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By

Saurabh Pandey

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## Frequent use of article 142 and Perarivalan case

- The Court has treaded the extraordinary constitutional route under Article 142. The power to do 'complete justice', for grant of remission and consequent premature release.
- The Bench decided to exercise the power of grant of pardon, remission et al., exclusively conferred on the President of India and State Governors under Articles 72 and 161.
- In the teeth of foundational bedrock and cornerstone of separation of powers viz. Parliament/Legislature, Executive and Judiciary, whether the course adopted by the Bench to do expedient justice is constitutional calls for introspection.
- The focus is only to evaluate the constitutionality of the decision in the context of Article 142.
- The power under Article 161 is exercisable in relation to matters to which the executive power of the state extends.
- While the Governor is bound by the advice of the Council of Ministers (Article 163), the binding nature of such advice will depend on the constitutionality of the same.
- Article 161 consciously provides a 'discretion' to the Governor in taking a final call, even if it was not wide enough to overrule the advice, but it certainly provides latitude to send back any resolution for reconsideration, if, in his opinion, the resolution conflicted with constitutional ends.
- In M.P. Special Police Establishment (2004 (8) SCC P.788) a Constitution Bench had held that the "Concept of Governor acting in his discretion or exercising independent judgment is not alien to the constitution.
- Implication of 'consultation'
- In the other Constitution Bench judgment in Sriharan's case (2016 (7) SCC P.1), arising out of the core of the Rajiv Gandhi assassination itself, one of the references placed for consideration was whether the term 'consultation' stipulated in Section 435 Cr.P.C. implies 'concurrence'.
- It was held that the word 'consultation' means 'concurrence' of the Central government.
- The Constitution Bench highlighted that there are situations where consideration of remission would have trans-border ramifications and wherever a central agency was involved, the opinion of the Central government must prevail.

- If it is a simple case of being a Section 302 crime, the reason for finding fault with the Governor's decision to forward the recommendation to the President may be constitutionally correct.
- But the larger controversy as to whether the Governor in his exercise of power under Article 161 is competent at all, to grant pardon or remission in respect of the offences committed by the convicts under the Arms Act, 1959, the Explosive Substances Act, 1908, the Passports Act, 1967, the Foreigners Act, 1946, etc., besides Section 302, is in wobbly terrain.
- According to the decision, it is a simple murder attracting Section 302 of the IPC and therefore the Governor's decision to forward the recommendation to the President is against the letter and spirit of Article 161 meaning it is against the spirit of federalism envisaged in the Constitution.
- In the case on hand, the Bench found fault with the Governor not having taken a decision on the recommendation of remission by the State Cabinet for a long time.
- The fault of the Governor became more intense in the opinion of the Bench, when the Governor eventually referred the matter to the President of India for his decision, after sitting over the recommendation for more than two years.
- The second aspect is the delay in taking a decision by the Governor in the matter.
- The Constitution does not lay down any timeframe for the Governor to act on the advice of the Council of Ministers.

## **THE HINDU**

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### **India EVs**

#### **Article and issues**

- The first is whether Article 142 could be invoked by the Court in the circumstances of the case when the Constitution conferred express power on the Governor alone, for grant of pardon, remission, etc., under Article 161.
- India's push for electric vehicles (EVs) was renewed when phase-II of the Faster Adoption and Manufacturing of (Hybrid and) Electric (FAME) Vehicles scheme in India, with an outlay of ₹10,000 crore, was approved in 2019.
- This was significant since phase-I, launched in 2015, was approved with an outlay of ₹895 crore.

- India was doubling down on its EV ambitions, focusing on cultivating demand for EVs at home while also developing its own indigenous EV manufacturing industry which could cater to this demand.
- Initially envisioned for three years, FAME-II got a two-year extension in June 2021 owing to a number of factors including the pandemic.
- It aims to support 10 lakh e-two-wheelers, 5 lakh e-three-wheelers, 55,000 e-four-wheeler passenger cars and 7,000 e-buses.
- Three-wheeler EVs like e-autos and e-rickshaws account for close to 65% of all EVs registered in India.
- In contrast, two-wheeler EVs come at a distant second with over 30% of registrations and passenger four-wheeler EVs at a meagre 2.5%
- The success India has experienced in the e-three-wheeler space has come from developing both the demand and supply sides.
- Subsidies, tax exemptions, and interest-free loans have successfully rallied demand for these vehicles.
- These vehicles provide for inexpensive means of transport for millions, are easy to maintain, and have relatively low operating costs, making them immensely popular among operators.

### Issues to be addressed

- The current policies in place at the State level, which are focused on accelerating adoption of EVs among consumers, have spurred an e-three-wheeler dominance.
- However, this has come at some costs. A major one is adequate passenger safety.
- Subsequent EV policies must therefore pay special attention to this issue. Local manufacturing enterprises often lack the necessary resources or the motivation to invest in design developments focusing on safety.
- Lack of proper oversight from regulatory bodies over these manufacturers add to the woes.
- Future policies must therefore incorporate appropriate design and passenger safety standards.
- While the current State-level policies have been instrumental in increasing local e-three-wheeler manufacturing, they have led to an increasingly fragmented manufacturing industry with non-uniform standards akin to the formative years of motor vehicles in the early 20th century.

### THE HINDU

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## Safety of AADHAAR

### The story so far:

- Two days after issuing an advisory asking people to refrain from sharing photocopies of their Aadhaar Card, the Unique Identification Development Authority of India (UIDAI) opted to withdraw the notification.
- It stated that the action was to avert any possibility of ‘misinterpretation’ of the (withdrawn) press release, asking people to exercise “normal prudence” in using/sharing their Aadhaar numbers.

### What does the law say?

- The Aadhaar (Targeted Delivery of Financial and Other Subsidies Benefits and Services) Act, 2016 makes it clear that Aadhaar authentication is necessary for availing subsidies, benefits and services that are financed from the Consolidated Fund of India.
- In the absence of Aadhaar, the individual is to be offered an alternate and viable means of identification to ensure she/he is not deprived of the same. Separately, Aadhaar has been described as a preferred KYC (Know Your Customer) document but not mandatory for

opening bank accounts, acquiring a new SIM or school admissions.

- The requesting entity would have to obtain the consent of the individual before collecting his/her identity and ensure that the information is only used for authentication purposes on the Central Identities Data Repository (CIDR).
- This centralised database contains all Aadhaar numbers and holder’s corresponding demographic and biometric information. UIDAI responds to authentication queries with a ‘Yes’ or ‘No’.
- In some cases, basic KYC details (as name, address, photograph etc.) accompany the verification answer ‘Yes’.
- The regulator does not receive or collect the holder’s bank, investment or insurance details.
- Additionally, the Aadhaar Act forbids sharing Core Biometric Information (such as finger print, iris scan, among other biometric attributes) for any purpose other than Aadhaar number generation and authentication.
- The Act makes it clear that confidentiality needs to be maintained and the authenticated information cannot be used for anything other than the specified purpose.

- More importantly, no Aadhaar number (or enclosed personal information) collected from the holder can be published, displayed or posted publicly.
- Identity information or authentication records would only be liable to be produced pursuant to an order of the High Court or Supreme Court, or by someone of the Secretary rank or above in the interest of national security.

#### **What are some of the structural problems that the UIDAI faces?**

- The Aadhaar Data Vault is where all numbers collected by authentication agencies are centrally stored.
- Its objective is to provide a dedicated facility for the agencies to access details only on a need-to-know basis.
- Comptroller and Auditor General of India's (CAG) latest report stipulated that UIDAI neither specified any encryption algorithm (as of October 2020) to secure the same nor a mechanism to illustrate that the entities were adhering to appropriate procedures.
- It relied solely on audit reports provided to them by the entities themselves.
- The CAG's reported stated that apart from the issue of multiple Aadhaar to the same resident, there have

been instances of the same biometric data being accorded to multiple residents.

- As per UIDAI's Tech Centre, nearly 4.75 lakh duplicate Aadhaar numbers were cancelled as of November 2019.
- The regulator relies on Automated Biometric Identification Systems for taking corrective actions.
- The CAG concluded it was "not effective enough" in detecting the leakages and plugging them.
- Biometric authentications can be a cause of worry, especially for disabled and senior citizens with both the iris and fingerprints dilapidating.

#### **THE HINDU**

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#### **UN Report on Taliban**

- A new report from the Analytical Support and Sanctions Monitoring Team of the UNSC says that foreign terrorist organisations continue to enjoy safe haven under the Taliban regime.
- It adds that the terrorist groups are not likely to launch major attacks outside Afghanistan before 2023.
- Two India-focussed terrorist groups, Jaish-i-Mohammed (JiM) and Lashkar-e-Taiba (LeT), are reported

to have training camps in Afghanistan.

- Tehreek-e-Taliban Pakistan (TTP) constitutes the largest component of foreign terrorist fighters in Afghanistan, with their numbers estimated at 3,000-4,000.

## **THE HINDU**

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### **Israel and UAE**

- Israel signed a free trade deal with the United Arab Emirates on Tuesday, its first with an Arab country, building on their U.S.-brokered normalisation of diplomatic relations in 2020.
- According to the Israeli side, scraps customs duties on 96% of all products traded.
- “Businesses in both countries will benefit from faster access to markets and lower tariffs as our nations work together to increase trade, create jobs, promote new skills and deepen cooperation,”
- The 2020 deal was part of the U.S.-brokered Abraham Accords that also saw Israel establish diplomatic ties with Bahrain and Morocco.
- Two-way trade between Israel and the UAE last year totalled some \$900 million dollars.

## **THE HINDU**

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## ASHA and Global health awards

- India's one million Accredited Social Health Activists (ASHA) volunteers have received arguably the biggest international recognition in form of the World Health Organization's Global Health Leaders Awards 2022.
- The ASHAs were among the six awardees announced at the 75th World Health Assembly in Geneva.
- This World Health Organization (WHO) award is in recognition of the work done by ASHA volunteers during the COVID-19 pandemic as well as for serving as a link between communities and health systems.
- It is important to note that even before the COVID-19 pandemic, ASHAs have made extraordinary contributions towards enabling increased access to primary healthcare services; i.e. maternal and child health including immunisation and treatment for hypertension, diabetes and tuberculosis, etc., for both rural and urban populations, with special focus on difficult-to-reach habitations.
- Over the years, ASHAs have played an outstanding role in making India polio free, increasing routine immunisation coverage; reducing maternal mortality; improving newborn survival and in greater access to treatment for common illnesses.
- Genesis of the programme India launched the ASHA programme in 2005-06 as part of the National Rural Health Mission.
- Initially rolled out in rural areas, with the launch of the National Urban Health Mission in 2013, it was extended to urban settings as well.
- Each of these women-only volunteers work with a population of nearly 1,000 people in rural and 2,000 people in urban areas, with flexibility for local adjustments.
- The core of the ASHA programme has been an intention to build the capacity of community members in taking care of their own health and being partners in health services.
- The biggest inspiration for designing the ASHA programme came from the Mitandin (meaning 'a female friend' in Chhattisgarhi) initiative of Chhattisgarh, which had started in May 2002.
- The Mitandin were/are all-female volunteers available for every 50 households and 250 people.
- One, the ASHA selection involved key village stakeholders to ensure community ownership for the initiatives and forge a partnership.



- Two, ASHAs coming from the same village where they worked had an aim to ensure familiarity, better community connect and acceptance.
- Three, the idea of having activists in their name was to reflect that they were/are the community's representative in the health system, and not the lowest-rung government functionary in the community (as was the perception with the erstwhile community health volunteer, a few decades ago).
- Four, calling them volunteers was partly to avoid a painfully slow process for government recruitment and to allow an opportunity to implement performance-based incentives in the hope that this approach would bring about some accountability.
- Anganwadi workers (AWW) and Auxiliary Nurse Midwife (ANM) as well as with panchayat representatives and influential community members at the village level was facilitated.
- This resulted in an all-women partnership, or A-A-A: ASHA, AWW and ANM, of three frontline functionaries at the village level, that worked together to facilitate health and nutrition service delivery to the community.
- Among the A-A-A, ASHAs are the only ones who do not have a fixed salary; they do not have opportunity for career progression.
- Though performance-based incentives are supplemented by a fixed amount in a few Indian States, the total payment continues to remain low and often delayed
- First, Indian States need to develop mechanisms for higher remuneration for ASHAs
- Second, it is time that in-built institutional mechanisms are created for capacity-building and avenues for career progression for ASHAs to move to other cadres such as ANM, public health nurse and community health officers are opened.
- Third, extending the benefits of social sector services including health insurance (for ASHAs and their families) should be considered
- Fourth, while the ASHA programme has benefitted from many internal and regular reviews by the Government, an independent and external review of the programme needs to be given urgent and priority consideration.
- Fifth, there are arguments for the regularisation of many temporary posts in the National Health Mission

and making ASHAs permanent government employees.

## **THE HINDU**

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### **Death penalty**

- The constitutionality of the death penalty was upheld in 1980 in *Bachan Singh vs State of Punjab*, which greatly emphasised 'individualised sentencing' and called upon courts to consider the 'crime' and the circumstances of the accused.
- However, since *Bachan Singh* there have been disagreements on which cases warrant the imposition of the death penalty and the nature of information about the accused relevant for sentencing.
- With a vast majority of prisoners being poor, quality legal representation has always been a concern.
- The Bench passed an order in *Manoj* in September 2021 calling for reports of the probation officers, prison officers and mental health professionals.
- In the final judgment delivered recently, the Supreme Court took important steps towards realising an 'individualised sentencing enquiry' as envisaged by the court in *Bachan Singh* 42 years ago.
- The judgment of the Supreme Court in *Manoj* is significant for two reasons: first, it indicates a shift towards an evidence-based inquiry to sentencing that invites expert opinions and reports from a wide range of disciplines.
- Second, it expands the scope of mitigating factors by calling for reports that bring forth pre-offence details such as socio-economic status, education, family background and also post-offence details such as the conduct of the prisoner in prison.
- Mitigating factors pertain to life circumstances of an individual that can help determine punishment.
- Keeping in mind the introduction of non-legal expertise into courtrooms, courts will need to equip themselves to appreciate the evidence so presented.
- Questions on conflicting findings in reports and opinions presented to the court during sentencing would also need to be addressed keeping in mind existing evidentiary standards and judicial dicta, which suggests courts must not be constrained by confines of the evidence act in capital sentencing.

## **THE HINDU**

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## Gun control laws

### What do gun laws in the U.S. say?

- The Second Amendment of the U.S. constitution, which states that “the right of the people to keep and bear Arms shall not be infringed”, is often attributed as the root cause of all firearm-related violence.
- The U.S. Supreme Court previously held that the amendment protects the right to “keep and bear arms” for self-defence,

### What about India?

- Gun licence applicants in India must be at least 21 years and not convicted of any offence involving violence, of ‘unsound mind’ or a threat to public safety and peace.
- Upon receiving an application, the licensing authority (i.e., the Home Ministry), asks the officer in-charge of the nearest police station to submit a report about the applicant after thorough vetting.
- The Arms Act amended in 2019 reduces the number of firearms that an individual can procure from three to two.
- Indian laws are particularly elaborate in dealing with sale and unlawful trade of weapons.

- It also enlists specific provisions on curtailing the use of licensed weapons to ensure social harmony.
- No entity is permitted to sell or transfer any firearm which does not bear the name of the maker, manufacturer’s number or any other visible or stamped identification mark.
- Any act of conversion (such as shortening the barrel of a firearm or converting an imitation firearm into a firearm) or unlawful import-export is punishable with an imprisonment term of seven years, which may extend to life imprisonment and be liable to monetary fines.

## THE HINDU

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### EU ban on Russian oil

- The EU on May 30 reached an agreement to ban 90% of Russian crude oil imports by the end of the year.
- The partial embargo exempts pipeline oil in order to bypass Hungary’s objections to the ban.

### What was the rationale behind such a move?

- The Russian economy is heavily dependent on energy exports, with

the EU paying billions of dollars every month to Russia for its crude and refined products.

- The EU wants to block this massive revenue inflow which, as repeatedly pointed out by Ukrainian President Volodymyr Zelensky, is akin to Europeans bankrolling Russia's war.
- The EU has been attempting, ever since the Ukraine invasion, to build consensus on ways to hurt Russia economically so that it is forced to roll back its military offensive.
- The most obvious route was to stop buying Russian energy, which isn't easy given European households' dependence on Russian oil and gas.
- However, in the context of two long term EU objectives reducing fossil fuel dependence in favour of renewables, and eliminating dependence on Russian energy for greater strategic autonomy and energy security member states agreed to make a start by phasing out Russian oil.

#### **What are the terms of the 'compromise deal' that has been agreed upon?**

- The main departure from the original proposal is the "temporary exemption" from the oil embargo for countries that import Russian crude via pipeline.

- In other words, EU leaders have, in principle, agreed to ban all seaborne imports of Russian crude, which account for two-thirds of EU's oil imports from Russia.
- However, with Germany and Poland pledging to phase out even their pipeline imports from Russia by the end of the year, the embargo would eliminate 90% of Russian oil imports.
- The remaining 10% that's been allowed represents a free pass for Hungary, the Czech Republic, Slovakia, and Bulgaria to continue imports via the Druzhba pipeline, the world's largest oil pipeline network.
- Additionally, Hungary has obtained a guarantee that it could even import seaborne Russian oil in case of a disruption to their pipeline supplies.

#### **How will the sanctions affect Russia?**

- Analysts calculate that a two-thirds cut in Europe's imports of Russian oil would mean a reduction of 1.2-1.5 million barrels a day in oil, and one million barrels in refined products, which might cause Russia an annual loss in revenue of \$10 billion. Given Russia's limited storage infrastructure, the cutback in demand would force Russia to find other markets.

### **How will the sanctions affect Europe?**

- It is likely to further fuel inflation in Europe, where many countries are already facing a cost-of-living crisis.
- EU leaders have tried to balance contradictory pressures of having to take decisive action against a military aggressor on European soil, but without causing too much pain to its citizens.

### **How has India responded to these developments?**

- India ramped up purchases of Russian crude at discounted prices in the months following the Russian invasion, and this policy is expected to continue.
- The announcement of the EU ban caused an immediate surge in oil prices, and as Europe seeks alternate sources from West Asia, Africa and elsewhere for its oil needs, prices are expected to stay high.

### **THE HINDU**

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#### **Indus water treaty**

Under the treaty signed between India and Pakistan in 1960, all the waters of three rivers, namely Ravi, Sutlej and Beas (Eastern Rivers) were allocated to India for exclusive use.

- While, the waters of Western rivers - Indus, Jhelum, and Chenab were allocated to Pakistan except for specified domestic, non-consumptive and agricultural use permitted to India as provided in the Treaty.
- To utilize the waters of the Eastern rivers which have been allocated to India for exclusive use, India has constructed following dams:
  - Bhakra Dam on Satluj, Pong and Pandoh Dam on Beas and Thein (Ranjit Sagar) on Ravi.
  - About 2 Million Acre Feet (MAF) of water annually from Ravi is reported to be still flowing unutilized to Pakistan
- Shahpurkandi Project: This project will help in utilizing the waters coming out from powerhouse of Thein dam for irrigation and power generation in J&K and Punjab.
- Construction of Ujh multipurpose project: This project will create a storage of water on river Ujh, a tributary of Ravi for irrigation and power generation in India.

### **THE HINDU**

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## Trade deficit

- India's merchandise trade deficit widened to a record \$23.33 billion in May, as exports grew 15.5% to \$37.3 billion while imports jumped 56.1% to \$60.62 billion, preliminary data from the Commerce and Industry Ministry show
- This is the third month in a row that merchandise imports have crossed \$60 billion, thanks to elevated commodity and oil prices amid the festering Russia-Ukraine conflict.
- Gold imports shot up almost nine fold year-on year to cross \$5.8 billion
- Petroleum imports almost doubled to \$18.1 billion while coal imports more than doubled from May 2021 levels to \$5.33 billion.

## THE HINDU

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### Liquid mirror telescope

- The four-metre International Liquid Mirror Telescope (ILMT) saw the first light recently, gazing out from its vantage on Devasthal, a hill in Uttarakhand, into the deep sky.
- The telescope, staring at the sky overhead, will make sky surveys possible and obtain images that can help observe transient phenomena such as supernovae and record the presence of space debris or meteorites basically, watch the skies.
- The telescope has been built by a collaboration of scientists from Canada, Belgium and India.
- It is located at an altitude of 2,450 metres on the Devasthal Observatory campus of the Aryabhata Research Institute of Observational Sciences (ARIES) in Nainital district, an autonomous institute under the Department of Science and Technology, Government of India.
- A large pool of mercury placed in a vessel is spun around so fast that it curves into a parabolic shape.
- Since mercury is reflective, this shape helps in focusing the reflected light.
- A thin sheet of Mylar protects the mercury from the wind.
- The telescope, having a primary mirror that is liquid, cannot be turned and pointed in any direction.
- It "stares" at the zenith and watches the sky as the earth rotates, thereby giving a view of different objects.
- This property can be used to scan and survey the sky, observe transients and moving objects such as meteorites.
- It will work in tandem with the existing 3.6-metre Devasthal Optical Telescope.

- Once it starts making observations, the telescope will collect gigabytes of data, which will need to be analysed using artificial intelligence and machine learning (AI and ML) tools.

## **THE HINDU**

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### **India Israel**

- Defence Minister Rajnath Singh and his visiting Israeli counterpart Benny Gantz discussed partnerships within the government-to-government framework, military training, and technological cooperation with a focus on Unmanned Aerial Vehicles (UAV) and defensive capabilities.
- A Letter of Intent on enhancing cooperation in the field of futuristic defence technologies was also exchanged between the two Ministers, a Defence Ministry statement said.
- The Ministers also discussed a cooperation agreement signed between the Indian Defence Research and Development Organisation (DRDO) and Israel's Directorate for Defence R&D.
- The Ministers declared their intention to further develop defence cooperation in a manner that harnesses Israel's "technological advance and operational

experience", together with India's "extraordinary development and production capabilities",

- "Cooperation between the countries would be in line 'Make in India' vision.

## **THE HINDU**

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### **Caste census**

#### **Why do all political parties support it in Bihar?**

- Almost all political parties in Bihar identify themselves with a particular caste, sub-caste or community for representation, and leaders cannot afford to take their political identity out of that caste or group.
- The objective behind this demand is to bring out the recent changes in caste groups and how resources may be best shared.
- The data will help the State government understand the exact population of various caste groups and assess the socio-economic development in every group, and the welfare schemes needed for their benefit.

#### **What are the benefits of a caste count?**

- Social equality programmes and welfare measures cannot be successfully implemented without



comprehensive data and for this a caste count is necessary in a State known to be fragmented into several castes, sub-castes, groups and communities.

- In a modern state, a count of every category of citizens is necessary so that they can get the benefit of all welfare measures, says political analyst Ajay Kumar.
- In the absence of such data, there is no proper estimate for the population of other backward classes (OBC)s, extremely backward classes (EBCs) and several other groups within them, he added.
- A caste-based count goes a long way in bringing a measure of objectivity to the debate on reservations.

## THE HINDU

### China and pacific islands

#### The story so far:

- Wang Yi, the Foreign Minister of China, is currently on an eight-day visit to ten Pacific Island Countries (PICs), and has co-hosted with Fiji the Second China-Pacific Island Countries Foreign Ministers Meeting on May 30, 2022.
- During the meeting, China's effort to push through a comprehensive framework deal, the draft of which

was leaked earlier, failed to gain consensus among the PICs.

- What is the strategic significance of the PICs?
- The Pacific Island Countries are a cluster of 14 states which are located largely in the tropical zone of the Pacific Ocean between Asia, Australia and the Americas.
- They include Cook Islands, Fiji, Kiribati, Republic of Marshall Islands, Federated States of Micronesia (FSM), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. The islands are divided on the basis of physical and human geography into three distinct parts Micronesia, Melanesia and Polynesia.
- The islands are very small in land area, and are spread wide across the vast equatorial swathe of the Pacific Ocean.
- As a result, though they are some of the smallest and least populated states, they have some of the largest Exclusive Economic Zones (EEZs) in the world.
- Large EEZs translate into huge economic potential due to the possibility of utilising the wealth of fisheries, energy, minerals and other marine resources present in such zones.

- Hence, they prefer to be identified as Big Ocean States, rather than Small Island States.
- In fact, Kiribati and FSM, both PICs, having EEZs larger than that of India.
- The Pacific islands also acted as one of the major theatres of conflict during the Second World War between imperial Japan and the U.S. Due to the remoteness of these islands from the Soviet Union and major population centres of the world, some of the major nuclear weapon test sites of the U.S., the U.K. and France were located here.
- In addition, the 14 PICs, bound together by shared economic and security concerns, account for as many number of votes in the United Nations, and act as a potential vote bank for major powers to mobilise international opinion.
- They are located beyond China's 'First Island Chain', which represents the country's first threshold of maritime expansion.
- The PICs are located geostrategically in what is referred to by China as its 'Far Seas', the control of which will make China an effective Blue Water capable Navy an essential prerequisite for becoming a superpower.
- At a time when the Quadrilateral Security Dialogue has emerged as a major force in the Indo-Pacific vis-à-vis China, the need to influence the PICs have become an even more pressing matter for China.
- Apart from the vast marine richness of the PICs, the Taiwan factor plays a major role in China's Pacific calculus.
- China, which considers Taiwan to be a breakaway territory, is preparing for what seems like an inevitable military invasion. In this context, it becomes important to break Western domination of island chains of the Pacific which could impede reunification.

#### **What does China seek to achieve from the PICs and how?**

- China does not have any particular historical linkages to the PICs unlike the Western powers.
- Therefore, its interest in the PICs is of relatively recent origin, and is linked to China's rise in the past few decades.
- The PICs lie in the natural line of expansion of China's maritime interest and naval power.
- Wooing the PICs away from the West and Taiwan will therefore make the goal of Taiwan's reunification easier for China.

### **What are the implications of China's latest move?**

- China has increasingly started talking about security cooperation in addition to its economic diplomacy towards the PICs.
- In April 2022, China signed a controversial security deal with the Solomon Islands, which raised regional concerns.
- Prior to the current visit of Wang Yi, two draft documents prepared by the Chinese side were leaked, and gained the attention of regional leaders in the Pacific as well as the larger international community.
- One of the documents is the “China-Pacific Island Countries (PICs) Common Development Vision”, and the other is “China-Pacific Islands Five-Year Action Plan on Common Development (2022-2026)”.
- The vision gives a broad proposal about co-operation in the political, security, economic and strategic areas, whereas the action plan outlines the more specific details of co-operation in the identified areas.
- The secrecy surrounding the draft, and the haste with which it was discussed with the governments of the PICs during the meeting sent worrying signals across the Pacific
- The intensification of China's diplomacy towards the Pacific

Islands have made the powers who have traditionally controlled the regional dynamics like the U.S. and Australia more cautious.

- The U.S. has started revisiting its diplomatic priority for the region ever since the China-Solomon Islands deal.

### **THE HINDU**

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### **Eco Sensitive zone**

- The Supreme Court directed that every protected forest, national park and wildlife sanctuary across the country should have a mandatory eco-sensitive zone (ESZ) of a minimum one km starting from their demarcated boundaries
- Environment Ministry guidelines show that the purpose of declaring ESZs around national parks, forests and sanctuaries is to create some kind of a “shock absorber” for the protected areas.
- These zones would act as a transition zone from areas of high protection to those involving lesser protection.
- The judgment, by Justice Bose, observed that the government should not confine its role to that of a “facilitator” of economic activities for the “immediate upliftment of the fortunes of the State”.
- The State also has to act as a trustee for the benefit of the general public in relation to the natural resources so that sustainable development could be achieved in the long term.
- “Such a role of the State is more relevant today, than, possibly, at any point of time in history with the threat of climate catastrophe resulting from global warming looming large,”

### **Eco -Sensitive Zones**

- Eco-Sensitive Zones (ESZs) are also known as Ecologically Fragile Areas (EFAs).
- Eco-sensitive zones are areas notified by the MoEFCC around Protected Areas, National Parks and Wildlife Sanctuaries.
- The purpose of declaring ESZs is to create some kind of “shock absorbers” to the protected areas by regulating and managing the activities around such areas.
- As per the National Board for Wildlife NBWL, the delineation of eco-sensitive zones have to be site-specific, and the activities should be regulative in nature and not prohibitive unless required.
- The basic aim is to regulate certain activities around National Parks and Wildlife Sanctuaries to minimize the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.
- They also act as a transition zone from areas of high protection to areas involving lesser protection.

### **THE HINDU**

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#### **Competes act**

- With the reappearance of Indian mangoes in the U.S. market, after

the November 2021 U.S. India Trade Policy Forum (TPF) helped overcome a pandemic-induced hiatus in mango trade

- For the U.S., exporting ethanol and an associated animal feed ingredient, called DDGS (Distillers' Dried Grains with Soluble) to India in the agricultural goods category is important
- As far as ethanol trade is concerned, the U.S. official said they were aware that India had "some sensitives" given it has domestic ethanol producers, and that the U.S. could find a way to supplement these sources, to help with renewable energy goals, even if that meant not fully liberalising the market for ethanol.
- India amended the National Policy on Biofuels in May to advance the 20% ethanol blending target in petrol by five years, to 2025-26.
- The amended policy also allows the greater use of feedstock for biofuels. For India, the export of carabeef (water buffalo meat) to the U.S., as well as table grapes are among the
- The resumption of Indian wild caught shrimp exports to the U.S. is also an agricultural priority area
- U.S. law prohibits the import of wild caught shrimp and its derivative

products if protected sea turtle species are harmed in the process.

- One way around this is to use Turtle Excluder Devices (TEDs) while fishing for shrimp; India views this as a technical barrier to trade.
- On the U.S. side, greater access to the Indian market for medical devices, as well as digital trade, remain priorities, the U.S. official said.
- India wants to be reinstated as a beneficiary of the U.S.'s preferential market access programme the Generalized System of Preferences (GSP).
- India was taken out of the GSP programme by former U.S. President Donald Trump, in June 2019, for not opening up its markets enough

#### **(COMPETES) Act**

- The United States has unveiled the ambitious America Creating Opportunities for Manufacturing, Pre-Eminence in Technology, and Economic Strength (COMPETES) Act, 2022, which proposes to open up new vistas for talented individuals from across the world with a new start-up visa.
- It aims to make the supply chains stronger and reinvigorate the innovation engine of the country's economy to outcompete China and

the rest of the world for decades to come.

