'Hope' was developed by UAE scientists in the USA and was launched in July 2020 from the Tanegashima Space Centre in Japan.

11) Consider the following statements:

1. Long Period Average of rainfall is the rainfall recorded over a particular region for a given interval average over a long period of time.
2. The Indian Meteorological Department maintains LPAs for every meteorological region of the country.

Which of the above statements is/are correct?

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

Answer : c

12) Consider the following statements:

1. Genocide is the crime committed with intent to destroy in whole or in part a national, ethnical, racial or religious groups.
2. Genocide does not include the groups targeted for political beliefs.
3. The International Court of Justice has the jurisdiction over matters of genocide.

Which of the above statements is/are correct?

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

Answer : c

International Criminal Court has jurisdiction over genocide.



13) Consider the following statements:

1. The inability to see certain colours in the normal way is known as color blindness.
2. Two types of cells in the retina detect light, the rods detect the colour, and the cones distinguish between light and dark.
3. Color blindness is the result of the absence of one or more cone cells.

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 : b

Color Blindness

Two types of cells in the retina detect light — the rods, which distinguish between light and dark, and the cones that detect colour.

14) Consider the following statements with respect to respiratory airway secretory cells:

1. It is a type of cell that resides within the human lungs and plays key role in human lung diseases.
2. They have stem-cell-like properties enabling them to regenerate other cells that are essential for the normal functioning of alveoli.

Which of the above statements is/are correct?

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

Answer : c

15) Consider the following statements and choose the correct climatic type from the options given below:

1. This climate region is dominated by Maritime Tropical air masses.
2. The temperature is uniform throughout the year and there is no winter.
3. The double rainfall peaks coincides with the equinoxes and there is no month without rain.

Options:

- a. Equatorial Climate
- b. Tropical Wet Dry Climate
- c. Monsoon Climate
- d. Temperate Grassland Climate

Answer : a

16) Consider the following statements:

1. It is a permanent international intergovernmental organization.
2. India and Pakistan are its members.
3. The organization has two permanent bodies — First is the Executive Committee of the Regional Anti-Terrorist Structure (RATS) based in Tashkent and second is the SCO Secretariat based in Beijing.

Which of the above statements is/are correct?

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

Answer : d

17) Consider the following statements with respect to virus:

1. DNA viruses are mostly double-stranded while RNA viruses are single-stranded.
2. Mutation rate of RNA virus is higher than the DNA virus mutation rate.
3. The DNA virus replicates in the cytoplasm, while the RNA virus replicated in the nucleus.

Which of the above statements is/are correct?

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

Answer : a

DNA replication takes place in the nucleus while RNA replication takes place in the cytoplasm.

18) Consider the following statements:

1. Albedo is the amount of incoming radiation reflected by the ground Evapotranspiration.
2. At higher latitudes, albedo is the most prominent biophysical driver as vegetation is patchy and sunlight is seasonal.

Which of the above statements is/are correct?

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

Answer : c

19) Consider the following statements regarding fortification of rice:

1. This is the process of deliberately increasing the content of micronutrients in the rice to improve the nutritional quality .
2. The fortified rice kernels are blended with regular rice to produce fortified rice.
3. The ministry of agriculture is the nodal agency in deciding the distribution of fortified rice.

Which of the above statement(s) is/are correct?

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

Answer : b

The Ministry of Consumer Affairs, Food and Public Distribution is the nodal agency in deciding the distribution of fortified rice

20) Consider the following statements regarding Standing Deposit Facility (SDF):

1. The purpose of SDF is to reduce the excess liquidity in the system and control inflation.
2. SDF absorbs liquidity without any collateral and also acts as a financial stability tool.

Which of the above statements is/are correct?

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

Answer : c