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### **Higher education**

- In India too, the burden of tuition fees in professional courses is becoming unbearable.
- Besides, it is causing a serious concern of reducing quality professional education to a commodity rather than the noble service that it ought to be.
- Educational loans, even with government collateral guarantee, are no answer, as the mounting debt of educational loans will cripple the economy of development and public welfare.
- What we need is a university system that fosters an environment of learning in which world-quality education can be provided without taxing learners with the burden of tuition fees.
- In Denmark, however, tuition fees were introduced for international students from outside the European Union and the European Economic Area, in 2006. Sweden followed suit in 2011.
- Only Finland, Norway, Iceland, and Germany do not charge international students tuition fees.
- This ensures that students receive quality education in the streams that they desire rather than pursuing streams that allow them to earn highly so as to repay their student debt.
- All Nordic countries have a strong legacy of equality, extending to equal opportunities in the education system.
- The Nordic countries have measures in place to promote gender equality and assist students from lower socioeconomic categories to gain access to higher education.
- Education is a noble service and an investment to charter a bright future for humanity.
- If students pay for education, they would be forced to earn from the degrees they acquire.
- The profession then becomes a privilege to earn rather than a privilege to serve and excel, as it ought to have been.

### **The Nordic model**

- The Nordic countries Denmark, Finland, Iceland, Norway, and Sweden provide free higher education to their people, and overseas students were able to study for free until recently.

- There is a strong case for reviving philanthropy and community support for higher education in India.
  - Corporates, generous alumni, and people at large can join in to create strong philanthropic support for higher education and make quality education tuition free.
  - The government, for its part, should be generous enough to declare such philanthropic donations to the cause of higher education and research tax-free, now that the treasury is full of funds from the ever-growing list of income tax and the Goods and Services Tax (GST) payers.
- many neighbouring countries to adopt a more constructive line towards the Taliban regime, despite their differences with the group's extremism.
  - India shuttered its embassy in Kabul in August 2021, days before the Taliban takeover, but has maintained a line of communication with them.
  - New Delhi sent humanitarian assistance, including wheat, COVID-19 vaccines and winter clothes, to Afghanistan when the country was facing a near-total economic collapse
  - The MEA has said that the visit is only to help coordinate India's humanitarian assistance for the Afghanistan people.
  - While it could be true, the visit would also pave the way for better understanding and engagement given the bad blood in the past.
  - India has three main concerns when it comes to the Taliban's return to Afghanistan.
  - One, India has made investments worth billions of dollars in the past 20 years. It would want to protect these investments and retain the Afghan people's goodwill.
  - Two, when the Taliban were in power in the 1990s, Afghanistan became a safe haven for anti-India

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### **India's delegation in Afghanistan**

- India's decision to send a diplomatic delegation to Kabul to meet with Taliban officials shows a marked difference from the policy New Delhi took in the 1990s when the Sunni Islamist group was in power in Afghanistan.
- Back then, India had taken a policy of disengagement with Kabul and supported anti-Taliban militias.
- But this time, Afghanistan's internal situation and the regional dynamics seem to be different, prompting

terrorist groups. India also saw a sharp rise in violence in Kashmir during the Mujahedeen-Taliban reigns of Afghanistan.

- New Delhi would not like history to repeat itself and would want commitments from the Taliban that they would not offer support for anti-India groups.
- Three, the Taliban remaining a Pakistani satellite forever is not in India's strategic interest. New Delhi cannot pursue any of these objectives if it does not engage with the Taliban.

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## Great dimming

- A Japanese weather satellite accidentally witnessed the 'great dimming' of the red supergiant star Betelgeuse that began in late 2019.
- The weather satellite, Himawari-8, observed a cloud of dust and a drop in the star's temperature by 140°C, offering important clues to what happened to the star.
- Betelgeuse is the 10th-brightest star in the night sky.
- But from October 2019 through February 2020, it dramatically dimmed to about two-thirds its normal brightness.
- This so-called "great dimming" event led to speculation that it was about to explode.



- Astronomers mostly concluded that Betelgeuse's dimming was the result of either its surface cooling, a new band of dust forming around it or both.
- Ground-based telescopes cannot see through dust and gas in the cosmos, which requires infrared vision.

- That's because Earth's atmosphere blocks infrared radiation as well as X-rays, gamma rays and the majority of ultraviolet rays. So only space-based observatories can see infrared light and that includes weather satellites like Himawari-8, one of the Japan Meteorological Agency's geostationary weather satellites.
- Himawari-8 has been positioned 22,236 miles (35,786 kilometres) above Earth's equator since 2015 to study weather and natural disasters.

## Neptune and Uranus colour

- Neptune and Uranus have much in common they have similar masses, sizes, and atmospheric compositions yet their appearances are notably different.
- At visible wavelengths, Neptune has a distinctly bluer colour whereas Uranus is a pale shade of cyan. Astronomers now have an explanation for why the two planets are of different colours.
- New research suggests that a layer of concentrated haze that exists on both planets is thicker on Uranus than a similar layer on Neptune and 'whitens' Uranus's appearance more than Neptune's.
- The model reveals that excess haze on Uranus builds up in the planet's stagnant, sluggish atmosphere and

makes it appear a lighter tone than Neptune.

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### **Global health diplomacy**

- India did this early in the pandemic.
- Our government boldly endorsed a “public interest” standard by submitting to the World Trade Organisation (WTO) with South Africa a waiver of monopolies based on a combination of patents, control over clinical trial data, and trade secrets on vaccines, therapeutics, and diagnostics to open up manufacturing of much needed tests, treatments, and preventive tools in the COVID-19 pandemic across the world. This proposal is known as the ‘Waiver’.
- It called for specific provisions of the agreement on trade-related aspects of intellectual property rights (TRIPS) to be waived temporarily by WTO member.
- Access to technology by low and middle-income countries is viewed as a constant threat, and their research contributions are either ignored or they receive little public attention.
- At the same time, the IP system creates a thicket of monopolies that

block local production and generic competition against their pharmaceutical corporations.

- India and other co-sponsors pushed a ‘commons approach’ so that a broader number of countries rather than the current handful could invest in manufacturing and developing technology to make vaccines, affordable drugs, diagnostics, and devices without facing IP barriers.
- India’s role in global health diplomacy at this point is crucial.
- It is part of the G-77, BRICS, and many such platforms, where it plays a leadership role on issues related to IP and access to medical products.
- The proposal and the WTO are fast losing credibility.
- Remaining silent in the negotiations ahead of the WTO’s upcoming ministerial on June 12-15 this year is not an option.

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### **Emperor penguin**

- China has blocked efforts to step up protection of emperor penguins that are increasingly threatened by the effects global warming is having on their natural habitat in Antarctica
- Dozens of countries had backed giving the world’s largest penguin’s

special protection status at a 10-day meeting in Berlin of parties to the Antarctic Treaty.

- The treaty was forged in 1959 to ensure that the continent remains the preserve of science, and free of arm.
- While a formal decision was “blocked by one party,” it said that most countries attending the meeting planned nevertheless to put in place national measures to protect emperor penguins.
- Chinese delegates attending the meeting, who spoke on condition of anonymity, said Beijing had made clear that it wanted more time to consider the implications of upgrading the protection status of the penguins.

### **Emperor penguin**

- The emperor penguin (*Aptenodytes forsteri*) is the tallest and heaviest of all living penguin species and is endemic to Antarctica.
- The male and female are similar in plumage and size, reaching 100 cm (39 in) in length and weighing from 22 to 45 kg (49 to 99 lb).
- Feathers of the head and back are black and sharply delineated from the white belly, pale-yellow breast and bright-yellow ear patches.

- The only penguin species that breeds during the Antarctic winter, emperor penguins trek 50–120 km (31–75 mi) over the ice to breeding colonies which can contain up to several thousand individuals.
- The female lays a single egg, which is incubated for just over two months by the male while the female returns to the sea to feed; parents subsequently take turns foraging at sea and caring for their chick in the colony.

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### **Monkey pox virus mutation**

- Dr. Andrew Rambaut from the University of Edinburgh found 47 mutations in the virus genome based on an analysis of the sequences from the current outbreak outside Africa and comparing it with the earlier genomes from samples from patients in 2017-19 in Singapore, Israel, Nigeria and the U.K. “Forty-seven substitutions in the space of three-four years is an unexpectedly large number.
- As MPXV [monkey pox virus] is considered a zoonotic virus with limited human-to-human transmission, this Long Branch may be evidence of adaptation to

humans allowing for the sustained transmission that is now observed.

- The mutation rate of monkey pox virus has not been well established the mutation rate estimates for monkey pox could be different for different hosts (animals vs humans), and many intermediate paths of evolution and their representatives have not been sequenced to accurately ascertain the evolutionary path of these specific isolates.”
- While the presence of 47 mutations does indicate that the monkey pox virus mutates at a much higher rate than the previously believed rate of two-three mutations per year, the mutations do not necessarily suggest that the monkey pox virus has become more transmissible,
- “The mutations we see do not change the amino acids in protein. All adaptations to evolutionary pressure typically happen due to changes in the amino acid, which we don’t see here.
- This suggests that the mutations we see are relics of the enzyme action and not necessarily an evolutionary process or adaptations of the virus.
- The 47 mutations seen in the genome sequence does indicate that the virus could have collected these mutations in a short period of time.

- “This change in mutation pattern likely marks the jump from the original host to humans or an intermediate host where a host enzyme (maybe APOBEC3) might mutate the genome.
- The rate of change increased 10-20 fold and is now around one change per month.

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### **eVTOL**

- The Government of India is exploring the possibility of inviting manufacturers of Electric Vertical Take-off and Landing (eVTOL) aircraft to set up base in India.
- Aviation Minister Jyotiraditya Scindia has been reported as asking Beta Technologies, which has a partnership with the Blade group (it has a presence in India), to look at the Indian market.

### **What is eVTOL?**

- As the acronym suggests, an electric vertical take-off and landing (eVTOL) aircraft is one that uses electric power to hover, take off, and land vertically.
- Most eVTOL also use what is called as distributed electric propulsion technology which means integrating

a complex propulsion system with the airframe.

- There are multiple motors for various functions; to increase efficiency; and to also ensure safety.
- This is technology that has grown on account of successes in electric propulsion based on progress in motor, battery, fuel cell and electronic controller technologies and also fuelled by the need for new vehicle technology that ensures urban air mobility (UAM).
- Thus, eVTOL is one of the newer technologies and developments in the aerospace industry.
- An article in Inside Unmanned Systems, a leading business intelligence platform, describes eVTOL as being “a runway independent technological solution” for the globe’s transportation needs.
- This is because it opens up new possibilities which aircraft with engines cannot carry out in areas such as manoeuvrability, efficiency and even from the environmental point of view.
- The article adds that there are an estimated 250 eVTOL concepts or more being fine-tuned to bring alive the concept of UAM.
- Some of these include the use of multi-rotors, fixed-wing and tilt-wing concepts backed by sensors,

cameras and even radar. The key word here is “autonomous connectivity”.

- Some of these are in various test phases.
- There are also others undergoing test flights so as to be certified for use.
- In short, eVTOL have been likened to “a third wave in an aerial revolution”; the first being the advent of commercial flying, and the second, the age of helicopter.

#### **What are the challenges?**

- As the technology so far is a mix of unpowered and powered aircraft, the areas in focus include “crash prevention systems”.
- These use cameras, radar, GPS (global positioning system) and infrared scanners.
- There are also issues such as ensuring safety in case of power plant or rotor failure.
- Aircraft protection from cyberattacks is another area of focus. A third area is in navigation and flight safety and the use of technology when operating in difficult terrain, unsafe operating environments and also bad weather.
- The global market for eVTOL was put at \$8.5 billion in 2021 and is to grow to \$30.8 billion by 2030.

- The demand will be on account of green energy and noise-free aircraft, cargo carrying concepts and the need for new modes of transport.

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### **IPEF**

- Indo-Pacific Economic Framework for Prosperity (IPEF) with other partner countries Australia, Brunei, India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, Vietnam and the United States.
- Within days of its launch, IPEF expanded its membership to the Pacific Island states, with Fiji joining the initiative.
- An American initiative to bring together its allies in the Indo-Pacific region to enhance economic cooperation is bound to lead to comparisons with one of former U.S. President Barack Obama's pet projects, the Trans-Pacific Partnership (TPP), which was spiked by Donald Trump immediately after he took over the reins in Washington.
- At its launch, the IPEF was proposed as an elaborate framework of rules covering four pillars, namely, fair and resilient trade, supply chain

resiliency, clean energy decarbonisation, and tax and anti-corruption.

- The Biden administration has announced that under the "fair and resilient trade" pillar, it "aims to develop high-standard, worker centered commitments" covering labour rights, the environment and climate, the digital economy, agriculture, transparency and good regulatory practices, competition policy and trade facilitation.
- The clear focus of this agenda is to focus on issues which the U.S. considers vital to further its interests.
- One notable exclusion from this list is intellectual property rights (IPRs) that have generally been at the heart of the U.S.' economic engagements with its partner countries.
- One possible reason for excluding IPRs could be that these are seen as the major reason why only 16.2% of people in low-income countries have received at least one dose of the COVID-19 vaccine until today.
- Promoting "fair and resilient trade" defines the U.S.'s agenda on trade, side-stepping its pursuit of the free trade ideal.
- The reason behind this shift could be that for most IPEF signatories, import tariffs are passé. Only four of

the 14 signatories have average tariffs in double digits.

- Two contentious issues that are generally included in free trade agreements (FTAs) involving the U.S., namely, labour rights and the environment and climate change, are duly included in the IPEF.
- Enforcement of labour rights using trade rules is quite contentious, having been rejected by the members of the World Trade Organization (WTO) on several occasions.
- A third set of issues, whose ramifications on the future of the digital economy and beyond can be far reaching, are those related to standards on cross-border data flows and data localisations.
- Control over data, the driver of the digital economy, will increasingly determine the dynamics of economies, and hence the issue of data portability assumes critical importance.
- However, this would have its challenges. For instance, while addressing the needs of the digital economy, the U.S. has emphasised the importance of “high-standard rules... on cross-border data flows and data localization
- On this issue of data localisation, the Government of India has not yet taken a clear position. In 2019, its likely preference was revealed in the Draft National e-Commerce Policy, wherein it had backed restrictions on cross-border data flows.
- India should also be wary of the considerable emphasis that is being given to strengthening labour rights in the on-going discussions on the IPEF, both by corporate interests and members of the Congress.

### **What could India expect from the IPEF?**

- While endorsing the IPEF, Prime Minister Narendra Modi had spoken of India’s aspiration to participate more substantially in the supply chains in the region.

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## Power crisis

- Power shortages are likely to continue in the short to medium term on rising demand in the peak season and the persisting supply-demand mismatch
- Thermal power accounts for about 75% of India's total power generation.
- The mismatch had been due to multiple stressed projects and the focus on renewable energy.
- Power shortages and coal demand spikes in the peak season could continue.

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## Debate on Surrogacy act

### What is the Surrogacy Act?

- The Surrogacy (Regulation) Bill was introduced in Parliament in November 2016, and passed in the winter session of Parliament in 2021.
- The Act sought to regulate the surrogacy part of a rather flourishing infertility industry in the country.
- Defining 'surrogacy' as a practice where a woman undertakes to give birth to a child for another couple and agrees to hand over the child to them after birth, it allows 'altruistic surrogacy' wherein only the medical

expenses and insurance coverage is provided by the couple to the surrogate mother during pregnancy. No other monetary consideration will be permitted.

### Why is there a need for a Surrogacy Act in India?

- India has emerged as a hub for infertility treatment, attracting people from the world over with its state of the art technology and competitive prices to treat infertility.
- Soon enough, due to prevailing socio-economic inequities, underprivileged women found an option to 'rent their wombs' and thereby make money to take care of their expenses often to facilitate a marriage, enable children to get an education, or to provide for hospitalisation or surgery for someone in the family.
- Once information of the availability of such wombs got out, the demand also picked up. Unscrupulous middle men inveigled themselves into the scene and exploitation of these women began.

### Who all are allowed to make use of the services of a surrogate mother?

- Any couple that has 'proven infertility' are candidates.
- The 'intending couple' as the Act calls them, will be eligible if they



have a 'certificate of essentiality' and a 'certificate of eligibility' issued by the appropriate authority.

- The former will be issued if the couple fulfils three conditions:
- One, a certificate of infertility of one or both from a district medical board;
- Two, an order of parentage and custody of the surrogate child passed by a Magistrate's court; thirdly, insurance cover for the surrogate mother.
- An eligibility certificate mandates that the couple fulfil the following conditions:
- They should be Indian citizens who have been married for at least five years; the female must be between 23 to 50 years and the male, 26 to 55 years;
- They cannot have any surviving children (biological, adopted or surrogate);
- However, this would not include a 'child who is mentally or physically challenged or suffers who can become a surrogate mother?
- Only a close relative of the couple can be a surrogate mother, one who is able to provide a medical fitness certificate.
- She should have been married, with a child of her own, and must be

between 25 and 35 years, but can be a surrogate mother only once.

### **What are the controversies behind the Act?**

- Even at the Bill stage, while there was a general murmur of appreciation, and some strident approval from infertility experts, there was some apprehension about the too restrictive regulations.
- For instance, it does not allow single women, or men, or gay couples to go in for surrogacy.

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#### **Draft social media regulation**

- On June 2, the Ministry of Electronics and Information Technology put out a draft proposal, seeking comments from the general public on a set of proposed amendments to the IT Rules, 2021.
- The draft document was however withdrawn the same day with a revised version expected to be made available this week.

### **What is the law?**

- Broadly, the IT Rules (2021) mandate social media platforms to exercise greater diligence with respect to the content on their platforms.

- They are required to establish a grievance redressal mechanism, and remove unlawful and unfitting content within stipulated time frames.
- The grievance officer of the platform's redressal mechanism is responsible for receiving and resolving complaints of the users. She/he is expected to acknowledge receipt of the complaint within 24 hours and dispose the same in an appropriate manner within 15 days.
- Content portraying an individual in full or partial nudity, in a sexual act or impersonating some other individual in the act (using morphed photos) are required to be removed within 24 hours of receiving the complaint.
- Its access and spread by any other means on the platform should also be disabled.
- Other than this, the privacy policies of the social media platforms must ensure that users are educated about not circulating copyrighted material and anything that can be construed as defamatory, racially or ethnically objectionable, paedophilic, threatening the unity, integrity, defence, security or sovereignty of India or friendly relations with foreign states, or violative of any contemporary law.

### **What changes were proposed in the withdrawn draft?**

- The draft proposed an additional level of oversight, namely, the 'Grievance Appellate Committee', functioning over and above the intermediary's grievance redressal officer.
- Broadly, in case a user is not satisfied with the resolution provided by the intermediary, she/he can appeal against the decision at the appellate rather than going directly to court.
- However, this did not take away the user's right to appeal in any other court.
- The draft stipulated that all orders of this appellate must be complied with.
- The suggested question on 'oversight' stemmed from the fact that the appellate was to be constituted by the Central Govt empowered to appoint the Chairperson and other members.
- Additionally, the draft put forth the obligation that all social media intermediaries resolve all complaints within 72 hours of reporting.
- Intermediaries are known to invest sizeable time in thoroughly scrutinising and determining the content and user accounts they are called to censor.

- What needs to be remembered is that all social media platforms deal with a sizeable user base and an even more massive content flow.
- A sub-clause suggested the appellate dispose such cases within thirty days furthering the probability for hasty decisions.

### **Have there been any legal challenges?**

- Both Bombay and Madras High Courts stayed the imposition of sub-clauses 1 and 3 of Rule 9 of the legislative guidelines in August and September of the previous year, respectively.
  - The two sub-clauses dealt with the 'Code of Ethics' for online publishers dealing with news and current affairs content and/or curated content.
  - The sub-clauses had stated that the entities subscribe to a three-tier mechanism in dealing with grievances (relevant to their platform) so as to adhere to their code.
  - This entails self-regulation by the publishers (level I), by self-regulating bodies of the publishers (level II) and finally, an oversight mechanism by the Central Govt (level III).
- June 6 marked the completion of 25 years since the 1997 Bangkok Declaration launched a modest grouping (of Bangladesh, India, Sri Lanka and Thailand), with the acronym, BIST-EC.
  - Three countries (Nepal, Bhutan and Myanmar) joined it later to make it the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).
  - This unique set of five countries from South Asia and two from Southeast Asia are parents to an institution with an unwieldy name but lofty ambitions.
  - Now in the third decade of the 21st century, the strategic contestation between the United States and China defines the region's geopolitics and geo-economics, creating new tensions and opportunities.
  - The grouping has succeeded in rejuvenating itself. Since its Kathmandu summit in 2018, it is viewed as an instrument of regional cooperation and integration, not just of sub-regional cooperation. It is good going so far, but the challenging tasks begin now.
  - Key achievements BIMSTEC has several achievements to its credit.
  - It has crafted a new Charter for itself, spelling out the grouping's vision,

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### **BIMSTEC**

functions of its constituent parts, and has secured a legal personality.

- It has prioritised the sectors of cooperation, reducing them from the unwieldy 14 to the more manageable seven, with each member-state serving as the lead country for the assigned sector.
- It has, finally, taken measures to strengthen the Secretariat, although some members are yet to extend adequate personnel support to it.
- Above all, its success lies in its survival through the turns and twists of internal tensions.
- The BIMSTEC region witnessed the influx of over a million Rohingyas refugees into Bangladesh, the result of oppression by the Myanmar military;
- The coup in Myanmar that led to its virtual boycott by a large segment of the international community; and the grave political and economic crisis afflicting Sri Lanka. Unlike the South Asian Association for Regional Cooperation, post-2014, BIMSTEC has continued to hold its summits and meetings of Foreign Ministers.
- Unlike the Indian Ocean Rim Association (IORA) which held only one summit since its establishment in 1997, BIMSTEC has succeeded in holding five summits so far; it has

now resolved to hold regular summits once in two years.

- The grouping has also registered progress in combating terrorism, forging security cooperation, and creating mechanisms and practices for the better management of humanitarian assistance and disaster relief.
- A whole basket of memoranda of understanding, agreements and legal instruments provide the foundation for developing functional cooperation in select areas such as agriculture, trade, sustainable development and connectivity.
- Institutions such as an Energy Centre and the Centre on Weather and Climate are in place to push sectoral cooperation forward.

#### **The fault lines**

- A major failure relates to the continuing inability to produce a comprehensive Free Trade Agreement (FTA) 18 years after the signing of the Framework Agreement.
- The other disappointment is connectivity in infrastructure (roads, railways, air, river, and coastal shipping links), energy, the digital and financial domain, and institutions that bring people closer together for trade, tourism and cultural exchanges.

- Only limited progress has been achieved so far, despite the adoption of the Master Plan for Connectivity supported by the Asian Development Bank (ADB).
  - For greater regional connectivity, more financial resources are needed.
  - The movement towards establishing the BIMSTEC Development Fund is minimal.
  - The grouping has talked about the Blue Economy but is yet to begin any work on it
- responsibility: Bangladesh as the host of the BIMSTEC Secretariat;
- Thailand as the representative of Southeast Asia; and India as the largest state in South Asia. This trio must be the engine to pull the BIMSTEC train with imagination and determination.

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#### **And, prospects**

- An objective evaluation may award an A- to BIMSTEC@25, with the remark that it must do better
- An exciting destiny awaits it as it works to realise the vision of the Bay of Bengal Community (BOBC).
- In this Indo-Pacific century, the BOBC has the potential to play a pivotal role, deepening linkages between South Asia and Southeast Asia.
- It should accelerate the region's economic development by collaborating with the newly minted Indo-Pacific Economic Framework for Prosperity (IPEF).
- New synergy should be created between BIMSTEC and the IPEF. Finally, while all member-states are equal, three have a special

## Food safety index

- Tamil Nadu topped the State Food Safety Index (SFSI) this year, followed by Gujarat and Maharashtra.
- Among the smaller States, Goa stood first, followed by Manipur and Sikkim. Among the Union Territories, Jammu and Kashmir, Delhi and Chandigarh secured the first, second and third ranks.
- The SFSI measures the performance of States on the basis of five parameters set by the Health Ministry.
- The rating is done by the Food Safety and Standards Authority of India (FSSAI).

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### GST Council ruling

- In Union of India Anr. Vs Mohit Minerals Pvt. Ltd., the Supreme Court of India on May 19, 2022 while deciding on a petition relating to the levy of Integrated Goods and Services Tax (IGST) on ocean freight paid by the foreign seller to a foreign shipping company, ruled, "The recommendations of the GST Council are not binding on either the Union or the States..."
- The Government of India was of the opinion that the GST Council could function as a super Parliament/Assembly by sending binding recommendations on laws, rules and regulations with reference to the GST to the Union and State governments.
- Article 246A gives powers to the Union and State governments simultaneously to legislate on the GST.
- Article 279A stipulates the creation of the GST Council and its functions.
- The Council has to function as a platform to bring the Union and State governments together, and as a mark of cooperative federalism, the Council shall, unanimously or through a majority of 75% of weighted votes, decide on all matters pertaining to GST and recommend such decisions to the Union and State governments.
- The purpose of GST, as a harmonised commodity tax, is to make India a single market.
- Cooperative federalism is to operate through the GST Council to bring in harmony and alignment in matters pertaining to the GST from both governments.
- Given this background, the Union government had almost delegated the powers to create laws under the

GST Act Section 5(1) to the GST Council through repeated use of the phrase “notification on the recommendation of the (GST) council”.

- Hence, the constitutional validity of the Council’s recommendation should be upheld; generally, the recommendations of the GST Council could be overridden only in exceptional cases,
- The fact that the Union government holds one-third weight for its votes and all States have two thirds of the weight for their votes, gives automatic veto power to the Union government because a resolution can be passed with at least three-fourths of the weighted votes.
- This imbalance in the voting rights between the Union and State governments, makes democratic decision-making difficult.
- Further, though all the States are not equal in terms of tax capacity, everyone has equal weight for their votes.
- This creates another political problem as the smaller States with lesser economic stakes can be easily influenced by interest groups.
- In an atmosphere of a non-cooperative Union and State governments, the fear that the GST Council would break down is not

unfounded; the responsibility lies on all governments equally, contrary to what the weighted votes reflect.

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### **Arguments against China’s bridge construction**

- There are three reasons why India should be particularly concerned about China’s construction activities on Pangong Tso. One, India’s war with China in 1962 revealed its diplomatic miscalculations and inadequacies in defence preparedness.
- China surprised India with an announcement in 1957 that it had built a road through Aksai Chin linking Tibet and Xinjiang.
- India protested this move formally in 1958. There is still trauma in India surrounding that war.
- Two, China does not seem to favour the idea of entering into treaties for resolving territorial disputes and maritime disputes with its neighbours.
- Recently, China began constructing a bridge on a portion of Pangong Tso which India claims is its international boundary and is within its territory.
- A portion of the area has been under Chinese control since 1958.

- The Pangong Tso saw military action between the Indian and Chinese forces in 1962.
- There were confrontations between the forces of the two countries in 2017, and in 2020, violent clashes resulted in casualties.
- Three, what is most worrying is that China does not adhere to the general rules of international law; rather, it tries to derive its claims on the basis of historic rights to the detriment of the rights of its neighbours, as is the case with its claims in the South China Sea.
- Perhaps the best provisions in contemporary international law for understanding territorial questions are Article 2(3) and Article 2(4) of the UN Charter.
- All the members are required under Article 2(4) to refrain in their relations with one another from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the UN.
- All the members have to settle their disputes by peaceful means.
- There are several judgments by the International Court of Justice (ICJ) relating to a state's non-violent construction of activities in disputed and occupied territory to clarify the situation in Pangong Tso.
- In 'Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory', the ICJ examined the inadmissibility of acquisition of territory by force.
- The court took the position that the construction of a wall in the Occupied Palestinian Territory case strongly indicated a breach of Article 2(4)
- the fact that China is constructing a bridge on the lake without using armed force or without using fire or causing injury to humans does not make the activity lawful.

## **THE HINDU**

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### **Bad banks**

- The Finance Minister on Monday announced that the National Asset Reconstruction Company (NARCL) along with the India Debt Resolution Company (IDRCL) will take over the first set of bad loans from banks and try to resolve them.

### **What is a 'bad bank'?**

- A bad bank is a financial entity set up to buy non-performing assets (NPAs), or bad loans, from banks.
- The aim of setting up a bad bank is to help ease the burden on banks by



taking bad loans off their balance sheets and get them to lend again to customers without constraints.

- After the purchase of a bad loan from a bank, the bad bank may later try to restructure and sell the NPA to investors who might be interested in purchasing it.
- A bad bank makes a profit in its operations if it manages to sell the loan at a price higher than what it paid to acquire the loan from a commercial bank.
- However, generating profits is usually not the primary purpose of a bad bank the objective is to ease the burden on banks, of holding a large pile of stressed assets, and to get them to lend more actively.

#### **What are the pros and cons of setting up a bad bank?**

- A supposed advantage in setting up a bad bank, it is argued, is that it can help consolidate all bad loans of banks under a single exclusive entity
- Former RBI governor Raghuram Rajan has been one of the fiercest critics of the idea, arguing that a bad bank backed by the government will merely shift bad assets from the hands of public sector banks, which are owned by the government, to the hands of a bad bank, which is again owned by the government.

#### **Will a 'bad bank' help ease the bad loan crisis?**

- Unlike private banks, which are owned by individuals who have strong financial incentives to manage them well, public sector banks are managed by bureaucrats who may often not have the same commitment to ensuring these lenders' profitability.
- To that extent, bailing out banks through a bad bank does not really address the root problem of the bad loan crisis.
- There is a huge risk of moral hazard. Commercial banks that are bailed out by a bad bank are likely to have little reason to mend their ways
- , a bad bank, in reality, could help improve bank lending not by shoring up bank reserves but by improving banks' capital buffers.
- To the extent that a new bad bank set up by the government can improve banks' capital buffers by freeing up capital, it could help banks feel more confident to start lending again.

#### **THE HINDU**

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#### **Air sports policy**

- For the first time in India, air sports such as paragliding or hot-air ballooning will come under a four-

tier governance structure with the Air Sports Federation of India (ASFI) as the apex body which will oversee aspects such as regulation, certification, accidents and penalties.

- The air sports industry in the country was today worth ₹80-100 crore, with nearly 5,000 providers, which could grow 10 times in terms of revenue and yield 1 lakh direct jobs apart from a multiplier impact on the economy.
- The Air sports policy lays down a four tier governance structure with the ASFI at the top, followed by national associations for individual sports and their regional and district-level units.
- The ASFI will be an autonomous body under the Ministry of Civil Aviation (MoCA) which will represent India at global platforms related to air sports such as the World Air Sports Federation and will also conduct competitions across the country through different national air sports associations.
- The ASFI will provide governance over different aspects such as regulation, certification, competitions, awards and penalties, and will publish its draft guidelines within a period of six months.
- It will be chaired by the Secretary, MoCA, who will nominate up to

three eminent experts related to air sports as members of the ASFI governing council.

- Sports that will come within its ambit are aeromodelling, model rocketry, amateur-built and experimental aircraft, ballooning, drones, gliding, powered gliding, parachuting, paramotoring, powered aircraft and rotorcraft.
- The government will also look at various incentives to encourage the sport such as reducing GST on air sports equipment from 18%-28% to 5% or less.

## THE HINDU

### IR in News

- Britain- No confidence motion
- Russia claims partial control of Severodonetsk

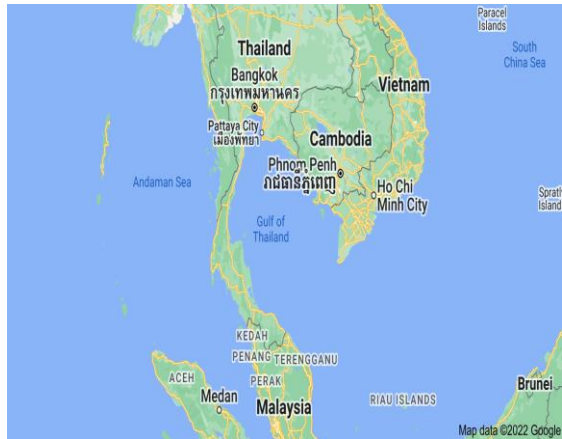


Source: UK MoD / Institute for the Study of War (21:00 GMT, 5 June)

BBC

- China, Cambodia to begin port project
- The Gulf of Thailand, also known as the Gulf of Siam, is a shallow inlet in the southwestern South China Sea,

bounded between the southwestern shores of the Indochinese Peninsula and the northern half of the Malay Peninsula.



## THE HINDU

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GES  
REPORTER

### Monetary policy

- The rate setting panel has followed up with a further 50 basis points increase in the policy repo rate.
- Simultaneously, the MPC has made it clear it no longer intends to 'remain accommodative'.
- It will instead stay focused on the withdrawal of the pandemic-triggered accommodation as it races to tame retail inflation and anchor it within the 2%-6% target band.
- In acknowledgment of the herculean task it faces, the MPC now projects retail inflation to average 6.7% over the entire fiscal year ending in March.
- The headline CPI-based inflation is now seen stuck above the RBI's upper tolerance limit
- The MPC has listed a slew of factors clouding the inflation outlook: the war in Ukraine and the consequent elevated commodity prices, the heat wave stunting rabi crop output, high edible oil prices, crude prices that continue to pose a pass-through risk to domestic pump prices of fuels, increases in electricity tariffs, and, crucially, manufacturing and services firms flagging input and output price pressures.
- That inflation looms large over every other aspect of the outlook for the

economy worldwide is also evident from the MPC's pointed reference to 'growing stagflation concerns' that are amplifying the volatility in global financial markets.

- While the RBI has made brave to retain its April forecast for GDP growth in the current fiscal at 7.2%, citing an ongoing recovery including in contact-intensive services and an expected boost to rural consumption from rain-spurred kharif sowing and output, a 37% 'below normal' start to the southwest monsoon serves as an early cautionary augury.
- And it is precisely the "headwinds from accelerating inflation" and the resultant 'erosion of purchasing power of consumers.

**THE HINDU**

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### Food safety index

- Food safety and consumer empowerment are areas in need of constant attention in India, where enforcement is often lax.
- But in this, Tamil Nadu deserves credit for finishing at the top among 17 large States for food safety; it was ranked third in the previous edition of the State Food Safety Index.
- That Tamil Nadu, with 82 marks, is ahead of Gujarat by 4.5 marks and

Maharashtra by 12 marks, highlights its creditable showing.

- Developed by the Food Safety and Standards Authority of India (FSSAI), the Food Safety Index evaluates States and Union Territories on these parameters, apart from their size: human resources and institutional data; compliance; food testing infrastructure and surveillance; training and capacity building, and consumer empowerment.
- Tamil Nadu has improved its standing in 'human resources and institutional data', and 'training and capacity building'.
- There has been incremental progress in 'compliance' (which measures overall coverage of food businesses in licensing and registration), and 'food testing' (which scrutinises availability of adequate testing infrastructure with trained manpower in the States/Union Territories for testing food samples)
- Kerala, which came second last time, is now at sixth spot; Karnataka has retained its ninth position; Telangana slipped from 10 to 15 and Andhra Pradesh dropped to the last slot from the penultimate slot in the previous edition when 20 States were covered, unlike the 17 now.
- Among Union Territories, Puducherry rose from seventh to sixth spot.
- But in an area such as food safety, States alone cannot make a big difference without the support of the Central government.
- Liberal assistance should be provided to the States and Union Territories as far as laboratory infrastructure and improvement of manpower, both technical and non-technical, are concerned.
- The private sector should come forward in a big way to have staff trained at their cost and where such persons are used productively for the purpose.
- There are inspiring accounts of the participation of some information technology majors in getting surplus food distributed to the needy, of course with the help of non-governmental organisations, and this should serve as a lesson to those who are still hesitant to make their contribution.

**THE HINDU**

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### **IPEF and indo pacific**

- It is no secret that the Indo-Pacific region has been under pressure and East Asia, in particular, has had to weather repeated storms. South

Korea and Japan face regular nuclear and missile threats from North Korea.

- China not only challenges international maritime laws in the South China Sea, but also confronts Japan over the Senkaku Islands.
- Six nations, including China and Taiwan, are involved in the dispute over the Spratly Islands, which are supposedly sitting on vast reserves of oil and natural gas.
- China has vigorously militarised some portions of the disputed isles, islets and coral reefs; and countries like Vietnam and the Philippines are anxious not to be left behind.
- Indo-Pacific Economic Framework (IPEF) with Australia, Brunei, India, Indonesia, Japan, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Vietnam. The IPEF will work on fine tuning four major pillars: standards and rules for digital trade; resilient supply chains; green energy commitments; and fair trade.
- But first indications are that while the IPEF may be a good idea, there is discontent that the framework does not address issues of trade and tariffs.
- There are two facets to the Asia Pacific/Indo-Pacific that any

administration in Washington must pay attention to.

- One is that China's neighbours would rather balance relations between Washington and Beijing.
- On the other hand is the extent to which countries in the region will want to get on the anti-China bandwagon, economic or strategic.
- Whether it is in East, Southeast or South Asia, every country has its own unique relationship with Beijing.
- South Korea and Japan are part of a strong American security/strategic partnership but will be keen on maintaining their economic status with China.

**THE HINDU**

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### **War and food crisis**

- Russia's invasion of Ukraine and the subsequent sanctions on its economy have sent global food prices soaring, threatening to push millions of people, especially those in low-income countries, into starvation.
- Ukraine and its allies in the West have accused Russia of Weaponising food, saying that its blockade of Ukraine's Black Sea ports is the primary reason for the rising prices, while Moscow has blamed Western sanctions for the crisis.

### **How serious is the food crisis?**

- Many countries were facing growing food insecurity even before Russia's war. Climate shocks, conflicts and the COVID-19 pandemic had disrupted supply chains, pumping up prices of both commodities and crops.
- The war in Ukraine has aggravated this situation.

### **How important are Russia and Ukraine for global food security?**

- Russia and Ukraine together account for more than a quarter of the world's wheat supplies.
- Russia's share in the global exports of wheat, the world's most widely grown crop, is some 20%, while Ukraine accounts for 8%, according to the U.S. Food and Drug Administration's Foreign Agricultural Service (FAS).
- Wheat is a staple food for at least 35% of the world's population, as per the estimates of the UN Food and Agriculture Organization (FAO).
- About 50 countries depend on Russia and Ukraine for more than 30% of their wheat imports, according to the FAO.
- If Azerbaijan and Georgia source more than 80% of their imported wheat from Russia and Ukraine, Turkey, Egypt, Bangladesh and

Lebanon meet over 60% of their imports from these two countries.

- Furthermore, Ukraine, which produces up to 46% of sunflower-seed and safflower oil is the world's largest exporter of sunflower oil.
- So, the war and the sanctions have clearly hit the world's bread basket region, adding pressure on food prices.

### **What is causing the crisis?**

- Before the Russian invasion of Ukraine started, Ukraine had the capacity to export up to six million tonnes of wheat, barley and maize a month, mainly through its ports in the Black Sea/Sea of Azov.
- In the eight months before the war, some 51 million tonnes of grain were exported through Ukraine's Black Sea ports, according to the WFP.
- But exports have collapsed since the invasion as the Russian war effort is entirely focused on Ukraine's eastern and southern parts along the Black Sea/Sea of Azov coast.
- Now, several Ukrainian port cities, including Mariupol, Kherson and Berdyansk, are under Russian control.
- Although the southern cities of Mykolaiv and Odessa, which is known as the 'Pearl of the Black Sea', are still with the Ukrainians,

commercial ships cannot dock at these ports because of two reasons Ukraine has mined the waters around these ports as a deterrent against potential Russian attacks and Russia has enforced a naval blockade in the waters of the Black Sea.

- Besides the blockade, the western sanctions on Russia are also contributing to the crisis.
- Russia, besides being the world's top wheat exporter, is also a leading exporter of fertilizer, an essential commodity for food production.
- Russia and its ally Belarus together account for some 38% of potassic fertilizers, 17% of compound fertilizers, and 15% of nitrogenous fertilizers. Fertilizer prices are also on the rise, which would make food production costlier.

### **Is there a way out?**

- Russia has suggested that it would resume exports (not sure whether Ukrainian or Russian grains) from the ports on the Sea of Azov that it controls (Mariupol and Berdyansk) and that it would open a corridor for commercial vessels in the Black Sea if Ukraine demines the ports it controls (mainly Odessa and Mykolaiv).
- But these proposals, which were discussed in Ankara on Wednesday,

could be implemented only as part of a deal between Moscow and Kyiv, with blessings from the West as Russia seeks sanctions relief in return for opening the maritime corridor.

### **THE HINDU**

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### **Indian secularism**

- Constitutional secularism is marked by two features. First, critical respect for all religions. The second feature is that the Indian state should abandon strict separation but keep a principled distance from all religions.
- Party-political secularism, however, is a nefarious doctrine practised by all political parties, including by so-called 'secular forces'.
- This secularism has dispelled all values from the core idea and replaced them with opportunism.
- It upholds opportunistic alliance with religious communities, particularly for the sake of immediate electoral benefit.
- For the moment, the state-driven political project of secularism and its legal constitutional form appear to have taken a hit.
- But this 'setback' can be turned into an opportunity to revitalise the social project of secularism.



- A peaceful and democratic secularism from below provides a vantage point from which to carry out a much-needed internal critique and reform of our own respective religions, to enable their compatibility with constitutional values of equality, liberty and justice.

**THE HINDU**

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### **India and Vietnam logistic agreement**

- India and Vietnam on Wednesday signed a Memorandum of Understanding (MoU) on mutual logistics support during the ongoing visit of Defence Minister Rajnath Singh to the Southeast Asian nation.
- “The Defence Ministers signed the ‘Joint Vision Statement on India-Vietnam Defence Partnership towards 2030’, which will significantly enhance the scope and scale of existing defence cooperation.
- This is a major step towards simplifying procedures for mutually beneficial logistic support and is the first such major agreement which Vietnam has signed with any country,”
- “Our close defence and security cooperation is an important factor of

stability in the Indo-Pacific region,” Mr. Singh added.

- India has signed several logistics agreements including with all Quad countries, France, Singapore and South Korea beginning with the Logistics Exchange Memorandum of Agreement with the U.S. in 2016.
- Logistics agreements are administrative arrangements facilitating access to military facilities for exchange of fuel and provisions on mutual agreement simplifying logistical support and increasing operational turnaround of the military when operating away from India.
- India and Vietnam on Wednesday signed a Memorandum of Understanding (MoU) on mutual logistics support during the ongoing visit of Defence Minister Rajnath Singh to the Southeast Asian nation.

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## India rhino vision 2022

- The one-horned rhinos of western Assam's Manas National Park, bordering Bhutan, are expected to have high life expectancy and significant growth in population, the 14th Assam rhino estimation census has revealed.
- Manas, a UNESCO World Heritage Site and a tiger reserve, had about 100 resident rhinos prior to 1990, but a prolonged ethno-political conflict thereafter took a heavy toll with extremist groups known to have traded the horns of the herbivores for weapons.
- A rhino reintroduction programme under the Indian Rhino Vision 2020 was started in 2006.
- This entailed the translocation of rhinos from Kaziranga National Park and Pobitora Wildlife Sanctuary besides orphans hand-reared at the Centre for Wildlife Rehabilitation and Conservation at Kaziranga.
- The Indian Rhino Vision 2020
- The Indian Rhino Vision 2020 (IRV2020) program has come to a close with the recent translocation of two rhinos to Manas National Park in Assam.
- Launched in 2005, Indian Rhino Vision 2020 was an ambitious effort to attain a wild population of at least

3,000 greater one-horned rhinos spread over seven protected areas in the Indian state of Assam by the year 2020.

- Seven protected areas are Kaziranga, Pobitora, Orang National Park, Manas National Park, Laokhowa wildlife sanctuary, Burachapori wildlife sanctuary and Dibru Saikhowa wildlife sanctuary
- It is a collaborative effort between various organisations, including the International Rhino Foundation, Assam's Forest Department, Bodoland Territorial Council, World Wide Fund - India, and the US Fish and Wildlife Service.

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### Indus water treaty

- The Indus Waters Treaty (IWT) is an established water-distribution treaty between India and Pakistan to use water in the Indus and its tributaries
- Indus Waters Treaty was signed in Karachi on September 19, 1960, by then Indian Prime Minister Jawaharlal Nehru and then Pakistani President Ayub Khan, negotiated by the World Bank.
- The treaty establishes a cooperative mechanism for exchanging information between the two

countries regarding the use of the western rivers (Indus, Jhelum, and Chenab) allocated to Pakistan and the eastern rivers (Ravi, Beas, Sutlej) allocated to India.

- The Permanent Indus Commission, which has a commissioner from each country, oversees the cooperative mechanism and ensures that the two countries meet annually (alternately in India and Pakistan) to discuss myriad issues emerging from the treaty.

### **Some differences**

There have been many occasions during which differences between the two countries were discernible.

- For instance, both countries held different positions when Pakistan raised objections regarding the technical design features of the Kishanganga (330 megawatts) and Ratle (850 megawatts) hydroelectric power plants located on the tributaries of the Jhelum and the Chenab, respectively, designated as “Western Rivers”.
- However, under Articles III and VII of the treaty, India is permitted to construct hydroelectric power facilities on these rivers (subject to constraints specified in Annexures to the Treaty).
- Differences were also discernible when Pakistan approached the World Bank to facilitate the setting up of a court of arbitration to address the concerns related to these two projects referred to in Article IX Clause 5 of the treaty, and when India requested the appointment of a Neutral Expert referent to Clause 2.1 of Article IX on the settlement of differences and dispute of the treaty, respective.
- Eventually, on March 31, 2022, the World Bank, in view of the differences, decided to resume two separate processes by appointing a neutral expert and a chairman for the court of arbitration.
- However, the two parties have not been able to find an acceptable solution
- Similarly, Pakistan, invoking Article VII Clause 2 on future cooperation, raised objections on the construction and technical designs of the Pakal Dul and Lower Kalnai hydropower plants located on Marusudar River, a tributary of the Chenab, in Kishtwar district of Jammu and Kashmir.
- The 117th and the 118th meetings of the Permanent Indus Commission held this year deliberated this issue.
- India has raised concerns on issues such as Pakistan’s blockade of the

Fazilka drain, which resulted in water contamination in the border areas, referent to Article II Clause 3 and Article IV Clause 4 and 6 of the treaty.

- During the 117th bilateral meeting in March, Pakistan assured India of all possible actions to ensure the free flow of the Fazilka drain into the Sutlej.

### **Lessons from the treaty**

- The treaty is an illustration of a long-standing engagement between the conflicting nations that has stood the vagaries of time.
- It has withstood tensions, including conflict, providing a framework for cooperation.
- The treaty, therefore, is considered one of the oldest and the most effective examples of water management cooperation in the region and the world.
- The 118th bilateral meeting corroborates its effectiveness.
- With the exception of differences on a few pending issues, both countries have avoided any actions resulting in the aggravation of the conflict or acted in a manner causing conflict to resurface

### **Potential for cooperation**

- The treaty can serve as an edifice to address the challenges of climate change.
- Recognising common interests and mutual benefits, India and Pakistan can undertake joint research on the rivers to study the impact of climate change for ‘future cooperation’ (underlined in Article VII).
- The Indus Waters Treaty also offers great potential for cooperation and development in the subcontinent which can go a long way in ensuring peace and stability.

### **THE HINDU**

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#### **Indian patent regime**

- The story so far: The U.S. Trade Representative (USTR) said in a report released last month that India was one of the most challenging major economies as far as IP protection and enforcement is concerned. It has decided to retain India on its Priority Watch List along with six other countries Argentina, Chile, China, Indonesia, Russia and Venezuela.

#### **The Indian patent regime**

- A patent is an exclusive set of rights granted for an invention, which may

be a product or process that provides a new way of doing something or offers a new technical solution to a problem.

- Indian patents are governed by the Indian Patent Act of 1970. India has gradually aligned itself with international regimes pertaining to intellectual property rights.
- It became a party to the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement following its membership to the World Trade Organisation on January 1, 1995.
- India is also a signatory to several IPR related conventions, including the Berne Convention, which governs copyright, the Budapest Treaty, the Paris Convention for the Protection of Industrial Property, and the Patent Cooperation Treaty (PCT), all of which govern various patent-related matters.
- An interesting point is that the original Indian Patents Act did not grant patent protection to pharmaceutical products to ensure that medicines were available at a low price.
- Patent protection of pharmaceuticals were re-introduced after the 2005 amendment to comply with TRIPS.
- Last month, the U.S. released its yearly Special 301 report, its annual review highlighting the state of intellectual property rights protection in different countries which are its trading partners around the world.
- Article 3(d) of the Indian Patent Act
- Section 3 deals with what does not qualify as an invention under the Act, and Section 3(d) in particular excludes “the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant” from being eligible for protection under patent law.
- This was addressed by the Parliamentary Standing Committee as well, which pointed out that the section “acts as a safeguard against frivolous inventions in accordance with the flexibility provided in the TRIPS agreement.”
- Section 3(d), as mentioned above, prevents the mere discovery of any new property or new use for a known substance from being

patented as an invention unless it enhances the efficacy of the substance repetitive.

- This prevents, what is known as “ever greening” of patents. According to the Committee’s report, Section 3(d) allows for “generic competition by patenting only novel and genuine inventions.
- TRIPS and the Doha Declaration
- The Doha Declaration on the TRIPS Agreement and Public Health was adopted on November 14, 2001, by the WTO member states.
- This declaration recognises the “gravity of public health problems affecting developing and least developed nations” and stresses the need for TRIPS to be part of the wider national and international action to address these problems.
- It recognises that “intellectual property protection is important for the development of new medicines,” and acknowledges concerns about its effects on prices.
- Saying that the TRIPS agreement “does not and should not prevent members from taking measures to protect public health,” the declaration points out that the agreement “can and should be interpreted and implemented in a manner supportive of WTO members’ right to protect public

health and, in particular, to promote access to medicines for all.”

- Compulsory licences can be invoked by a state in public interest, allowing companies apart from the patent owner to produce a patented product without consent.
- It concluded that India must not compromise on the patentability criteria under Section 3(d) since as a sovereign country it has the “flexibility to stipulate limitations on grants of patents in consistence with its prevailing socio-economic conditions.”
- It said that this ensures the growth of generic drug makers and the public’s access to affordable medicines.
- It indicated that India should resolve its differences with the U.S. regarding the disqualification of incremental inventions through bilateral dialogue.

#### **Positive steps**

- The report highlighted some positive steps taken by India in the recent past, such as the accession to the World Intellectual Property Organisation (WIPO) Performances and Phonograms Treaty and WIPO Copyright Treaty, collectively known as the WIPO Internet Treaties, in 2018 and the Nice Agreement in 2019.

- The Parliamentary Standing Committee too noted amendments pertaining to Form 27, under the Patents (Amendment) Rules, 2020.
- Some notable changes include allowing a single Form 27 to be filed for multiple related patents, filing of joint forms if there are more patentees and allowing authorised agents to submit forms.
- History of disputes Greece and Turkey are NATO allies, but the neighbouring countries have a history of disputes over a range of issues, including mineral exploration in the eastern Mediterranean and rival claims in the Aegean Sea.
- Greece maintains Turkey has deliberately misinterpreted the treaties and says it has legal grounds to defend itself following hostile actions by Ankara, including a threat of war if Greece extended its territorial waters.

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### **Aegean Sea (IR in News)**

- Turkish President Recep Tayyip Erdogan on Thursday warned Greece to demilitarise islands in the Aegean Sea

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- Turkey says Greece has been building a military presence in violation of treaties that guarantee the unarmed status of the Aegean islands.
- It argues the islands were ceded to Greece on the condition they remained demilitarized.



## President election process

### Who elects President?

- A President is elected by the members of an electoral college consisting of elected members of Lok Sabha and Rajya Sabha, elected members of the Legislative Assemblies of the states including Delhi and Puducherry (both UT).
- The members nominated to either House of Parliament or the Legislative Assemblies are not eligible to be included in the Electoral College.
- In terms of numbers, the Electoral College is made up of 543 members of Lok Sabha, 233 members of Rajya Sabha and 4,033 members of Legislative Assemblies - a total of 4,809 electors, according to the Election Commission of India data.

### Electoral College formula

- The value of the vote of every MP (Lok Sabha and Rajya Sabha) is fixed at 700, the ECI said. Among states, the value of the vote of MLAs differs because of the strength of the Legislative Assembly and the population in the respective states.
- In order to stipulate uniformity in the scale of representation of different states in the election process, a formula based on the population of each state is used to determine the

value of the vote of the members who are eligible to vote.

- Therefore, the value of the vote of an MLA from Uttar Pradesh would be 208 which also happens to be the highest among all states. Accordingly, the total value of votes of the Uttar Pradesh Legislative Assembly would be 83,824 (208 x 403).

$$1) \text{ Value of the vote of an MLA} = \frac{\text{Total population of State}}{\text{Total number of elected members of state legislative assembly}} \times \frac{1}{100}$$

$$2) \text{ Value of the vote of an MP} = \frac{\text{Total value of votes of all MLAs all states}}{\text{Total number of elected MPs}}$$

$$3) \text{ Electoral quota} = \frac{\text{Total number of valid votes polled}}{2+1} + 1$$

- For the Lok Sabha and Rajya Sabha MPs, the total value of votes of all states and UTs is divided by the total number of MPs (elected) to get the value of votes per MP.
- The total value of votes of all states and UTs is 5,43,231
- Therefore, the total value of the votes of MPs would be 5, 43,200 (700 x 776).
- Accordingly, the total value of the electoral college, comprising 4,809 electors would be 10, 86,431 (5,43,200 + 5,43,231).
- The winning candidate has to get at least 50 per cent plus one vote to be declared elected.

### **Understanding the manner of voting**

- The presidential election follows the system of proportional representation by means of a single transferable vote.
  - The ballot paper does not contain any election symbol. There are two columns on the ballot paper. The first column contains the name of the candidates.
  - The second column contains the order of preference.
  - The member of the Electoral College casts his/her vote by placing figure 1 in the space next to the name of the contestant.
  - The voter, if he/she wishes, can mark as many subsequent preferences on the ballot paper by placing the figures 2, 3, 4 and so on next to the name of the contestants.
  - No ballot paper is considered invalid solely on the ground that all such preferences are not marked by the Electoral College member.
- increases, its value also goes up (it is termed appreciation).
  - And if the demand for a currency declines, its value also goes down (depreciation).
  - The demand for Indian currency goes up when more and more foreign investors make investments in India.
  - That is because when foreign investors or companies invest in India or buy any products from India, they first convert their currency into rupees as they can invest only in rupees in Indian markets.
  - As a result, demand for the Indian currency increases, and its value strengthens against the US dollar and other currencies.
  - On the other hand, when Indian individuals and companies import something (like crude oil, gold, etc.), they have to make the payment in dollars (the de facto global currency).
  - So Indians sell rupees to buy dollars because the US dollar is the currency to make payments for international trades.
  - Consequently, demand for the dollar goes up, and the rupee weakens against the US currency.
  - Since India has been a net importer (we import more than we export), the rupee has gradually depreciated over time.

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#### **Depreciation of rupees**

- **Reasons for Depreciation in Indian Rupee**
- The value of Indian currency or any other currency depends on its demand. If demand for any currency

- Overseas Investors Are Exiting Indian Markets
- Rise In Dollar Buying Due To Jump In Oil Prices.

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### **TVS-2 M fuel**

- Rosatom State Corporation of Russia has supplied the first batches of more reliable and cost-efficient nuclear fuel over the existing one, the TVS-2M nuclear fuel, to India for the Units 1 and 2 of Kudankulam Nuclear Power Plant (KNPP), the company. Once the new TVS-2 M fuel is used in the next refuelling, the reactor will start operations with an 18-month fuel cycle.
- It means the reactor, which has to be stopped for every 12 months for removing the spent fuel and inserting the fresh fuel bundles and allied maintenance, will have to be stopped for every 18 months.
- Compared to the UTVS fuel model, which was supplied to Kudankulam NPP previously, TVS-2M fuel assemblies have a number of advantages making them more reliable and cost-efficient.
- First, it is the rigidity of a bundle: because of the welded frame, the fuel assemblies in the reactor core retain their geometry, the spacer grids protect fuel rod cladding from fretting wear (preventing from

depressurization), and the additional spacer grid makes fuel assemblies more vibration-resistant.

- Secondly, the new fuel has increased uranium capacity - one TVS-2M assembly contains 7.6% more fuel material as compared to UTVS. Besides, the special feature of the Kudankulam fuel in particular is the new generation anti-debris filter ADF-2, efficiently protecting fuel assemblies.
- Operation in longer fuel cycles also enhances economic efficiency of a plant, as reactors have to undergo stoppage and refuelling less frequently, so the power units produce more electricity.
- Besides, the power plant needs to purchase less fresh fuel, and as the result, has to deal with smaller amounts of spent nuclear fuel, which also requires expenses.

## **THE HINDU**

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### **War and diamond industry**

- "Russian rough diamonds are generally smaller, making up 40 per cent of India's diamond trade by volume and about 30 per cent in value.
- The war with Ukraine has now affected this 18 billion dollar trade.
- The Russian diamond supplier, Alrosa is responsible for about 30% of the rough diamond sales

internationally and is one of the main sources of diamonds in India as the country has a majority of market share in the world's rough diamond markets (India polishes and cuts (imports) 90% of rough diamonds)

- The United States is the biggest importer of India's polished diamonds and sanctions that were imposed with the intention to really bite the Russian economy consequently will also hit the Indian diamond industry.
- The diamond industry of Surat, which accounts for 85% of the world's cut and polished diamonds, has almost halted its operations anticipating supply interruptions and hikes in the overall diamond prices.
- India predominantly imports its rough diamonds from the Russian mining giant, Alrosa (a large global diamond mining company) so the aggressive Slavic war is likely to make it harder for the Surat diamond industry to obtain rough diamonds.
- In spite of that, India is presumably getting ready for a rupee-ruble trade agreement, hoping this would smoothen the transactional part with India and Alrosa.

**THE HINDU**

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## James web telescope

- The James Webb Space Telescope has been hit by a micrometeoroid. NASA says the strike to one of the telescope's primary mirror segments will not affect its performance.
- The space telescope was engineered to withstand micrometeoroid impacts, although the micrometeoroid strike was larger than scientists had modelled
- The James Webb Space Telescope (JWST)
- The James Webb Space Telescope (JWST) is a space telescope designed primarily to conduct infrared astronomy.
- The most powerful telescope ever launched into space, its greatly improved infrared resolution and sensitivity will allow it to view objects too old, distant, or faint for the Hubble Space Telescope.
- This is expected to enable a broad range of investigations across the fields of astronomy and cosmology, such as observations of first stars and the formation of the first galaxies, and detailed atmospheric characterization of potentially habitable exoplanets.
- JWST was launched in December 2021 on a European Space Agency (ESA) Ariane 5 rocket from Kourou,

French Guiana, and as of June 2022 is undergoing testing and alignment.

- Once operational, expected about the end of June 2022, JWST is intended to succeed the Hubble as NASA's flagship mission in astrophysics.

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## THE HINDU

### Tonga Volcano

- Researchers are starting to piece together why the Hunga Tonga–Hunga Ha'apai eruption in the South Pacific on January 15 was so explosive.
- Evidence gathered by two groups suggests that when the Tongan volcano's centre collapsed, it spewed an enormous amount of magma that reacted violently with water.
- Hunga Tonga–Hunga Ha'apai is 65 km (40 mi) north of Tongatapu, the country's main island, and is part of the highly active Tonga–Kermadec Islands volcanic arc, a subduction zone extending from New Zealand north-northeast to Fiji.
- Hunga Tonga–Hunga Ha'apai, a submarine volcano in the Tongan archipelago in the southern Pacific Ocean.

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## THE HINDU

## Micro plastic in Antarctica

- Scientists have found micro plastics plastic pieces smaller than a grain of rice in freshly fallen Antarctic snow for the first time, which they said has the potential to influence the climate by accelerating melting of ice.
- The findings, published recently in The Cryosphere journal, brought to light a serious threat to the Antarctic region.

### About The Ross Ice Shelf

- The Ross Ice Shelf is the largest ice shelf of Antarctica
- It is several hundred metres thick. The nearly vertical ice front to the open sea is more than 600 kilometres (370 mi) long, and between 15 and 50 metres (50 and 160 ft) high above the water surface.
- Ninety percent of the floating ice, however, is below the water surface.
- Most of Ross Ice Shelf is in the Ross Dependency claimed by New Zealand. It floats in, and covers, a large southern portion of the Ross Sea and the entire Roosevelt Island located in the east of the Ross Sea.
- The ice shelf is named after Sir James Clark Ross, who discovered it on 28 January 1841. It was originally called "The Barrier",

## THE HINDU

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### Quantum tunnelling

- Using the phenomenon of quantum tunnelling, IIT Bombay researchers have demonstrated, for the first time, a spiking neuron network that is highly compact and shows potential for brain-scale implementation
- In second generation, artificial neural networks, neurons represent their state in eight-bit precision.
- This does not mimic biological systems. Instead in a spiking neural network, the next step, the neuron's output state is "spike" (equivalent to a "one") or "no spike" (equivalent to a "zero").
- This has a binary representation and is closer to the natural workings of neurons in the brain.

### Quantum tunnelling

- Quantum tunnelling, also known as tunnelling is a quantum mechanical phenomenon whereby a wave function can propagate through a potential barrier.
- The transmission through the barrier can be finite and depends exponentially on the barrier height and barrier width.

## Illustration

- Imagine releasing a quantum mechanical particle, like an electron or proton, into a space on one side of a potential energy hill. Since you're sure that the particle can't escape it's not energetic enough to climb over the hill you leave it to its own devices.
- But when you go back to check on it, the particle is gone. You find it happily sitting on the other side of the hill, having sneaked straight through it. Tunnelling particles can simply pass through energy barriers they don't have the energy to surmount.
- Semiconductors, transistors and diodes wouldn't work without it.
- Tunnelling is the reason the sun shines.
- Most stars fuse protons into helium nuclei, expelling enormous amounts of energy in the process. The problem is that, while our sun is hot, it's not hot enough to give the sun's protons enough energy to overcome their mutual electrostatic repulsion. But the tiny tunnelling probability 1 in 10<sup>28</sup> – means that some particles still make it through their repulsive barrier.
- Since the sun has vast amounts of hydrogen, this tiny probability translates in 10<sup>38</sup> fusion events per

second producing enough light and heat to make life on Earth possible.

## THE HINDU

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### FATF

#### What is the FATF?

- The Financial Action Task Force is an international watchdog for financial crimes such as money laundering and terror financing.
- It was established at the G7 Summit of 1989 in Paris to address loopholes in the global financial system after member countries raised concerns about growing money laundering activities.
- In the aftermath of the 9/11 terror attack on the U.S., FATF also added terror financing as a main focus area.
- This was later broadened to include restricting the funding of weapons of mass destruction.
- The FATF currently has 39 members.
- The decision-making body of the FATF, known as its plenary, meets thrice a year. Its meetings are attended by 206 countries of the global network, including members, and observer organisations, such as the World Bank, some offices of the United Nations, and regional development banks.
- The FATF sets standards or recommendations for countries to

achieve in order to plug the holes in their financial systems and make them less vulnerable to illegal financial activities.

- It conducts regular peer-reviewed evaluations called Mutual Evaluations (ME) of countries to check their performance on standards prescribed by it.
- The reviews are carried out by FATF and FATF-Style Regional Bodies (FSRBs), which then release Mutual Evaluation Reports (MERs).
- For the countries that don't perform well on certain standards, time-bound action plans are drawn up.
- Recommendations for countries range from assessing risks of crimes to setting up legislative, investigative and judicial mechanisms to pursue cases of money laundering and terror funding.

### **What are FATF's 'grey' and 'black' lists?**

- While the words 'grey' and 'black' list do not exist in the official FATF lexicon, they designate countries that need to work on complying with FATF directives and those who are non-compliant, respectively.
- At the end of every plenary meeting, FATF comes out with two lists of countries.

- The grey countries are designated as "jurisdictions under increased monitoring", working with the FATF to counter criminal financial activities.
- For such countries, the watchdog does not tell other members to carry out due-diligence measures vis-a-vis the listed country but does tell them to consider the risks such countries possess.
- Currently, 23 countries including Pakistan are on the grey list.
- As for the black list, it means countries designated as 'high-risk jurisdictions subject to call for action'.
- In this case, the countries have considerable deficiencies in their AML/CFT (anti-money laundering and counter terrorist financing) regimens and the body calls on members and non-members to apply enhanced due diligence.
- In the most serious cases, members are told to apply counter-measures such as sanctions on the listed countries.
- Currently, North Korea and Iran are on the black list. Being listed under the FATF's lists makes it hard for countries to get aid from organisations like the International Monetary Fund (IMF), Asian



Development Bank (ADB), and the European Union.

- It may also affect capital inflows, foreign direct investments, and portfolio flows.

## **THE HINDU**

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### **OIC**

#### **What is the OIC?**

- The OIC claims to be the “collective voice of the Muslim world”. It was established at a 1969 summit in Rabat (Morocco) after what it describes as the ‘criminal arson’ of Al-Aqsa Mosque in the disputed city of Jerusalem.
- The OIC endeavours to establish solidarity among member states, support restoration of complete sovereignty and territorial integrity of any member state under occupation; protect, defend and combat defamation of Islam, prevent growing dissension in Muslim societies and work to ensure that member states take a united stand at the UN General Assembly, Human Rights Council and other international fora.
- The OIC has consultative and cooperative relations with the UN and other inter-governmental organisations to protect the interest

of Muslims, and settle conflicts and disputes involving member states, among them being the territorial conflict between Armenia and Azerbaijan and the status of Jammu & Kashmir.

- Presently based in Jeddah, the organisation plans to permanently move its headquarters to East Jerusalem once the disputed city is ‘liberated.’

#### **How does the OIC function?**

- The Islamic Summit, composed of Kings and heads of state, is the supreme authority of the organisation.
- Convening every two years, it deliberates, takes policy decisions, provides guidance on issues relevant to the organisation and considers issues of concern to the member states.
- The Council of Foreign Ministers is the chief decision-making body and meets annually to decide on how to implement the OIC’s general policies. In addition, this council also appoints, for a period of five years, the Secretary General, who is the chief administrative officer of the grouping.
- The Secretary General follows up on implementation of the decisions, directs attention to competent

organs' specific issues of concern, creates a channel for coordination among the varied organs and submits annual reports on the work undertaken.

- UN members with a Muslim majority can join the organisation. The membership is to be ratified with full consensus at the OIC's Council of Foreign Ministers.
- The OIC is financed by the member states proportionate to their national incomes.

#### **What has been the nature of India's relationship with the OIC?**

- India's association with the 57-nation grouping has not been easy. Even though the country has good relations with the United Arab Emirates (UAE) and Saudi Arabia, its membership and engagement has been constantly challenged by Pakistan.
- In 1969, Islamabad's opposition to Indian participation at the first OIC Plenary resulted in the Indian delegation being turned back from the venue at the last minute.
- **What have been the criticisms against the OIC grouping?**
- Brookings Institution analyst Turan Kayaoglu wrote in 2020 that the OIC had become a premise for 'window

dressing', more interested in the rights of Muslim minorities in places such as Palestine or Myanmar than the human rights violations of its member states.

- The author noted that the body lacks power and resources to investigate human rights violations or enforce its decisions through signed treaties and declarations.
- Experts have also pointed to the fact that the organisation is largely restricted to arbitrating in conflicts where both parties are Muslims.
- This is because the organisation is centred around Quranic values, which, it believes, makes it a qualified arbitrator.

#### **THE HINDU**

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#### **Egg in egg phenomena**

- A team of researchers from the University of Delhi has discovered a unique set of fossilised dinosaur eggs, with one egg nesting within the other. While eggs-within-eggs are a rare phenomenon, they are so far known to occur only in birds and never known in reptiles.
- This discovery brings out newer connections between reptilian and avian evolution.

- The findings, published in the journal Scientific Reports, talk about the “egg-in egg” phenomenon in a titanosaurid dinosaur egg found at Bagh in Madhya Pradesh’s Dhar district.
- Dinosaurs of the Sauropod family were among the largest land animals that ever lived and widespread millions of years ago in the territory that is now India.
- Fossils of these animals have been found in Gujarat, Madhya Pradesh and Meghalaya.

**THE HINDU**

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GES  
REPORTER

## **New guidelines for remission**

- As part of the Azadi Ka Amrit Mahotsav celebrations, the special remission would be granted to a certain category of prisoners, and they would be released in three phases August 15, 2022, January 26, 2023 and August 15, 2023.
- The prisoners who would qualify for premature release under the scheme are women and transgender convicts of ages 50 and above and male convicts of 60 and above who have completed 50% of their total sentence period without counting the period of general remission earned.
- Convicts with disabilities Among others eligible for remission are physically challenged or disabled convicts with 70% disability and more who have completed 50% of their total sentence period, terminally ill convicts, Convicted prisoners who have completed two thirds (66%) of their total sentence and poor or indigent prisoners who have completed their sentence but are still in jail due to non-payment of fine imposed on them by waiving off the fine.
- The Ministry said that persons who committed an offence at a young age (18-21) and with no other criminal involvement or case against them and who have completed 50% of their sentence period would also be eligible for the remission.
- The age of the convicts should be determined on the basis of the matriculation or birth certificate.
- Persons convicted with death sentence or where death sentence has been commuted to life imprisonment or persons convicted for an offence for which punishment of death has been specified as one of the punishments would not be eligible for the grant of special remission.
- Persons convicted with sentence of life imprisonment, convicts involved in terrorist activities or persons convicted under the Terrorist and Disruptive (Prevention) Act, 1985, Prevention of Terrorist Act, 2002, Unlawful Activities (Prevention) Act, 1967, Explosives Act, 1908, National Security Act, 1982, Official Secrets Act, 1923, and Anti-Hijacking Act, 2016, would not be eligible.
- The States and the Union Territories were told to constitute a State-level screening committee comprising the Home Secretary, Law Secretary, Director or Inspector General of Prisons to examine the cases of eligible persons.

## Food fortification

- Centre had started the second phase of distribution of fortified rice from April 1.
- A total of 90 districts have been covered, and the Centre is targeting 291 districts, he added.
- The scheme, started in October 2021, aims to supply fortified rice to beneficiaries of the Integrated Child Development Services (ICDS) and the Pradhan Mantri Poshan Shakti Nirman, or PM-POSHAN, scheme.
- The health risks involved in the consumption of fortified rice, which has added nutrients, and the warnings experts had given to the Centre against such a scheme,
- Although the benefits far outweighed the harmful effects.
- What is food fortification?
- Fortification is the practice of deliberately increasing the content of one or more micronutrients (i.e., vitamins and minerals) in a food or condiment to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health.
- As well as increasing the nutritional content of staple foods, the addition of micronutrients can help to restore the micronutrient content lost during processing.
- Fortification is an evidence-informed intervention that contributes to the prevention, reduction and control of micronutrient deficiencies.
- It can be used to correct a demonstrated micronutrient deficiency in the general population (mass or large-scale fortification) or in specific population groups (targeted fortification) such as children, pregnant women and the beneficiaries of social protection programmes.
- When the vitamins and minerals are not added to the foods during the processing but just before consumption at home or at schools or child-care facilities, it is called point-of-use fortification.
- **Demolition drive and international law**
- The right to housing is not only a fundamental right recognised under Article 21 of the Indian Constitution, it is also a well-documented right under the international human rights law framework, which is binding on India.
- International law also prohibits arbitrary interference in an individual's right to property.
- For instance, Article 12 of the Universal Declaration of Human Rights states that "no one shall be

subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation”.

- . For instance, Article 25 of the Universal Declaration of Human Rights (UDHR) states that “everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care...”.
- Likewise, Article 11.1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) recognises “the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions”
- The above identified international human rights law has been judicially incorporated by the Supreme Court of India into the Indian legal system.
- **Right to repair**
- The U.S. state of New York recently passed the Fair Repair Act, which requires manufacturers to supply repair information, tools, and parts to independent repair shops and not just their own stores or partners.
- This provides consumers with the right to repair and refurbish their purchased goods
- . With access to relevant tools and repair manuals, independent repair shops will finally be able to compete with manufacturers.
- While this is a victory for consumer rights, privacy, security and quality concerns along with blatant intellectual property (IP) rights violations of the manufacturers cannot be side-lined.
- Manufacturers claim that the quality and functioning of the product might be adversely affected if they allow repairs by consumers and third parties
- Additionally, manufacturers can sign a non-disclosure agreement to protect the IP with the certified repairers/businesses.
- Customers with access to genuine parts may also approach independent repair providers who may not offer the original manufacturer’s warranty but their own warranty.
- Manufacturers reduce the durability of the product, compelling consumers to either repurchase the product or get it repaired at exorbitant prices affixed by the manufacturers.

- Specifically, this tramples upon the right to obtain information about the quality of the product, the right to procure products at reasonable prices, and the right to seek redress against unscrupulous practices.
- When read closely, the 'right to repair' can be said to be implicit in Section 2(9) of the Consumer Protection Act, 2019.
- This warrants some relief. Its apparent disregard merits an explicit insertion of a 'right to repair' clause in the said provision.
- The New York legislation is a reminder that it is time to not only acknowledge the right to repair of consumers but also respond to the corresponding rights of the manufacturers.
- This warrants some expedited policy changes to recognise the 'right to repair', be it through amendments in the Consumer Protection Act, 2019 or through a separate law.
- **Global food crisis**
- The crisis can emerge in the form of food shortages, trade disruptions, a rise and spread in hunger and poverty levels, a depletion of foreign exchange reserves for net food importing countries, a strain on a nation's fiscal resources due to an increase in spending on food safety nets, a threat to peace, and even social unrest in some places.
- Recent spike in food prices which has been triggered by supply disruptions due to COVID-19 and further aggravated by the Russia-Ukraine war.
- Some other important factors that have also contributed to a rise in food prices and the build-up of price shocks can be discerned from the trade patterns and composition of the usage of food commodities.
- The current food price spike first began in vegetable oils and then expanded to cereals.
- The trade patterns of these commodities show that around 38% of the vegetable oil produced and consumed is globally traded.
- In the case of wheat, dependence on trade to meet global demand forms 25%, while only one tenth of rice output or consumption is traded.
- Trade dependence for maize is 16%.
- It is evident then that the effect of global trade disruption will be higher for commodities that are traded more and vice-versa.
- The proportion of vegetable oil used for biodiesel increased from 1% in 2003 to 11% in 2011; it went up to more than 15% in 2021. This is further related to energy prices.

- When crude prices increase beyond a certain level it becomes economical to use oilseeds and grains for biodiesel and ethanol, respectively.
- The second reason for the use of food crops for biofuel is the mandates to increase the share of renewable energy resources.
- Food prices are also expected to go up in the current and next harvest season because of an increase in the prices of fertilizer and other agrochemicals.
- Implications for India Export and import in the agriculture sector constituted 13% of gross value added in agriculture during 2020-21.
- Therefore, some transmission of an increase in global prices on domestic prices is inevitable. (Transmission of international prices to domestic prices can be prevented only if there is no trade.)
- This transmission of global prices to the domestic market can be moderated through trade policy and other instruments.
- This is precisely what India has been doing to balance the interests of producers and consumers and in protecting the economy against excessive volatility in international prices.
- Wheat export restrictions
- The recent ban on wheat exports and restrictions on the export of other food commodities by India need to be seen in the light of an abnormal situation created by spikes in international prices.
- Some experts see it as a setback to India's image as a reliable exporter as this move is seen to disrupt (regular) export channels.
- **Global impact**
  - The Green Revolution technology which spread in developing countries from the 1970s to the 1990s helped in keeping food prices low and relatively stable.
  - As the steam of Green Revolution technology slowed down with the start of the 21st century, food prices began increasing in real terms.
  - The world requires new breakthroughs such as Green Revolution technology, for large-scale adoption in order to enable checks on food prices rising at a faster rate.
  - This in turn requires increased spending on agriculture research and development (especially by the



public sector and multilateral development agencies).

- There is a need to strengthen and rejuvenate the global agri-research system under the Consultative Group on International Agricultural Research (CGIAR) which is heading towards disarray.
- Biofuel protocols have contributed to the global food crisis for the second time in the last 15 years.
- Diversion of land under food crops and food output for biofuel should be carefully calibrated with implications for food availability.

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### **Agneepath scheme**

- 'Agni path' scheme for recruitment of youth in the armed forces for four years.
- The process of recruitment will commence in 90 days with a planned intake of 46,000 young men and women this year.
- This will be the only form of recruitment of soldiers into the three defence services from now.
- The scheme was aimed at strengthening national security and for providing an opportunity to the youth to serve in the armed forces.
- Recruits under the scheme will be known as 'Agni veers'.
- After completing the four-year service, they can apply for regular employment in the armed forces.
- They may be given priority over others for various jobs in other government departments.
- The move is expected to decrease the average age profile of armed forces personnel from the current 32 to 24-26 years over a period of time,
- Enrolment to all three services will be through a centralised online system, with special rallies and campus interviews at recognised technical institutes
- The 'Agniveers' will receive an annual package of ₹4.76 lakh in the first year to ₹6.92 lakh in the fourth year, apart from risk and hardship and other allowances as applicable.
- Under the 'Seva Nidhi' package, they will receive about ₹11.71 lakh, including contribution and interest, on completion of service.
- The recruits will have to contribute 30% of their monthly emoluments to Seva Nidhi, with a matching contribution made by the government.
- There will be no entitlement to gratuity and pension benefits under the scheme.
- However, the 'Agniveers' will be provided a non-contributory life insurance cover of ₹48 lakh during their service.

### **THE HINDU**

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#### **Lamda**

- LaMDA, Google's modern conversational agent is enabled with a neural network capable of deep learning.
- LaMDA is Google's answer to the quest for developing a non-goal directed chatbot that dialogues on various subjects.
- Such advanced software could revolutionise customer interaction and help AI-enabled internet search.

### **What is a neural network?**

- A neural network is an AI tech that attempts to mimic the web of neurons in the brain to learn and behave like humans.
- Early efforts in building neural networks targeted image recognition.
- The artificial neural network (ANN) needs to be trained like a dog before being commanded.
- For example, during the image recognition training, thousands of specific cat images are broken down to pixels and fed into the ANN.

### **What is LaMDA?**

- LaMDA is short for 'Language Model for Dialogue Applications', Google's modern conversational agent enabled with a neural network capable of deep learning.
- Instead of images of cats and dogs, the algorithm is trained using 1.56 trillion words of public dialogue data and web text on diverse topics.
- The neural network built on Google's open-source neural network, Transformer, extracted more than 137 billion parameters from this massive database of language data

### **How is LaMDA different from other chatbots?**

- Chatbots like 'Ask Disha' of the Indian Railway Catering and Tourism Corporation Limited (IRCTC) are routinely used for customer engagement.
- The repertoire of topics and chat responses is narrow.
- The dialogue is predefined and often goal-directed.
- LaMDA is Google's answer to the quest for developing a non-goal directed chatbot that dialogues on various subjects.
- The chatbot would respond the way a family might when they chat over the dinner table; topics meandering from the taste of the food to price rise to bemoaning war in Ukraine.
- Inspired by the mathematician Alan Turing's answer to the question 'Can a machine think?' AI tech today aims to satisfy the Turing test to qualify as 'intelligent'.
- Turing was the designer and builder of the world's first computer, ENIGMA, which was used to break the German codes during the Second World War.
- To test if a machine 'thinks', Turing devised a practical solution. Place a

computer in a closed room and a human in another.

- If an interrogator interacting with the machine and the human cannot discriminate between them, then Turing said that the computer should be construed as 'intelligent'.

### **Is the technology dangerous?**

- The challenges of AI metamorphosing into sentient are far in the future; however, unethical AI perpetuating historical bias and echoing hate speech are the real dangers to watch for.
- Imagine an AI software trained with past data to select the most suitable candidates from applicants for a supervisory role.
- Women and marginalised communities hardly would have held such positions in the past, not because they were unqualified, but because they were discriminated against.
- While we imagine the machine to have no bias, AI software learning from historical data could inadvertently perpetuate discrimination.

### **THE HINDU**

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### **Child marriage**

- Specifically, studies associate early marriage of women with early pregnancy, lower likelihood of accessing ante-natal care, higher risks of maternal morbidity and mortality, poor nutritional status of women and poor nutritional and educational outcomes of children.
- But a closer reading of the evidence shows that the association between child marriage and adverse health outcomes does not emerge in a vacuum.
- Rather, it is abetted by structural factors, including social norms, poverty, and women's education.
- It is because of social norms in many regions and cultures that parents begin preparations for a girl's marriage once she has reached menarche.
- Equally, a large proportion of child marriages take place primarily because of poverty and the burden of the huge costs of dowry associated with delayed marriages
- These factors curtail a girl's opportunities to continue her education.
- And in turn, the lack of educational opportunities plays an important role in facilitating child marriage.
- NFHS-5 data show that about 25% of women aged 18-29 years married

before the legal marriageable age of 18.

- The proportion has declined only marginally from NFHS-4 (28%). Expectedly, the prevalence is higher in rural than urban India (28% and 17%, respectively).
- West Bengal has the highest prevalence (42%), followed by Bihar and Tripura (40% each).
- If we look at the data communitywide, 39% of child marriages in India take place among Adivasis and Dalits
- Only 4% of child marriages in India take place among women who have completed more than 12 years of education.
- Since the Prohibition of Child Marriage (Amendment) Bill, 2021, fixes 21 years as the marriageable age for women, we examine whether a mere increase in age at marriage without an increase in education bestows women with better nutritional outcomes.
- While 27% of illiterate women who married before 18 years are underweight (Body Mass Index below 18.5), the proportion is 24% for illiterate women who married at the age of 21 years.
- A high proportion (64%) of illiterate women are anaemic, in terms of iron deficiency, irrespective of their difference in age at marriage.
- In terms of the gap between marriage and first pregnancy, it is surprisingly 2.5 years among the former and 1.6 years among the latter.
- Women with 12 years of schooling married before 18 years and at 21 years have hardly any difference in underweight prevalence (14% and 13%, respectively).
- In iron deficiency anaemia, the prevalence is only marginally higher (54%) among the former than the latter (50%).
- The gap between marriage and first pregnancy is higher among the former (2.6 years) than among the latter (1.7 years), though the latter have fewer number of children (1 child on average) than the former (1.6).
- Increasing the age of marriage without a commensurate improvement in women's education is least likely to yield better health and nutritional outcomes
- Educating women is important for their personal freedom, social wellbeing and contributes to human development.
- A legalistic approach to increasing the age at marriage will produce positive results only if it leads to an

improvement in women's education and skill acquisition for employability.

## **THE HINDU**

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### **C FACTOR**

- Given that cyber is often touted as the Fifth Dimension of warfare, it may be worthwhile to examine whether this indeed is the first major conflict in which 'cyber' is playing a crucial role, allowing a weaker nation with cyber capabilities to use it to its advantage.
- Cyberspace is a man-made domain, it had become critical to military operations on land, sea, air and in space.
- A former U.S. Secretary of Defence a few years ago,, even talked of a possible 'cyber Pearl Harbour to paralyze nations and create a profound sense of vulnerability'
- Both sides now possess and use malware such as data-wipers which have proved highly effective.
- On the day the Russian invasion of Ukraine began, Russian cyber units are believed to have successfully deployed destructive malware against several Ukrainian military targets.
- The Ukrainian Satellite Internet Provider, for instance, was the target

of one such cyberattack, leading to widespread communications outages.

- A series of distributed denial-of-service (DDoS) attacks against Ukrainian banking and defence websites occurred simultaneously.
- In addition, Wiper malware was introduced into several Ukraine Government networks, while the websites of the Ukrainian Defence Ministry and military targets faced a series of DDoS and phishing attacks.
- 'Cyber Space is not a war zone', and that it is fundamentally a civilian space but without doubt leading to a 'new exciting age in human experience, exploration and development'.
- Thus, it would seem that for all its potential to disrupt civilian targets such as power grids, hospitals, banks and industries, cyber-power is yet to achieve its so-called threat potential in terms of decisive impacts in battlefield situations.

## **THE HINDU**

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### **Broadband India forum**

- The much-awaited 5G spectrum auction will bring significant advancements for the industry and consumers, according to market watchers
- The auction and steps outlined for bidding would open up newer avenues for deeper penetration, access and rich user experience.

### **Broadband India Forum (BIF)**

- Broadband India Forum (BIF) was formed with the sole purpose of promoting, supporting and enhancing all policy, regulatory and standards initiatives for the proliferation of high-quality broadband in the country in a technology-neutral and all-inclusive manner, to empower consumers with efficient and economical broadband to realize the true Digital India.
- In the short span of time since our formation in 2015, BIF has emerged as a recognised, independent, knowledge-based think-tank, in the digital communications ecosystem in the country.
- Our views, inputs, suggestions and recommendations having been acknowledged, considered and appreciated by various stakeholders

the government, regulator, relevant ministries/departments, standards agencies, academic institutions, important industry bodies and credible forums.

- We represent over 50 reputed organisations in this diverse sector in a non-partisan manner with all our members having an equal say and weightage in the Forum.
- Our membership base has been steadily growing over the years, with inclusion of some of the premier IITs and academic institutions of the country, as well as Government entities of repute and importance, besides industry participants, thus attesting to our efforts in the best possible manner.
- While we work closely with the Government the policy makers, regulator, decision makers and implementers for proliferation of the broadband ecosystem in the country, we are also strong proponents of the values of liberalisation, and free and fair competition in the industry.
- This is to encourage and foster a healthy, competitive, transparent and potent business environment which would eventually benefit the customers through offerings and delivery of efficient and affordable services.

### Trade deficit

- India's merchandise exports in May rose by 20.6% to \$38.94 billion, while the trade deficit ballooned to a record \$24.29 billion, government data released on Wednesday show.
- Imports surged 62.8% to \$63.22 billion. The trade deficit stood at \$6.53 billion in the same month last year.
- The mild sequential dip in non-oil exports amid a sharp jump in gold imports widened India's merchandise trade deficit to \$24 billion in May.
- Oil imports double Petroleum and crude oil imports more than doubled to \$19.2 billion. Coal, coke and briquettes imports jumped to \$5.4 billion, from \$2 billion.
- Gold imports increased to \$6 billion, from \$677 million in May 2021. Engineering goods exports increased by 12.7% to \$9.7 billion, while petroleum products exports grew by 60.9% to \$8.54 billion.
- Gems and jewellery exports stood at \$3.22 billion compared with \$2.96 billion in May 2021.
- Exports of chemicals rose 17.4% to \$2.5 billion in May.
- Similarly, shipments of pharma and ready-made garments of all textiles grew by 10.3% and 27.9% to \$2

billion and \$1.41 billion, respectively.

- Export sectors that recorded negative growth in May included iron ore, cashew, handicrafts, plastics, carpet and spices.

### THE HINDU

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#### Nuclear disarmament

- The Stockholm International Peace Research Institute (SIPRI) released its yearbook a few days back highlighting some trends of the past year in international security. Russia leads the charge in absolute numbers of nuclear inventory.
- India is the top weapons importer during the 2017-2021 period. Other countries to feature in the top five arms importers list include Saudi Arabia, Egypt, China, and Australia.
- According to SIPRI, these five nation states account for 38% of total global arms import.
- Recent geopolitical events transpiring around the world in practically all regions have made the global security climate more unstable.
- Military modernisation is seen to be a global trend.
- All nuclear weapon owning states have, over the years, stated and worked upon their intention to



modernise multiple facets of their armed forces.

### **What are the key developments/concerns flagged by the yearbook?**

- The yearbook mentions low level border clashes between India and Pakistan, the civil war in Afghanistan, and the armed conflict in Myanmar as some of the worrying indicators of an unstable system.
- It also highlighted three cause of concern trends: Chinese-American rivalry, involvement of state and non-state actors in multiple conflicts, and the challenge that climatic and weather hazards pose. It is important to note here that the threat posed by climate change seems to feature in the report only nominally.
- The marginal downsizing observed in the nuclear arsenal has come mostly from the U.S. and Russia dismantling retired warheads.
- But the Russian invasion of Ukraine has raised some serious eyebrows because of the continuous rhetoric from the Kremlin over them not shying away from the use of nuclear weapons.
- China's recent activities surrounding construction of 300 new nuclear

missile silos have also been turning head.

## **THE HINDU**

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### **Northern Ireland protocol**

#### **The story so far:**

- The Boris Johnson administration has come up with a new legislation, the Northern Ireland Protocol Bill, which would enable the U.K. to override provisions of the Brexit deal that concern trading arrangements in Northern Ireland the Northern Ireland Protocol (NIP).
- The European Union (EU) has said that the proposed law violates international law and has threatened to take legal action against the U.K. if it goes ahead with the legislation.

#### **What exactly is the NIP?**

- Northern Ireland is the only part of the U.K. that shares a land border with the EU, as the Republic of Ireland (or Ireland) is an EU member-state. As long as the U.K. was part of the EU, things were fine.
- But with Brexit, the U.K. exited the EU's customs union. This created a problem whose solution needed two seemingly contradictory outcomes: preserving the sanctity of the EU's

single market, as well as that of the U.K.'s domestic market.

- The NIP's solution was to avoid a customs check at the actual customs border on the island of Ireland, between Northern Ireland and the Republic of Ireland as this would have violated the 1998 Good Friday Agreement and risked instability in a region with a volatile past.
- It instead shifted the customs border to that between Northern Ireland and Britain, effectively at the former's ports.
- As per the NIP, goods flowing into Northern Ireland would be checked at this 'sea border' before entering the island, and Northern Ireland would continue to follow EU rules in product standard.
- The main irritant for the U.K. in the current version of the NIP was the creation of "unacceptable barriers" to trade within the U.K. internal market between Great Britain and Northern Ireland.
- It has sparked complaints from businesses about the enormous paperwork needed for supply of goods and services to Northern Ireland despite it being within the sovereign territory of the U.K.
- Also, the Unionists of Northern Ireland (the section loyal to the U.K.) are unhappy with the NIP, and resent

having to put up with a provision that effectively puts them at one remove from the U.K., when compared with citizens in other parts of the U.K. Northern Ireland's main unionist party is, in fact, blocking the formation of a new power-sharing government in Belfast, saying it won't take part until the NIP rules are scrapped.

### **How does the proposed Bill undermine the NIP?**

- Instead of subjecting all goods moving between Britain and Northern Ireland to customs checks, the new Bills proposes two categories of goods and checks: goods meant only for Northern Ireland would go in a 'green lane' and will be exempt from any checks, while goods headed for Ireland and the EU would go into a 'red lane' where they will be subjected to all the checks and customs controls.
- Secondly, the Bill would remove EU oversight on state subsidies and value-added taxes in Northern Ireland.
- Third, the Bill proposes settlement of trade disputes and the enforcement of the NIP by an independent body rather than the European Court of Justice.

- Lastly, the Bill wants to give businesses the choice of selling their goods in Northern Ireland either according to the U.K. rules or the EU rules, in effect, proposing a dual regulatory regime instead of the single (EU) one as per the NIP.

## **THE HINDU**

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### **South India-sri lanka subcontinent**

- The sub-regional context during his second term as Prime Minister, Mr. Wickremesinghe while delivering a lecture in Chennai, in August 2003, called for the development of the south India-Sri Lanka sub-region as a single market that would provide more opportunities for the economic growth of both countries.
- In 2016, addressing the South Asian Diaspora Convention in Singapore, he highlighted the fact that the five Indian southern States, with a total population of 250 million, had a combined gross state domestic product of nearly \$450 billion; with the addition of Sri Lanka's \$80 billion GDP, the sub-region would have a \$500 billion economy, having an aggregate population of around 270 million.
- In the Southeast Asian country, he had even referred to the tri-nation economic convergence, encompassing Singapore too
- India, as part of its 'Neighbourhood First' policy, has extended support to the people of Sri Lanka in the form of aid (close to \$3.5 billion) to help secure Sri Lanka's food, health and energy security by supplying it essential items such as food, medicines, fuel and kerosene.
- There is enormous scope for collaboration between the two countries in the area of infrastructure development.
- The economic crisis has revived talk of linking Sri Lanka's electricity grid with that of India.
- If this project takes off, the first point of interconnectivity on the Indian side will most likely be in Tamil Nadu. India has cross-border energy trade with Bangladesh, Nepal, Bhutan and Myanmar.
- India's interests would also be served by developing the east coast of Sri Lanka, especially the Trincomalee-Batticaloa belt, whose potential for tourism, commerce, trade and industry is well known.
- At an appropriate time, regular movement of people and goods should be allowed again on the traditional sea routes of Thoothukudi-Colombo and Rameshwaram-Talaimannar.

- The apprehension in the minds of sections of the Sinhalese majority about India being a threat can be dispelled only by facilitating greater people-to-people interaction, including pilgrimages by monks and other sections of Sri Lankan society to places of Buddhist importance not only in north India but also in the south (Andhra Pradesh).

### **THE HINDU**

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GES  
REPORTER

## USA on India opinion on Russia

- The U.S. is playing a “long game” in the context of its relationship with India and not trying to coerce India into joining its sanctions against Moscow
- The U.S., was being “direct” with India about its perspective on the Russia situation and how it “would encourage” India, in time, to change its own perspective.
- . India has not signed up to these sanctions nor voted along with the vast majority of countries at the UN, in votes that censured Russia.
- “But they’re a sovereign, democratic nation, they will make their own decisions and we’re not here to lecture them or to insist on a certain outcome or else,
- The U.S was “investing” in the relationship with India, he said, and not going to judge it by one issue, even if that issue was “consequential”.
- “Rather that we’re going to judge over the fullness of time, as we try to work to convergence on the major strategic questions facing our two countries.”
- On one of the strategic questions, China, the U.S. and India had much more convergence but on the question of Russia, “obviously” the two countries had different historical perspectives and “different muscle memories”
- Stagflation India’s economy is better placed than many other countries to avoid the risk of potential stagflation, Reserve Bank of India officials headed by Deputy Governor Michael D. Patra wrote in an article
- “Global economic conditions continued to deteriorate as ratcheting up of commodity prices and financial market volatility have led to heightened uncertainty,
- It is increasingly becoming clear that in advanced economies, the war against inflation would entail significant monetary tightening, complicating the growth-inflation outlook,”
- “Emerging market economies grapple with the global trade slowdown, capital outflows and imported inflation.
- Some abatement of supply chain pressures and relaxation in lockdown measures by key industrial hubs have emerged as silver linings amidst the dark clouds looming over the global economy,” they observed.
- India’s economy, however, was better placed to skirt a potential stagflation given that most constituents of GDP had surpassed pre-pandemic levels, domestic

economic activity was gaining strength.

## **THE HINDU**

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### **Credit card and UPI**

- The story so far: The Reserve Bank of India (RBI) has proposed to allow linking of credit cards with the Unified Payments Interface (UPI) platform. The move is part of the central bank's efforts to enhance the scope of UPI.

#### **What explains the effort to link credit cards with UPI?**

- The UPI has, over time, become a popular mode of payment in India with more than 26 crore unique users and five crore merchants on the platform.
- In May 2022, about 594 crore transactions amounting to ₹10.4 lakh crore were processed through the interface.
- At present, the UPI facilitates transactions by linking savings/current accounts through users' debit cards.
- It is now proposed to allow linking of credit cards on the UPI platform.
- This is intended to provide additional convenience to users and enhance the scope of digital payments.

#### **Why do authorities expect this move to spur the use of credit cards?**

- It is expected to bolster transactions and acceptance at more merchant sites.
- The story so far: The Reserve Bank of India (RBI) has proposed to allow linking of credit cards with the Unified Payments Interface (UPI) platform. The move is part of the central bank's efforts to enhance the scope of UPI who generally prefer to pay by credit card so as to avail of a longer pay-back period or loans on credit-card outstanding, or who do not wish to touch their savings at the moment of purchase, can pay using credit cards via UPI.
- Currently, many merchants do not have credit card point-of-sale (PoS) terminals especially in semi-urban and rural areas but a significant number do have the QR code-based UPI acceptance facility.
- Now, they too will be able to accept credit payments via UPI without needing a PoS device.
- Linking of credit cards with UPI is likely to increase the use of such cards in small-ticket-size payments, as it would provide users with more options to pay from.

- The move will provide a significant boost to overall spending via credit cards.
- Many people use credit cards for rewards and benefits and UPI for its convenience & security.
- The new provision of linking credit cards to UPI brings both these advantages together.

### **What is merchant discount rate?**

- MDR is the cost paid by a merchant to a bank for accepting payment from their customers via digital means. The merchant discount rate is expressed in percentage of the transaction amount.
- Presently, it is applicable for online transactions and QR-based transactions.

## **THE HINDU**

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### **Cryptocurrency crash**

#### **Why are cryptocurrencies crashing?**

- It may not be possible to pinpoint the exact reasons why investors are fleeing cryptocurrencies at the moment.
- Most analysts believe that the fall in the price of cryptocurrencies is in line with the fall in prices of stocks and other assets as central banks such as the U.S. Federal Reserve

tighten monetary policy to fight price rise.

- As central banks withdraw liquidity from the market, there's less money chasing assets, which in turn causes the prices of assets to drop.
- Others believe that the crash could also mark the popping of the bubble that has driven the prices of cryptocurrencies to stratospheric levels.
- Sceptics have long argued that the price of cryptocurrencies seems driven more by speculative fervour fuelled by easy monetary policy than by any fundamental factors.
- For instance, the extreme volatility in the price of cryptocurrencies was seen by many as a feature that ruled out the use of cryptocurrencies as money
- The use of cryptocurrencies for real-life transactions was low.
- So, in essence, there was very little reason to believe that the rally in cryptocurrencies was driven by their wider acceptability as an alternative to fiat currencies.

#### **How do governments view cryptocurrencies?**

- Some sceptics have also argued that even though private cryptocurrencies can rise to the status of alternatives to fiat

currencies over time, governments and central banks may not allow this to happen.

- Many countries have taken several steps to discourage the widespread use of cryptocurrencies.
- While countries such as China and Russia have opted to impose outright bans on cryptocurrencies, others such as India have tried to tax and regulate them heavily.
- In India, while the government has not imposed an outright ban on cryptocurrencies, the Reserve Bank of India has been quite vocal about the need to ban them completely.
- It is no surprise that central banks are wary of private cryptocurrencies since they challenge the monopoly that central banks currently enjoy over the money supply of an economy.
- If cryptocurrencies became widely acceptable, it would affect the control that central banks possess over the economy's money supply.
- Barely six weeks after raising the policy rate by half a percentage point and underscoring the likelihood of "additional 50-basis-point increases" at the next couple of meetings.
- The overarching message, he asserted, was that the Fed recognised the 'hardship high inflation was causing' and had the resolve to restore price stability with singular focus.
- Acknowledging that inflation had 'surprised to the upside' since the Federal Open Market Committee (FOMC) had last met in May, he said the committee agreed that the larger increase was required to anchor inflation expectations.
- Even as it realises that it has very little control over supply side factors, including Russia's invasion of Ukraine and COVID-related lockdowns in China, the U.S. central bank said it was determined to continue raising interest rates till it saw 'compelling evidence' that inflation was slowing towards its 2% goal.
- The Fed recognises that the tighter financial conditions have tempered demand, even as it posits that real GDP growth has rebounded on strong consumption spending.
- Mr. Powell, who had in May underlined that the Fed would not

## **THE HINDU**

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### **Fed Reserve rate hike**

- The U.S. Federal Reserve on Wednesday implemented its steepest interest rate increase in more than 27 years as it fights to rein in runaway inflation.



hesitate to move policy to 'restrictive' levels if needed,

- For India, the Fed's actions are likely to result in an acceleration in the recent exodus of foreign portfolio investments, spur more gains for the dollar against the rupee thus widening the trade deficit, and also fuel faster inflation as imported goods, including crude oil, become costlier.

**THE HINDU**

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GES  
REPORTER

## **E-Payments for Everyone, Everywhere, Every time' (4Es)**

- The Reserve Bank of India has come out with “Payments Vision 2025” with a core theme of ‘E-Payments for Everyone, Everywhere, Every time’ (4Es) with an objective to provide every user with safe, secure, fast, convenient, accessible and affordable e-payment options.
- “It promises to further elevate India’s payment systems towards a realm of empowering users with affordable payment options accessible anytime and anywhere with convenience,”
- “Considering the current geopolitical developments across the world, the document also seeks to address the potential risks arising out of any adverse situation that may arise,”
- “With the change/shift in customer behaviour towards embracing digital and touchless modes of payments, there is a spike of 50% in mobile banking users, indicating inclusion of first-time users into the digital fold.
- “The challenge is to make this an irreversible shift.

**THE HINDU**

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## **CAPEX**

- Capital expenditures (CAPEX) are major purchases a company makes that are designed to be used over the long term.
- Operating expenses (OPEX) are the day-to-day expenses a company incurs to keep its business operational.
- Capital expenditures (CAPEX) are a company's major, long-term expenses while operating expenses (OPEX) are a company's day-to-day expenses.
- Examples of CAPEX include physical assets, such as buildings, equipment, machinery, and vehicles.
- Examples of OPEX include employee salaries, rent, utilities, property taxes, and cost of goods sold (COGS).
- Capital expenditures cannot be deducted from income for tax purposes while operating expenses can be deducted from taxes.

**THE HINDU**

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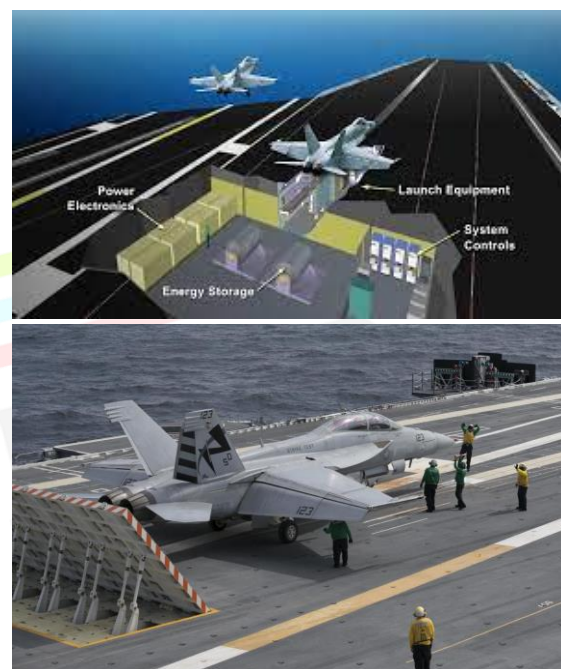
## **Fujian - electromagnetic catapult**

- China on Friday launched its biggest and most modern aircraft carrier, marking a major military advance for the Asian superpower.

- The announcement comes at a time of heightened tensions between China and the United States over Beijing's sabre-rattling towards Taiwan
- China's carrier development programme is part of a massive overhaul of the People's Liberation Army
- The new carrier, named Fujian, is the "first catapult aircraft carrier wholly designed and built by China"
- It has significantly more advanced technology than China's two other carriers, including electromagnetic catapults to launch aircraft off its deck
- The other carriers use a ski-jump-style ramp for take-offs.
- "The conventional flight deck with (electromagnetic catapults) will at least in theory allow the carrier to launch aircraft faster and with heavier payloads which constitute key deciding factors during battle,
- Electromagnetic catapult
- An electromagnetic catapult is a type of aircraft launching system. Currently, only the United States and China have successfully developed it, and it is installed on the USS Gerald R. Ford and the Chinese aircraft carrier Fujian.
- The system launches carrier-based aircraft by means of a catapult

employing a linear induction motor rather than the conventional steam piston.

- The advantage of the electromagnetic catapult is that it is safer and more reliable because the acceleration process is more uniform and less damaging to the structure of the aircraft compared to the steam catapult.



- Its main advantage is that it accelerates aircraft more smoothly, putting less stress on their airframes.
- Compared to steam catapults, the EMALS also weighs less, is expected to cost less and require less maintenance, and can launch both heavier and lighter aircraft than a steam piston-driven system.
- As the 21st century dawns, steam catapults are running out of steam. Massive systems that require

significant manpower to operate and maintain, they are reaching the limits of their abilities, especially as aircraft continue to gain weight.

- Electromagnetic catapults will require less manpower to operate and improve reliability; they should also lengthen aircraft service life by being gentler on airframes.
- The amount of steam needed to launch an airplane depends on the craft's weight, and once a launch has begun, adjustments cannot be made:
- If too much steam is used, the nose wheel landing gear, which attaches to the catapult, can be ripped off the aircraft. If too little steam is used, the aircraft won't reach take-off speed and will tumble into the water.
- The launch control system for electromagnetic catapults, on the other hand, will know what speed an aircraft should have at any point during the launch sequence, and can make adjustments during the process to ensure that an aircraft will be within 3 mph of the desired take-off speed.

#### **THE HINDU**

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### **UN report on disaster**

- Nearly five million people in India were internally displaced due to climate change and disasters in 2021, the United Nations has said in a report.
- The annual Global Trends Report by the UN Refugee Agency (UNHCR) highlighted that globally 100 million people were forced to flee their homes last year due to violence, human rights abuses, food insecurity, the climate crisis, war in Ukraine and other emergencies from Africa to Afghanistan.
- "The largest displacements in the context of disasters in 2021 occurred in China (6.0 million), the Philippines (5.7 million) and India (4.9 million),"
- The majority of the internally displaced persons returned to their home areas, but 5.9 million people worldwide remained displaced.

#### **THE HINDU**

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### **Nutrition scheme**

- Under the "Mukhyamantri Matrushakti Yojana", pregnant and lactating mothers will be given 2 kg of chickpeas, 1 kg of tur dal and 1 kg of edible oil free of cost every month from anganwadi centres in Gujarat.

An estimated 1.36 lakh women will benefit from the scheme.

- The Prime Minister will also disburse around ₹120 crore towards 'Poshan Sudha Yojana', which is now being extended to all tribal beneficiaries in the State.
- The scheme was being implemented as a pilot project in 10 talukas of five tribal-dominated districts and is now being expanded to 14 tribal dominated districts.
- It offers one nutritious meal a day to pregnant and lactating women.
- The schemes aim to intervene during the first 1,000 days of a child's life, which is the period from conception till the time the child turns two.
- Their objective is to improve infant mortality and maternal mortality rates.
- But as it became obvious that cryptocurrencies have had very little acceptance as money, crypto-enthusiasts began to argue a slightly different case.
- Cryptocurrencies were now touted as an independent asset class like gold and silver that could serve as an effective hedge in times of crisis.
- The crash in the crypto market amidst wider market correction has put to rest the argument that crypto, as an asset class, is as good a hedge as precious metals.
- There is little reason to believe that cryptocurrencies possess any intrinsic value that can make them serve the role of widely accepted money or as a legitimate asset class such as precious metals.
- The acceptability of cryptocurrencies in the wider economy has remained minuscule and there are no signs of their use for purposes other than wild speculation
- Governments and their central banks have been largely unwilling to recognise cryptocurrencies as a legitimate investment asset.
- They are also unlikely to recognise private cryptocurrencies as they infringe on the state's fiscal and monetary authority
- Regardless of the investment prospects of cryptocurrencies, a

## **THE HINDU**

### **Cryptocurrency**

- Cryptocurrencies were initially touted to be alternatives to fiat currencies. Since the supply of a lot of cryptocurrencies is limited by design, investing in them seemed like a good way to protect one's wealth from inflation fuelled by central banks.

proper regulatory framework may help in protecting retail investors, at least from outright scams.

**THE HINDU**

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GES  
REPORTER

## Quantum diamond microscope

- Researchers from the Indian Institutes of Technology (IIT) at Mumbai and Kharagpur have built a microscope that can image magnetic fields within microscopic two-dimensional samples that change over milliseconds.
- This has a huge potential for scientific applications, such as in measuring biological activity of neurons and dynamics of vortices in superconductors.
- This is the first time that such a tool has been built to image magnetic fields that change within milliseconds.
- Signals in nature exhibit a range of frequencies magnetism in geological rock samples and rare earth magnets can be constant over months; magnetic nanoparticle aggregation inside living cells takes place in minutes; action potentials in neurons are fast, taking milliseconds, whereas precession of atomic spins in complex molecules takes only microseconds.
- The instrument that this team has built works in the millisecond range.
- The key aspect of this sensor is a “nitrogen vacancy (NV) defect centre” in a diamond crystal.
- Such NV centres act as pseudo atoms with electronic states that are sensitive to the fields and gradients around them (magnetic fields, temperature, electric field and strain).
- “Notably, the fluorescence emitted from these NV centres encodes the magnetic field information,
- Earlier reported magnetic field imaging frame rates were close to 1-10 minutes per frame.
- This would increase to about half an hour per frame for challenging samples like biological cells.
- The instrument built by this group exhibits an imaging frame rate of about 50-200 frames per second, which would translate into a frame acquisition time of about 2-5 milliseconds.

## THE HINDU

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### Monkey pox virus

#### What is the monkey pox virus?

- Monkey pox is not a new virus.
- The virus, belonging to the poxvirus family of viruses, was first identified in monkey’s way back in 1958, and therefore the name.
- The first human case was described in 1970 from the Democratic Republic of Congo and many

sporadic outbreaks of animal to human as well as human to human transmission has occurred in Central and West Africa in the past with significant mortality

- Since the transmission occurs only with close contact, the outbreaks have been in many cases self-limiting.
- While monkeys are possibly only incidental hosts, the reservoir is not known.
- It is believed that rodents and non-human primates could be potential reservoirs.

#### **Does the virus mutate?**

- Monkey pox virus is a DNA virus with a quite large genome of around 2,00,000 nucleotide bases.
- While being a DNA virus, the rate of mutations in the monkey pox virus is significantly lower (~1-2 mutations per year) compared to RNA viruses like SARS-CoV-2.

#### **THE HINDU**

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### **Heatwaves and cyclone Amphan**

- Rising greenhouse gas emission is the primary factor for anthropogenic (human-induced) climate change.
- The increase in carbon dioxide concentration can trap the radiation

into the atmosphere and not let it go into space.

- This trapping of the extra energy increases the average surface air temperature and warms the climate that we know as global warming.
- As the capacity of the atmosphere to absorb the heat is very less, more than 90% of the extra heat that has been trapped in the climate system has been absorbed by the oceans since 1970, according to IPCC AR5, and IPCC AR6 reports.
- Due to this, oceans are warming globally from the surface to deeper depths.
- The warming of the oceans has severe consequences such as increasing intensity and frequency of extreme events, rising sea levels, melting glaciers, and changing the weather pattern across the globe.
- Faster warming previous studies have shown that due to global warming, the tropical Indian Ocean, at the surface, is warming at a faster rate as compared to the rest of the global ocean.
- The high sea surface temperatures are more susceptible to generating extreme temperature conditions that persist over days to months and are termed as Marine Heatwaves (MHWs).



- This intense warming of the ocean due to MHW has severe socio-economic consequences such as fish mortality, and coral bleaching, and also has the potential to interact and modify other extreme events such as tropical cyclones.
- The anthropogenic warming of the oceans and atmosphere facilitates the generation and intensification of extreme events such as MHWs and tropical cyclones.
- Both marine heat waves and tropical cyclones are the extreme events of the ocean-atmosphere coupled system.
- Our study, published in the Frontiers in Climate, is the first study conducted in the Indian Ocean that investigates the interaction between a marine heatwave and super cyclone Amphan in the Bay of Bengal in May 2020.
- Amphan was the first super cyclone in the Bay of Bengal in the last 21 years and intensified from category 1 (cyclonic storm) to category 5 (super cyclone) in less than 24 hours.
- Amphan was also the costliest tropical cyclone on record in the North Indian Ocean, with reported economic losses of approximately \$14 billion in India, according to the World Meteorological Organisation and 129 casualties across India and Bangladesh.
- According to the latest IPCC report (AR6), Amphan was the largest source of displacement in 2020, with 2.4 million displacements in India alone, out of which around 8,00,000 was pre-emptive evacuation by the authorities
- The cause -found the presence of a strong MHW beneath the track of the cyclone with an extremely high anomalous sea surface temperature of more than 2.5°C that coincided with the cyclone track and facilitated its rapid intensification in a short period.

### **Sea surface temperature**

- The Bay of Bengal exhibits high sea surface temperatures (about 28°C) throughout the year and is more prone to tropical cyclones.
- The Bay of Bengal is home to about 5-7% of the total number of tropical cyclones occurring globally each year and this makes the North Indian Ocean vulnerable to the highest number of fatalities globally.

### **THE HINDU**

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### **Black Death**

- A strain of Yersinia pestis, the bacterium responsible for the Black

Death pandemic in the 1300s (AD 1346–1353), has been traced back to a fourteenth-century outbreak in what is now Kyrgyzstan.

- The area was located on the Silk Road trade route, which might have helped the Black Death pandemic to spread westward.

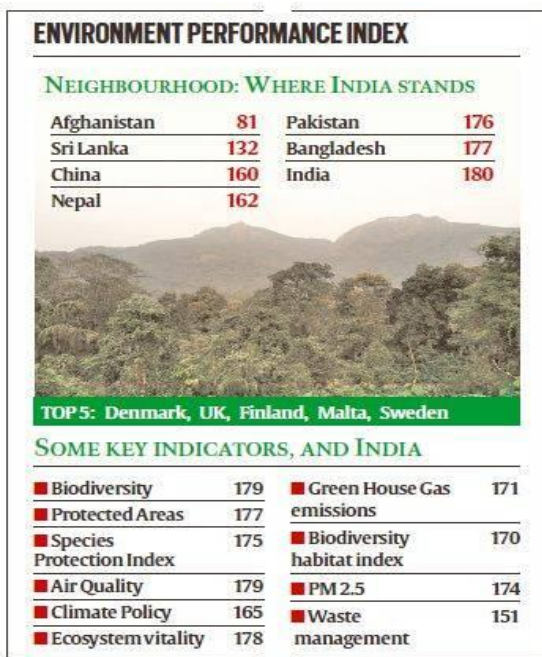
**THE HINDU**

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GES  
REPORTER

## India and Environment performance index

- The recently-released Environment Performance Index 2022, which ranks 180 countries based on several indicators, has placed India at the bottom of the list.
- The EPI has used 40 performance indicators across 11 'issue categories' to gauge the progress made by nations on climate change, environmental health, and the vitality of ecosystems.
- Denmark topped the list, followed by the United Kingdom and Finland. The cause is not far to seek: these countries have massively reduced the emission of greenhouse gases in recent years.
- The worst performers are India, Myanmar, Vietnam, Bangladesh and Pakistan.
- What is worrying is India's consistent poor showing: in the 2020 index, India ranked 168th out of 180 countries. Rapidly increasing greenhouse gas emissions, plastic waste generation and deteriorating air quality have put India at the bottom.
- On World Environment Day, the Prime Minister, Narendra Modi, announced that India has achieved its target of 10 per cent ethanol blending in petrol five months before the deadline.
- Earlier, in March, Mr Modi's government had insisted that India is on track to meet its nationally determined contributions that are at the heart of the Paris Agreement.
- Unsurprisingly, the Centre has rejected the EPI, insisting that some of the indicators are "extrapolated and based on surmises and unscientific methods".
- It has alleged that the shifting of weightage on and the removal of many indicators crucial carbon sinks, such as forests and wetlands, have not been calculated have led to the decline.
- Within the overall climate score, India does better in sub-metrics such as growth rates for black carbon, methane and fluorinated gases, and greenhouse gas emissions based on their intensity and per capita volumes.
- The Index rates the country low on projected greenhouse gas (GHG) emissions for mid-century, a target for Net Zero emissions.
- The EPI report estimates that China, India, the United States, and Russia are expected to account for over 50% of global residual greenhouse gas emissions by 2050.



- It stands accused of ignoring the important tenet of equity in global climate policy within the United Nations framework: that India has low per capita GHG emissions, reduced intensity of GHG emissions in its economy, made big strides achieving 40% renewable power generation, supported electric vehicles, launched a major carbon sink initiative, and done a lot for wetland conservation.
- The Index assigns a 'laggard' rank on tropical and subtropical dry broadleaf and coniferous forests, montane grasslands and shrublands and the worst performance on deserts and xeric shrublands.
- The Government's defence is that national and legal boundaries for protected areas may not match geographical boundaries of biomes, and international classifications may

not be optimal to measure conservation.

- The Government faults the dataset on pollutant concentration data covering mainly Particulate Matter (PM<sub>2.5</sub>), Oxides of Nitrogen, Sulphur Dioxide and Volatile Organic Compounds, because of "higher uncertainty in regions with less extensive monitoring networks and emissions inventories.
- On transport (about 13% of emissions), prevailing high fuel and vehicular taxes could exclusively drive change and raise a green commons such as clean public transport, cycling and pedestrianisation.
- The national policy of achieving Net Zero emissions by 2070 provides a longer timeline for a coal phase-out, but other areas can benefit from policies that prevent a carbon lock-in effect
- India has also not expanded disaggregated rooftop solar power across residential deployments and commercial structures.

## THE HINDU

### Indian monsoon

- The latest IMD figures suggest that the monsoon is running an 8% deficit. Central India, which has the largest swathe of land dependent on rainfed agriculture, has only got 52%

of the rain that is due; the southern peninsula has a 22% deficit.

- Only India's east and north-eastern parts are battling the diametrically opposite problem of too much rain, with floods in Assam and Meghalaya submerging entire villages.
- The northwest of India, where the monsoon is yet to arrive, and reeling under a series of heatwaves, is battling a rainfall deficit of 33%.
- The monsoon rainfall is critical to kharif sowing and so a faltering June has raised concerns in several quarters.
- However, there is little to be worried about at this juncture.
- June rainfall, particularly in the first fortnight, is historically patchy and contributes less than 18% of the monsoon rainfall.
- Meteorologists maintain that there is no correlation of the timing and advent of the monsoon rainfall with its eventual performance.
- Episodes of drought in India and those that are linked to agricultural failures are when the monsoon fails in these two months. In fact, the real worry that lingers over the h
- The monsoon core zone, which consists of most of the rainfed agriculture regions, too is expected to receive "above normal" rain.
- In previous years, there has been a pattern of 'normal' and 'above normal' rains being forecast only for

them to dry up for large periods in July and August, followed by a sudden surge in September.

- This pattern may help deliver the numbers but is not always beneficial for kharif sowing.
- The expectations of a good monsoon are premised on the persistence of a La Niña, the converse of the El Niño and characterised by a cooling of the Central Pacific waters.
- However, the Indian Ocean Dipole (IOD), another index of significance to the monsoon, is expected to be negative.
- Whether the La Niña can compensate for the dampening of the IOD remains to be seen.

## THE HINDU

### Petty patent

- India's rank of 46 in WIPO's Global Innovation Index (GII) 2021, up from 81 in 2015, is encouraging
- India has much room for enhancing its innovative activity.
- Among the key indicators, gross R&D expenditure (GERD) as a percentage of GDP at 0.7% is low.
- It needs to rise to upwards of 2% of GDP, as in the leading innovative nations.
- Furthermore, only about 30% of the GERD is spent by business enterprises, despite the generous

tax incentives offered by the government

- In India, R&D activities have been encouraged mainly through weighted tax deductions.
- Partial funding for specific R&D projects undertaken by business enterprises may be desirable to develop products or processes, thus strengthening competitiveness.
- Funding support for R&D activity of business enterprises may help to direct it to a desirable direction or field.
- Besides, products based on indigenously developed technology could be given production tax concessions (such as those extended to small-scale industry products) and income tax concessions (such as those enjoyed by export turnover) to encourage innovation.
- The number of patents registered by residents is another indicator of innovative activity.
- The patent filings by Indian enterprises and other institutions have increased from 8,841 in 2011 to 23,141 in 2020 (WIPO).
- However, patents granted have been only 776 and 4,988 respectively. Although the ratio of applications to grants has gone up over the years, many patent applications fail to satisfy the three-pronged test of novelty, inventive step and utility.

- India should consider adopting a petty patents regime that provides limited protection to minor incremental innovations made, especially those by MSMEs, often called jugaad.
- The utility models or petty patents typically provide a limited period of protection (5-10 years in contrast to 20 years in case of patents) and have less stringent requirements and procedures.
- Incentivising minor and incremental innovations through limited protection under utility models will help to foster the innovation rivalries among firms, particularly MSMEs, paving the way for more significant innovations by them in the future.

## **THE HINDU**

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### **Ministerial conference 12**

#### **The story so far:**

- On June 17, member countries of the World Trade Organization (WTO) wrapped up the Ministerial Conference's twelfth outing (MC12) securing agreements on relaxing patent regulations to achieve global vaccine equity; ensuring food security, according subsidies to the fisheries sector and continuing moratoriums relevant to e-commerce, among others.

- Together they constitute what WTO Director-General Ngozi Okonjo-Iweala is referred to as the “Geneva Package.

### **What is the WTO’s Ministerial Conference?**

- The MC is at the very top of WTO’s organisational chart. It meets once every two years and can take decisions on all matters under any multilateral trade agreement.
- Unlike other organisations, such as the International Monetary Fund or World Bank, WTO does not delegate power to a board of directors or an organisational chief.
- All decisions at the WTO are made collectively and through consensus among member countries at varied councils and committees. This year’s conference took place in Geneva, Switzerland.

### **What were the debates around agriculture at the MC?**

- The agreements on the subject are of particular significance to India. Referring to its status as a significant contributor to the World Food Programme (WFP), India had earlier stated that it had never imposed export restrictions for procurement under the programme. It put forth that a blanket exemption could constrain its work in ensuring food security back home.

- In such a situation, it would have to keep its WFP commitments irrespective of its domestic needs.
- Negotiators agreed that member countries would not impose export prohibitions or restrictions on foodstuffs purchased for humanitarian purposes of the WFP.
- The decision would however not prevent member countries from adopting measures for ensuring domestic food security.
- Negotiators could not reach agreements on issues such as permissible public stockholding threshold for domestic food security, domestic support to agriculture, cotton, and market access.
- The central premise of the agreements was to ensure availability, accessibility and affordability of food to those in need, especially in humanitarian emergencies.

### **What about fisheries related agreements?**

- India successfully managed to carve out an agreement on eliminating subsidies to those engaged in illegal, unreported and unregulated fishing.
- The only exception for continuing subsidies for overfished stock is when they are deemed essential to rebuild them to a biologically sustainable level.

- Overfishing refers to exploiting fishes at a pace faster than they could replenish themselves currently standing at 34% as per the UN Food and Agriculture Organization (FAO).
- Declining fish stocks threaten to worsen poverty and endanger communities that rely on aquatic creatures for their livelihood and food security.
- Further, the agreements hold that there would be no limitation on subsidies granted or maintained by developing or least-developed countries for fishing within their exclusive economic zones (EEZ).

#### **Have the current moratoriums on electronic transmissions been extended?**

- Member countries agreed to extend the current moratorium on not imposing customs duties on electronic transmission (ET) until MC13 scheduled to take place in December 2023. 105 countries which includes the U.S. the U.K., Australia, China and Japan among others, had sought an extension of the moratorium, with India and South Africa being in opposition.
  - Broadly, ETs consist of online deliveries such as music, e-books, films, software and video games.
  - They differ from other cross-border e-commerce since they are ordered online but not delivered physically.
- Proponents had put forth that the moratorium would help maintain certainty and predictability for businesses and consumers particularly in the context of the pandemic.
  - On the other hand, India and South Africa, citing data from the UN Conference on Trade and Development (which calculates the amount of printed matter, music and video downloads, software and video games), submitted that extending duty-free market access due to the moratorium resulted in a loss of \$10 billion per annum globally 95% of which was borne by developing countries.
  - Additionally, they had also sought more clarity on what constitutes electronic transmission.
  - Customs duties have been traditionally used to avert an undesired surge in imports, allowing nascent domestic industries to remain competitive.
  - Developing countries would need to import sizeable equipment and services for upscaling their digital capabilities.
  - Customs duties provide the necessary capital infusion for capacity building and in turn, attempt to address the digital divide particularly high in low-income and developing countries, further



exacerbated by the COVID-19 pandemic.

- It is in this context that India and South Africa had sought to preserve policy space for the digital advancement of developing countries by letting them generate more revenues from customs and thereby facilitate more investment.

### **What were the discussions on patent relaxations?**

- Member countries agreed on authorising the use of the subject matter of a patent for producing COVID-19 vaccines by a member country, without the consent of the rights holder.
- Further, it asks member countries to waive requirements, including export restrictions, set forth by WTO regulations to supply domestic markets and member countries with any number of vaccines.
- The agreement, however, comes too little, too late for economically poorer countries.

## **THE HINDU**

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### **Auctioning 5G Spectrum**

- The story so far:
- The Union Cabinet, chaired by Prime Minister Narendra Modi, gave its nod for the auction of spectrum that can be used to offer 5G services, at its meeting held on June 14.

- A total of 72,097.85 MHz (or 72 Ghz) of spectrum with a validity period of 20 years will be put on sale during the auction planned towards the end of July.
- The auction will be held for spectrum in various Low (600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz), Mid (3300 MHz) and High (26 GHz) frequency bands.
- It is expected that the Mid and High band spectrum will be utilised by telecom service providers (TSPs) to roll-out 5G services wherein speeds would be 10 times higher than what is possible through the current 4G services.

### **What are the key issues?**

- The two issues that the industry has highlighted with regards to the upcoming auctions are high reserve prices for the spectrum and direct allotment of spectrum to enterprises for setting up captive private networks.
- The government has accepted the recommendations given by the Telecom Regulatory Authority of India (TRAI) on reserve prices for spectrum auctions.
- On allowing direct allocation of spectrum for captive non-public networks, the government has reasoned that the move will spur a new wave of innovations in Industry 4.0 applications such as machine to

machine communications, Internet of Things (IoT), Artificial Intelligence (AI) across automotive, healthcare, agriculture, energy, and other sectors.

- However, the Cellular Operators Association of India (COAI), which counts the three private telcos as its members, has said that the move severely degrades the business case of TSPs.
- “This will diminish the revenue so much that there will be no viable business case left for the TSPs and there will not remain any need for 5G networks roll-out by TSPs.

#### **What benefits are likely to come with 5G?**

- 5G is the next generation cellular technology that will provide faster and more reliable communication with ultra-low latency.
- As per the set standards, with 5G, the peak network speeds are expected to be in the range of 2-20 Gbps as opposed to about 25 Mbps on current 4G networks.
- In India, however, 4G speeds average at around 6-7 Mbps, but are picking up gradually. It is expected that with 5G technology, consumers will be able to download data heavy content such as 8K movies and games with better graphics in just a few seconds.

- The users will need to update to 5G-enabled devices to access the network, if they are not already using one. However, it is likely that the primary use of the technology will go beyond delivery of services on personal mobile devices.
- 5G is expected to form the backbone of emerging technologies such as IoT and machine to machine communications, thereby supporting a much larger range of applications and services, such as tele-surgery and real time data analytics.
- Ultralow latency offered by 5G makes the technology desirable for such use cases. Latency is the amount of time data takes to travel between its source and destination.
- 5G is expected to create a cumulative economic impact of \$1 trillion in India by 2035, the report added.

#### **THE HINDU**

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## Section 498A and judicial overreach

- Recently, the Allahabad High Court, while allowing two criminal revisions pertaining to a dowry case, took cognisance of the misuse of Section 498A of the Indian Penal Code (IPC), proposed certain safeguards and directed the State authorities of Uttar Pradesh to take the necessary steps for their implementation in a given time period.
- The High Court expressed its concern over the growing tendency of dowry victims to rope in the husband and all his family members using general and sweeping allegations.
- The directions, inter alia, include constitution of a family welfare committee in each district under the District Legal Services Authority (DLSA), handing over the first information report to such a committee immediately after its registration, and no arrest to be made by the police during this “cooling period” of two months.
- Except for the minor difference in the composition of the family welfare committees (such as inclusion of a young mediator or an advocate or a senior law student) as directed by the High Court, the primary role of such committee’s remains the same, i.e., settling the matrimonial dispute between the two parties.
- The moot question (without going into the nuances) is whether the High Court was well within its jurisdiction to issue such directions when the scheme of investigation under the CrPC was clearly laid down and there was no ambiguity about or gaps in the law on arrest, inviting such a fresh interpretation.
- In Vishaka vs State of Rajasthan (1997), the Supreme Court issued directions to enforce fundamental rights in the absence of law in certain cases of sexual harassment at the workplace.
- However, in the case of Social Action Forum for Manav Adhikar (supra), the Court held that a third agency (i.e., the family welfare committee) had nothing to do with the CrPC, and more so in stalling arrest till a report is submitted by the committee.

### Possible solutions

- However, in order to check false cases of dowry and avoidable incarcerations, two solutions seem plausible.
- First, the police must strictly enforce the Supreme Court’s directions issued in Arnesh Kumar vs State of Bihar (2014) and ensure that there is

sufficient reason and credible material against the accused person to necessitate arrest

- Second, the legislature may deliberate upon and make Section 498A IPC bailable.

## **THE HINDU**

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### **International law and domestic law/article 253**

- Section 66A of the Information Technology Act, 2000, which the Supreme Court had declared unconstitutional in 2015 in *Shreya Singhal v. Union of India* for having a “chilling effect on free speech”, is back in the news.
- As part of the ongoing negotiations at the United Nations for a proposed international treaty on combating cybercrime, India made a formal submission for criminalising “offensive messages”.
- The language in the submission is similar to what was used in Section 66A.

#### **Is international treaty binding?**

- First, international treaty negotiations are complex. It is premature to believe that India’s suggestion of criminalising

“offensive messages” will be readily accepted.

- The U.K. and many countries in the European Union have reportedly already contested India’s submission because they see this as an undue impediment to the freedom of speech.
- International law does not become a part of the domestic legal system unless it is specifically transformed into domestic law by Parliament, which will be required to enact legislation to implement the international law.
- This is different from the theory of monism, wherein international law is automatically incorporated into the domestic legal system of the country even without Parliament enacting an enabling legislation.
- However, over the years, the Supreme Court of India has moved away from this traditional dualist approach towards monism.
- In cases such as *Vishakha v. State of Rajasthan* (1997), *National Legal Services Authority v. Union of India* (2014), and *K.S. Puttaswamy v. Union of India* (2018), the court followed an approach of judicial incorporation by reading international law into domestic law in the absence of any specific prohibition in municipal law.

- In other words, the emerging principle is that courts will respect international law unless it can be shown that it is inconsistent with municipal law.
- The government may get a law passed in Parliament using Article 253 of the Constitution, which states that Parliament has the “power to make any law for the whole or any part of the territory of India for implementing any treaty, agreement or convention”, and place a provision similar to Section 66A back on the statute book.
- Legally, such a law can be justified as a necessary action to comply with India’s international law obligations.

## **THE HINDU**

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### **Cryptocurrency and El Salvador**

- The story so far:
- The crash in the price of Bitcoin and other cryptocurrencies has put El Salvador’s government in trouble.
- The Central American country, led by President Nayib Bukele who is a self-proclaimed fan of cryptocurrencies, had adopted Bitcoin as an official currency in September last year.
- The crash in the price of Bitcoin has raised concerns over the government’s ability to repay its debt.

### **What is the problem in El Salvador?**

- The crash in the price of Bitcoin from around \$69,000 in November last year to around \$20,000 this week has caused losses to investors around the world.
- According to some estimates, the average cryptocurrency investor is deep in losses after the significant correction in the prices of cryptocurrencies.
- The crash in Bitcoin’s price has not spared the government of El Salvador either. President Bukele has been using taxpayer’s money to bet on Bitcoin.

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### **Why did El Salvador adopt Bitcoin as an official currency?**

- In 2001, El Salvador had adopted the U.S. dollar as its official currency. After Bitcoin was adopted as an official currency in September last year, both Bitcoin and the U.S. dollar have been used as official currencies.
- The El Salvador government has been trying to encourage citizens to primarily use Bitcoin for their daily transactions.
- It even came out with a payments wallet named Chivo which gave out for free Bitcoin worth \$30 initially to encourage people to use Bitcoin in transactions.
- Analysts believe that the decision to adopt Bitcoin as an official currency may have to do with the El Salvador government's inability to borrow in U.S. dollars
- Bitcoin offers a chance for the El Salvador government to cut down its reliance on the U.S. dollar to fund its spending.
- Greater adoption of Bitcoin in El Salvador will allow the government to tax and spend in Bitcoins instead of U.S. dollars.

### **How well has Bitcoin done in El Salvador?**

- Most citizens of El Salvador have been reluctant to adopt Bitcoin as a

medium of exchange, that is, as money.

- Many citizens, it is claimed, registered on the payments wallet Chivo that was pushed by the government simply to sell off their free Bitcoin in exchange for \$30.
- It should be noted that the acceptance of cryptocurrencies in general has been miniscule across the globe.
- One big reason for the low acceptance of cryptocurrencies has been their extreme price volatility, making them an unreliable store of value.

### **THE HINDU**

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#### **Sterlite copper**

- Sterlite operated the largest copper smelter plant in India, in Thoothukudi from 1998 to 2018.
- The plant was not operational from March 2018 and was shut down by the Government of Tamil Nadu on 28 May 2018 after protests from locals.
- Sterlite Copper of Thoothukudi in Tamil Nadu has become a moral issue after the police firing on protesters resulted in the deaths of 13 people in May 2018.
- Sterlite's product, copper, is a strategic metal. Important

applications are energy, electrical equipment and electronics.

- Copper production provides strategic balance and price stability.
- The shuttering of the Sterlite plant quickly made India, a copper exporter, an importer.
- However, distrust of Sterlite is so much that many people now credit good rains to the shuttering of the plant.
- The community complains that Sterlite did not employ enough local people and did not give enough contracts for local businessmen.
- Therefore, the corporate group needs to act responsibly and take the people along with it if it wants to conduct its business.

**THE HINDU**

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## Why Earthquake in Afghanistan?

- The death toll from an earthquake in Afghanistan hit 1,000, disaster management officials said, with more than 600 injured and the toll expected to grow as information trickles in from remote mountain villages
- The quake originated near the city of Khost, which is close to the country's border with Pakistan and about 160 kilometres (100 miles) south of the Afghan capital, Kabul.

### What caused the quake?

- Afghanistan is earthquake-prone because it's located in the mountainous Hindu Kush region, which is part of the Alpide belt the second most seismically active region in the world after the Pacific Ring of Fire.
- The Alpide belt runs about 15,000 kilometers, from the southern part of Eurasia through the Himalayas and into the Atlantic. Along with the Hindu Kush, it includes a number of mountain ranges, such as the Alps, Atlas Mountains and the Caucasus Mountains.
- Additionally, the Earth's crust is especially lively in Afghanistan because it is where the Arabian,

Indian and Eurasian tectonic plates meet. The Earth's crust is made up of 15 tectonic plates, which create earthquakes when they shift against each other at their borders. The boundary between the Indian and Eurasian plates exists near Afghanistan's border with Pakistan.

- Tuesday's earthquake formed when the Indian plate crashed violently with the Eurasian plate. Collisions like this shake and squeeze the ground upwards. Along with causing earthquakes, this movement creates mountains like the Himalayas or the Hindu Kush and Pamir mountain ranges in northeast Afghanistan.

## THE HINDU

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### New coral species

- Scientists have recorded four species of corals for the first time from Indian waters.
- These new species of azooxanthellate corals were found from the waters off the Andaman and Nicobar Islands.
- The azooxanthellate corals are a group of corals that do not contain zooxanthellae and derive nourishment not from the sun but from capturing different forms of planktons.



- They are deep-sea representatives with the majority of species being reported from depths between 200 metres and 1,000 metres.
- They are also reported from shallow waters unlike zooxanthellae corals that are restricted to shallow waters.
- The Zoological Survey of India (ZSI) scientist behind these new findings, Tamal Mondal, said all the four groups of corals are from the same family, Flabellidae.
- *Truncatoflabellum crassum* (Milne Edwards and Haime, 1848), *T. incrustatum* (Cairns, 1989), *T. aculeatum* (Milne Edwards and Haime, 1848), and *T. irregulare* (Semper, 1872) under the family Flabellidae were previously found in Japan, the Philippines and Australian waters, while only *T. crassum* was reported with the range of Indo-West Pacific distribution.
- Zooxanthellae corals are a group of hard corals and the four new species recorded are not only solitary but have a highly compressed skeletal structure.
- “Most studies of hard corals in India have been concentrated on reef-building corals while much is not known about non-reef-building corals.
- These new species enhance our knowledge about non-reef-building solitary corals.

## **THE HINDU**

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### **Caste and economic transformation**

- There are three ways in which caste impedes the economic transformation in India: ownership and land inequality related to productivity failure within the farm sector; elite bias in higher education and historical neglect of mass education, and caste-based entry barriers and exclusive networks in the modern sector.
- All the nations which succeeded in achieving inclusive growth in the Global South had land reforms combined with human capital, invested in infrastructure by promoting capitalism from below and began industrialisation in the rural sector.
- Only India lost on all three counts.
- India has one of the highest land inequalities in the world today.
- Unequal distribution of land was perpetuated by British colonial intervention that legalised a traditional disparity.
- Some castes were assigned land ownership at the expense of others

by the British for its administrative practices.

- Even the Green Revolution that brought changes in the farm sector did not alter land inequality as it was mostly achieved through technological intervention.
- Though India has certainly seen surplus food production since then, the castes that were associated with this land pattern and benefited from the Green Revolution tightened their social control over others in rural India.
- The Indian education system has been suffering from an elite bias since colonial times.
- British colonialists educated tiny groups of elites, largely from upper castes, for their own administrative purpose.
- Inequality in access to education got translated into inequality in other economic domains including wage differentials in India.

## **THE HINDU**

### **Heal by India initiative**

- 'Heal by India' Initiative
- To project India as a global source in the health sector, the Centre is developing an online repository of all categories of healthcare professionals, including doctors,

nurses and pharmacists that also mentions the country where they wish to render their services.

- The portal, being developed by the National Health Authority (NHA) under the Ayushman Bharat Digital Mission (ABDM) as part of the government's 'Heal by India' initiative,
- It will be voluntary for all healthcare professionals to provide their information to the portal and all steps are being taken to ensure data security. The personal information provided will be authenticated by UIDAI while registration details will be verified by the respective councils.
- 'Heal by India' initiative is meant to generate job opportunities abroad for India's trained professionals in the health sector and enhance education to churn out quality human resources in health, thus helping them become eligible to work anywhere in the world.
- To achieve the objectives under 'Heal by India', the Government of India is working on assets like well-qualified faculty, no language barrier, availability of advanced technology and positive government policies; especially for those that have high demand outside India.

- It includes almost 50-60 streams like dieticians, nurses, lab technicians, paramedics, OT (operation theatre) attendants, physiotherapists, OT technicians, medical attendants for old age patients care etc. They will be trained under the Skill India programme.

## **THE HINDU**

### **Birds strike and aviation safety**

- Following two back-to-back bird strikes incidents, the Directorate General of Civil Aviation in a directive to all airport operators has asked all airports to “review their wildlife hazard management plans” for “within and outside the airfield”.
- An analysis of 62,416 verified records by the International Civil Aviation Organization’s (ICAO) Bird Strike Information System showed that most bird hits were in or near airports during the take-off and approach phases of flight.
- The Salim Ali Centre for Ornithology and Natural History has now expanded a study of air hazard issues to 12 airports across India. Its studies show that each airport in India has its unique ecological setting and therefore the solutions are different.

### **Recommendations**

- Recent bird hit incidents show that all areas surrounding an airport ought to be clear of slaughter houses and garbage dumping (factors which can attract wildlife and increase risks).
- Airports are also expected to have incinerators to dispose of garbage removed from aircraft.
- The expert said that airlines are supposed to have some standard operating procedures for bird strike prevention.
- He added that for pilots, it is important to have constant monitoring. After lift-off, the pilot flying should have his eyes on the instruments and the pilot not flying has to have his/her eyes outside to look out for birds.
- This has to be emphasised during training.
- Finally, he said, understanding bird behaviour is something crew and operators need to be familiar with.
- Close to the ground, the instinctive response of birds is to get away from the aircraft path.
- Bird strikes occur when pilots try to climb over them during the initial take-off phase.
- Birds get sucked into an engine as an aircraft engine’s field of ingestion is quite high with take-off thrust.

- Over 100ft, birds tend to dive to avoid an aircraft. Therefore, it is important to understand bird behaviour.
- The scientist says that it must be noted that each airport in India has its unique ecological setting and therefore the solutions are different.
- For example, if there are 60 avian species that could be around an airport, only five to six could pose a problem.
- A study of birds over a year would lead to a specific list of recommendations on how to handle the dynamics of these species.

## **THE HINDU**

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### **Ancient mosque in Israel**

- Israeli archaeologists on Wednesday unveiled a rare ancient mosque in the country's south that the antiquities officials said sheds light on the region's transition from Christianity to Islam.
- The remains of the mosque, believed to be more than 1,200 years old, were discovered during works to build a new neighbourhood in the Bedouin city of Rahat, the Israel Antiquities Authority said in a statement.
- The mosque located in the Negev desert contains "a square room and

a wall facing the direction of Mecca", with a half-circle niche in that wall pointing to the south.

## **THE HINDU**

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### **Wearable technology and cybersecurity**

- Digital wearables, smartwatches and fitness trackers pose unique threats to the security and privacy of customer data, warned the Institute of Electrical and Electronics Engineers (IEEE), a global outfit for technical professionals.
- "By connecting a wearable to an extended ecosystem, one is exposing a larger attack surface,"
- "Cybersecurity experts look at this as a supply chain that includes a data generator, an analytics engine and a service provider.
- Each link in the chain, including the connecting networks, presents a potential risk."
- As per a document shared by the IEEE, most criminal intrusions of computer networks have a financial motive.
- That may lead people to conclude that wearables have a low cybersecurity risk. But wearables data, especially in healthcare settings, is often tied to financial information.

- “Depending on the organisation from which it was obtained, stolen health data can be extremely valuable because it often includes so much personally-identifiable information including birthdays, email addresses and other login information, that can be used for identitytheft purposes,”
- Such judges should receive the full pay and the facilities of a judge of the Supreme Court for life.
- It is generally assumed that the senior most judge of the Supreme Court should be the Chief Justice of India, but we may pause to consider whether this is what the law mandates, and whether it is wholly wise.

## **THE HINDU**

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### **Reforms in higher Judiciary**

- It is high time that we did away with the disparity between the retirement ages of High Court and Supreme Court judges; High Court judges now retire at 62 and Supreme Court judges at 65.
- And thus get three more years. If this is done away with, several judges of mettle would prefer to be Chief Justices and senior judges in the High Courts exercising wide power of influence rather than being a junior judge on a Bench of the Supreme Court
- It would be worthwhile reform to create a cadre of public service for retired judges and from this pool make appointments to the constitutional and statutory posts and special assignments.
- As to the first, the Constitution mandates no such thing. Article 124 merely states that the President will appoint every judge of the Supreme Court, and this includes the Chief Justice, and each of these judges shall hold office until they attain the age of 65 years.
- The requirement about appointing the senior most judge to be the CJI is a sleight of hand devised in the Second Judges case (1993) and the consequent Memorandum of Procedure which is an obvious and naked usurpation of the President’s power and a blatant attempt to rewrite the Constitution. It has no constitutional legitimacy
- when a serving CJI retires, his successor should be the best reputed Chief Justice of a High Court who has proved himself worthy both in judicial office as well as administrative leadership and has

those qualities of heart and head which mark a good leader.

## **THE HINDU**

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### **PIN**

- Leading Indian-American scientist Dr. Arti Prabhakar has been nominated by Joe Biden as a top science adviser to the U.S. President, a decision hailed by the Indian-American community as “historic.”
- If confirmed by the Senate, Dr. Prabhakar would make history as the first woman, immigrant, or person of colour to head Director of the Office of Science and Technology Policy (OSTP).

## **THE HINDU**

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## Types of AI

- Nasscom has introduced “AI Adoption Index” in a bid to assess trends of AI adoption in India.
- The index was the first detailed assessment of AI adoption, beginning with four key sectors of banking, financial services and insurance (BFSI), consumer packaged goods (CPG), retail, healthcare and industrials and automotive.
- These sectors could cumulatively contribute more than 60% of AI’s potential value-add of \$450 to \$500 billion to the country’s GDP by 2025.
- The apex body said global investments in AI had more than doubled over the last couple of years, from \$36 billion in 2020 to a high of \$77 billion in 2021.

### About AI

- Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems.
- Specific applications of AI include expert systems, natural language processing, and speech recognition and machine vision.

### Strong AI vs. weak AI

- AI can be categorized as either weak or strong.
- Weak AI, also known as narrow AI, is an AI system that is designed and trained to complete a specific task. Industrial robots and virtual personal assistants, such as Apple's Siri, use weak AI.
- Strong AI, also known as artificial general intelligence (AGI), describes programming that can replicate the cognitive abilities of the human brain. When presented with an unfamiliar task, a strong AI system can use fuzzy logic to apply knowledge from one domain to another and find a solution autonomously. In theory, a strong AI program should be able to pass both a Turing Test and the Chinese room test.

### What are the 4 types of artificial intelligence?

- Type 1: Reactive machines. These AI systems have no memory and are task specific. An example is Deep Blue, the IBM chess program that beat Garry Kasparov in the 1990s. Deep Blue can identify pieces on the chessboard and make predictions, but because it has no memory, it cannot use past experiences to inform future ones.

- Type 2: Limited memory. These AI systems have memory, so they can use past experiences to inform future decisions. Some of the decision-making functions in self-driving cars are designed this way.
- Type 3: Theory of mind. Theory of mind is a psychology term. When applied to AI, it means that the system would have the social intelligence to understand emotions. This type of AI will be able to infer human intentions and predict behaviour, a necessary skill for AI systems to become integral members of human teams.
- Type 4: Self-awareness. In this category, AI systems have a sense of self, which gives them consciousness. Machines with self-awareness understand their own current state. This type of AI does not yet exist.

## **THE HINDU**

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### **Open network for digital commerce (ONDC)**

#### **The story so far:**

- The government of India announced the launch of the pilot phase of open network for digital commerce (ONDC) in five cities in late April with an aim to “democratise” the

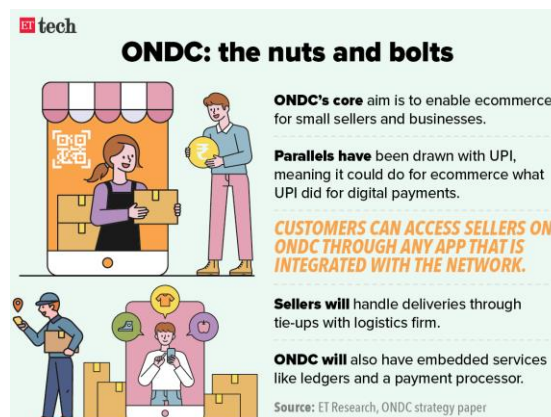
country’s fast growing digital e-commerce space that is currently dominated by the two U.S.-headquartered firms Amazon and Walmart.

#### **What is ONDC?**

- As per the strategy paper on ONDC, it is a not-for-profit organisation that will offer a network to enable local digital commerce stores across industries to be discovered and engaged by any network-enabled applications.
- It is neither an aggregator application nor a hosting platform, and all existing digital commerce applications and platforms can voluntarily choose to adopt and be a part of the ONDC network.
- The ONDC aims to enable buying of products from all participating e-commerce platforms by consumers through a single platform. Currently, a buyer needs to go to Amazon, for example, to buy a product from a seller on Amazon.
- Under ONDC, it is envisaged that a buyer registered on one participating e-commerce site (for example, Amazon) may purchase goods from a seller on another participating e-commerce site (for example, Flipkart).

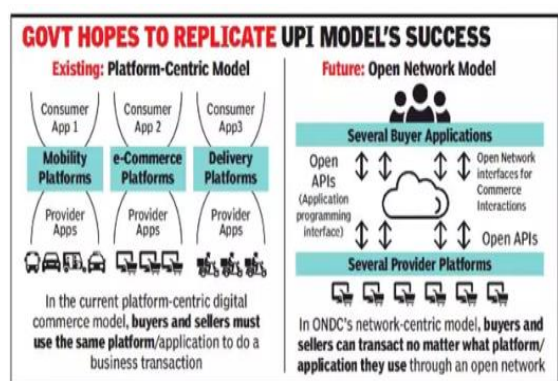
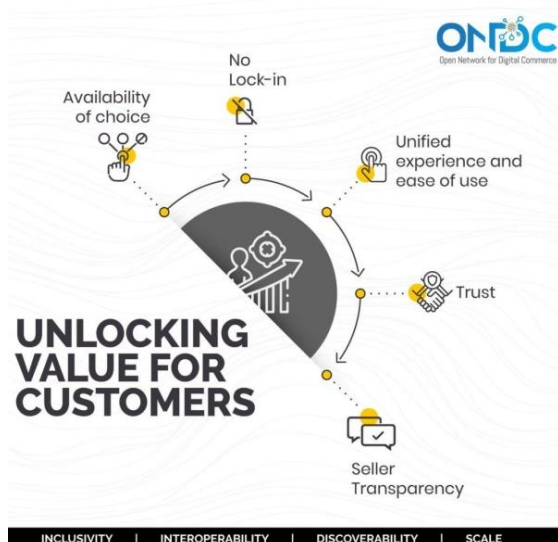


- The ONDC model is trying to replicate the success of the Unified Payments Interface (UPI) in the field of digital payments.
- UPI allows people to send or receive money irrespective of the payment platforms they are registered on.
- The open network concept also extends beyond the retail sector, to any digital commerce domains including wholesale, mobility, food delivery, logistics, travel, urban services, etc



### What are the likely benefits of ONDC

- The ONDC will standardise operations like cataloguing, inventory management, order management and order fulfilment, hence making it simpler and easier for small businesses to be discoverable over network and conduct business.
- However, experts have pointed out some likely potential issues such as getting enough number of e-commerce platforms to sign up, along with issues related to customer service and payment integration.



### THE HINDU

### Economic crisis in Pakistan

- The Pakistani rupee (PKR) has been falling continuously; from 150 in April 2021 to 213 against the dollar on 21 June, an all-time low.

- Pakistan's foreign exchange reserves have been depleting during the last one year.
- According to State Bank of Pakistan data, from \$17.2 billion in June 2021, the net reserves with the SBP have come down to \$8.9 billion in June 2022.

### **Will the IMF bailout Pakistan?**

- The IMF is willing to support but it wants Pakistan "to address high inflation and the elevated fiscal and current account deficits, while ensuring adequate protection for the most vulnerable
- Besides, the IMF wants Pakistan to be transparent about its debt situation, including what Islamabad owes to China, as a part of the China-Pakistan Economic Corridor (CPEC).
- Economists within Pakistan and elsewhere have been arguing for macroeconomic reforms, including the independence of financial institutions.
- The budgets have remained populist; the economic governance declined due to corruption, lack of financial institutions' independence, and the export decline. The subsidies in the energy sector fuel, oil and electricity remain high.

### **THE HINDU**

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### **Istanbul convention**

- In December 2008, the Council of Europe set up an expert committee, the Ad Hoc Committee for preventing and combating violence against women and domestic violence (CAHVIO) composed of governmental representatives of Council of Europe member states.
- The CAHVIO met nine times and in December 2010, it finalised the draft text of the Convention which was later adopted by the Committee of Ministers and opened for signature in Istanbul on 11 May 2011. Following its 10th ratification by Andorra on 22 April 2014, it entered into force on 1 August 2014.
- The Convention has a strong focus on prevention. What does this mean for state parties?
- In simple terms, preventing violence against women and domestic violence can save lives and reduce human suffering. Governments that agree to be bound by the Convention will have to do the following:
- Train professionals in close contact with victims; regularly run awareness-raising campaigns; take steps to include issues such as gender equality and non-violent conflict resolution in interpersonal relationships in teaching material;

set up treatment programmes for perpetrators of domestic violence and for sex offenders; work closely with NGOs; involve the media and the private sector in eradicating gender stereotypes and promoting mutual respect.

### **How does the Convention improve the protection of victims?**

- When preventive measures have failed and violence incidents have happened, it is important to provide victims and witnesses with protection and support.
- This means police intervention and protection as well as specialised support services such as shelters, telephone hotlines etc.
- It also means making sure that general social services understand the realities and concerns of victims of domestic violence and violence against women and support them accordingly in their quest to rebuild/resume their lives.

### **How does the Convention ensure the prosecution of perpetrators?**

- The convention defines and criminalises the various forms of violence against women as well as domestic violence.
- This is one of the many achievements of the convention. To

give effect to the convention, state parties will have to introduce a number of new offenses where they do not exist.

- These may include: psychological and physical violence, sexual violence and rape, stalking, female genital mutilation, forced marriage, forced abortion and forced sterilisation. In addition, state parties will need to ensure that culture, tradition or so-called “honour” are not regarded as a justification for any of the above-listed courses of conduct

### **What are integrated policies?**

- The convention is based on the premise that no single agency or institution can deal with violence against women and domestic violence alone. An effective response to such violence requires concerted action by many different actors.
- The convention therefore asks state parties to implement comprehensive and co-ordinated policies involving government agencies, NGOs as well as national, regional and local parliaments and authorities.
- The aim is that policies to prevent and combat violence against women and domestic violence are carried out at all levels of government and

by all relevant agencies and institutions.

### **Gender Perspective**

- Violence against women and domestic violence cannot be addressed without looking at gender equality issues. Women may be subjected to violence because of their gender. Certain types of violence, in particular domestic violence, affect women disproportionately.
- The convention devotes an entire chapter to women migrants and asylum-seekers facing gender-based violence. It contains a number of obligations that aim at generating a gender-sensitive understanding of violence against migrant women and women asylum-seekers.
- The convention covers various forms of violence against women and domestic violence. Victims of such violence are typically girls and women of all ages.
- Boys and men, however, may also fall victim of certain types of violence that fall within the scope of the convention, in particular domestic violence and forced marriage.

### **THE HINDU**

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## Severodonetsk

- Ukrainian forces will retreat from Severodonetsk after weeks of fierce fighting over the key city, a senior Ukrainian official said, in a major boost to Russia's goal of seizing a swathe of eastern Ukraine.
- The announcement came shortly after the EU granted Ukraine candidate status in a show of support for the former Soviet republic, although there is still a long path ahead to membership.



## THE HINDU

### 14th BRICS SUMMIT

- V. Parameswaran Iyer, a senior official who helmed the scheme, Swachh Bharat Abhiyan, will be the new Chief Executive Officer (CEO) of the NITI Aayog.

- Mr. Iyer replaces Amitabh Kant, who completes his term in the office on June 30.

### About NITI AAYOG

- National Institution for Transforming India, better known as NITI Aayog, was formed via a resolution of the Union Cabinet on 1 January 2015.
- NITI Aayog is the premier policy think tank of the Government of India, providing directional and policy inputs. Apart from designing strategic and long-term policies and programs for the Government of India, NITI Aayog also provides relevant technical advice to the Centre, States, and Union Territories.
- The Governing Council of NITI Aayog is chaired by the Hon'ble Prime Minister and comprises Chief Ministers of all the States and Union Territories with legislatures and Lt Governors of other Union Territories.
- The Governing Council was reconstituted vide a notification dated 19 February 2021 by the Cabinet Secretariat.
- The Government of India constituted NITI Aayog to replace the Planning Commission, which had been instituted in 1950.
- This step was taken to better serve the needs and aspirations of the people. An important evolutionary

change, NITI Aayog acts as the quintessential platform of the Government of India to bring the States to act together in the national interest, and thereby foster cooperative federalism.

**THE HINDU**

### **National Mobile Monitoring Software (NMMS)**

- The 14th BRICS Summit, which concluded on June 24, revealed much about the grouping of five emerging nations.
- That this bloc of five disparate countries has not only made it to its 14th summit but has been able to demonstrate some concrete, albeit modest, outcomes of cooperation, such as the emergence of the New Development Bank (NDB), suggests there remains a strong convergence of interests amid undeniable differences.
- Since the first summit in Yekaterinburg in 2009, BRICS.
- In his address to the summit on June 23, which was hosted by China this year and held virtually, Prime Minister Narendra Modi described the binding glue as “a similar approach to global governance”.
- That approach, according to the lengthy joint Beijing Declaration that followed, was premised on “making instruments of global governance more inclusive, representative and participatory”.
- However, the NDB, which has since its launch in 2015 funded around \$30 billion worth of projects in emerging nations, still remains for the grouping an isolated example of their common interests translating into tangible outcomes.
- That points to another summit takeaway: despite a tall agenda, the bloc remains constrained by differences.
- For instance, on two key issues for the grouping UN reforms and terrorism members India and China have found themselves on opposing sides of the debate. India and Brazil have made common cause in pushing for an expanded UN Security Council, yet China has suggested it is not in favour of a permanent seat for India.
- On terrorism, the recent blocking by China of an attempt by India to sanction the LeT terrorist, Abdul Rehman Makki, at the UNSC sanctions committee, served as a reminder of contrasting approaches.
- On Ukraine, the bloc affirmed a commitment to respect the sovereignty, despite Russia’s actions, and stopped short of condemning NATO, as Russia and China have done, reflecting different views within BRICS.

- These differences certainly cast doubt on the bloc's loftier goals of reorienting the global order.
- They do not, however, suggest that the BRICS countries cannot cooperate on issues where interests align, whether in financing projects, as the NDB has done, working on climate change, as India and China have continued to do despite the LAC crisis, or even on space cooperation, where the five countries have agreed to create a joint constellation of remote sensing satellites.
- Northern European potato farmers will see longer growing seasons. Fields farther south will become increasingly dry.
- West Africa's rich soil and abundant water may support more rice. Parts of East Africa are believed to have great potential to expand production.
- Changes in Asia, with its large population and land area, will affect the most people. India and China will experience major losses of arable land.
- Indonesia's rice production will be largely spared by climate change, but corn will decline as much as 20 percent.

#### **THE HINDU**

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#### **Climate change and crops**

- Climate change may actually benefit some plants by lengthening growing seasons and increasing carbon dioxide. Yet other effects of a warmer world, such as more pests, droughts, and flooding, will be less benign
- Some farmlands may benefit from warming, but others won't
- North America No place grows more corn than the Midwestern United States. Despite a 20 percent drop in production, the region will remain a global supplier.
- South America Many crops will suffer in Brazil. Corn farmers will see crops decline by nearly 16 percent.
- New parts of Australia will become arable, but droughts will require efficient farming if growing wheat is to continue.

#### **THE HINDU**

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## **SAR COV2 Transmission**

- The transmission of SARS-CoV-2 through the air has been studied at various places around the world.
  - Researchers led by those at CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad, and Tata Institute for Genetics and Society (TIGS), Bengaluru carried out a study to get further insight into the transmission characteristics of the novel coronavirus in the air in hospital settings and in residential areas and public places.
  - The researchers detected the virus even 20-25 feet away from infected persons.
  - “This means it is in the air for quite some time. That is why this study confirms that this virus is spreading through air. It is not only with close proximity but also it can hang in the air for quite some time in the droplets.
  - The study further observes that in a closed space, physical distancing alone is not helpful, because the virus borne on droplets can travel up to 20-25 feet.
- antibiotics for human health, according to a study published in The Lancet Microbe journal.
  - The largest genome analysis of Salmonella Typhi (S. Typhi) also shows that resistant strains almost all originating in South Asia have spread to other countries nearly 200 times since 1990.
  - The researchers noted that typhoid fever is a global public health concern, causing 11 million infections and more than 1,00,000 deaths per year.
  - Antibiotics can be used to successfully treat typhoid fever infections, but their effectiveness is threatened by the emergence of resistant S. Typhi strains.
  - The authors traced the presence of genes conferring resistance to macrolides and quinolones, which are among the most critically important antibiotics for human health.

## **THE HINDU**

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### **Drug-resistant**

- The bacteria causing typhoid fever is becoming increasingly resistant to some of the most important

### **Types of Diabetes**

- The International Diabetes Foundation estimates that 537 million people across the world are afflicted with diabetes. The site in the United States points out that over 37 million people (about 10%) in the United States are diabetic.



### **There are two types of diabetes**

- Type 1 and Type 2. Types of diabetes  
Type 1 is generally genetic in origin and is easier handled by taking the molecule insulin.
- Injection of insulin helps your body use the sugar in your blood for the energy it needs, and then store the rest in the liver and other organs for future use.
- Type 2 diabetes, which does not need insulin injection, is largely lifestyle-based and is seen more among people in the urban areas than in rural populations.
- Type 2 diabetes is age-related; it often develops at the age of 45 and beyond. Type 1 diabetes is largely genetic in nature, while Type 2 depends on the lifestyle of the individual.

### **THE HINDU**

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### **Black Death**

- The Black Death, the biggest pandemic in our history, was caused by the bacterium *Yersinia pestis* and lasted in Europe between the years 1346 and 1353.
- Despite the pandemic's immense demographic and societal impacts, its origins have long been elusive.
- Researchers have now obtained and studied ancient *Y. pestis* genomes that trace the pandemic's origins to

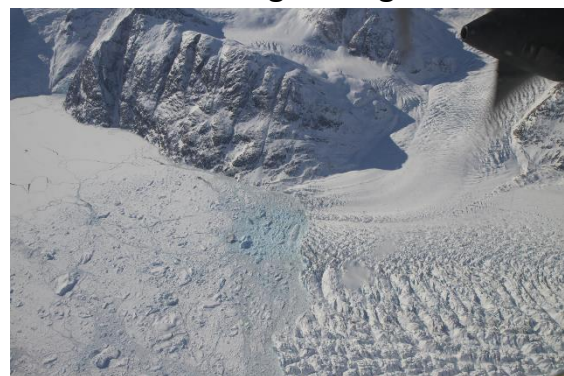
Central Asia come from Central Asia, close to Lake Issyk Kul, in what is now Kyrgyzstan.

### **THE HINDU**

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### **Polar bear and climate change**

- An isolated population of 27 polar bears has been discovered in southeast Greenland, which is free of sea ice for the most part of the year.
- Polar bears typically need sea ice to survive, so the discovery is raising hopes that some polar bears might survive in the absence of ice.
- They have adapted to hunting on glacial mélange.
- Ice mélange refers to a mixture of sea ice types, icebergs, and snow without a clearly defined flow that forms from shearing and fracture at the ice front.
- Ice mélange is commonly the result of an ice calving event where the ice breaks off the edge of a glacier.



### **THE HINDU**

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## **COP 15 and CBD**

- The United Nations (UN) has announced that a pivotal summit to finalize a new global agreement on protecting the environment will go ahead in December this year, after a two-year delay due to the COVID-19 pandemic.
- The 15th Conference of the Parties to the United Nations Convention on Biological Diversity will move from Kunming in China to Montreal, Canada.

### **About CBD**

- The Convention on Biological Diversity (CBD) is the international legal instrument for "the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" that has been ratified by 196 nations.
- Its overall objective is to encourage actions, which will lead to a sustainable future.
- The conservation of biodiversity is a common concern of humankind. The Convention on Biological Diversity covers biodiversity at all levels: ecosystems, species, and genetic resources.
- It also covers biotechnology, including through the Cartagena Protocol on Biosafety.

- In fact, it covers all possible domains that are directly or indirectly related to biodiversity and its role in development, ranging from science, politics, and education to agriculture, business, culture, and much more.
- The CBD's governing body is the Conference of the Parties (COP). This ultimate authority of all governments (or Parties) that have ratified the treaty meets every two years to review progress, set priorities, and commit to work plans.
- The Secretariat of the Convention on Biological Diversity (SCBD) is based in Montreal, Canada.
- Its main function is to assist governments in the implementation of the CBD and its programs of work, organize meetings, draft documents, coordinate with other international organizations and collect and spread information. The Executive Secretary is the head of the Secretariat.

### **THE HINDU**

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#### **Why high rainfall in Assam?**

- How has the monsoon been so far this year?
- The country received 2% less rain this year than it usually does between June 1 and June 23 every year.

- The total rainfall was brought down by 34% over central India and 15% over peninsular India compared to the 32% more received by the east and northeast and 7% more by northwest India.
- During the monsoons, whenever moisture-laden southerly or south-westerly winds from the Bay of Bengal hit the region's east-west oriented mountain ranges, state shall Pradesh, Assam, and Meghalaya receive more rainfall in comparison to other states of the north-eastern region.
- Meteorologists said the recent episode of heavy rainfall underlined the presence of the east-west trough in the lower levels of the atmosphere over the region and the incursion of large-scale moisture due to strong southerly and south-westerly winds from the Bay of Bengal.
- Assam's valleys experience both excessive and insufficient rainfall from time to time "due to ecological and climate differences from one place to another".
- Climate change is said to have increased the water and surface temperature of the Arabian Sea and the Bay of Bengal by up to 2 degrees, causing the frequent formation of low-pressure areas and cyclonic circulations, resulting in heavy rains.
- A recent study by the Indian Institute of Technology, Guwahati said aerosols, including black carbon, released by biomass burning, influence the western part of northeast India close to the Indo-Gangetic Plain the most.
- Rising black carbon emissions, it said, lead to a decrease in low-intensity rainfall while pushing up severe rain in the pre-monsoon season in northeast India.

### **What are the factors determining rainfall patterns?**

- Assam, which receives rainfall beyond the June-September monsoon phase, does not always get above-normal or excess rain.
- But this year, according to the IMD, it received 41% above normal rainfall during the pre-monsoon season (March to May), and it has received 71% more than normal rainfall up to June 25.

### **THE HINDU**

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## Amaranthus

- Efforts are underway way to popularise the inclusion of Amaranthus a wide variety of leafy vegetables as part of mixed cropping among farmers in Mysuru.
- Though known to be highly nutritious and still consumed but in a limited quantity it has economic benefits too and farmers can have mul harvest to supplement their income.
- “Amaranthus refers to a wide variety of leafy vegetables including Kirkire Soppu and Dantina Soppu.
- Amaranthus was an excellent source of calcium, magnesium, potassium, vitamin , A, B and C, and an incredible source of vitamin K and the crop offered the most nutrition per calorie than most foods
- Amaranthus is a cosmopolitan genus of annual or short-lived perennial plants collectively known as amaranths.
- Some amaranth species are cultivated as leaf vegetables, pseudo cereals, and ornamental plants.
- Most of the Amaranthus species are summer annual weeds and are commonly referred to as pigweeds.



## THE HINDU

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### Dobbs vs Jackson case

- The U.S. stands at that fraught juncture now, after its Supreme Court, in a 6-3 majority, overturned the 1973 ruling in Roe vs Wade, and took away the constitutional right to abortion.
- In one blow, on June 24, it withdrew from women anywhere in the country their right to reproductive and bodily autonomy.
- With Roe, as well as the 1992 decision in Planned Parenthood vs Casey that upheld Roe, gone, the court returned “the issue of abortion to the people’s elected representatives”.
- States can now decide whether to ban abortion and at what stage in pregnancy and under what circumstances.
- This Supreme Court decision, Dobbs vs Jackson Women’s Health Organization, has in effect divided the U.S. territorially States where

women have the right to abortion and those where they do not.

- Where they do not, women with unplanned or unwanted pregnancies, including possibly in some jurisdictions those that endanger the mother's life or are a result of rape or incest, may have no option but to seek medical assistance in other States.
- This needs resources and support structures, and many women will be left with no option other than clandestine, unsafe abortions nearer home.
- Chillingly, there is fear that miscarriages could be subject to criminal investigations.
- It must also alarm Americans that the logic of Dobbs that abortion is not mentioned in the U.S. Constitution and is not covered by the landmark 14th Amendment of 1868 that safeguards liberty and has opened the process for other rights to be taken away.

## **THE HINDU**

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### **MSMEs sector**

- Micro-, small and medium enterprises (MSME) actually account for over 99% of businesses. MSMEs are the largest employer in India outside of agriculture, employing over 11.1 crore people, or 45% of all workers.

- It is no exaggeration to call MSMEs privately-owned enterprises with less than ₹50 crores in investments in plant and machinery and turnover below ₹250 crores the backbone of the Indian economy.
- Every year on June 27, World MSME Day provides us with the opportunity to appreciate their valuable contribution to job creation and sustainable development across the world.
- The disruption of the pandemic severely impacted MSMEs, especially those in the services sector.
- Their small size and lack of access to resources meant that many were only beginning to mount a fragile recovery just when renewed war, supply shocks, and soaring fuel, food, and fertilizer prices presented a host of new threats. And all of this comes against the backdrop of the ongoing climate crisis, the greatest disruption multiplier of all
- To leverage this opportunity, India needs to create many jobs, especially for the one million young people entering the labor market every month.

### **Meeting standards**

- While some MSMEs operate at the highest industry standards, most do not meet today's standards on productivity, environmental

sustainability, and the health and safety of workers.

- This is further exacerbated by the high degree of informality in the sector, with many enterprises unregistered, and both employers and workers are lacking awareness of and commitment to complying with labor and environmental laws.
- As a result, informal enterprises cannot access formal MSME support and financing nor participate in global value chains that require full compliance with all applicable regulations
- The Government of India has rightly identified the development of the country's MSME ecosystem as a top priority for achieving Atma Nirbhar Bharat (self-reliant India).
- India's ambitious "Make in India" campaign aims to catapult the country up the manufacturing value chain to position itself as a global manufacturing hub.
- Initiatives such as the production linked incentives (PLI) schemes and the recently launched zero effect zero defect (ZED) certification are helping to promote and boost the sector.
- To help accelerate this process, the UN system in India is supporting these and other MSME development initiatives at the local, state, and national levels.
- Agencies such as the United Nations Industrial Development Organization (UNIDO), International Labour Organization (ILO), United Nations Development Programme (UNDP), UN Women, IFAD, and others are working with MSMEs as they navigate a rapidly changing post-pandemic economic landscape shaped by large-scale transitions, chiefly digitalization, greening and the reorganization of value chains.
- Firstly digitalization on concerns the integration of digital technologies, such as big data, artificial intelligence, and virtual reality, in business processes, also known as Industry 4.0.
- With few exceptions, digitalization into smart manufacturing operations is still in its infancy
- Government initiatives such as the Digital Saksham and the interlinking of the Udyam, e-Shram, National Career Service (NCS), and Atmanirbhar Skilled Employee-Employer Mapping (ASEEM) portals show the promise of targeted digitalization schemes.
- Secondly, "greening" reduces the environmental impact of MSME operations and fosters cleantech innovation and entrepreneurship to accelerate the transition to a circular and low carbon economy.

- Energy efficiency provides a case in point as business and climate benefits go hand in hand
- Thirdly, to increase the resilience of supply in response to recent shocks, production locations for global value chains are increasingly shifting and diversifying across countries and regions.
- The Prime Minister's Employment Generation Programme (PMEGP) is also creating opportunities for self-employment and micro enterprises, with over 7 lakh micro enterprises assisting in becoming economically viable.
- Similarly, ILO, together with the Federation of Indian Chambers of Commerce & Industry (FICCI) and corporates, are supporting MSMEs in creating and retaining jobs, with over 150 MSMEs having improved productivity, aligned to international standards, and integrated into the global supply chains, and the Start and Improve Your Business program helping over a lakh young people across five States launch enterprises
- In the rapidly changing global value chain ecosystem and to maximize the demographic dividend, MSME owners need to further commit to formalizing their businesses, investing in improved productivity, compliance, and most of all, decent work and jobs for India's aspiring youth.

## India and Vietnam

- The furtherance of India's Act East Policy, maritime multilateralism, maritime security outreach, and the building of stronger networks across the Indo-Pacific are some of the key elements which have made New Delhi and Hanoi natural partners.
- The two countries recently deepened bilateral cooperation with the signing of the Joint Vision Statement on India-Vietnam Defence Partnership towards 2030.
- The Joint Vision Statement is aimed at boosting the scope and scale of the existing defense cooperation between the two nations.
- Both sides undertook extensive deliberations to expand avenues of effective and practicable collaboration in bilateral defense engagements pertaining to regional and global issues.
- The early finalization of the \$500 million Defence Line of Credit extended by India to the latter along with the implementation of existing projects which would complement India's 'Make in India, Make for the world' and Hanoi's defense capabilities were also discussed.
- The two sides also signed a Memorandum of Understanding (MoU) on Mutual Logistics Support.
- This is the first agreement of its kind that Hanoi has entered into with any

other country and elevates the standing of the Comprehensive Strategic Partnership (CSP) which Hanoi shares with New Delhi since 2016.

- Because of the volume of maritime trade that passes through sea lanes of communication in the Indo-Pacific and potential as well as estimated energy reserves in these waters, maritime cooperation between countries in the region has expanded exponentially.
- Undoubtedly, for India and Vietnam too, the maritime do, in particular, has occupied a central focus.
- Both countries find convergence in their approaches toward the maintenance of stability and security of the Indo-Pacific which has translated into diplomatic and political support in the context of developments within the region.
- The enhanced geostrategic prominence and attendant uncertainties vis-à-vis China's expanding and often abrasive footprints in the Indo-Pacific have resulted in an overall increase in emphasis on cooperative mechanisms and frameworks across the region
- Vietnam has and continues to be one of the most vocal countries with respect to China's periodic transgressions in the South China Sea.
- In India, Vietnam has found an equally uncompromising partner when it comes to the question of violations of freedom of navigation and threats to sovereign maritime territorial rights as enshrined under international maritime law.
- Indeed, it is believed that Hanoi used the term Indo-Pacific for the first time in 2018 in its Joint statement with India.
- New Delhi has supported Vietnam's position in the South China Sea with respect to Beijing's destabilizing actions and coercive tactics backing the verdict of the Permanent Court of Arbitration in the case brought by Manila in 2016 and reiterating the irrefutability of the UNCLOS.
- India has also not backed down from continuing ONGC Videsh Ltd (OVL)'s oil exploration project in Block 128 (which is within Hanoi's EEZ) despite China's protests.
- In 2020 China's incursion into Ladakh was quickly followed by the deployment of warships by India to the South China Sea in an instance of asymmetrical warfare and signaling that India will not stand down.

## **THE HINDU**

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### **India's abortion law**

- How did abortion laws come about in India?



- In the 1960s, in the wake of a high number of induced abortions taking place, the Union government ordered the constitution of the Shantilal Shah Committee to deliberate on the legalisation of abortion in the country. In order to reduce maternal mortality owing to unsafe abortions, the Medical Termination of Pregnancy (MTP) Act was brought into force in 1971.
- This law is an exception to the Indian Penal Code (IPC) provisions of 312 and 313 and sets out the rules of how and when a medical abortion can be carried out.
- Under Section 312 of the IPC, a person who “voluntarily causes a woman with child to miscarry” is liable for punishment, attracting a jail term of up to three years or fine or both, unless it was done in good faith where the purpose was to save the life of the pregnant woman.
- Section 313 of the IPC states that a person who causes the miscarriage without the consent of the pregnant woman, whether or not she is in the advanced stages of her pregnancy, shall be punished with life imprisonment or a jail term that could extend to 10 years, as well as a fine.
- **How has the MTP Act evolved from 1971 to 2021?**
- The latest amendment to the MTP Act was made in 2021. Before that new rules were introduced in 2003 to allow the use of the newly discovered abortion medicine misoprostol, to medically terminate a pregnancy up to seven weeks into it.
- Broader amendments to the original Act were introduced in 2020 and the amended Act came into force in September 2021.
- Under the Medical Termination of Pregnancy (Amendment) Act, 2021, abortion is permitted after medical opinion under stipulated circumstances.
- The 2021 Act increased the upper limit of the gestation period to which a woman can seek a medical abortion to 24 weeks from 20 weeks permitted in the 1971 Act.
- But this renewed upper limit can only be exercised in specific cases. Gestational age, calculated in weeks, is the medical term to describe how far along the pregnancy is and is measured from the first day of the woman’s last menstruation or period.
- Another major amendment was that MTP could not be accessed on the opinion of a single registered medical practitioner up to 20 weeks of the gestational age.

- From 20 weeks up to 24 weeks, the opinion of two registered medical practitioners is required. In the previous version of the Act, the opinion of the one registered doctor was required to access a medical abortion up to 12 weeks of pregnancy, while two doctors were required to endorse the abortion up to 20 weeks.

- **What is the MTP (Amendment) Act, 2021?**

- Under the 2021 Act, medical termination of pregnancy is permitted if it is backed by medical opinion and is being sought for at least one of the following reasons
- If the continuation of the pregnancy would involve a risk to the life of the pregnant woman
- If its continuation would result in grave injury to the woman's physical or mental health
- In the case of a substantial risk that if the child was born, it would suffer from a serious physical or mental abnormality.
- The pregnancy can be terminated up to 24 weeks of gestational age after the opinion of two registered medical practitioners under these conditions
- If the woman is either a survivor of sexual assault or rape or incest

- **If she is a minor**

- If her marital status has changed during the ongoing pregnancy (i.e. either widowhood or divorce)
- If she has major physical disabilities or is mentally ill.
- On the grounds of foetal malformation incompatible with life or if the child is born, it would be seriously handicapped
- If the woman is in a humanitarian setting or disaster, or emergency situation as declared by the government.
- Besides, if the pregnancy has to be terminated beyond the 24-week gestational age, it can only be done on the grounds of foetal abnormalities if a four-member Medical Board, as set up in each State under the Act, gives permission to do so.
- The law, notwithstanding any of the above conditions, also provides that where it is immediately necessary to save the life of the pregnant woman, abortion can be carried out at any time by a single registered medical practitioner.
- Unmarried women can also access abortion under the above-mentioned conditions because it does not mention the requirement of spousal consent. If the woman is a minor, however, the consent of a guardian is required.

### **Have there been judicial interventions in cases of abortions?**

- Despite the fact that existing laws do not permit unconditional abortion in the country, in the landmark 2017 Right to Privacy judgment in the Justice K.S. Puttaswamy v. Union of India and others, the Supreme Court had held that the decision by a pregnant person on whether to continue a pregnancy or not is part of such a person's right to privacy as well and, therefore, the right to life and personal liberty under Article 21 of the Constitution.
- Several women annually approach the apex court and High Courts, when medical boards reject their application to access MTP beyond the gestational upper limit (now 24 weeks), seeking permission to abort a pregnancy, mostly in cases where it is a result of sexual assault or when there is a foetal abnormality.

### **What are the criticisms against the abortion law?**

- According to a 2018 study in the Lancet, 15.6 million abortions were accessed every year in India as of 2015.
- The MTP Act requires abortion to be performed only by doctors with specialization in gynecology or obstetrics.
- However, the Ministry of Health and Family Welfare's 2019-20 report on

Rural Health Statistics indicates that there is a 70% shortage of obstetrician-gynecologists in rural India.

- As the law does not permit abortion at will, critics say that it pushes women to access illicit abortions under unsafe conditions.
- Statistics put the annual number of unsafe and illegal abortions performed in India at 8, 00,000, many of them resulting in maternal mortality.

### **THE HINDU**

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#### **VPN rules**

- On April 28, India's cybersecurity agency passed a rule mandating Virtual Private Network (VPN) providers to record and keep their customers' logs for 180 days. It also asked these firms to collect and store customer data for up to five years.
- It further mandated that any cybercrime recorded must be reported to the CERT-In within six hours of the crime.

#### **Who all will be affected by the new rules?**

- CERT-In directions are applicable to data centers, virtual private server (VPS) providers, cloud service providers, virtual asset service providers, virtual asset exchange providers, custodian wallet

providers and government organizations.

- Firms that provide Internet proxy-like services through VPN technologies also come under the ambit of the new rule. Corporate entities are not under the scanner.

### **What is a virtual server, and what are its uses?**

- A virtual server is a simulated server environment built on an actual physical server. It recreates the functionality of a dedicated physical server.
- The virtual twin functions like a physical server that runs software and uses the resources of the physical server.
- Multiple virtual servers can run on a single physical server.
- Virtualising servers help reallocate resources for changing workloads. Converting one physical server into multiple virtual servers allows organizations to use processing power and resources more efficiently by running multiple operating systems and applications on one.
- Running multiple operating systems and applications on a single physical machine reduces cost as it consumes less space and hardware.
- Virtualisation also reduces cost as maintaining a virtual server

infrastructure is low compared to a physical server infrastructure.

- Virtual servers are also said to offer higher security than a physical server infrastructure as the operating system and applications are enclosed in a virtual machine.
- Virtual servers are also useful in testing and debugging applications in different operating systems and versions without having to manually install and run them in several physical machines.
- Software developers can create, run, and test new software applications on a virtual server without taking processing power away from other users.

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## Gig workers

- The Centre's policy think tank NITI Aayog has recommended steps to provide social security, including paid leave, occupational disease and accident insurance, support during irregularity of work and pension plans for the country's gig workforce, which is expected to grow to 2.35 crore by 2029-30
- According to a study released by NITI Aayog on Monday, the number of gig workers is estimated to be 77 lakh in 2020-21
- Platform station of work has given rise to a new classification of labor platform labor falling outside of the purview of the traditional dichotomy of formal and informal labor,"
- Platform workers are termed "independent contractors" and as a result, they cannot access many aspects of workplace protections and entitlements.
- The report broadly classifies gig workers into the platform and non-platform-based workers.
- While platform workers are those whose work is based on online software applications or digital platforms, non-platform gig workers are generally casual wage workers and own-account workers in the conventional sectors, working part-time or full time.
- The report noted that at present, about 47% of gig work is in medium-skilled jobs, about 22% in high-skilled, and about 31% in low-skilled jobs, and the trend shows the concentration of workers in medium-skilled jobs is declining and that of the low skilled and high-skilled is increasing.
- By 2029-30, gig workers are expected to form 6.7% of the non-agricultural workforce or 4.1% of the total livelihood workforce in India
- The think tank has also recommended introducing a 'Platform India initiative' on the lines of the 'Startup India initiative.

### What is Gig Economy?

- In a gig economy, temporary, flexible jobs are commonplace and companies tend to hire independent contractors and freelancers instead of full-time employees. A gig economy undermines the traditional economy of full-time workers who often focus on their career development.
- The gig economy is based on flexible, temporary, or freelance jobs, often involving connecting with clients or customers through an online platform.

## Freebies and fiscal deficit

- Ideally, governments should use borrowed money to invest in physical and social infrastructure that will generate higher growth, and thereby higher revenues in the future so that the debt pays for itself.
- On the other hand, if governments spend the loan money on populist giveaways that generate no additional revenue, the growing debt burden will eventually implode and end in tears.
- Concerned by an increasing number of states that are embarking on this financially ruinous path, senior bureaucrats reportedly flagged the issue at a meeting with the Prime Minister, telling him that 'some States might go down the Sri Lankan way'.
- The Comptroller and Auditor General of India (CAG) had in fact pointed out that in respect of some States 'if extra-budgetary borrowings are taken into account, the liabilities of the government are way above what is acknowledged in the official books.
- A certain amount of spending on transfer payments to provide safety nets to the most vulnerable segments of the population is not only desirable but even necessary.
- The problem arises when such transfer payments become the main plank of discretionary expenditure, the spending is financed by debt, and the debt is concealed to circumvent the FRBM targets.
- The more States spend on transfer payments, the less they have for spending on physical infrastructure such as, for example, power and roads, and on social infrastructure such as education and health, which can potentially improve growth and generate jobs.
- Institutional checks, balances
- In theory, the first line of defense has to be the legislature, in particular the Opposition, whose responsibility it is to keep the Government in line.
- Another constitutional check is the CAG audit which should enforce transparency and accountability
- The market is another potential check. It can signal the health or otherwise of State finances by pricing the loans floated by different State governments differently, reflecting their debt sustainability.
- the FRBM Acts of the Centre, as well as States, need to be amended to enforce a more complete disclosure of the liabilities on their exchequers
- Second, under the Constitution, States are required to take the Centre's permission when they

borrow. The Centre should not hesitate to impose conditionalities on wayward States when it accords such permission.

- Finally, there is the draconian provision in the Constitution of India which allows the President to declare a financial emergency in any State if s/he is satisfied that financial stability is threatened.

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### **Higher education**

- Higher education policy planners and regulators are busy giving shape to the digital university, which was announced in the 2022-23 Union Budget.
- Though still on the drawing board, the digital university is expected to offer any number, kind, and type of course without limits on intake, in a hybrid or 'physical plus digital' mode.
- It proclaims to provide equitable access to quality higher education and employability-enhancing skill development programs to all.
- Recent developments in the interim, the University Grants Commission has relaxed the norms and standards for setting up open universities.
- In particular, the land requirement has been reduced from 40 acres to just five acres.
- This is likely to open the floodgates for private open universities.
- Simultaneously, more universities are being enabled to offer courses in the distance, open and online mode, mostly in collaboration with EdTech start-ups and unicorns.
- Students are also made to complete a certain portion of their course requirements through Massive Open Online Courses.
- Additionally, they can accumulate credits at will and deposit them in their Academic Bank of Credit to be exchanged for a degree at a later stage.
- Higher education in India is getting metamorphosed into 'education on'.
- In the process, higher education is now getting delivered by for-profit entities.
- Information Communication and Entertainment technologies augmented and virtual realities, artificial intelligence, and machine learning are being touted as technologies with immense possibilities for transforming the delivery of education
- Technology-enabled and mediated digital learning is projected as the future of higher education.

- Evidence of massive learning losses due to the digital divide, but primarily due to the inherent limitations of technology, are being regarded as mere teething troubles.
- The open and distance mode of learning, including the latest model based on digital and virtual delivery, often finds favour with the government due to cost consideration
- To be effective, they not only require massive capital investment in infrastructure but also demand significantly higher recurring expenses on content development and their continuous updating and up-gradation.
- Higher education must indeed embrace and keep pace with the advancements in technology.
- Technology can be effectively leveraged as a quality-enhancement tool.
- It would, however, be a blunder to regard technology-mediated teaching-learning as an alternative to face-to-face education.
- Technology can supplement and not substitute teachers.
- . India cannot be an exception to this. Higher education is a lot more than borrowing content and delivering them online or outsourcing content.
- This would render India a consumer of knowledge.
- We must, instead, be focused on exploiting our full potential to emerge as a producer of knowledge and providers of the global workforce.

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### **India and UAE**

- If the U.S. is exempted, no G7 country comes close to the UAE as India's trading partner, exports market, Indian diaspora base, and inward remittances.
- According to our official Foreign Direct Investment data, the UAE invested more in India in 2021 than Germany and France combined.
- Unlike the UAE, none of the G7 countries has yet signed a bilateral Comprehensive Economic Partnership Agreement (CEPA) with India.
- Both countries have successfully contained the COVID-19 pandemic and can pool their experiences.
- Their bilateral trade grew by 68% in 2021-22 to \$72.9 billion, a new record. While both exports and imports grew, the trade deficit reached \$16.8 billion, also a new record.



- Thanks to the CEPA, the robust economic revival, higher oil prices, and more significant Indian imports, trade is likely to grow even higher in 2022-23.
- As the UAE collects petrodollars, India, the world's fastest-growing major economy, could be a lucrative market for investments in areas such as petrochemicals, pharmaceuticals, renewables, infrastructure, manufacturing, logistics, start-ups, etc.
- A lot has already been done to streamline the manpower sector, including skilling the young Indian labor force to suit the Emirati requirements, but more can be done.
- The two sides can collaborate for the eventual reconstruction of the war-ravaged regional countries such as Yemen, Syria, Somalia, Iraq, Libya, and Afghanistan.
- In the bilateral political domain, the two sides have cooperated efficiently on security and anti-terrorism, but they need to do more to fight money laundering and the flow of illicit narcotics.
- The UAE has disrupted the longstanding Arab Israeli stalemate by normalizing with Israel in 2020.
- The two sides have recently signed a bilateral CEPA. After pursuing a

muscular regional foreign policy against political Islam and in regional hotspots such as Syria, Yemen, Libya, Sudan, and Somalia, Abu Dhabi seems to have decided to stage a phased withdrawal and improve ties with Syria, Qatar, and Turkey.

- The ties with Saudi Arabia remain somewhat edgy, due to policy divergences and economic competition.

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### **Sterilite**

- On June 20, the Vedanta Group put out an advertisement which said that Sterilite Copper, Thoothukudi is up for sale.
- In 2018, after the company announced that it would be enhancing its capacity, large-scale protests from local and neighbouring localities broke out.
- On May 22, the protests turned violent and the police open fire which led to the death of 13 civilians. A week later the Tamil Nadu government sealed the plant.

### **What was the impact of the closure of the plant?**

- India has shifted from being a large net exporter of refined copper to now being a net importer of copper

during the last four years since the shutdown of the Tuticorin plant.

- According to data provided by Care Ratings, India is now importing copper at a historically higher price close to around \$9600 per tonne which is around 50% higher as compared to the average prices of price when India was a net exporter of the same (around \$6500 per tonne).
- Sterlite was a major domestic supplier of phosphoric acid with a capacity of 2,20,000 metric tonnes, which is a key raw material for fertilizer manufacturing companies.
- These fertilizer units were impacted due to the stoppage of supplies and had to start importing.
- While operational, it was the largest supplier of sulphuric acid (used in detergent and chemical industries) in Tamil Nadu and had a 95% share of the market.
- Resignation is not a condition
- Resignation as MLA was not one of the conditions. Exploiting this loophole, the 17 rebel MLAs in Karnataka resigned, their act aimed at ending the majority of the ruling coalition and, at the same time, avoiding disqualification.
- However, the Speaker refused to accept the resignations and declared them disqualified.
- This was possible as the legislation empowers the presiding officer of the House (i.e. the Speaker) to decide on complaints of defection under no time constraint.
- The law originally protected the Speaker's decision from judicial review. However, this safeguard was struck down in *Kihoto Hollohan v. Zachillhu and Others* (1992).
- While the SC upheld the Speaker's discretionary power, it underscored that the Speaker functioned as a tribunal under the anti-defection law, thereby making her/his decisions subject to judicial review.
- This judgment enabled the judiciary to become the watchdog of the anti-defection law, instead of the Speaker, who increasingly had become a political character

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### **Anti-defection law**

- The recurrence of this evil phenomenon led to the 1985 Anti-Defection Law, which defined three grounds for disqualification of MLAs giving up party membership; going

contrary to the expected neutral constitutional role.

- The Anti-Defection Law provided a safeguard for defections made on genuine ideological differences.
- It accepted “split” within a party if at least one-third of the members of the legislative party defect, and allowed the formation of a new party or “merger” with another political party if not less than two-thirds of the party’s members commit to it.
- The 91st Constitutional Amendment introduced in 2003 deleted the provision allowing split.
- The 91st Amendment also barred the appointment of defectors as Ministers until their disqualification period is over or they are re-elected, whichever is earlier.
- But, obviously, such laws have not put to rest the trend of defection.

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## Speaker vs judicial intervention

- In 1992 (Kilhoto Hollohan vs Zachillhu), a Constitution Bench, while upholding the validity of the anti-defection law, held that the Speaker's decision was subject to judicial review, albeit on limited grounds.
- It also made it clear that this should take place after a final decision, and there can be no interim order, except if there is an interim disqualification or suspension.
- There are Court judgments that say compliance with natural justice is not based on the number of days given, but on whether sufficient opportunity was given before a decision.
- Based on a conclusion in Nabam Rebia (2016) that a Presiding Officer should not adjudicate any defection complaint while a motion for his own removal is pending, the dissidents sent a motion to get the Deputy Speaker removed.
- After he rejected it, the rejection has also been questioned in court, thus raising a jurisdiction question on the adjudicatory power of the Deputy Speaker, who, of necessity, has to decide disqualification questions in the absence of a Speaker.
- Section 62(5) of the Representation of the People Act, 1951, which prevented the two MLAs from casting their votes.
- In the past, the Supreme Court has observed that the intent of this provision is to maintain the integrity of elections by excluding 'persons with criminal background' from participating in them.
- Ideally, this objective can be achieved through a provision that disenfranchises persons who have been convicted of certain kinds of grave offenses.
- However, Section 62(5) does not use conviction as the yardstick for disenfranchisement; it uses confinement under
- Trial prisoners under-trial prisoners (who constitute over 75% of India's nearly 5 lakh prisoners) cannot vote.
- Neither can persons detained in civil prison for failing to repay a debt.
- But remarkably, a person who has been convicted for a criminal offense and has managed to secure bail can vote.
- Section 62(5) in direct collision with Article 14 of the Constitution (equality before the law to all persons).
- Whenever a law treats two groups of persons unequally, it must satisfy a set of basic tests under Article 14 to be valid: the distinction created by the law must be based on coherent differences between the two groups of persons, and these differences

must have a rational link with the objective that the law seeks to achieve.

- Section 62(5) treats a group of people differently by stripping them of the right to vote.
- What sets this group apart from those allowed to vote is their confinement in prison.
- Section 62(5) has survived many challenges before the courts.
- Each time, the courts have lauded the objective of weeding out criminal elements from the electoral process, but have stopped short of examining whether the provision, in the manner in which it is worded, can claim to achieve this aim.

## **THE HINDU**

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### **China's intervention in the Horn of Africa**

#### **The story so far:**

- China has been investing across the African continent throughout the last decade.
- While the emphasis has been on investments and raw materials, it took a new turn on June 20, with the first "China-Horn of Africa Peace, Governance and Development Conference."
- Beijing's first special envoy to the region Xue Bing, appointed in February 2022, said that this is the

first time China aims "to play a role in the area of security"

### **What are the recent projects between China and countries from the Horn of Africa?**

- China's focus on the Horn is a part of its focus on Africa.
- In January 2022, during his 17th trip to Africa, China's Foreign Minister and State Councillor Wang Yi focused on increasing the infrastructural investments in African countries.
- He refuted accusations of debt-trapping the countries and asserted China's three objectives in Africa: controlling the pandemic, implementing a Forum on China-Africa Cooperation (FOCAC) outcomes, and upholding common interests while fighting hegemonic politics.
- The FOCAC promotes China's role in the infrastructural and societal development of the Horn.
- In the 2021 forum, the entire region of the Horn participated and four resolutions were adopted: the Dakar Action Plan, the China-Africa Cooperation Vision 2035, and the Sino-African Declaration on Climate Change and the Declaration of the Eighth Ministerial Conference of FOCAC.

### **What are China's primary interests/investments in the Horn of Africa?**

- China's interests are related to four major areas: infrastructural projects, financial assistance, natural resources, and maritime interests.
- Looking at Chinese investments in infrastructure, one of its landmark projects was fully funding the \$200 million African Union headquarters in Addis Ababa.
- It has also made significant investments in railways; it is building the Addis-Djibouti railway line connecting the land-locked country with Eritrean ports in the Red Sea.
- China has also invested in the Mombasa-Nairobi rail link in Kenya, and has already delivered on railway projects in Sudan.
- It also has a viable military hardware market in Ethiopia and has built over 80 infrastructural projects in Somalia, including hospitals, roads, schools, and stadiums.
- In Djibouti, 14 infrastructural projects are funded by China.
- With respect to financial assistance, Ethiopia, is one of the top five African recipients of Chinese investments, and also has a debt of almost \$14 billion.
- The third major Chinese interest in Africa is the presence of natural resources — oil and coal.
- Beijing has invested \$400 million in Mombasa's oil terminal.
- China is also interested in minerals such as gold, iron ore, precious stones, chemicals, oil, and natural gas in Ethiopia.
- The fourth major area is related to maritime interests.
- China's first and only military base outside its mainland is in Djibouti.
- During his visit in early 2022, Wang hinted at China's willingness to develop Eritrea's coast which would connect to China's investments in land-locked Ethiopia.
- The U.S. has speculated that China wishes to build another military base in Kenya and Tanzania, thereby increasing its military presence in the region.

#### **THE HINDU**

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### **Partnership for Global Infrastructure and Investment (PGII)**

#### **The story so far:**

- On June 26, U.S. President Joe Biden along with his G7 allies unveiled the ambitious mobilization of Global Infrastructure and Investment (PGII), announcing the collective mobilization of \$600 billion by 2027 to deliver "game-changing" and "transparent" infrastructure

projects to developing and middle-income countries.

- The PGII is being seen as the G7's counter to China's multi-trillion dollar Belt and Road Initiative (BRI) to build connectivity, infrastructure, and trade projects skeptical, in Europe, Africa, and Latin America.

### **What is the PGII?**

- The West has been skeptical of the BRI since it was launched in 2013 by President Xi Jinping, as it was considered to be part of China's larger strategy to increase geopolitical influence in Asia and other developing countries.
- The U.S., along with G7 partners the U.K., Japan, France, Canada, Germany, Italy, and the European Union (EU), had in 2021 announced the launch of the Build Back Better World (B3W) with the aim of narrowing the \$40 trillion infrastructure gap in the developing world.
- The PGII is a "values-driven, high-impact, and transparent infrastructure partnership to meet the enormous infrastructure needs of low and middle-income countries and support the United States and its allies' economic and national security interests".
- The G7 members aim to collectively mobilize \$600 billion by 2027 to invest in sustainable and quality

infrastructure projects in developing countries, including India and strengthen the global supply chain.

### **What kind of projects will the PGII undertake?**

- All PGII projects will be driven by "four priority pillars that will define the second half of the 21st century".
- First, the G7 grouping aims to tackle the climate crisis and ensure global energy security through clean energy supply chains.
- Second, the projects will focus on bolstering digital information and communications technology (ICT) networks facilitating technologies such as 5G and 6G internet connectivity and cybersecurity.
- Third, the projects aim to advance gender equality and equity, and lastly, to build and upgrade global health infrastructure.

### **How does it compare to China's BRI?**

- The Belt and Road project was started to revive connectivity, trade, and infrastructure along what was China's ancient Silk Road. China had announced a two-pronged approach of building a Silk Road Economic Belt on Land and a maritime 21st century Silk Road.
- The project initially aimed to strengthen connectivity with Southeast Asia but later expanded to

South and Central Asia, Africa, Europe, and Latin America, with Mr. Xi saying it would “break the bottleneck in Asian connectivity”.

- The G7 meanwhile has specifically touted the PGII as a values-based plan to help underfunded low and middle-income countries meet their infrastructure needs.
- PGII has laid focus on climate action and clean energy, while China has built large coal-fired plants under BRI along with solar, hydro, and wind energy projects.
- While the G7 has pledged \$600 billion by 2027, Morgan and Stanly estimate that China’s overall funding for BRI by that time could reach \$1.2 to 1.3 trillion dollars with the actual funding being higher.
- Under the PGII, large private capital will be also mobilized while China’s BRI is majorly state-funded.
- Besides, the BRI was also launched at a time when China’s local construction firms were short of projects in developed Chinese provinces.
- While G7 leaders emphasized ‘transparency’ as the cornerstone of PGII projects, the BRI has faced criticism for making countries sign confidential tenders for extending massive loans, leaving countries indebted to China.
- For instance, after the BRI’s flagship \$62 billion China-Pakistan Economic

Corridor, Pakistan owes Beijing a large proportion of its foreign debt.

- China builds BRI’s projects by extending large, low-interest loans to countries that have to usually be paid over 10 years.
- There have been cases of debt-saddled countries failing to repay on time.

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### **GST reform**

- Three years ago, the Centre and the States of the Union of India struck a grand bargain resulting in the launch of the unified Goods and Services Tax (GST) era.
- The States gave up their right to collect sales tax and sundry taxes, and the Centre gave up excise and services tax.
- The nationwide GST promised frictionless commerce across State borders, buoyant and leak-proof tax compliance, and removal of inefficiencies like the cascade of “tax on tax”
- Reimbursement was to be funded by a special cess called the GST compensation cess.
- The promised reimbursement was to fill the gap for an assured 14% year-on-year tax growth for five years, and it was generous to a fault
- As the economy battles a pandemic and recession, the tax collection has



dropped significantly, while expenditure needs are sharply higher, especially at the frontline of the battle, at the State level.

- But it seems that the States have been told that they are on their own to meet the shortfall in revenues.
- The onus is on the Centre
- First, the States do not have recourse to multiple options that the Centre has, such as the issue of a sovereign bond (in dollars or rupees) or a loan against public sector unit shares from the Reserve Bank of India.
- Second, the Centre can anyway command much lower rates of borrowing from the markets as compared to the States.
- Third, in terms of aggregate public sector borrowing, it does not matter for the debt markets, nor the rating agencies, whether it is the States or the Centre that is increasing their indebtedness.
- Fourth, fighting this recession through increased fiscal stimulus is basically the job of macroeconomic stabilization, which is the Centre's domain.
- Fifth, and most importantly, breaking this important promise, using the alibi of the COVID-19 pandemic causes a serious dent in the trust built up between the Centre and States.

### **The Australian example**

- A comparison with Australia which also coincidentally shares its GST anniversary with India, is apt.
- For the past two decades their GST rate has been constant at 10%. Of course, India's single rate of 12% has to cover petrol, diesel, electricity, transport, and real estate as well.
- Some extra elbow room for the States' revenue autonomy is obtained by allowing the States non-VATable surcharges on a small list of "sin" goods such as liquor, tobacco, polluting goods such as sport-utility vehicles, and industrial fuels such as diesel, aviation turbine fuel and coal.
- A low moderate single rate of 12% encourages better compliance, reduces the need to do arbitrary classification and discretion, reduces litigation, and will lead to buoyancy in the collection.
- The commitment to a low and stable rate, à la Australia and many other federal democracies, is a must.
- Of course the compensation-cum-reimbursement incentive can remain, but more in the nature of what was done for VAT harmonization

### **The third tier of government**

- Even after 28 years of the 73rd and 74th Amendments, the local governments do not have the

promised transfer of funds, functions, and functionaries.

- These local bodies face increased responsibility for providing government services, especially in view of increased urbanization and decentralization.
- Of the 12% GST, 10% should be equally shared between the States and the Centre, and 2% must be earmarked exclusively for the urban and rural local bodies, which ensures some basic revenue autonomy for them.
- The actual distribution across panchayats, districts, and cities would be given by respective State Finance Commissions.
- We also need to zero-rate exports. GST is a crucial and long-term structural reform that can address the fiscal needs of the future, strike the right and desired balance to achieve co-operative federalism and also lead to enhanced economic growth.

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## Anti-defection law

- Instances of floor-crossing have long gone unchecked and unpunished. In part, this can be attributed to the exemption given to mergers between political parties which facilitate bulk defections.
- In 2019, MLAs in the Goa Legislative Assembly from the Indian National Congress (INC) and the Maharashtrawadi Gomantak Party (MGP), crossed over to the Bharatiya Janata Party (BJP).
- The Speaker of the Assembly, as well as the Goa Bench of the Bombay High Court, dismissed the pleas seeking disqualification of these MLAs.
- The second paragraph of the Tenth Schedule allows for disqualification of an elected member of a House if such member belonging to any political party has voluntarily given up membership of their party, or if they vote in the House against such party's whip.
- Paragraph 4 creates an exception for mergers between political parties by introducing three crucial concepts of the "original political party", the "legislature party", and the "deemed merger".
- A "legislature party" means the group consisting of all elected members of a House for the time being belonging to one political party, whereas an "original political party" means the political party to which a member belongs (this can refer to the party generally, outside of the House).
- Interestingly, Paragraph 4 does not clarify whether the original political party refers to the party at the national level or the regional level, despite the fact that that is how the Election Commission of India recognizes political parties
- A merger of two-thirds of members of a legislature party can be deemed to be a merger of political parties, even if there is no actual merger of the original political party with another party.
- The merger exception was created to save instances of the principled coming together of political groups from disqualification under the anti-defection law and to strike a compromise between the right of dissent and party discipline
- Defection gets easier in smaller legislative assemblies, where even a sole member can account for two-thirds of the legislature party's strength to cross the floor without attracting disqualification.
- In a situation where either reading of Paragraph 4 in its current form yields undesirable results, its deletion from the Tenth Schedule is a possible way forward.

- This thought is hardly novel, for the Law Commission in 1999 and the National Commission to Review the Working of the Constitution ((NCRWC) in 2002 made similar recommendations.

## **THE HINDU**

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### **Constitutional conscience**

- Language and ideals of the Constitution require judges to decide in good faith, exercising what is called the constitutional virtues: candor, intellectual honesty, humility about the limits of constitutional adjudication, and willingness to admit that they do not have all the answers.
- Constitutional Conscience concludes that the need for these qualities in judges as well as lawyers and citizens is implicit in our constitutional practices and that without them judicial review would forfeit both its own integrity and the credibility of the courts themselves.

## **THE HINDU**

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### **Payment for ecosystem service**

- Incentives for biodiversity protection and sustainable use include biodiversity-relevant taxes, fees, levies, tradeable permits, and

Payments for Ecosystem Services (PES)

- Mobilization of biodiversity finance through pesticide levies, admission fees to natural parks, hunting and fishing permit fees, and the trade-in energy-saving certificates has gained governmental support and political will.
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- Mobilization of biodiversity finance through pesticide levies, admission fees to natural parks, hunting and fishing permit fees, and the trade-in energy-saving certificates has gained governmental support and political will
- Kitengela, Kenya's Wildlife Conservation Lease Programme, maintains open areas for wildlife and grazing on personal grounds.
- In terms of raising money, PES programs such as Costa Rica's Pago Por Servicios and Ecuador's Socio Bosque were among the few to mobilize significant finances.
- A local monitoring mechanism is to successfully implement a PES program.
- A study (Sardana 2019) conducted in the Kodagu district of Karnataka to restore native trees that grow in the

understory of coffee plantations shows a successfully designed local institutional mechanism for PES implementation.

## **TERMS**

### **Ecosystem services**

- Ecosystems provide many of the basic services that make life possible for people. Plants clean air and filter water, bacteria decompose wastes, bees pollinate flowers, and tree roots hold soil in place to prevent erosion.

### **TEEB Initiative**

- The Economics of Ecosystems and Biodiversity (TEEB) is a global initiative focused on “making nature’s values visible”.
- Its principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels.
- It aims to achieve this goal by following a structured approach to valuation that helps decision-makers recognize the wide range of benefits provided by ecosystems and biodiversity, demonstrates their values in economic terms, and, where appropriate, capture captures values in decision-making.
- TEEB advocates a three-analyzing approach to analyzing and structuring the valuation of

biodiversity and ecosystem services, guided by three principles:

- Recognizing the value in ecosystems, landscapes, species and other aspects of biodiversity is a feature of all human societies and communities and is sometimes sufficient to ensure conservation and sustainable use.
- For example, the existence of sacred groves in some cultures has helped to protect natural areas and the biodiversity they contain.
- Demonstrating value in economic terms is often useful for decision-makers to consider the full costs and benefits of nature rather than just those that enter the markets in the form of private goods. An example would include calculating the values of conserving the ecosystem services provided by wetlands in controlling floods, as compared to building flood defenses.
- Capturing value involves the introduction of mechanisms that incorporate the values of biodiversity and ecosystems into decision-making through incentives and price signals. This can include payments for ecosystem services, reforming environmentally harmful subsidies, or introducing tax breaks for conservation.

## **THE HINDU**

## Afghanistan

- Stressing “historical and civilizational relationship ties” with the Afghan people, Delhi announced the arrival of a technical team to “closely monitor and coordinate the efforts of various stakeholders” for the effective delivery of humanitarian assistance
- Prior to this, there were reports that Indian aid was being hoarded and diverted back to Pakistan
- Delhi seems to have asked for aid to flow through the Iranian route, instead of across Pakistan, so that it would reach Afghanistan. Iran is on board,
- The difficulties involved given the broken Afghan banking and financial systems and lack of infrastructure.
- A range of institutions is involved in actual aid delivery, and U.S. instructions are that all aid should be in cash since no banks will do business or accept letters of credit to the Afghan central bank (DAB).
- UN organizations also provide cash, and aid agencies have long had to use reliable local hawala networks for transfers.
- Then there exists the ever-present issue of security, which was apparent from the recent attack on a gurdwara in Kabul, apparently by the Islamic State Khorasan (IS-K)
- India has around 400 projects in all the 34 provinces of Afghanistan.

- With the Taliban offering protection to foreign embassies and acting quickly in the recent gurdwara bombing,, it is possible that the Indian effort will continue unimpeded.

## MOU between Turkey, Sweden, and Finland

### The story so far:

- On June 28, the North Atlantic Treaty Organization (NATO) Secretary-General Jens, Stoltenberg announced the signing of a memorandum of understanding (MoU) between Turkey, Finland, and Sweden in a trilateral meeting held in Madrid, Spain.
- The MoU was signed once the Finland President Niinistö and Sweden Prime Minister Andersson agreed to address the national security concerns of Turkey.

### What does the MoU say?

- The key provisions of the MoU include the following three points: a joint commitment between Turkey, Finland, and Sweden to counter-terrorism; addressing the pending extradition of terror suspects through a bilateral legal framework, and investigating and interdicting “any financing and recruitment activities of the PKK and all other terrorist organizations.”

- Besides the above, Finland and Sweden assured that “their respective national regulatory frameworks for arms exports enable new commitments to Allies”.
- Both countries also promised to stand against disinformation and to fully commit to EU’s CSDP (Common Security and Defence Policy) and Turkey’s participation in the PESCO (Permanent Structured Co-operation) Project on Military Mobility.
- Turkey was initially against Finland and Sweden joining NATO. Though there were no direct issues between Turkey, Sweden, and Finland, the former was against the kilometers-longer position on the Kurdish issue.
- He underlined that there are no territorial disputes between these two countries; hence they should not worry about any security threat from Russia.

#### **What does this mean for NATO?**

#### **What does this mean for Russia?**

- First, strengthening the alliance. Both Finland and Sweden which have followed the non-alignment principle have broken from their natural rule and decided to join NATO.
- This does not only mean a guarantee of security against Russia but it also gives NATO the power to engage Second, NATO will gain strategic ground to counter Russia.
- The addition of more allies means a steady expansion of NATO towards the East, through which it will now be able to exercise its military operations both on land and in the Baltic Sea, where Russia holds a strategic position.
- NATO will now also be able to position its weapon systems further its combat formation and plan its attack techniques to power up deterrence and defense.
- Third, a secured Euro-Atlantic. NATO presence in the region will securitize and safeguard the Baltic States, Estonia, Latvia, and Lithuania, which were earlier at risk due to their close proximity to Russia and Russian attacks.
- Russia shares a 1,340-kilometer-long border with Finland. Sweden, though it does not share a land border, shares the Baltic Sea with Russia.
- The land/sea borders with Russia place both countries under direct threat from the Kremlin. On June 28, Deputy Secretary of the Russian Security Council Dmitry Medvedev cautioned Finland and Sweden on continuing with their decision to join NATO.
- He referred to the relations with these countries as being respectful and mutually friendly.

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